Dietary Assimilation and Health among Immigrant Groups

The standard measures of immigrant assimilation used in the existing literature are socioeconomic status (SES) defined as educational attainment, occupational specialization, and parity in earnings; spatial concentration; language assimilation defined in terms of English language ability and loss of mother tongue; and intermarriage. (Waters and Jimenez 2005) More recently, immigrant's level of dietary change has received some attention as another measure of assimilation. (See Akresh 2007, Baquero and Klinger 2008, Pérez-Escamilla and Putnik 2007, and Soo-Kyung, Sobal and Frongillo 1999) For each of the traditional measures of assimilation, time since arrival in the immigrant destination has been an important predictor, positively influencing immigrants' earnings, lowering spatial concentration, improving their English language skills and increasing rates of intermarriages (Massey 1981, Chiswick 1978, Kahn 1994, and Stevens 1985). There are also studies that show that time since arrival of immigrants in the host society is positively associated with changes in diet of Hispanic immigrants (Akresh 2007). As immigrants spend more time in the new land, they are more likely to come in contact with the host population, their lifestyle and eating habits, which they might in turn adopt.

There are a number of other factors that might also influence immigrants' dietary choice. Among them, one of the major factors that might explain immigrants' level of dietary assimilation is their region or country of origin. We hypothesize that regardless of time spent in the host country, individuals from certain regions or countries might have a much stronger or weaker tie to their ethnic food and therefore, certain immigrant groups might be more or less likely to assimilate to their host country's diet.

Studying inter-regional as well as country level differences in immigrants' level of dietary assimilation has an important policy implication due to the likely influence of diet on individual's health and their BMI. Many studies, mostly in the context of Hispanics in the US have shown that immigrants experience deterioration in their health as they assimilate to the host society. Since diet directly influences individual's health, level of dietary assimilation of immigrants is likely to impact their health. However, if immigrants' level of dietary assimilation significantly varies by their region or country of origin, some immigrant groups might be more likely to experience deterioration in their health than others. On the other hand, if immigrants are assimilating to a better diet of the host population, they might be likely to experience an improvement in their health. The existing studies do not explore these possibilities because they rarely study regional or country-level differences in dietary assimilation and health outcomes of immigrants.

In this study, we therefore first explore whether immigrants differ in their level of dietary assimilation depending on their region of origin, controlling for time spent in the host society and a number of other likely predictors of dietary assimilation and demographic factors. We then assess whether immigrants' level of dietary assimilation influences their BMI as well as their self-reported health status. After conducting analyses at the aggregate level, we break down our sample by region and study inter-country differences on the level of dietary assimilation of immigrants and its influence on their BMI and health status.

For the purpose of our analyses, we use the first wave of the New Immigrant Survey (NIS) data collected in 2003. The sample consists of a nationally representative sample of immigrants admitted to lawful permanent resident status between May 2003 and November 2003. The sample is drawn from electronic administrative records compiled by the U.S. government and is restricted to individuals who were at least 18 years old at the time of admission to the US. The response rate was 69 percent. For the current study, we exclude immigrants from Arctic region, Canada, and Oceania, losing around 100 cases. After case-wise deletion, we end up with 6080 observations with approximately equal number of males and females (50 vs. 52%). Table 1 gives descriptive statistics for the entire sample as well as for immigrant groups by their region of birth.

Regional Differences in Dietary Assimilation and Its Influence on BMI and Health Outcomes since Arrival to the US:

Table 2 gives results of a logistic regression predicting the effects of region of origin on change in diet since arrival in the US. In Model 1, time spent in the US is significant and positively associated with individual's degree of dietary change after controlling for a range of assimilation measures and demographic characteristics. Once we control for immigrant's region of birth in Model 2, time spent in the US becomes insignificant, suggesting that regardless of amount of time spent in the US, one's region of birth is a major predictor of their level of dietary assimilation. Compared to immigrants from Latin America and the Caribbean, those from Europe, North Africa and the Middle East, Asia, and Central Asia are significantly less likely to report a change in their diet after arriving in the US and therefore, are less likely to assimilate to the new diet.

Among other predictors of dietary assimilation, more educated and older immigrants are significantly less likely to assimilate to the new diet. On the other hand and as expected, compared to unmarried immigrants, those with spouse from the US are much more likely to assimilate to the new diet while those with spouse from their own country are less likely to do so.

