THE 2018 INTERNATIONAL CONFERENCE ON

AGING IN THE AMERICAS

Latino Aging and Health in Social, Institutional, and Environmental Context: Foundations and Frontiers

Westward Look Wyndham Grand Resort & Spa
Tucson, AZ
Sept. 18-20
INTRODUCTION

SINCE THE 1700’S TIMES BEFORE MEMORY, la mariposa monarca (or the monarch butterfly) journeys through the Americas to sustain its life. In cool, clear skies of October, indigenous people reverently welcome returning souls on wings aloft, reuniting in central Mexican forests and valleys. So the cycle continues from beginnings unknown to no ends…

The Aging in the Americas Conference selected la monarca to symbolize the threads that unite us across the Americas in understanding and reverently preserving the dignity and integrity of life’s cycle that knows no beginnings or ends. Roberto Salas was commissioned by the Conference to create la monarca. La monarca was drawn from pre-Columbian images and images from industrialized and postindustrialized Americas.

Salas is a Chicano artist who received his Master of Fine Arts from the University of California, San Diego. A Buena Vista native, he is the Director of Centro Artístico y Cultural, a non-profit organization, dedicated to providing the community of Buena Vista in El Paso, Texas with educational services relating to the cultural life of the community.
Special Message from the Host

Welcome to the 10th installment of the International Conference on Aging in the Americas (ICAA), and welcome to the beautiful city of Tucson! We are so happy to host this important conference. My co-organizers (Flavia Andrade and Mariana López Ortega) and I have worked very hard to bring you a program that is not only intellectually stimulating and diverse, but also fun!

Let me briefly call your attention to several highlights from this year’s program. Our conference will begin with the presentation of research on aging and health in Mexico. We then move to research on Latino aging and health disparities in the United States. We are so excited to offer new sessions to the conference series on Environmental Inequality and Health and Religion and Health. We expect these new sessions will challenge us to think in new ways about Latino aging and health.

I would like to personally thank everyone for taking time out of their busy schedules to participate in this year’s conference. I am indebted to the National Institutes of Health, AARP (AZ and TX), previous ICAA organizers (Jacqueline Angel, Iris Aguilar, and May Ross), the Arizona Center on Aging (Lisa O’Neill and Mindy Fain), the UA School of Sociology (Albert Bergesen, Elena Cruz, and Miguel Larios), the UA Department of Psychology (Lee Ryan), the UA College of Nursing (Joan Shaver), and the UA Center for Latin American Studies (Colin Deeds) for their generous administrative support, organizational guidance, and financial sponsorship.

I hope you all enjoy the conference and the beautiful Westward Look Grand Resort!

Terrence D. Hill, Organizer, 2018 ICAA
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2018 ICAA Conference Overview

This year’s conference focuses on Latino aging and health in social, institutional, and environmental context. The conference extends previous iterations of the ICAA conference series by addressing established foundations in caregiving and the social determinants of health in aging Latino populations. The conference also builds on previous iterations by addressing the health impacts of environmental inequality and religious involvement in aging Latino populations. Core conference themes include social determinants of health in Mexico, social determinants of health the U.S., environmental inequality, religious institutions and religious involvement, and caregiving and dementia in later life. Methodological diversity is a hallmark of this conference, including qualitative, quantitative, and mixed method designs. The overarching theme of the conference is the social patterning of health and related risks in aging Latino populations. The conference addresses several important questions:

1. What are the social causes and social consequences of health in later life?

2. How does environmental inequality impact aging Latino populations?

3. What role does religious involvement play in the health of older Latinos?

4. What are the major benefits and barriers to caregiving for older Latinos?
PROGRAM SCHEDULE

Facebook Live Here: fb.me/ICAA18

TUESDAY (SEPT. 18)

5:00pm  ICAA-AARP Mentoring Panel (Publishing/Funding/Policy Analysis)

Presiders
Kyriakos Markides, University of Texas-Medical Branch
Rogelio Sáenz, UT-San Antonio
Fernando Torres-Gil, University of California-Los Angeles
Robert Wallace, University of Iowa

6:00pm  Welcome Dinner and Recognition Ceremony (Invitation Only) @ Rooftop Patio

Conference Organizers
Terrence Hill, University of Arizona
Flavia Andrade, University of Illinois at Urbana-Champaign
Mariana López Ortega, Mex. Nat. Institute of Geriatrics

WEDNESDAY (SEPT. 19)

7:30-8:30  Registration & Breakfast @ Sonoran Ballroom

8:30-8:45  Welcome by Terrence Hill, University of Arizona

8:45-9:30  KEYNOTE
“Overcoming Disparities for Healthy Aging”
Luis Miguel Gutiérrez-Robledo, Mex. Nat. Institute of Geriatrics

9:30-10:45  Paper Session I: Social Determinants of Health in Mexico

Presider
Mariana López Ortega, Mexican National Institute of Geriatrics

Presenters
“Socio-Spatial Segregation of Older Adults: An Unknown Dimension of Ageing”
Juan Campos Alanis, Universidad Autónoma Estado México
Carlos Garrocho Rangel, El Colegio Mexiquense

“Health Care Professionals and Older Adult’s Perspectives on Barriers to Detection of Older Adult Abuse in Mexico City”
Liliana Giraldo, Instituto Nacional de Geriatría
Natalia Guevara Jaramillo, Instituto de Investigaciones Sociales

“Ageing in Rural, Indigenous Communities in Mexico”
Blanca Estela Pelcastre, Instituto Nacional de Salud Pública

“Community Based Gerontology Model for Healthy Ageing”
Victor Manuel Mendoza Nuñez, Unidad de Investigación en Gerontología
Marissa Vivaldo-Martinez, Unidad Investigación Gerontología

10:45-11:00  BREAK
11:00-12:15  
*Paper Session II: Social Determinants of Health in the U.S.*

**Presider**  
Flavia Andrade, University of Illinois at Urbana-Champaign

**Presenters**  
“Childhood Adversity and Multimorbidity in a Racial/Ethnic Diverse Sample of Older Adults”  
Elizabeth Vásquez, State University of New York at Albany

“Health Convergence Patterns in Allostatic Load among Foreign-born Hispanics Are More Pronounced in Men than in Women”  
Alexis Santos, Pennsylvania State University

“Latino Health Paradoxes: From Epidemiological Phenomenon to Psychosocial Science”  
John Ruiz, University of Arizona

“Socio-Demographic Disparities in the Neighborhood Nicotine Retail Environment”  
Georgiana Bostean, Chapman College

12:15-1:30  
**LUNCH**

1:30-2:45  
*Paper Session III: Environmental Inequality and Health*

**Presider**  
Peter Ore, University of Arizona

**Presenters**  
“Environmental Inequality in the Americas: Unequal Exchange, Labor, Pollution, and Health”  
Liam Downey, University of Colorado-Boulder

“Environment, Inequality and Human Well-Being in Latin America: Perspectives from Sustainability Science and Macrosociology”  
Andrew Jorgenson, Boston College

