

# The Role of Context and Social Determinants in Hispanic/Latino Obesity Patterns by Subgroup, Age and Gender

Presented at The National Academies of Sciences, Engineering and Medicine's  
Health and Medicine Division's (HMD) "A Health Equity Approach to Obesity  
Efforts: A Workshop"

Session 2-Social Determinants of Inequities in Obesity Prevention and Control on  
April 1, 2019

Ruth Enid Zambrana, Ph.D.  
University of Maryland

Interim Chair and Professor, Department of Women's Studies  
Director, Consortium on Race, Gender and Ethnicity

Affiliate Professor, Family Medicine, University of Maryland, Baltimore  
Department of Family Medicine

# Hispanic Population by Origin: 2015

Country of Origin	Population Number	Percentage of Hispanic Population
<b>Mexican</b>	<b>35 million</b>	<b>63.3</b>
<b>Puerto Rican</b>	<b>5,4 million</b>	<b>9.5</b>
All Other Spanish/Hispanic/Latino	1,928,930	3.4
Salvadoran	2,173,905	3.8
Cuban	2,115,879	3.7
Dominican	1,865,987	3.3
Guatemalan	1,384,403	2.5
Colombian	1,090,777	1.9
Honduran	853,016	1.5
Ecuadorian	707,428	1.3
Peruvian	651,128	1.2
Nicaraguan	421,974	0.7
Argentinean	274,480	0.5
Venezuelan	320,943	0.6
Panamanian	204,480	0.4
Chilean	150,041	0.3
Costa Rican	145,711	0.3
Bolivian	116,193	0.1
Uruguayan	55,688	0.1
Other Central American	39,191	0.1
Other South American	27,589	0.1
Paraguayan	21,033	<0.05
<b>Total</b>	<b>56,476,777</b>	<b>100.0</b>

Source: Pew Hispanic Center tabulations of 2015 American Community Survey (1% IPUMS).