Table 3 provides results of an OLS regression predicting the effects of dietary assimilation on immigrants' body mass index (BMI). Individuals who report a change in their diet since arrival in the US have a significantly higher BMI than those who do not report a change even after controlling for immigrant's region of birth in Model 2. Somewhat contrary to our expectation, BMI seems to be negatively associated with immigrants' time spent in the US once we control for region of birth. Immigrants' region of origin also explains difference in their BMI such that immigrants from all other regions have a significantly lower BMI compared to those from Latin America and the Caribbean. Among other significant predictors of BMI, those who engage in vigorous exercise weekly, have studied more years in the US and have a better level of English have a lower BMI. On the other hand, BMI increases with age and having been married to someone from the immigrant's own country of origin compared to remaining unmarried while as expected females have a lower BMI than males.

Table 4 provides results of a multinomial logistic regression predicting the effects of dietary assimilation on change in self-reported health since arrival in the US. Change in diet is a significant predictor of both better as well as worse health now compared to before leaving for the US but the magnitude of the coefficient for worse health is much higher. Years spent in the US significantly increases the chances of immigrants reporting both better as well as worse health since arrival although the coefficient is much higher for worse health, which is consistent with findings in existing research. Furthermore, compared to immigrants from Latin America and the Caribbean, those from Europe and Africa are significantly less likely to report that their health improved since their arrival in the US while those from Central Asia are significantly more likely to report that their health improved as well as worsened since their arrival. Among other significant predictors of health, immigrants who engage in vigorous exercise weekly are significantly more likely to report better health and less likely to report worse health. Years of education lowers the likelihood of reporting better health while number of years of education in the US increases the likelihood of reporting better health. Among demographic variables, older immigrants are more likely to report worse health and so are those with spouse from countries other than their own country of origin compared to unmarried immigrants.

Inter-Country Differences on the Level of Dietary Assimilation and its Influence on BMI and Health Status among Immigrants from Different Regions

Table 5 gives results of a logistic regression predicting inter-country differences on the level of dietary assimilation since arrival in the US for immigrants from five different regions. Among immigrant groups from Latin America and the Caribbean as well as those from Asia, regardless of time spent in the US, there is significant variation in their level of dietary assimilation depending on the immigrant's country of birth. Within the first group, compared to immigrants from Mexico, those from Peru, Cuba, Haiti, El Salvador, Guatemala, and other Latin America and the Caribbean are significantly more likely to assimilate to the new diet while those from Dominican Republic are less likely to do so. Similarly, among Asian immigrants, compared to those from India, immigrants from Philippines, Vietnam, and other Asia are significantly more likely to assimilate to the new diet.

Among other significant measures of dietary assimilation, for Asian immigrants, better level of English and years educated in the US are significantly more likely to increase the level of dietary assimilation while years of education significantly reduces the likelihood of reporting a change in diet among both Asian as well as Central Asian immigrants. Among demographic variables, older immigrants from Asia, Latin America and the Caribbean, and Europe are more likely to retain their diet from the origin while among Africans and Central Asians males are more likely to retain their diet. Among Asian and European immigrants, having a spouse from the same country significantly reduces the likelihood of assimilating to the new diet, while among those from Latin America and the Caribbean, and Asia, those married to US natives are much more likely to assimilate to the new diet.

Table 6 provides results of an OLS regression predicting inter-country differences on the effects of dietary assimilation on immigrants' BMI. For immigrants from all five regions being explored, a change in diet since arrival in the US has no significant effect on their BMI after controlling for immigrant's country of birth. Instead, for immigrants from Latin America and the Caribbean, Asia, and Africa, country of origin significantly explains differences in their BMI. For example, among those from Latin America and the Caribbean, those from Colombia, Cuba, Haiti, and Dominican Republic have a significantly lower BMI compared to those from Mexico. Among Asians, compared to Indian immigrants, Vietnamese immigrants have significantly higher BMI while Koreans have a lower BMI. Among Africans, Nigerians have significantly lower BMI than Ethiopians.

Consistent with our earlier result on BMI for all immigrants, time in the US and participation in vigorous exercise weekly negatively affect the BMI of immigrants from Latin America and the Caribbean after controlling for the country level effects. Furthermore, more years of education leads to an increase in BMI while a better level of English lowers the BMI for this group. For immigrants from Asia, years educated in the US significantly lowers their BMI while African immigrants who speak English with friends have higher BMI. Among demographic variables, BMI increases with age and is lower for females for all groups except Africans. Finally, compared to unmarried immigrants, for married ones, choice of spouse has some significant effect for immigrants from Asia and Africa.

Table 7 provides results of a multinomial logistic regression predicting inter-country differences on the effects of dietary assimilation on change in health since arrival in the US. Consistent with our earlier result on health status for all immigrants, change in diet is a significant predictor of health now compared to before leaving for the US for the four immigrant groups being analyzed (African immigrants were not analyzed due to insufficient number of observations for different health outcomes which lead to issues of multicollinearity).