“How Exposure to Air Pollution Varies by Hispanic/Latino Ethnicity: Across Time and Space”  
Kerry Ard, The Ohio State University

“Understanding Inequality in Health Risks in a Changing Climate”  
Patricia Romero-Lankao, National Renewable Energy Laboratory

2:45-4:00  
*Paper Session IV: Religion and Health*

**Presider**  
Terrence Hill, University of Arizona

**Presenters**  
“Religion and Health among Hispanics: Exploring Variations by Age”  
Neal Krause, University of Michigan

“Religious Involvement and Sleep Quality among Older Mexican Americans”  
Christopher Ellison, UT-San Antonio

“Religious Participation and Mortality Risk in Mexico”  
Terrence Hill, University of Arizona

“Factors Associated with Attendance at Religious Services in Mexican Older Adults”  
Mariana Gonzalez-Lara, Mex. Nat. Institute of Geriatrics
Poster Session and Awards Ceremony with Refreshments (Appetizers/Drinks)

Organizer
Sunshine Rote, University of Louisville

Judges
Beth Stahmer, University of Arizona
Marc Garcia, University of Nebraska-Lincoln
Amy Burdette, Florida State University
Joseph Saenz, University of Southern California
Kelly Balistreri, Bowling Green State University

Presenters
“The Effect of Diabetes on the Cognitive Trajectory of Older Mexican Adults”
Jaqueline Avila, University of Texas Medical Branch

“No Children, No Housing: Consideration of Health Consequences for Latina and Hispanic Women”
Corrie Brinley, University of Arizona

“Living Arrangements and Cognitive Decline in the Mexican-American Population”
Phil Cantu, University of Texas at Austin

“Latina Breast Cancer Survivors: Finding Strength and Resilience in Cancer”
Diana Tisnado, California State University, Fullerton

“Nativity and Citizenship Effects on Older Adults’ Access to Care”
Hilary Flowers, UCLA

“The Role of Psychosocial Stress in Osteoporotic Fractures”
Shawna Follis, University of Arizona

“Sexual and Reproductive Behavior among Aging, Near-Homeless Hispanic and White Substance-using Women”
Franziska Frank, University of Arizona

“Use of the Cultural Space of the Elderly in Guadalajara, Mexico City and Monterrey”
Oscar Gerardo Hernandez Lara, University of Southern California

“Initial Findings from the Evaluation of Recuerdos Perdidos/Lost Memories”
Lourdes Guerrero, UCLA

“The Influence of Offspring Education on Cognition among Older Adults in Mexico”
Mingming Ma, University of Southern California

“Effectiveness of a Psychoeducation Program Based on Family-Systemic Therapy”
María Fernanda Mandujano-Jaquez, Universidad de Sonora

“Medication Adherence among Chronically Ill Hispanic Patients: A Comparison of Adherence Strategies”
Stephanie Murphy, University of Arizona

“Gender Differences in End-of-Life Care in Older Mexican American Adults”
Evangeline M. Ortiz-Dowling, University of Arizona

“Hispanic Advantages in Later Life Disability: New Insights on Nativity and Social Support”
Alicia R. Riley, The University of Chicago
THURSDAY (SEPT. 20)

7:30-8:30 Registration & Breakfast @ Sonoran Ballroom

8:30-8:45 Welcome by Linda Phillips, Arizona Center on Aging

8:45-9:30 **KEYNOTE**
“Choosing to Care”
Amy Goyer, AARP’S Family & Caregiving Expert

9:30-10:45 *Paper Session V: Dementia and Caregiving*

**Presider**
Jacqueline Angel, University of Texas at Austin

**Presenters**
“Why Mexican American Caregiving Families Choose to Use or Not Use Long Term Support Services”
Janice D. Crist, University of Arizona

“Non-contributory Pension Programs and Caregiving of Older Adults”
Emma Aguila, University of Southern California

“The Influence of Neuropsychiatric Symptoms on the Psychological Well-Being of Family Caregivers: Findings from the H-EPESE”
Maria Aranda, University of Southern California

“Overcoming a Bad Day: A Qualitative Look into the Dementia Caregiving Experiences of Mexican-Origin Women”
Carolyn Mendez-Luck, Oregon State

10:45-11:00 BREAK

11:00-12:15 *Paper Session VI: Emerging Scholars Research*

**Presider**
Ronald Angel, University of Texas at Austin

**Presenters**
“Biological Risk Profiles among Latino Subgroups in the Health and Retirement Study”
Catherine Garcia, University of Southern California

“Health and Access to Care among Migrants Returning from the United States to Mexico”
Ana Canedo, University of Texas at Austin

“When Neighborhood Becomes Family: The Role of Kin & Fictive-Kin in Decisions to Age in Place in a Latino Enclave”
Melanie Plasencia, University of California, Berkeley

“Racial Differences in Proximity to Family Caregivers among Disabled Older Adults”
Adriana Reyes, Cornell University

12:15-1:30 *Consensus Building and Boxed Lunch*

**Presider**
William Vega, Florida International University

1:30-2:30 Advisory Group Publications Committee (Closed)
OPENING KEYNOTE

Overcoming Disparities for Healthy Aging

Luis Miguel Gutiérrez-Robledo, Mex. Nat. Institute of Geriatrics
(luis.gutierrez@salud.gob.mx)

The health status and income levels of older people in Mexico have substantially improved over the last decades. However, risks of increasing inequality among our aging population are building up. Demographic changes combined with rising inequality trends and public finance constraints are modifying life prospects at all ages. With longer life expectancy, declining family size, higher inequality over the working lives and reforms that have reduced future retirement income and tightened the links between pension contributions and benefits, the experience of old age is going to change dramatically for today's younger generations. Financing of pensions and caring for older adults will be increasingly difficult, aggravating the burden for the most disadvantaged.

Socio-economic outcomes of individuals build up from childhood, and inequality of a given cohort results from differences in individual experiences cumulated over the life course. Better health early in life tends to be correlated with better educational attainment and they both contribute to better middle age outcomes. In turn, people with better jobs also tend to enjoy good access to health and other services, and are likely to retire with a better income. These people are also more likely to have financial assets to cover them in case they need long-term care. By contrast, people who had low-quality jobs and low incomes are likely to be in worse health and face higher risks of poverty. Preventing inequality while aging requires a broad policy approach to help individuals overcome disadvantages cumulated over the life course, resulting in bad health. These policies will need to consider the new realities people are facing today in their health and disability risks.