# Latinos by Geographic Location

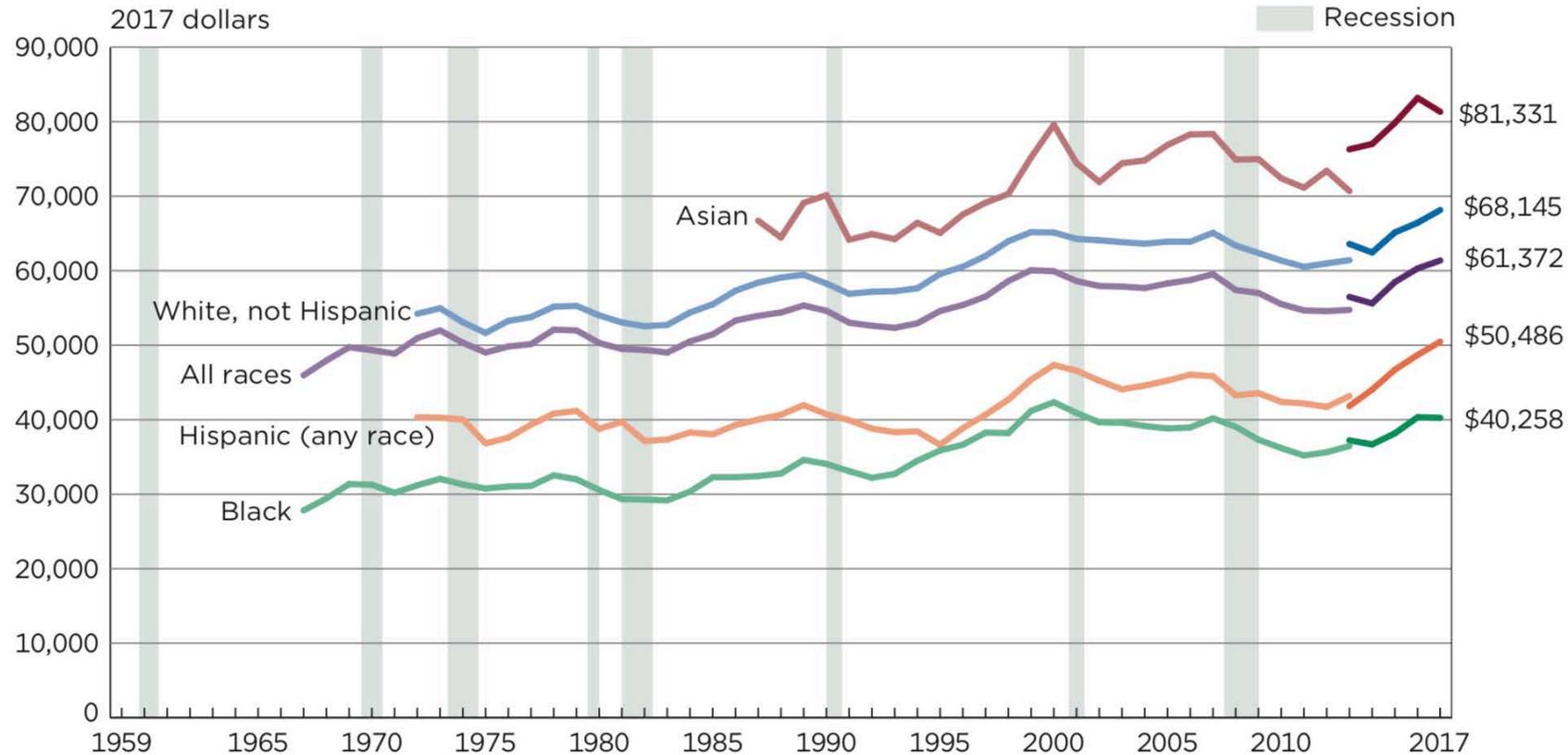


75.8% of all Latinos live in 10 states (CA, TX, FL, GA, CO, NM, AZ, NJ, IL, & NY)

Primary localization in the South and West

# Median Household Income, 2017

Real Median Household Income by Race and Hispanic Origin: 1967 to 2017



Note: The data for 2013 and beyond reflect the implementation of the redesigned income questions. The data points are placed at the midpoints of the respective years. Median household income data are not available prior to 1967. For information on recessions, see Appendix A. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see <[www2.census.gov/programs-surveys/cps/techdocs/cpsmar18.pdf](http://www2.census.gov/programs-surveys/cps/techdocs/cpsmar18.pdf)>.

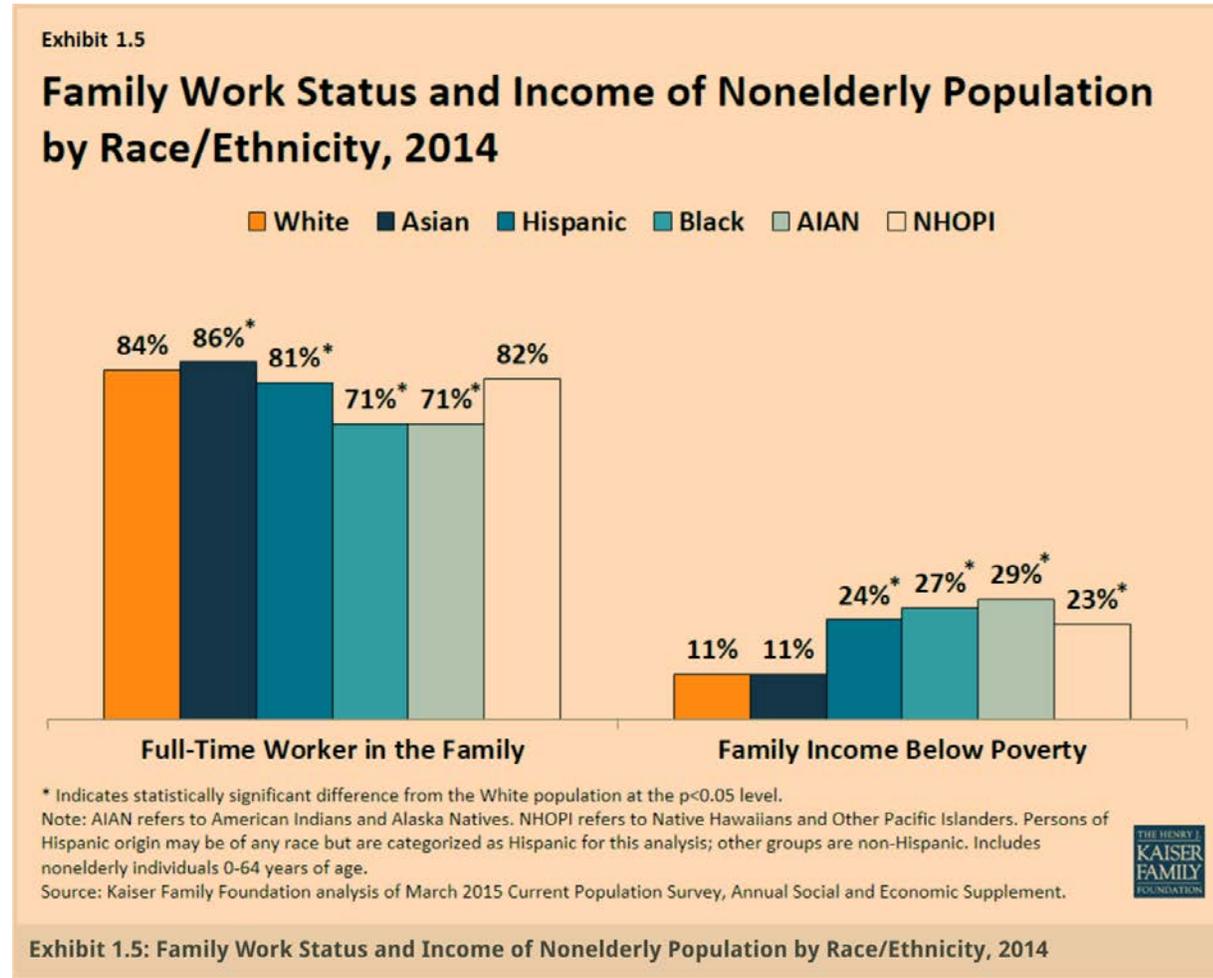
Source: U.S. Census Bureau, Current Population Survey, 1968 to 2018 Annual Social and Economic Supplements.