For example, among immigrants from Latin America and the Caribbean, a change in diet significantly predicts both better as well as worse health outcomes but there are significant country level differences within this group. Compared to immigrants from Mexico, those from El Salvador and Guatemala are more likely to report better health with those from Guatemala also more likely to report worse health. Similarly, among Asian immigrants, those who assimilate to the new diet are significantly more likely to report better health but compared to Indians, those from China and Vietnam are less likely to report better health. Among Europeans, dietary assimilation is more likely to lead to worse health while Central Asians who assimilate to the new diet are less likely to report better health. Furthermore, consistent with earlier result for all immigrants, years spent in the US significantly increases the chances of immigrants reporting worse health since arrival for all immigrant groups although among Asians, it also seems to marginally increase the chances of reporting better health.

Among other predictors of interest, participation in vigorous exercise weekly significantly increases the probability of reporting better health for Asians while decreases the probability of reporting worse health for those from Latin America and the Caribbean. Years of education lowers the likelihood of reporting better health for Latin America and the Caribbean and Asians but lowers the likelihood of reporting worse health for Europeans and Central Asians. Years educated in the US increases the probability of reporting better health for those from Latin America and the Caribbean and both better and worse health for Europeans. Finally, older European immigrants are more likely to report better as well as worse health but marrying someone from a different country increases this group's probability of reporting worse health.

Summary:

There are three interesting conclusions that can be drawn from this study. First, time spent in the US, regarded as an important predictor of dietary assimilation, is insignificant when immigrant's region and country of origin are controlled for. Instead, we find significant variation in immigrant's level of dietary assimilation by their region and country of origin. For example, immigrants from Europe, North Africa and the Middle East, Asia and Central Asia are significantly less likely to assimilate to the new diet after arriving in the US compared to immigrants from Latin America and the Caribbean. Furthermore, among immigrants from Latin America and the Caribbean as well as those from Asia, irrespective of their time spent in the US, there are significant country-level differences in immigrant's level of dietary assimilation. Compared to immigrants from Mexico, those from Peru, Cuba, Haiti, El Salvador, Guatemala, Other Latin America and the Caribbean are more likely to report a change in their diet after arriving in the US while those from Dominican Republic are less likely to do so. Similarly, compared to Indians, those from Philippines, Vietnam, and other Asia are significantly more likely to adopt the new diet.

Second, immigrants' BMI is positively associated with their choice to adopt the diet of the host country but the relationship does not hold when controlled for inter-country differences among immigrants from each of the five regions being explored. Instead, among immigrants from Latin America and the Caribbean, Asia, and Africa, country of origin seems to explain differences in their BMI rather than level of dietary assimilation. For example, among immigrants from Latin America and the Caribbean, those from Colombia, Cuba, Haiti, and Dominican Republic have a significantly lower BMI compared to those from Mexico. Among Asians, Vietnamese immigrants have significantly higher BMI while Koreans have lower compared to Indians. Among Africans, Nigerians have significantly lower BMI compared to Ethiopians. Furthermore, immigrants from all other regions have a significantly lower BMI than those from Latin American and the Caribbean regardless of their time spent in the US.

Finally, immigrant's level of dietary assimilation is significantly associated with their perception of any change in their health since arrival and as expected, the association is stronger on worsening the health outcomes than on improving their health compared to no change in health. The relationship holds for all immigrant groups even after controlling for inter-country differences within each group. There are also significant regional differences in self-reported health status such that compared to immigrants from Latin America and the Caribbean, those from Europe and Africa are significantly less likely to report that their health improved since their arrival in the US while those from Central Asia are significantly more likely to report that their health improved as well as worsened since their arrival.

More time spent in the US significantly increases the chances of immigrants reporting both better as well as worse health since arrival and as expected, the coefficient is much higher for worse health, which is consistent with findings in existing research. Finally, after controlling for inter-country differences within each immigrant group, time spent in the US generally increases the chances of immigrants reporting worse health since arrival among all immigrant groups while it seems to only marginally increase the chances of reporting better health for Asians.