Healthy aging, nevertheless, is an achievable goal for society, as it is already happening among individuals in high income strata. Besides, there is emerging evidence on the reversibility of the poorer aging trajectories experienced by individuals exposed to the worst adversities. Now it’s is time for action, so we must act by: 1. Improving the understanding of the mechanisms through which healthy aging pathways diverge by SES, this will allow interventions to limit adverse outcomes. 2. Providing evidence for the development of healthy ageing policies which address the social determinants of aging and health, using both observational studies as well as an experimental approach; this is now feasible departing from the longitudinal data already available. 3. And ultimately, by mitigating the negative consequences of the current economic situation on health and the biology of ageing; this should become a priority.
Socio-Spatial Segregation of Older Adults: An Unknown Dimension of Ageing

Juan Campos Alanís, Universidad Autónoma Estado México
(juan_campos70@hotmail.com)

Carlos Garrocho Rangel, El Colegio Mexiquense (cfgarrocho@gmail.com)

Background and Objectives: The aging of the population in Mexico will be the most important demographic event of this country, in the 21st century. The number of people over 65 will go from 7 to 22% in the next 25 years, and this change will take place mainly in the cities, due to the significant population flows they have received since the mid-20th century. The analysis of the spatial distribution allows to identify if there are processes of residential segregation that have negative and positive effects. The objective of this work is to demonstrate, from the Geography, the existence of that segregation in the Metropolitan Area of Mexico City (AMCM), to generate a series of recommendations of public policies oriented to the attention of this population group.

Research Design and Methods: We used census information for the years 2000 and 2010, both at the Basic Geostatistical Area and at the blocks level (those with the most existing details in Mexico). A series of spatial analysis techniques were applied, through the Geographic Information Systems (simple measurements of spatial statistics, global and local spatial autocorrelation, bivariate spatial correlation, and temporal space).

Results: The results are overwhelming: clusters of spatial concentration of older adults were identified in the oldest parts of the city, which in part replicate the process of expansion of Mexico City. This shows the limited residential mobility of this population, due to cultural and economic issues. Another important finding is that this population lives mainly in areas with good levels of well-being, but the tendency in the future is that these circumstances will be transferred to the poor periphery.

Discussion and Implications: These results can provide important information for the design of differentiated public policies that modulate the residential segregation towards its positive part, through the knowledge of the magnitude and location of the elderly.

Translational Significance: Policies are needed to address the problem of segregation in the elderly.
Health Care Professionals and Older Adult’s Perspectives on Barriers to Detection of Older Adult Abuse in Mexico City

Liliana Giraldo, Instituto Nacional de Geriatría (lgiraldor@yahoo.com)

Natalia Guevara Jaramillo, Instituto de Investigaciones Sociales (nataguevara@yahoo.com)

Background and Objectives: Health care professionals, especially doctors, nurses, psychologists and social workers, play an important role in preventing, identifying and shining a light on elder abuse. In this paper we intend to explore perceptions of health care professionals regarding barriers to the detection and management of elder abuse cases in Mexico City health centers.

Research Design and Methods: This is a qualitative and transversal study with an ethnographic focus. We conducted 30 semi-structured interviews with health care professionals (doctors, psychologists, nurses and social workers) employed in public health services of the Mexico City government. Interviews were recorded and transcribed. We took field notes in health care centers, and performed thematic analysis.

Results: Information gathered about health care professionals’ perceptions was organized into four subjects: 1. Institutional and administrative aspects within Mexico City’s health services (individual, institutional and inter-institutional work); 2. Elder abuse and its relationship to public health (health professionals' perception of elder abuse as a social rather than public health problem, elder abuse awareness and management of abuse cases); 3. Perceptions about older adults and their social environment; and 4. Consequences of attention towards elder abuse (legal aspects and fear of retaliation).

Discussion and Implications: As other studies have also indicated (Anetzberger et al., 2005), this study underlines the need to educate and train health care professionals to recognize and respond to elder abuse, as well as the need to institutionalize clinical attention to elder abuse and treat this issue as a public health problem.

Translational Significance: If health care systems are to achieve more appropriate responses to elder abuse, understanding the barriers to abuse detection is indispensable.
Ageing in Rural, Indigenous Communities in Mexico

Blanca Estela Pelcastre, Instituto Nacional de Salud Pública (blanca.pelcastre@insp.mx)

Background and Objectives: Mexico is living an accelerated process of aging. The indigenous peoples register higher levels of poverty and deep social inequalities with respect to the non-indigenous population. This is expressed in important lags in health and in greater barriers to access quality health services. Among the population older indigenous adults are doubly excluded, it is necessary to develop an ethnogerontologic perspective in order to create new schemes of attention. The objective of this presentation is to talk about these characteristics and the healthcare model with an intercultural perspective implemented in the north of the country, as an example of possible equity strategies for healthcare.

Research Design and Methods: We used a qualitative design with semi-structured interviews to aging people; to providers of health services and traditional healers. The study was carried out in three indigenous Mexican regions. We included an ethnographic description of the context, plus a documentary revision about some sociodemographic indicators and reviewed some previous models to indigenous population and identified main health necessities. With these different sources of information we built a healthcare model.

Discussion and Implications: Health units for indigenous population observed in the three study regions were scarce and it was observed that the care scheme does not incorporate any kind of intercultural adaptation. Indigenous older adults do not have a social protection scheme; health problems tend to chronicity given his advanced age and lack of timely care. The lack of a common language is the main barrier to access. The model proposed included six strategic areas.

Translational Significance: Alternative health strategies are particularly useful in contexts of difficult access and high dispersion in order to offer a health option to improve quality of life of indigenous older adults.
Community Based Gerontology Model for Healthy Ageing

Víctor Manuel Mendoza Nuñez, Unidad de Investigación en Gerontología (mendovic@unam.mx)

Marissa Vivaldo-Martínez, Unidad Investigacion Gerontología (marissa.vivaldo@gmail.com)

**Background and Objectives:** National Autonomous University of Mexico (FES Zaragoza, UNAM), has developed a Community Model of Healthy Ageing. This model considers the active participation of elderly in the prevention and control of chronic non-communicable diseases (CNCD) linked to old age, and maintain the functioning.

**Research Design and Methods:** The study is based on a qualitative methodological approach, namely participative action-research, directed towards the delimitation of the main components to be incorporated into the actual community development program.

**Results:** Even though we have achieved satisfactory results so far, a limitation of the program has been the difficulty associated to its implementation in the absence of direct institutional supervision and support. Therefore, we have incorporated two complementary elements to the original model – resilience and generativity- with the purpose of assuring a more comprehensive impact through the enforcement of contextual and personal variables directly relevant to healthy ageing.

**Discussion and Implications:** We identified three stages in the development of the model: (i) Informative. Community activities were centered in the transmission of relevant information on ageing, (ii) Formative. The model evolved towards the formation of promoters through a constructivist perspective, helping along the empowerment of aged people supported by a horizontal educational process, framed in active ageing, and (iii) Emancipatory. In this last stage we find that resilience and generativity are basic elements to strengthen and enhance human capacities during ageing, because they allow people to change attitudes regarding self-care, re-establish a sense of self confidence and the capacity and appropriation of power.

**Translational Significance:** Our experience suggests that the empowerment of older adults framed in a model based on community gerontology should be recognized and incorporated into the State Health System as an option to prevent CNCD and promoting functioning.
Childhood Adversity and Multimorbidity in a Racial/Ethnic Diverse Sample of Older Adults

Elizabeth Vásquez, State University of New York at Albany (evasquez2@albany.edu)

**Background and Objectives:** Childhood adversity (CA) has been associated with increased health risks later in life. However, it is unclear whether CA may be associated with multimorbidity among diverse racial/ethnic middle-aged and older adults. We evaluated whether there were racial/ethnic differences in the association between CA and the number of somatic and psychiatric multimorbidity combinations in a sample of U.S. middle age and older adults.