# SOCIO-DEMOGRAPHIC DATA BY THE NATION'S SIX LARGEST HISPANIC ORIGIN GROUPS (2010)

Variable	Mexican	Puerto Ricans	Cubans	Salvadorans	Dominicans	Guatemalan
Foreign-Born	36%	1%*	59%	62%	57%	67%
Median Age	25	27	40	29	29	27
HS Diploma Only ≥25 Years	26%	30%	29%	24%	26%	22%
Bachelor's Degree or More ≥25 Years	9%	16%	24%	7%	15%	8%
Median Personal Earnings	\$38,700	\$36,000	\$40,000	\$43,000	\$34,000	\$39,000
Live In Poverty	27%	27%	18%	20%	26%	26%
No Health Insurance	34%	15%	25%	41%	22%	48%
Proficient in English ≥5 Years	64%	82%	58%	46%	55%	41%
Share of Citizens	73%	99%	74%	55%	70%	49%

\*Foreign-born includes those born outside the US (including PR) and neither of whose parents are US Citizens. Source: Pew Hispanic Center tabulations of the 2010 ACS (1% IPUMS)

# Latino Families: Family Work Status and Income



What have we focused  
on:  
2000-2016

Major Topic	Number of Search Results	Number of Review Articles
Diabetes	624	17
Acculturation	498	19
Depression	484	9
Obesity	464	8
Access to Health Care	350	2
Maternal and Child Health	345	5
Breast Cancer	335	8
Physical Activity	278	12
Tobacco	176	3
Diet	176	5
Domestic Violence	174	3
Asthma	160	4
Cervical Cancer	139	4
Hypertension	137	20
Metabolic Syndrome	116	2
Health Insurance	108	1
Hispanic Paradox	102	5

# What Have We Learned in 40 years About Latinos and Social Determinants ?

- ▶ Poverty is a barrier to access and quality of health care services
- ▶ Employment without health care benefits is a problem in access
- ▶ Low education/low health literacy decreases opportunities to receive quality health care and benefits from doctor-patient communication
- ▶ Acculturation construct is individual centered, essentializes Mexican Americans as non\_ELP, and misses the key role of low socioeconomic status
- ▶ Homogenizing all immigrants and all Latinos (pan-ethnicity) into one category disallows focus on social determinants and low SES
- ▶ New work is studying the same populations but extending the factors of institutional racism, discrimination and low SES and its context
- ▶ Obesity is driven by poverty and all these factors in combination

## Context: Social and Economic Determinants Matter for Latino Obesity Patterns by subgroup, race, education and place

- ▶ Latinos are a heterogeneous group and low-income groups are at risk, NOT all
- ▶ The physical environment where you live, quality of housing, and zip code all matter
- ▶ Institutional discrimination
- ▶ Poverty, race, and indigenusness, rather than ethnicity or culture, matter
- ▶ Availability of healthy and affordable foods (food deserts/food scarcity)
- ▶ Unregulated food industry—mass production of processed foods with high profits and misleading labels adversely impact poor populations
- ▶ Unavailable recreational spaces, parks and gyms
- ▶ Low community safety
- ▶ Inadequate physical activity in the schools
- ▶ Low access to high quality health care services and resources