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TABLE 1
DESCRIPTIVE STATISTICS

	Pooled			Latin America and the Carribbean			Asia			Europe			Africa			Central Asia			Subsaharan Africa			North Africa and the Middle East		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
		6080			**2168**			**2144**			**759**			**289**			**220**			**245**			**255**	
Dependent Variables																								
Diet change since arrival	0	1	0.50	0	1	0.59	0	1	0.42	0	1	0.43	0	1	0.62	0	1	0.48	0	1	0.58	0	1	0.50
Health status now compared to origin [1]	1	3	1.88	1	3	1.87	1	3	1.87	1	3	1.92	1	3	1.91	1	3	1.81	1	3	1.85	1	3	1.82
Body Mass Index	10.55	214.98	32.28	13.88	214.98	36.17	10.55	100.99	28.24	17.01	136.06	32.45	13.18	109.99	31.89	16.04	87.99	30.03	14.81	89.99	34.35	16.27	99.99	34.43
Assimilation Measures																								
Time in the US in years	0.00	47.70	5.35	0.08	47.70	8.71	0.00	41.67	3.71	0.00	38.86	4.21	0.08	38.69	1.70	0.08	17.85	2.86	0.08	32.52	2.74	0.08	29.69	2.70
Better level of English	0	1	0.49	0	1	0.33	0	1	0.59	0	1	0.54	0	1	0.80	0	1	0.32	0	1	0.78	0	1	0.49
Speak english with friends	0	1	0.27	0	1	0.13	0	1	0.34	0	1	0.34	0	1	0.45	0	1	0.17	0	1	0.64	0	1	0.24
Years educated in the	0	22	0.71	0	18	0.97	0	22	0.65	0	12	0.57	0	6	0.21	0	10	0.42	0	16	0.67	0	5	0.30
Years of education	1	86	12.93	1	33	10.49	1	30	14.04	4	86	15.17	1	23	13.99	4	23	14.41	1	29	14.16	4	25	14.04
Engages in vigorious exercise every week	0	1	0.30	0	1	0.28	0	1	0.25	0	1	0.41	0	1	0.43	0	1	0.36	0	1	0.38	0	1	0.33
Demographic Variables																								
Age	18	95	38.44	18	86	38.64	18	95	40.47	18	92	37.11	19	77	32.04	19	83	39.69	18	71	33.50	18	77	34.47
Female	0	1	0.52	0	1	0.56	0	1	0.52	0	1	0.50	0	1	0.39	0	1	0.53	0	1	0.45	0	1	0.38
Spouse from the same country	0	1	0.56	0	1	0.45	0	1	0.71	0	1	0.57	0	1	0.44	0	1	0.52	0	1	0.51	0	1	0.47
Spouse from a different country	0	1	0.06	0	1	0.08	0	1	0.03	0	1	0.06	0	1	0.02	0	1	0.17	0	1	0.02	0	1	0.03
Spouse from the US	0	1	0.07	0	1	0.10	0	1	0.04	0	1	0.10	0	1	0.01	0	1	0.05	0	1	0.07	0	1	0.07

[1] Compared with your health right before you most recently came to the United States to live, would you say that your health is better now, about the same or worse? Better=1; About same=2; Worse=3

TABLE 2
Logistic Regression Predicting the Effects of Region of Origin on Change in Diet since Arrival

	Model 1		Model 2	
	B	**SE**	**B**	**SE**
Region of Birth				
Europe	_	_	**-0.519*** **	(0.0949)
Africa	_	_	0.150	(0.141)
North Africa and the Middle East	_	_	**-0.294** **	(0.140)
Subsaharan Africa	_	_	-0.0114	(0.148)
Asia	_	_	**-0.489*** **	(0.0746)
Central Asia	_	_	**-0.274***	(0.149)
Latin America and the Carribean	_	_	_	_
Assimilation Measures				
Years spent in the US	**0.016*** **	(0.004)	0.00705	(0.00489)
Household Income	0.000	(0.000)	0	(0)
Better level of English	0.053	(0.067)	0.0776	(0.0695)
Speak english with friends	0.088	(0.070)	**0.125***	(0.0717)
Years educated in the US	0.016	(0.015)	0.0162	(0.0154)
Years of education	**-0.042*** **	(0.007)	**-0.0275*** **	(0.00712)
Demographic Variables				
Age	**-0.015*** **	(0.002)	**-0.0123*** **	(0.00226)
Female	-0.080	(0.053)	-0.0675	(0.0536)
Spouse from the same country	**-0.319*** **	(0.060)	**-0.238*** **	(0.0614)
Spouse from a different country	0.076	(0.122)	0.108	(0.123)
Spouse from the US	**0.334*** **	(0.111)	**0.343*** **	(0.113)
Unmarried	_	_	_	_
Constant	**1.193*** **	(0.136)	**1.114*** **	(0.139)
Observations	**6080**		**6080**	

*** p<0.01, ** p<0.05, * p<0.1

TABLE 3
OLS Regression Predicting the Effects of Dietary Assimilation on Body Mass Index