**Research Design and Methods:** Data from the 2012-2013 National Epidemiologic Survey on Alcohol and Related Conditions ($N = 10761; >55$ years) were used to test whether the number of self-reported somatic conditions (i.e. heart disease, hypertension, stroke, diabetes, arthritis, cancer, osteoporosis, and chronic lung problems) as well as DSM-5 psychiatric disorders (i.e., depression) during the past 12 months differed by history of CA, age (i.e., 55-64 or $>65$), or racial/ethnic group (i.e., non-Hispanic White (NHW; $n=7476$), non-Hispanic Black (NHB; $n=2003$), and Hispanic ($n=1282$)).

**Results:** The prevalence of reporting $>2$ somatic conditions or psychiatric disorders was $48.8\%$ and $11.4\%$ for those with CA history, and $41.1\%$ and $3.3\%$ for those without CA history. Adjusting for sociodemographic and other health risk factors, CA history was significantly associated with greater numbers of somatic conditions among racial/ethnic middle age adults but this was not the case for older adults.

**Discussion and Implications:** Our findings suggest that middle age adults with a history of CA are more likely to suffer from somatic and psychiatric multimorbidity, highlighting the importance of screening for CA in promoting healthy aging.

**Translational Significance:** It remains increasingly important to address the effects of CA in combination with multimorbidity in order to improve the overall health of middle age and older adults.
Ethnic differences in Arizona Hospital Utilization Trends: Population-level Evidence for a broader Hispanic Health Paradox

John Ruiz, University of Arizona (johnruiz@email.Arizona.edu)

Background and Objectives: Despite a significantly worse risk factor profile, Hispanics experience lower incidence of most diseases and live longer than non-Hispanic Whites (NHWs). This epidemiological phenomenon commonly referred to as the Hispanic mortality paradox is robust, replicated, and characterized by relatively large effects. An important question is whether this ethnic advantage in longevity reflects a broader health advantage. The current aim was to examine whether Hispanics experience a broader health advantage by examining state-level hospital utilization.

Research Design and Methods: Inpatient hospital utilization rates per 1,000 and confidence intervals were generated using the American Community Survey (ACS) public use microdata and the Arizona Department of Health Services (ADHS) Hospital Discharge Data for the period of January 1, 2008 through December 31, 2015. In Arizona, there were over 500,000 inpatient admissions per year in the ADHS HDD. The current data exclude mental health hospitals as well as child and pregnancy admissions. Subgroup population estimates by race/ethnicity, age, and payer status and their corresponding confidence intervals were estimated using replicate weights from the ACS.

Results: Overall, NHW adults consistently exhibited significantly greater hospital utilization than Hispanics in Arizona. Accounting for population size differences, the average annual hospital admission rates for NHWs were 130 per 1,000 NHW vs 60 per 1,000 Hispanics; a two-fold difference. These omnibus differences remained when the data was disaggregated to look within 4 insurance status categories (Medicare, Medicaid, private, and uninsured) and within age. In addition to lower utilization, Hispanics did not appear to enter the hospital in worse condition. For example, the average in-patient mortality rate for NHWs was 17.84 per 1,000 NHW admissions versus 15.42 per 1,000 Hispanic admissions. These admission and outcome trends held in Emergency Department (ED) utilization.

Discussion and Implications: Hispanics are more than 2:1 less likely to use the hospital system and have lower mortality when admitted in the state of Arizona. These differences are evident in both in-patient admissions and ED use and hold within insurance and age categories, supporting a broader Hispanic health advantage. Implications for health surveillance and resilience mechanisms will be discussed.
Socio-Demographic Disparities in the Neighborhood Nicotine Retail Environment

Georgiana Bostean, Chapman College (gbostean@chapman.edu)

**Background and Objectives:** Latinos may be disproportionately exposed to vice stores (e.g., tobacco retailers) at the neighborhood level, however, previous study findings are difficult to interpret due to inconsistent outcome measurement. We extend the literature by using spatial methods to examine whether, in California (CA) census tracts, a greater percentage Latino population is associated with greater density of alcohol and tobacco retailers, and whether there are age disparities in exposure to vice stores in tracts with predominantly Latino populations.

**Research Design and Methods:** We combined data on alcohol and tobacco retail licenses with American Community Survey (2012-2016) data on CA tracts (N=7,814). Bivariate analyses examined mean alcohol and tobacco retailer density per kilometers of roadway in tract for predominantly Latino tracts (>60% Latino; n=1,833) versus non-Latino tracts. We compared OLS regressions with spatial lag models predicting alcohol and tobacco retailer density (logged). Covariates included socio-demographic characteristics, population density, percent of tract classified as commercial land use, and density of other vice stores.

**Results:** Mean tobacco density was higher, and alcohol retailer density lower, in predominantly Latino census tracts. Spatial lag models accounting for spatial dependencies showed that, net of controls, a greater percentage Latino within tracts was associated with higher tobacco retailer density, but marginally significantly associated with higher alcohol retailer density. In predominantly Latino tracts, the proportion of Latinos who were middle age (25-54) was associated with higher alcohol retailer density.

**Discussion and Implications:** Our findings, that Latinos are disproportionately exposed to tobacco retailers in CA census tracts, suggest that retail environment studies must account for the spatial relationship of vice stores and neighborhood characteristics. These disparities are troubling considering the retail environment is associated with health behaviors.

**Translational Significance:** Policymakers and urban planners should consider potential health impacts on minority adults over the life course when permitting vice stores and designing tobacco and alcohol control interventions.
Environmental Inequality in the Americas: Unequal Exchange, Labor, Pollution, and Health

Liam Downey, University of Colorado-Boulder (liam.downey@colorado.edu)

Background and Objectives: Individual- and group-based disparities in aging and health resources, shaping the lives of Latinos and non-Latinos throughout the Americas and highlighting the important link that exists between environmental inequality, aging, and health. Environmental inequality and justice scholars, though often ignoring the relationship between environmental inequality and aging, have made great strides over the past 25-30 years in defining environmental inequality and justice; explaining the successes and failures of environmental justice organizations; measuring and explaining the existence and extent of environmental inequality in specific locations; and investigating cross-national transfers of pollution, waste, and resources between wealthy and developing nations. Nevertheless, the conceptual tools and explanatory models employed in each of these areas of environmental inequality and justice research have largely remained separate from each other, producing an important but somewhat fragmentary and incomplete explanatory framework and body of knowledge.

Research Design and Methods: None.

Results: None.