# Low Rates of Adult Health Insurance Coverage

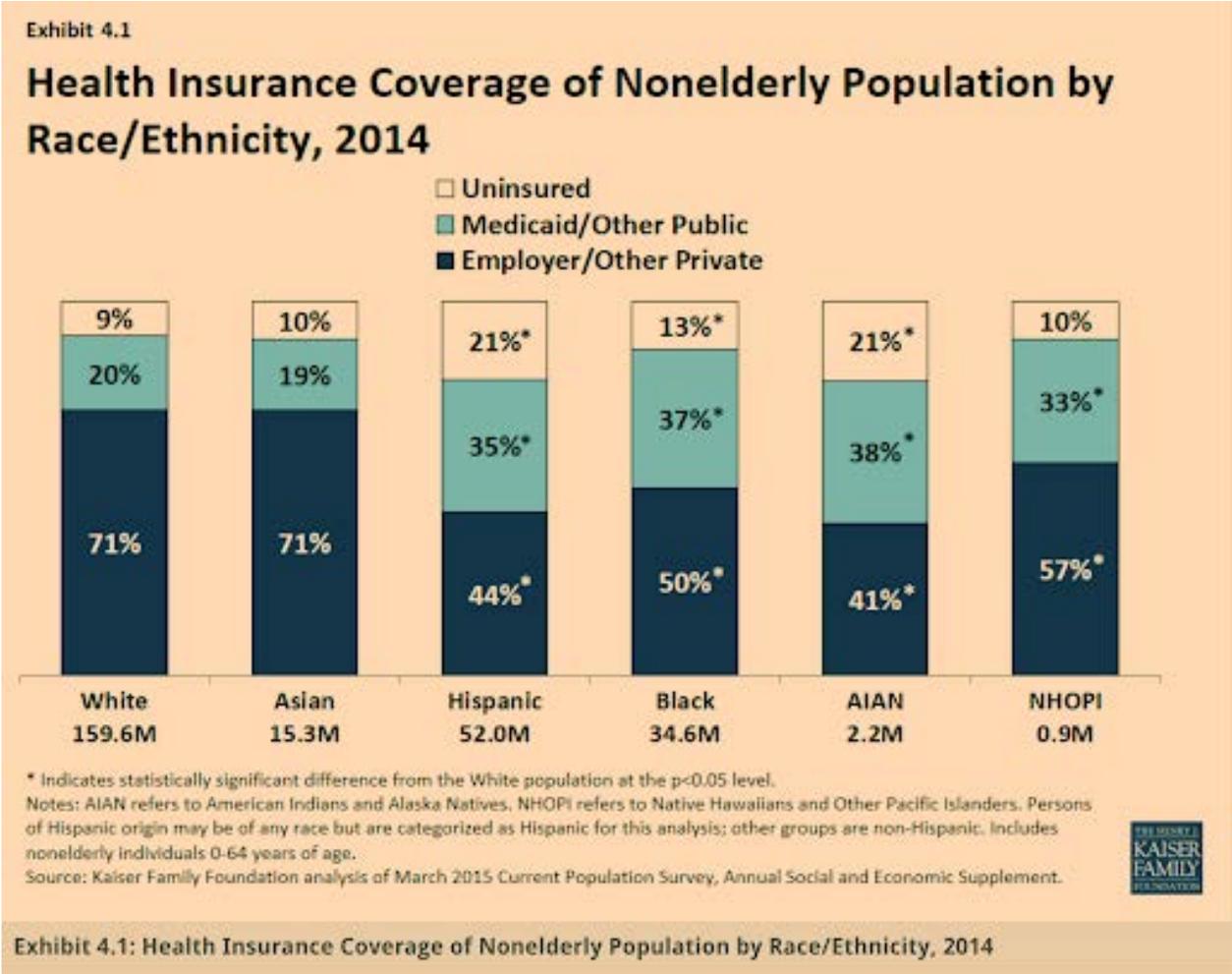