	Model 1		Model 2	
	B	**SE**	**B**	**SE**
Region of Birth				
Europe	_	_	**-4.450*** **	(0.659)
Africa	_	_	**-4.893*** **	(0.969)
North Africa and the Middle East	_	_	**-2.992*** **	(0.985)
Subsaharan Africa	_	_	**-2.193** **	(1.038)
Asia	_	_	**-9.028*** **	(0.524)
Central Asia	_	_	**-7.546*** **	(1.043)
Latin America and the Carribean	_	_	_	_
Assimilation Measures				
Diet has changed	**1.484*** **	(0.381)	**0.932** **	(0.373)
Years spent in the US	**0.061***	(0.032)	**-0.132*** **	(0.034)
Engages in vigorious exercise every week	-0.422	(0.427)	**-0.802***	(0.418)
Household Income	0.000	(0.000)	0.000	(0.000)
Years of education	**-0.114** **	(0.048)	0.065	(0.049)
Years educated in the US	**-0.202***	(0.105)	**-0.223** **	(0.103)
Better level of English	**-3.275*** **	(0.477)	**-2.137*** **	(0.477)
Speak english with friends	-0.290	(0.496)	0.573	(0.492)
Demographic Variables				
Age	**0.039** **	(0.016)	**0.085*** **	(0.016)
Female	**-4.058*** **	(0.384)	**-3.926*** **	(0.375)
Spouse from the same country	0.113	(0.437)	**1.311*** **	(0.433)
Spouse from a different country	0.083	(0.865)	0.288	(0.848)
Spouse from the US	0.093	(0.769)	-0.623	(0.755)
Unmarried	_	_		
Constant	**35.184*** **	(1.018)	**35.555*** **	(1.008)
Observations	**5833**		**5833**	

*** p<0.01, ** p<0.05, * p<0.1

TABLE 4
Multinomial Logistic Regression Predicting the Effects of Dietary Assimilation on Change in Health Since Arrival

	Better		Worse	
	B	**SE**	**B**	**SE**
Region of Birth				
Europe	**-0.292****	(0.128)	0.055	(0.180)
Africa	**-0.594*****	(0.201)	-0.176	(0.307)
North Africa and the Middle East	0.253	(0.171)	0.060	(0.295)
Subsaharan Africa	-0.145	(0.192)	-0.292	(0.339)
Asia	0.044	(0.097)	0.111	(0.146)
Central Asia	**0.658*****	(0.174)	**0.710*****	(0.262)
Latin America and the Carribean	–	–	–	–
Assimilation Measures				
Diet has changed	**0.268*****	(0.068)	**0.425*****	(0.102)
Body Mass Index	-0.004	(0.003)	0.004	(0.003)
Years spent in the US	**0.016*****	(0.006)	**0.074*****	(0.008)
Household Income	-0.000	(0.000)	-0.000	(0.000)
Engages in vigorious exercise every week	**0.259*****	(0.075)	**-0.257****	(0.118)
Years of education	**-0.042*****	(0.009)	-0.003	(0.013)
Years educated in the US	**0.048*****	(0.018)	0.034	(0.024)
Better level of English	0.063	(0.088)	0.111	(0.130)
Speak english with friends	0.034	(0.090)	-0.095	(0.134)
Demographic Variables				
Age	0.003	(0.003)	**0.009****	(0.004)
Female	-0.060	(0.069)	0.139	(0.102)
Spouse from the same country	-0.040	(0.078)	0.135	(0.121)
Spouse from a different country	-0.090	(0.154)	**0.492****	(0.193)
Spouse from the US	-0.146	(0.138)	**0.321***	(0.193)
Unmarried	–	–	–	–
Constant	**-0.985*****	(0.204)	**-3.556*****	(0.305)
Observations	**5822**			

*** p<0.01, ** p<0.05, * p<0.1

TABLE 5

Logistic Regression Predicting Inter-Country Differences on the Level of Dietary Assimilation since Arrival