Discussion and Implications: This paper argues that the concept “unequal exchange,” which has been used extensively by researchers studying cross-national transfers of pollution, waste, and resources, can be used to more closely link these disparate areas of research. Unequal exchange can also be used to define environmental inequality and justice, think more deeply about the ramifications of environmental inequality and justice, explain the existence and historical transformation of environmental inequality and justice in specific locations, and better understand race, ethnic, gender, and class disparities in health and aging. Finally, unequal exchange can help us better understand how environmental inequalities in different places are linked to each other and how these inequalities shape migration and other lifecourse experiences.

Translational Significance: Reducing local, national, and global levels of unequal exchange can thus play an important role in improving the health and aging experiences of Latinos in the Americas.
Environment, Inequality and Human Well-Being in Latin America: Perspectives from Sustainability Science and Macrosociology

Andrew Jorgenson, Boston College (andrew.jorgenson@bc.edu)

Background and Objectives: Sustainability requires reducing the carbon intensity of human well-being: the level of CO₂ emitted per unit of human well-being.

Research Design and Methods: I examine how multiple forms of inequality and poverty effect the carbon intensity of human well-being in cross-national and sub-national contexts, while taking into account the effects of other socio-economic and political factors.

Results: Findings from longitudinal models indicate that the carbon intensity of human well-being is positively associated with multiple forms of income inequality as well as poverty rates.

Discussion and Implications: These findings suggest that reducing inequality and poverty are potential pathways to sustainability in both sub-national and cross-national contexts.

Translational Significance: Reducing income inequality and poverty will likely have both health and environmental benefits.
How Exposure to Air Pollution Varies by Hispanic/Latino Ethnicity: Across Time and Space

Kerry Ard, The Ohio State University (ard.7@osu.edu)

Background and Objectives: The literature examining the variation in exposure to environmental hazards by race and ethnicity has provided robust evidence that communities of color have been continually exposed to more environmental toxics than predominately non-Hispanic White communities. However, this body of work has yet to fully examine how the Hispanic population fits in to this picture. Despite the fact that there has been a great deal of media attention that the Hispanic population has grown substantially in the U.S. over the past few decades, this population is quite ethnically heterogeneous and demographic patterns vary substantially across these groups. It is likely that the histories and social characteristics of these groups has led some to settle predominately in more environmentally dangerous areas than others.

Research Design and Methods: This paper seeks to explore these relationships by estimating the amount and toxicity of pollution exposure that some of the larger groups that make up the Hispanic population in the U.S. (i.e. Cuban, Dominican, Puerto Rican, Mexican) have experienced over time across the United States. This is achieved by interpolating demographic data from the 1990, 2000 and 2010 censuses to provide annual population estimates at the census tract level from 1995 to 2004. These data are overlaid with modeled air pollution exposure for 415 industrial chemicals, weighted by their toxicity to human health for every 1 kilometer square in the continental United States. Average estimated exposures by ethnic groups are estimated annually and examined in regionally specified multilevel models.

Results: These results will help to reveal how industrial pollution varies by ethnic group in order to provide a clearer picture of the health risk experienced by this diverse population.

Discussion and Implications: Such work is essential to understanding the social-structural underpinnings of disease in America’s growing Hispanic communities.

Translational Significance: More policy attention should be devoted to the health consequences of industrial pollution on Hispanic communities.
Understanding Inequality in Health Risks in a Changing Climate

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Background and Objectives: Urbanization and environmental change pose systemic, yet nuanced health risks to urban populations.

Research Design and Methods: To analyze health risks we gathered, validated and analyzed data on temperature, air pollution, mortality, and socioeconomic vulnerability in the Latin American cities of Bogota, Colombia, Mexico City, and Santiago de Chile. We combined different methods – e.g., time series, generalized linear models (GLMs) with Poisson log-linear distribution to calculate the relative risk of dying from exposure to air pollution or weather at the city level, and multicriteria vulnerability indices.

Results: We found that the spatial differences in socioeconomic vulnerabilities within cities do not necessarily correspond with the spatial distribution of health risks associated to pollution. Furthermore, the intra-urban spatial differences in socioeconomic vulnerability do not necessarily correspond with the spatial distribution of health impacts. However, for the most part, global warming and urbanisation contribute to intra- and interurban inequalities in populations’ capacity to adapt to and mitigate health risks. Differences in this capacity mostly depend on differences in socioeconomic status, springing from social inequality, i.e., from differential access to the asset base from which response actions and investments can be made.

Discussion and Implications: Our findings show that wealthy and educated populations – who tend to live longer – may be equally at risk to the health implications of air pollution.

Translational Significance: Policies designed to mitigate these risks should use multiple indicators beyond socioeconomic characteristics as predictors of a population’s risk in relation to air pollution.
Religion and Health among Hispanics: Exploring Variations by Age

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**Background and Objectives:** The Hispanic Paradox specifies that Hispanics tend to enjoy better health than Anglos even though Hispanics have greater health risk profiles. The purpose of this study is to see if these advantages can be traced to social relationships in religious institutions. In the process, an effort is made to contribute to the literature by focusing on a key biomarker of health - Epstein Barr Virus antibodies (EBV).

**Research Design and Methods:** The data come from a nationally representative survey of adults in the United States. Data provided by Hispanics (N = 366) and non-Hispanic Whites are used in the current study (N = 901).

**Results:** Three findings emerge from the data. First, statistically significant differences in EBV did not emerge between Hispanics and non-Hispanic Whites. Second, the data indicate that emotional support that is received from fellow church members is associated with lower EBV values among Hispanics of all ages, but not among Whites of all ages. In contrast, emotional support that is received outside religious institutions failed to provide similar protective effects for Hispanics. Third, there do not appear to be significant age differences in the relationships among ethnicity, church-based social relationships, and EBV.

**Discussion and Implications:** Hispanics appear to enjoy biologically observable health advantages from church-based social relationships but the same benefits do not appear to be afforded to Whites. Moreover, the health-related advantages observed among Hispanics only emerge in church-based social relationships and not social ties outside the church. The fact that there are no age differences in this relationship suggests that church-based social relationships provide potential lifelong benefits for Hispanics.

**Translational Significance:** Bolstering social relationships in the church represents a potentially important way to improve the health of Hispanics of all ages.
Religious Involvement and Sleep Quality among Older Mexican Americans

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Background and Objectives: Despite a considerable body of work on religion and health, the potential role of religious factors in shaping sleep quality remains understudied. Our study addresses two key questions raised in previous literature: (1) Is religious attendance—perhaps the most common indicator of religious involvement in the health and aging literature—associated with sleep disturbance among older Mexican Americans? (2) Does depression mediate any observed association between religious attendance and sleep within this population?

Research Design and Methods: Relevant hypotheses were tested using OLS regression models of cross-sectional data collected from the original cohort of the Hispanic Established Population for the Epidemiologic Study of the Elderly (H-EPESE). The baseline H-EPESE was based on a probability sample of 3,050 Mexican Americans ages 65 and older drawn in 1993-1994. Due to missing data on our focal variables, our final analytic sample included 2,408 respondents.