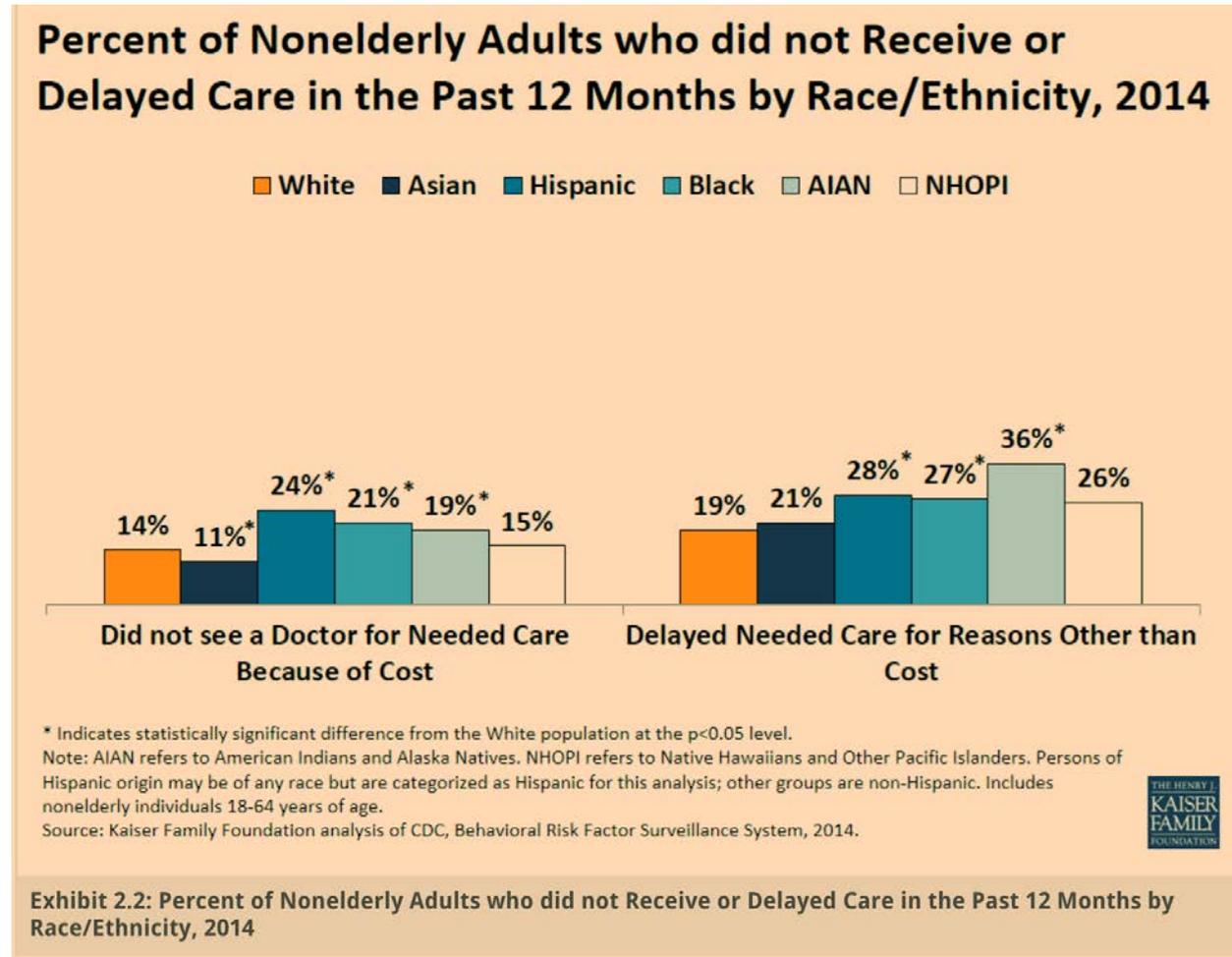
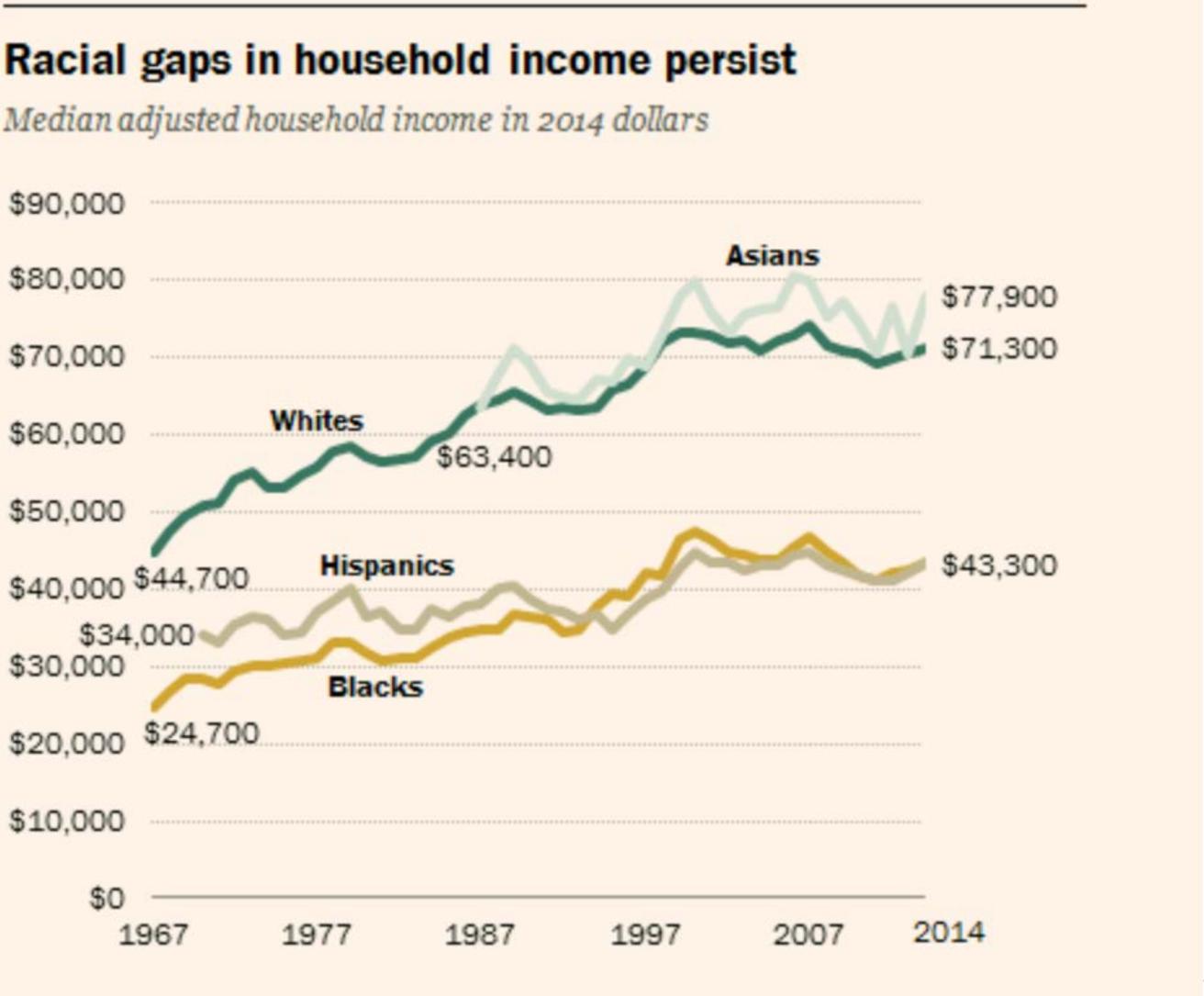