	Latin America and the Carribbean		Asia		Europe		Africa		Central Asia	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Country of Birth										
Peru	**0.494****	(0.242)	_	_	_	_	_	_	_	_
Colombia	0.313	(0.216)	_	_	_	_	_	_	_	_
Cuba	**0.357***	(0.207)	_	_	_	_	_	_	_	_
Haiti	**0.711*****	(0.233)	_	_	_	_	_	_	_	_
Jamaica	0.177	(0.520)	_	_	_	_	_	_	_	_
Dominican Republic	**-0.536*****	(0.206)	_	_	_	_	_	_	_	_
El Salvador	**0.785*****	(0.142)	_	_	_	_	_	_	_	_
Guatemala	**0.656*****	(0.201)	_	_	_	_	_	_	_	_
Other Latin America & Caribbean	**0.261***	(0.150)	_	_	_	_	_	_	_	_
Mexico-Reference Category	_	_	_	_	_	_	_	_	_	_
China	_	_	-0.135	(0.155)	_	_	_	_	_	_
Philippines	_	_	**0.794*****	(0.144)	_	_	_	_	_	_
Vietnam	_	_	**1.549*****	(0.199)	_	_	_	_	_	_
Korea	_	_	-0.398	(0.248)	_	_	_	_	_	_
Other Asia	_	_	**0.241***	(0.143)	_	_	_	_	_	_
India-Reference Category	_	_	_	_			_	_	_	_
Poland	_	_	_	_	-0.199	(0.524)	_	_	_	_
Other Europe	_	_	_	_	0.621	(0.478)	_	_	_	_
UK-Reference Category	_	_	_	_	_	_	_	_	_	_
Nigeria	_	_	_	_	_	_	0.207	(0.323)	_	_
Ethiopia-Reference Category	_	_	_	_	_	_	_	_	_	_
Ukraine	_	_	_	_	_	_	_	_	-0.194	(0.301)
Russia-Reference Category	_	_	_	_	_	_	_	_	_	_
Assimilation Measures										
Years spent in the US	0.00346	(0.00708)	-0.00262	(0.0119)	0.0145	(0.0160)	-0.0595	(0.0474)	0.00196	(0.0533)
Household Income	-0	(0)	-0	(0)	0	(0)	-0	(0)	0	(0)
Better level of English	0.137	(0.126)	**0.309****	(0.137)	-0.245	(0.198)	-0.240	(0.370)	0.276	(0.391)
Speak english with friends	0.0253	(0.167)	0.118	(0.114)	0.206	(0.202)	-0.0740	(0.317)	0.124	(0.448)
Years educated in the US	0.00791	(0.0221)	**0.0787****	(0.0322)	0.0343	(0.0543)	0.193	(0.214)	0.236	(0.152)
Years of education	-0.0196	(0.0120)	**-0.0284****	(0.0143)	-0.0167	(0.0191)	-0.0105	(0.0514)	**-0.121****	(0.0567)
Demographic Variables							0	0	0	0
Age	**-0.00868****	(0.00391)	**-0.00934****	(0.00406)	**-0.0167****	(0.00704)	-0.0178	(0.0151)	-0.00876	(0.0120)
Female	0.0109	(0.0916)	-0.143	(0.0968)	-0.0456	(0.154)	**-0.541****	(0.258)	**-0.614****	(0.298)
Spouse from the same country	0.0555	(0.105)	**-0.326*****	(0.118)	**-0.404****	(0.182)	-0.0199	(0.276)	0.0576	(0.340)
Spouse from a different country	0.215	(0.184)	0.357	(0.271)	0.249	(0.344)	-0.00716	(0.968)	-0.132	(0.455)
Spouse from the US	**0.419****	(0.168)	**1.042*****	(0.261)	-0.306	(0.286)	0.637	(1.187)	0.438	(0.724)
Unmarried	_	_	_	_	_	_	_	_	_	_
Constant	**0.473****	(0.240)	0.131	(0.315)	0.397	(0.665)	**1.630****	(0.790)	**2.179****	(0.951)
Observations	**2168**		**2144**		**759**		**289**		**220**	

*** p<0.01, ** p<0.05, * p<0.1

TABLE 6
OLS Regression Predicting Inter-Country Differences on the Effects of Dietary Assimilation on Body Mass Index