Results: OLS models indicated that religious attendance was a strong predictor of sleep disturbance (measured via four-item index), with controls for mobility status, social integration and support, and a host of sociodemographic factors. Subsequent adjustments for depressive symptoms eliminated the link between attendance and depression, and mediation analyses confirmed the existence of a significant mediating pattern.

Discussion and Implications: These findings add to the existing evidence that religious involvement is associated with better sleep quality largely due to reduced depressive symptoms among regular churchgoers, and this work also provides new information on an understudied population: older Hispanics. Several limitations and promising future research directions are discussed. Americans.

Translational Significance: Policies designed to facilitate involvement with religious communities could contribute to the sleep quality of older religious Mexican Americans.
Religious Participation and Mortality Risk in Mexico

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Background and Objectives: Although several studies suggest that religious involvement tends to favor longevity, most of this work has been conducted in the United States. This paper explores the association between religious participation and all-cause mortality risk in Mexico.

Research Design and Methods: We used data from the 2003-2015 Mexican Health and Aging Study (n = 14,743) and the Cox proportional hazard regression model to formally assess the association between religious participation and all-cause mortality risk.

Results: Our key finding is that older Mexicans who participate once or more per week in religious activities tend to exhibit a 20% reduction in the risk of all-cause mortality as compared to those who never participate. This estimate persisted with adjustments for health selection (ADL, IADL, cognitive functioning, and depressive symptoms), several potential mediators (social support, smoking, drinking, and chronic disease burden), and a range of sociodemographic characteristics. While we observed considerable health selection due to functional limitations and mental health, we found no evidence of mediation.

Discussion and Implications: Our results confirm that religious participation is associated with lower all-cause mortality risk among older adults in Mexico. Our analyses contribute to previous research by replicating and extending the external validity of studies conducted in the United States and Denmark.

Translational Significance: Policies designed to facilitate involvement with religious communities could contribute to the longevity of older religious adults in Mexico.
Factors Associated with Attendance at Religious Services in Mexican Older Adults

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Background and Objectives: Religion is recognized as an external experience of formal expression with associated traditions and practices shared by a faith-based group. In the elderly, it has been studied that religion have a positive role in individuals' health and well-being. As religion is highly important in older adults lives, the maintaining of connection with familiar religious practices sustains faith connection for people with dementia. Church attendance rates in Mexico are among the highest in the world, with almost 50% of Mexicans attending church services weekly. Specifically, 84% of Mexicans report that religion is very important or important, whereas only 3% claim that religion has no meaning in their lives. Attending religious services or participating in other religious activities may be associated with better health behaviors because religious organizations often provide information or activities related to health topics that may lead to healthier lifestyles. Therefore, the aim of this study is to evaluate the factors associated with attendance at religious services in Mexican older adults.

Research Design and Methods: Data for this analysis come from Wave 3 (2012) of the Mexican Health and Aging Study.

Results: The average age is 63.9±9.2, 43.9% are women, 82% attends religion services, 73.9% think that the importance of religion is very important. Co-variates were taken into account: importance of religion, age, sex, years of school, comorbitities, self-rated health, medical attendance, financial status, mobility/disability, cognitive impairment and support from any person. According to the adjusted model, only importance of religion (OR 0.22, p<0.001, CI 95% 0.19-0.25), age (OR 0.98, p<0.001, CI 95% 0.97-0.99), being women (OR 0.87, p = 0.04, CI 95% 0.76-0.99) and comorbitity (OR 0.66, p=0.009, CI 95% 0.49-0.90) were statistically significant.

Discussion and Implications: The importance of religion plays a very important role in the elderly, it does not matter if there is any physical condition that limits it, as long as they consider religion something important.

Translational Significance: The fact that older adults attend to religious services is very important since faith and prayers to God make them feel they will have a better health status, and that could improve their individual conditions.
OPENING KEYNOTE

Choosing to Care

Amy Goyer, AARP's Family & Caregiving Expert (amy@amygoyer.com)

According to AARP research, Latino family caregivers in the U.S. spend more of their time and money caring for a loved one as compared with the rest of the population. On average, Latino family caregivers also spend a larger percent of their annual income on caregiving-related expenses and dedicate 52 percent more time per week providing care. Latino caregivers also report more intensive caregiving situations compared to the general population. However, qualitative research indicates most Latino family caregivers don’t identify themselves as such, and are less likely to search for and accept help. Amy Goyer, Author of “Juggling Life, Work and Caregiving” and AARP’s Family and Caregiving Expert, will delve into the roles family caregivers play, the human challenges and long-term effects they face, and share learnings from AARP’s national and local advocacy, outreach and education efforts, including a multi-year Ad Council campaign, targeting Latino family caregivers who make the choice to care.
Why Mexican American Caregiving Families Choose to Use or Not Use Long Term Support Services

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Background and Objectives: Mexican American (MA) elders are the fastest growing group of elders in the US and more functionally impaired at younger ages than other elders, yet use long term support services (LTSS) disproportionately less than other groups. Costs can be reduced by using LTSS, decreasing re-hospitalizations, emergency visits, elder functional impairment, and caregiving burden. The objectives are to present evidence found during the ENCASA 18-year program of study, of why these services are under-used.

Research Design and Methods: Designs were CBPR, interdisciplinary, and mixed-methods, including ethnography, grounded theory, descriptive, and randomized control trial.

Results: Familistic norms, experiences of discrimination, lack of knowledge and confidence in home health services, and culturally specific decision-making processes by MA elders and caregivers are barriers. More use of services associated with elders’ lower levels of physical health and independence and more confidence in services; and caregivers’ financial resources, service awareness, and low subjective burden. Systems-wise, the odds for Latino elders’ receiving referrals was significantly lower than for Anglo elders; uninsured clients received fewer referrals than those with Medicaid, Medicare or private insurance; and an integrative literature review of research studies showed that policy causes information and access incongruent with MA families’ needs regarding end-of-life decisions.

Discussion and Implications: MA voices and trials provide evidence that providers and the healthcare system should address the historical, cultural uniqueness of this large and growing population to shape more effective, family-oriented precise matching of care options, based on culture and socio-political barriers.

Translational Significance: Findings may be translated into Alzheimer’s Disease specific care by tailoring care delivery to present options in a family/group-oriented rather than individualistic approach, with sensitivity to cultural and language needs. Access for MA families so that they make informed decisions to use the right service at the right time would be increased.
Non-contributory Pension Programs and Caregiving of Older Adults

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Background and Objectives: In recent decades, many studies have explored the effects of non-contributory pensions (NCP) on aggregate poverty, household investment in human capital, health, and subjective well-being of older adults. Few studies, however, have investigated the effect of NCP on informal care for older adults. We investigate whether access to a pension affects the dynamics of receiving informal care.

Research Design and Methods: We use panel data of 944 adults at least 70 years of age in two communities of Yucatan, Mexico. The data were collected in 2008 and 2009 among treatment and control groups before and after implementation of a NCP. We employ difference-in-differences approach.

Results: Both those receiving a NCP and those not receiving one received fewer hours of care over time. The decrease in number of hours of care, however, was lower for those who received a NCP. The number of caregivers, particularly of grandchildren providing care, also decreased. The decreases were lower for men than for women.