Exhibit 4.1: Health Insurance Coverage of Nonelderly Population by Race/Ethnicity, 2014

# Delayed Access to Health Care



# Hispanics: Racial Gaps in Household Income By Race and Ethnicity, 2014



Source: PewResearch Center Tabulation of the 1964-2015 Current Population Survey Annual Social and Economic Supplement

# Prevalence of Health-Risk Behaviors among US Adults: NHIS 2007-2012

Ethnic Immigrant Group	Current Smoking	Physical Inactivity	Obesity (BMI $\geq 30$ )	Overweight (BMI $\geq 25$ )
NHW US-born	21.5%	30.6%	26.8%	61.5%
Mexican US-born	16.5%	33.5%	37.3%	71.7%
Mexican-Immigrant	10.6%	48.3%	29.4%	71.7%
PR-Mainland	20.1%	40.7%	35.5%	70.0%
PR PR-born	17.2%	54.4%	34.7%	71.2%
Cuban US-born	19.2%	32.0%	25.9%	59.3%
Cuban-Immigrant	15.4%	56.9%	28.2%	67.6%
CSA US-born	11.5%	29.9%	24.1%	60.1%
CSA-Immigrant	9.4%	47.8%	22.0%	64.1%



From: **Prevalence of Major Cardiovascular Risk Factors and Cardiovascular Diseases Among Hispanic/Latino Individuals of Diverse Backgrounds in the United States**

JAMA. 2012;308(17):1775-1784. doi:10.1001/jama.2012.14517

**Table 2.** Prevalence of Cardiovascular Disease Risk Factors for All Participants and by Hispanic/Latino Group and Sex (Age Standardized)<sup>a</sup>