	Latin America and the Carribbean		Asia		Europe		Africa		Central Asia	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Country of Birth										
Peru	1.131	(1.857)	_	_	_	_	_	_	_	_
Colombia	**-3.652****	(1.715)	_	_	_	_	_	_	_	_
Cuba	**-3.864****	(1.668)	_	_	_	_	_	_	_	_
Haiti	**-7.789*****	(1.945)	_	_	_	_	_	_	_	_
Jamaica	-3.320	(4.277)	_	_	_	_	_	_	_	_
Dominican Republic	**-11.571*****	(1.607)	_	_	_	_	_	_	_	_
El Salvador	-0.983	(1.082)	_	_	_	_	_	_	_	_
Guatemala	**2.694***	(1.514)	_	_	_	_	_	_	_	_
Other Latin America & Caribbean	0.140	(1.187)	_	_	_	_	_	_	_	_
Mexico-Reference Category	_	_	_	_	_	_	_	_	_	_
China	_	_	-0.803	(0.645)	_	_	_	_	_	_
Philippines	_	_	0.045	(0.624)	_	_	_	_	_	_
Vietnam	_	_	**8.350*****	(0.844)	_	_	_	_	_	_
Korea	_	_	**-2.716*****	(0.957)	_	_	_	_	_	_
Other Asia	_	_	-0.425	(0.614)	_	_	_	_	_	_
India-Reference Category	_	_	_	_	_	_	_	_	_	_
Poland	_	_	_	_	-3.350	(4.093)	_	_	_	_
Other Europe	_	_	_	_	1.772	(3.768)	_	_	_	_
UK-Reference Category	_	_	_	_	_	_	_	_	_	_
Nigeria							**-6.238*****	(2.342)		
Ethiopia-Reference Category							_	_	_	_
Ukraine									1.127	(2.028)
Russia-Reference Category							_	_	_	_
Assimilation Measures										
Diet has changed	0.787	(0.726)	0.248	(0.416)	-0.544	(1.248)	-0.289	(1.874)	0.410	(1.986)
Years spent in the US	**-0.322*****	(0.056)	0.014	(0.051)	-0.079	(0.126)	-0.076	(0.333)	0.370	(0.368)
Engages in vigorious exercise every week	**-2.255*****	(0.819)	0.468	(0.475)	-1.586	(1.300)	-2.456	(1.864)	1.439	(2.166)
Household Income	-0.000	(0.000)	0.000	(0.000)	-0.000	(0.000)	0.000	(0.000)	0.000	(0.000)
Years of education	**0.193****	(0.095)	0.071	(0.060)	-0.143	(0.143)	0.441	(0.373)	-0.309	(0.383)
Years educated in the US	0.046	(0.167)	**-0.286****	(0.135)	-0.331	(0.439)	-0.625	(1.484)	-0.798	(0.945)
Better level of English	**-3.437*****	(0.972)	-0.164	(0.577)	-2.387	(1.562)	-2.935	(2.571)	0.041	(2.652)
Speak english with friends	-1.862	(1.261)	0.134	(0.487)	1.507	(1.642)	**5.645****	(2.293)	1.627	(3.067)
Demographic Variables										
Age	**0.182*****	(0.032)	**0.033***	(0.017)	**0.101***	(0.056)	0.035	(0.121)	**0.141***	(0.084)
Female	**-5.711*****	(0.727)	**-3.755*****	(0.413)	**-3.455*****	(1.229)	-0.915	(1.922)	**-4.258****	(2.074)
Spouse from the same country	0.595	(0.833)	**0.970***	(0.513)	-0.378	(1.469)	**3.773***	(1.998)	2.135	(2.307)
Spouse from a different country	-0.294	(1.398)	**2.852****	(1.183)	-3.101	(2.767)	11.147	(6.886)	-1.620	(3.035)
Spouse from the US	-1.161	(1.279)	-0.646	(1.040)	-1.559	(2.325)	-3.096	(7.659)	-0.792	(4.824)
Unmarried	_	_	_	_	_	_				
Constant	**35.976*****	(1.974)	**26.656*****	(1.352)	**34.672*****	(5.354)	**27.191*****	(5.946)	**28.057*****	(6.793)
Observations	**2033**		**2089**		**748**		**277**		**214**	

*** p<0.01, ** p<0.05, * p<0.1

TABLE 7

Multinomial Logistic Regression Predicting Inter-Country Differences on the Effects of Dietary Assimilation on Change in Health Since Arrival