Discussion and Implications: Where no formal public long-term care services exist, as in Mexico, informal care becomes the main source of care for older adults. The fact that the NCP reduced care by grandchildren may indicate substitution between formal and informal care and the need to generate strategies to support current caregivers.

Translational Significance: Substitution of unpaid care following receipt of a NCP shows how such policies may affect care for older adults. Such findings have many implications for policymakers considering specific formal strategies to support caregivers.
The Influence of Neuropsychiatric Symptoms on the Psychological Well-Being of Family Caregivers: Findings from the H-EPESE

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**Background and Objectives:** Providing care to older persons can be meaningful and satisfying to family caregivers. On the other hand, caring for older adults who exhibit neuropsychiatric symptoms may be deleterious to the caregiver’s own wellbeing. Little is known about the consequences of caring for older adults with neuropsychiatric symptoms in racial and ethnic populations.

**Research Design and Methods:** Using population-based data from the H-EPESE, we examined the association of sociodemographic, caregiving context, physical and functional health and neuropsychiatric symptoms (NPI score) on the psychological wellbeing of 637 English- and Spanish-speaking family caregivers.

**Results:** Slightly over 60% completed the interview in Spanish, 3 of 4 respondents were females, the average age was 56, and around 75% were adult children. In terms of care recipients’ neuropsychiatric symptoms in the past month, 31% displayed no symptom, 26% displayed 1 to 2 symptoms, 25% displayed 3 to 4 symptoms, and 18% displayed more than 5 symptoms. Based on the CES-D, we found that the mean level of depressive symptomatology is relatively low in this sample (4.9, sd = 7.01). Yet, caregivers to older adults who displayed 3 or more neuropsychiatric symptoms had higher depression levels than caregivers who displayed no symptoms. Receipt of Medicaid, caregiver self-rated health, and care recipient frailty were significantly related to caregiver depression levels. Interaction effects were noted with respect to language of interview, neuropsychiatric symptoms, and hours of ADL assistance.

**Discussion and Implications:** Our work highlights the psychological effects of caring for older adults with neuropsychiatric symptoms as well as physical frailty and poor caregiver health. Caregiver psychological wellbeing is an important public health issue given the potential consequences of depression.

**Translational Significance:** Identification of caregivers caring for loved ones with high NPI symptoms can inform delivery of caregiver and care recipient interventions and services.
Biological Risk Profiles among Latino Subgroups in the Health and Retirement Study

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**Background and Objectives:** Information on the health of Latinos is typically obtained from self-reports or diagnosis by health professionals. Evaluating health patterns using self-reports that rely on interaction with the health care system may result in an incomplete portrait of Latino health due to differences in health insurance coverage, health care access, and utilization of care. Measures of biological risk factors provide objective indicators of health status that are related to the onset of disease and disability. The objective of this analysis is to examine biological risk profiles by race, ethnicity, and nativity to better understand health patterns among the Latino population.


**Results:** Latinos are heterogeneous in biological risk profiles. U.S.-born Mexicans, foreign-born Mexicans, U.S.-born other Latinos, and foreign-born other Latinos had a higher rate of cardiovascular risk relative to Whites. U.S.-born Mexicans, foreign-born Mexicans, island-born Puerto Ricans, and foreign-born other Latinos had a higher rate of metabolic risk than Whites. Island-born Puerto Ricans were more likely to have inflammation than Whites. When assessing total biological risk, U.S.-born Mexicans, foreign-born Mexicans, island-born Puerto Ricans, and foreign-born other Latinos had a higher rate of total biological risk than Whites. The observed race/ethnicity/nativity differences were largely attenuated when accounting for socioeconomic status, an indication that high levels of risk among Latino subpopulations relative to Whites is related to low socioeconomic status.

**Discussion and Implications:** Our findings demonstrate the usefulness of using objective measures of risk for health among older adults and is valuable in addressing Latino subgroup health disparities that mainly rely on self-reported health data.

**Translational Significance:** Using indicators of biological risk provide a more comprehensive picture of population health as well as being able to disentangle health differentials among Latino subpopulations.
Health and Access to Care among Migrants Returning from the United States to Mexico

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Background and Objectives: It is estimated that between 2005 and 2015, nearly two million people returned voluntarily to Mexico from the United States (ENADID). Currently, figures continue to show high rates of voluntary-return migration to Mexico, with migration flows to the U.S. steadily declining (Mexican Census). This brings into question the following: Who bears the health care costs of return migration? And what are the primary healthcare needs of the Mexican migrant population?

Research Design and Methods: In this context, the present study aims to examine the age-related health and health care utilization patterns of Mexican voluntary-return migrants by using data from the Survey of Migration at Mexico’s Northern Border (EMIF Norte, for its Spanish acronym) for the 2014-2017 period. (n = 18,617). The analyses assess how these patterns vary by age among those who chose to return because of health reasons in comparison to those who had other motivations for returning.

Results: There is an upward trend in respondents citing health reasons for returning home between 2014 and 2017. Migrants returning due to health concerns are predominantly middle-aged adults (mean age: 45 years). Multivariate analyses will examine competing age-related risk factors for return migration across the adult life course.

Discussion and Implications: Given the vast majority of respondents' lack healthcare coverage in Mexico, it is crucial to understand their healthcare needs and inform the design of policies that seek to improve both health outcomes and healthcare access for returnees.

Translational Significance: Findings from this study will allow policymakers to reduce the vulnerability of Mexican voluntary return migrants by better understanding their healthcare needs.
When Neighborhood Becomes Family: The Role of Kin & Fictive-Kin in Decisions to Age in Place in a Latino Enclave

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Background and Objectives: Existing scholarship often assumes that biological family members have the most influence in shaping where older Latino/as decide to age in place. However, fictive kin in the neighborhood are also regarded as family and become significant motivators for aging in place. The current study contributes to the literature on Latinos and aging by examining the role of family and fictive-kin in a Northern New Jersey Latino enclave. The research asks: What role do family and fictive-kin have in decisions to age in place? What are the factors and motivations that influence wanting to age in a Latino enclave? Lastly, why do older Latinos choose to reside in the enclave instead of relocating to the suburbs with immediate kin?

Research Design and Methods: To address these questions, I conducted twenty months of intense ethnographic research and sixty-five in-depth interviews in Spanish and English among Latino ages 65 and older.

Results: I argue that it is not so much biological or blood ties that determine aging Latino/a’s decisions but rather a constellation of concerns, including the economic situations and emotional bonds they have with their biological family members, as well as their quality of relationship with fictive kin who can provide various kinds of support and access to social and medical services in their current ethnic communities.

Discussion and Implications: This study demonstrates that older Latino/as are not blindly following the assumed "cultural tradition" of living with biological kin but that they proactively evaluate where they can create the most ideal conditions for aging, given their set of emotional, social, medical, and economic concerns.