Characteristic <sup>b</sup>	% (95% CI)						
	All	Cuban	Dominican	Mexican	Puerto Rican	Central American	South American
Men, No.	5979	1034	480	2337	1067	648	413
Hypertension <sup>c</sup>	25.4 (24.1-26.7)	28.9 (26.6-31.4)	32.6 (28.2-37.4)	21.4 (19.1-24.0)	27.4 (24.5-30.5)	25.0 (21.8-28.5)	19.9 (16.0-24.4)
Hypercholesterolemia	51.7 (50.1-53.3)	53.7 (50.3-57.1)	47.6 (42.3-52.9)	53.9 (51.4-56.3)	48.2 (43.8-52.6)	54.9 (50.5-59.1)	52.2 (45.3-58.9)
Obesity <sup>c</sup>	36.5 (34.7-38.3)	33.6 (30.2-37.3)	38.6 (33.1-44.5)	36.8 (33.9-39.8)	40.9 (36.8-45.1)	32.7 (28.7-36.9)	26.8 (22.4-31.9)
Diabetes mellitus <sup>c</sup>	16.7 (15.5-17.9)	13.2 (11.3-15.3)	18.2 (15.0-21.9)	19.3 (17.0-21.8)	16.2 (14.0-18.7)	16.3 (13.1-20.1)	10.1 (7.2-14.1)
Smoking <sup>c</sup>	25.7 (24.1-27.4)	31.1 (27.6-34.8)	11.1 (7.7-15.7)	23.1 (20.8-25.7)	34.7 (30.7-38.9)	19.9 (16.4-24.0)	15.1 (11.0-20.4)
Women, No.	9100	1167	920	3895	1523	986	609
Hypertension <sup>c</sup>	23.5 (22.4-24.5)	26.4 (24.5-28.3)	26.1 (23.2-29.3)	19.5 (17.8-21.3)	29.1 (26.4-31.9)	25.6 (22.9-28.4)	15.9 (13.2-19.0)
Hypercholesterolemia <sup>d</sup>	36.9 (35.6-38.3)	37.5 (33.8-41.4)	33.1 (29.7-36.6)	36.2 (30.4-38.4)	41.0 (36.9-45.1)	39.4 (35.4-43.5)	31.4 (27.3-35.8)
Obesity <sup>c</sup>	42.6 (41.0-44.2)	38.9 (35.3-42.7)	42.5 (37.8-47.2)	41.5 (38.8-44.2)	51.4 (47.6-55.1)	41.6 (37.9-45.4)	30.8 (26.0-36.0)
Diabetes mellitus <sup>c</sup>	17.2 (16.3-18.3)	13.9 (12.0-16.0)	18.0 (15.4-21.0)	18.5 (16.8-20.2)	19.4 (17.0-22.1)	17.9 (15.0-21.3)	9.8 (7.8-12.3)
Smoking <sup>c</sup>	15.2 (14.1-16.5)	21.2 (18.6-24.0)	11.7 (8.3-16.4)	10.0 (8.3-11.9)	31.7 (28.3-35.2)	8.7 (6.7-11.2)	11.3 (8.6-14.8)

<sup>a</sup>Values (except No.) weighted for survey design and nonresponse and age standardized to Census 2010 US population.

<sup>b</sup>Hypertension was defined as systolic blood pressure  $\geq 140$  mm Hg, diastolic blood pressure  $\geq 90$  mm Hg, or receiving treatment. Hypercholesterolemia was defined as total cholesterol  $\geq 240$  mg/dL, high-density lipoprotein cholesterol  $< 40$  mg/dL, low-density lipoprotein cholesterol  $\geq 160$  mg/dL, or receiving treatment. Obesity was defined as a body mass index  $\geq 30$ , calculated as weight in kilograms divided by height in meters squared. Diabetes mellitus was defined as fasting glucose  $\geq 126$  mg/dL, 2-hour-postload plasma glucose  $\geq 200$  mg/dL, hemoglobin A<sub>1c</sub>  $\geq 6.5\%$ , or use of diabetes medications. Smoking was defined as currently smoking cigarettes. (To convert total, LDL, and HDL cholesterol to mmol/L, multiply by 0.0259; to convert glucose to mmol/L, multiply by 0.0555.)

<sup>c</sup> $P < .001$ .

<sup>d</sup> $P < .01$ .