	Latin America and the Carribbean				Asia				Europe				Central Asia			
	Better		Worse		Better		Worse		Better		Worse		Better		Worse	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Country of Birth																
Peru	0.351	(0.283)	-0.627	(0.551)	_	_	_	_	_	_	_	_	_	_	_	_
Colombia	-0.306	(0.315)	0.403	(0.339)	_	_	_	_	_	_	_	_	_	_	_	_
Cuba	0.334	(0.261)	0.222	(0.383)	_	_	_	_	_	_	_	_	_	_	_	_
Haiti	0.304	(0.291)	-0.139	(0.501)	_	_	_	_	_	_	_	_	_	_	_	_
Jamaica	0.435	(0.632)	-0.118	(1.092)	_	_	_	_	_	_	_	_	_	_	_	_
Dominican Republic	-0.062	(0.269)	-0.108	(0.437)	_	_	_	_	_	_	_	_	_	_	_	_
El Salvador	**0.401****	(0.162)	0.284	(0.217)	_	_	_	_	_	_	_	_	_	_	_	_
Guatemala	**0.922*****	(0.218)	**0.631****	(0.295)	_	_	_	_	_	_	_	_	_	_	_	_
Other Latin America & Caribbean	-0.237	(0.203)	0.033	(0.259)	_	_	_	_	_	_	_	_	_	_	_	_
Mexico-Reference Category	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
China	_	_	_	_	**-0.667*****	(0.200)	0.144	(0.271)	_	_	_	_	_	_	_	_
Philippines	_	_	_	_	0.102	(0.171)	-0.402	(0.327)	_	_	_	_	_	_	_	_
Vietnam	_	_	_	_	**-0.446***	(0.249)	-0.550	(0.446)	_	_	_	_	_	_	_	_
Korea	_	_	_	_	-0.055	(0.275)	0.324	(0.359)	_	_	_	_	_	_	_	_
Other Asia	_	_	_	_	-0.028	(0.173)	-0.073	(0.269)	_	_	_	_	_	_	_	_
India-Reference Category	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
poland									-0.346	(0.849)	-1.532	(1.090)	_	_	_	_
othereurope									0.505	(0.788)	0.153	(0.846)	_	_	_	_
UK-Reference Category									_	_	_	_	_	_	_	_
Ukraine													-0.392	(0.346)	-0.228	(0.517)
Russia-Reference Category																
Assimilation Measures																
Diet has changed	**0.438*****	(0.117)	**0.412****	(0.161)	**0.234****	(0.118)	0.146	(0.187)	0.024	(0.218)	**0.779****	(0.315)	**-0.787****	(0.344)	0.257	(0.549)
Years spent in the US	0.010	(0.009)	**0.057*****	(0.011)	**0.025***	(0.015)	**0.126*****	(0.018)	0.023	(0.021)	**0.065*****	(0.025)	-0.023	(0.068)	**0.196****	(0.085)
Household Income	0.000	(0.000)	-0.000	(0.000)	-0.000	(0.000)	-0.000	(0.000)	-0.000	(0.000)	-0.000	(0.000)	0.000	(0.000)	0.000	(0.000)
Engages in vigorious exercise every	0.107	(0.128)	**-0.427****	(0.189)	**0.582*****	(0.130)	0.026	(0.210)	0.024	(0.227)	-0.361	(0.333)	-0.260	(0.376)	-0.129	(0.574)
Years of education	**-0.045*****	(0.015)	-0.001	(0.021)	**-0.048*****	(0.017)	-0.011	(0.027)	-0.032	(0.030)	**-0.128*****	(0.043)	0.055	(0.071)	**-0.222****	(0.100)
Years educated in the US	**0.064****	(0.025)	-0.032	(0.038)	0.036	(0.039)	0.050	(0.045)	**0.145****	(0.067)	**0.208****	(0.090)	-0.182	(0.172)	-0.062	(0.227)
Better level of English	-0.146	(0.157)	0.173	(0.203)	-0.006	(0.163)	-0.105	(0.264)	0.377	(0.276)	0.594	(0.428)	-0.024	(0.447)	-0.610	(0.770)
Speak english with friends	0.170	(0.198)	0.151	(0.265)	-0.138	(0.139)	**-0.396***	(0.215)	**-0.503***	(0.284)	-0.127	(0.391)	**0.847***	(0.513)	0.705	(0.814)
Demographic Variables																
Age	-0.002	(0.005)	-0.001	(0.007)	0.008	(0.005)	-0.010	(0.008)	**0.019****	(0.010)	**0.040*****	(0.012)	**-0.029***	(0.015)	-0.004	(0.021)
Female	0.009	(0.116)	0.142	(0.160)	-0.034	(0.121)	0.052	(0.190)	-0.094	(0.216)	0.384	(0.310)	0.313	(0.351)	0.171	(0.574)
Spouse from the same country	0.017	(0.131)	0.203	(0.182)	-0.128	(0.142)	-0.046	(0.238)	-0.009	(0.256)	0.051	(0.386)	-0.065	(0.383)	0.456	(0.695)
Spouse from a different country	0.043	(0.214)	0.090	(0.292)	-0.435	(0.390)	0.635	(0.404)	-0.305	(0.537)	**1.283****	(0.507)	-0.286	(0.529)	0.846	(0.812)
Spouse from the US	0.018	(0.205)	0.251	(0.277)	-0.151	(0.292)	-0.014	(0.461)	-0.116	(0.399)	0.000	(0.559)	-1.409	(0.929)	1.543	(1.123)
Unmarried																
Constant	**-0.958*****	(0.342)	**-3.103*****	(0.472)	**-0.967****	(0.423)	**-2.121*****	(0.671)	**-1.873***	(1.091)	**-3.543*****	(1.351)	0.468	(1.211)	0.087	(1.930)
Observations	**2025**				**2086**				**748**				**214**			

*** p<0.01, ** p<0.05, * p<0.1