# Key Findings

- ▶ Latinos are:
  - ▶ disproportionately affected by unhealthy material conditions of daily life which influence negative risk factors (diet, sedentary behavior, substance use)
  - ▶ more likely to be obese compared to any other racial/ethnic group
  - ▶ Racialized subgroups such as Mexican Americans and Puerto Ricans are most at risk
- ▶ Incongruency of medical advice throughout life course
- ▶ Obesity as a primary risk factor for other non-communicable disease (diabetes, cancer, stroke, etc.)
- ▶ Social determinants are significant indicators of Latino obesity
- ▶ Health outcomes and obesity rates differ for each Latino subgroup



## Life Expectancy in the Americas

			Population Aged 60 Years or Over	
	Life Expectancy at Birth, 2010-2015		Life Expectancy at Age 60, 2010-2015	
Country or Area	Men	Women	Men	Women
Latin America and the Caribbean	72	78	20	23
Costa Rica	78	82	22	25
Mexico	75	80	22	24
Brazil	70	77	20	23
Chile	77	83	22	25
Uruguay	74	80	19	24
Canada	79	84	23	26
United States of America	76	81	22	25

Bravo, J., Lai, N. M. S., Donehower, G., & Mejia-Guevara, I. (in press). Ageing and retirement security: United States of America and Mexico. In W. A. Vega, K. S. Markides, J. L. Angel, & F. M. Torres-Gil (Eds.), *Challenges of Latino aging in the Americas*. New York, NY: Springer.

# Reflection

“The ways in which Latinos are studied requires extending the paradigm to decenter culture and center social determinants. The unremitting focus on culture rather than inequality in access to health care resources, material conditions, and neighborhood effects has derailed knowledge production on Latinos and contributed to increasing health disparities and inequity (added).”

Ruth Enid Zambrana  
*Latinos in American Society*  
(2011)



# Bibliography

- ▶ Bravo, J., Lai, N. M. S., Donehower, G., & Mejia-Guevara, I. (in press). Ageing and retirement security: United States of America and Mexico. In W. A. Vega, K. S. Markides, J. L. Angel, & F. M. Torres-Gil (Eds.), *Challenges of Latino aging in the Americas*. New York, NY: Springer.
- ▶ Broady, K., & Meeks, A. (2015). Obesity and social inequality in America. *The Review of Black Political Economy*, 42(3), 201-209. doi:10.1007/s12114-014-9202-1
- ▶ Center for Disease Control (2017a). Health, United States, 2016 with chartbook on long-term trends in health. Retrieved from <https://www.cdc.gov/nchs/data/hus/hus16.pdf>
- ▶ Daviglius ML, Talavera GA, Avilés-Santa ML, et al. Prevalence of Major Cardiovascular Risk Factors and Cardiovascular Diseases Among Hispanic/Latino Individuals of Diverse Backgrounds in the United States. *JAMA*.2012;308(17):1775-1784. doi:10.1001/jama.2012.14517
- ▶ Edwards, J., Engström, K., & Hartwell, H. (2005). Overweight, obesity and the food service industry. *Food Service Technology*, 5(2-4), 85-94. doi:10.1111/j.1471-5740.2005.00115.x
- ▶ Haile, R. W., John, E. M., Levine, A. J., Cortessis, V. K., Unger, J. B., Gonzales, M., ... Boffetta, P. (2012). A review of cancer in U.S. Hispanic populations. *Cancer prevention research (Philadelphia, Pa.)*, 5(2), 150-163. doi:10.1158/1940-6207.CAPR-11-0447
- ▶ Hernandez, Donald J., (2004), "Demographic Change and the Life Circumstances of Immigrant Families", The Future of Children, Special Issue on Children of Immigrants, 14(2):16-47 (Summer)

# Bibliography

- ▶ Mialon, M., Swinburn, B., & Sacks, G. (2015). A proposed approach to systematically identify and monitor the corporate political activity of the food industry with respect to public health using publicly available information. *Obesity Reviews*, 16(7), 519-530. doi:10.1111/obr.1228
- ▶ Pew Hispanic Center tabulations of 2006 American Community Survey
- ▶ Pew Hispanic Center tabulations of 2015 American Community Survey (1% IPUMS).
- ▶ Singh GK, Rodriguez-Lainz A, Kogan MD. (2013) Immigrant health inequalities in the US: Use of 8 major national data systems. *The Scientific World Journal*.
- ▶ U.S. Census Bureau, Current Population Survey, 1968 to 2018 Annual Social and Economic Supplements. Retrieved from <https://www.census.gov/content/dam/Census/library/publications/2018/demo/p60-263.pdf>
- ▶ U.S. Department of Health and Human Services Office of Minority Health, Profile: Hispanic/Latino Americans. Retrieved from <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&lvlid=64>