Translational Significance: Findings from this study are of potential value to policy makers and practitioners interested in assessing the resources, support networks and needs of aging Latino/as in urban communities.
Racial Differences in Proximity to Family Caregivers among Disabled Older Adults

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Background and Objectives: As the population ages an increasing number of Americans will become disabled and require help with daily activities. For most, family provide substantial amounts of care. Hispanic and black older adults are both more likely to have disabilities and to rely on family for caregiving. This paper examines two questions: What is the size and proximity of potential family caregiving networks for the disabled? Are there racial differences in the size and geographic dispersion of these networks?

Research Design and Methods: Using the Panel Study of Income Dynamics we estimate the size and proximity of the potential family caregiving networks for older adults aged 40 and older with at least one ADL or IADL. We estimate the weighted distribution of availability of children, parents, and spouses as potential sources of support. We also conduct multinomial logistic regression to estimate racial differences in family availability controlling for demographic and socioeconomic characteristics.

Results: Hispanics have the largest number of family to draw on for care, however not all of these family members live close, with some family living outside of the U.S. About 15 percent of disabled older Hispanics do not have family living close (less than 200 miles), whereas only 9 percent of whites and 6 percent of blacks do not have family close.

Discussion and Implications: As the population continues to age, the need for caregivers will increase and the burden will likely fall on family to provide care. Proximity to family caregivers may contribute to health disparities across racial groups and are important to document as family become spread across large geographic spaces.

Translational Significance: A large number of Hispanic older adults with limitations do not have any family living nearby, which highlights the need to improve access to community-based support services for older adults.
The Effect of Diabetes on the Cognitive Trajectory of Older Mexican Adults

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Background and Objectives: Older Mexican adults have high prevalence of diabetes, accompanied by poor diabetes management and low levels of education. There is consistent evidence that diabetes and education impact cognition. However, the cognitive trajectory associated with diabetes in a population with low levels of education and poor diabetes management is unknown. My objective is to identify how diabetes affects the cognitive trajectory of older Mexican adults, and how this trajectory differs by education.

Research Design and Methods: Individuals above 50 years old with direct interviews were selected from all waves of the Mexican Health and Aging Study (2001, 2003, 2012, and 2015). The outcome of interest was cognition, measured with 4 domains: verbal memory learning, verbal memory recall, visuospatial memory learning, visuospatial memory recall, and visual scanning. Cognition was analyzed by domains and as an average score. Self-reported diabetes was the main independent variable. Linear mixed-effect models were used to test the impact of diabetes on cognition at baseline and over time, and the interaction between diabetes and education. Age was centered at 65 years old.

Results: Near one third of the baseline population had 0 years of education and 13.1% had diabetes. At age 65, those with diabetes had significantly lower overall cognitive score than those without diabetes, and cognition significantly declined over time. When stratified by education, the difference in decline over time by diabetes status was only significant for those with 1 to 6 years of education. Diabetes predicted cognitive decline over time in all domains, but visual scanning was the only domain significant at 65 years of age.

Discussion and Implications: The impact of diabetes on cognition is domain dependent and is greater for those between 1 to 6 years of education.

Translational Significance: These results can be used to promote targeted diabetes care education among those at higher risk for cognitive decline.
No Children, No Housing: Health Consequences for Latina and Hispanic Women

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Background and Objectives: Aging Latina and Hispanic women without children experiencing homelessness and housing instability have limited shelter and housing resources available to them in Tucson, Arizona. These women may have never had children, their children may be adults, or their children may no longer be in their care due to violence, legal matters, child custody issues, and immigration problems. They face significant mental, emotional, and physical health consequences that are further exacerbated when coupled with inadequate shelter and housing options. This study reports findings from a SAMHSA funded Mujer Sana ~ Healthy Woman project – a substance abuse, HIV/STI, hepatitis, and tuberculosis prevention and treatment enhancement program serving women experiencing homelessness and women enrolled in residential substance abuse treatment programs for women.

Research Design and Methods: Quantitative data with regard to housing instability and its broad consequences were collected during one-on-one interviews with participants at program intake, and at 3-months, 6-months, and 12-months post intake.

Results: Latina and Hispanic identified participants in this project (n = 226) lived in the southwestern United States in the US - Mexico border region. Findings detail the considerable extent of health related problems associated with homelessness, and a description of shelter and housing resources available to women without children in Tucson, Arizona.

Discussion and Implications: The mental, emotional, and physical health consequences experienced by aging Latina and Hispanic women without children experiencing homelessness and housing instability have bearing on a woman’s personal functioning, quality of life and ability to overcome homelessness. These barriers become more intense and are more challenging to address as women age, which highlights the need for housing dedicated to women living without children.

Translational Significance: Suggestions for advocates and service providers to prevent and assist aging Latina women experiencing housing instability and homelessness.
Living Arrangements and Cognitive Decline in the Mexican-American Population

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Backgrounds and Objectives: The prevalence of dementia in the elderly Latino population is expected to significantly increase from around 200,000 cases in 2000 to as many as 1.3 million cases in 2050. This demographic trend has important consequences for options in care and living arrangements. Very little is known about how of cognitive impairment trajectories co-vary with support available to Mexican Americans. We examine the relationship between living arrangements and the social support of individuals with dementia.

Research Design and Methods: Using data from nine waves from the 23 years of the Hispanic EPESE (n=3,952), we examine trajectories of cognitive functioning and family and social support. We first describe the change in Mini Mental Status Examination (MMSE) scores for survivors from Wave 1 (1993/1994) to Wave 9 (2015/2016), n=255. Growth Mixture Modeling (GMM) is then used to assess how changes in MMSE scores are distributed among living arrangements for individuals living independently compared to household extension (living with others) using the full sample.

Results: Analyses reveal different trajectories in MMSE score. 12% (n=27) of the sample had no decrease, while the remaining (88%) were split between moderate decline (60% n=136, 1-10 point decline in MMSE) and severe decline (28% n=62 >10 point decline in MMSE). Changes in living arrangement over the same period show that 89% of individuals who move from independent living into extended household experienced cognitive decline.

Discussion and Implications: This study provides new information on how cognitive trajectories are associated with living arrangements. We discuss implications for improving community-based interventions for Latino family caregivers.

Translational Significance: Where you live in late life matters. Health affects where you live but this research suggests that cognitive health is affected by where you live. There may be protective effects of living independently.
Latina Breast Cancer Survivors: Finding Strength and Resilience in the Cancer Experience

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Background and Objectives: This study describes the resilience, self-care and self-education characteristics of breast cancer Latina survivors in Southern California.

Research Design and Methods: This study analyzed qualitative data collected as part of a study of Latina breast cancer survivors in Los Angeles County. Data comprise 12 focus groups conducted in 2009 and 2010 with 74 breast cancer Latina survivors, 6 focus groups carried out in Spanish and 6 in English. This study involved a non-probability sample of 74 Latinas who were diverse in terms of demographic characteristics including age, stage at diagnosis, time since diagnosis, educational level, insurance status, and English-proficiency. Data were analyzed using a thematic analysis approach to identify and describe meaningful categories of breast cancer experiences expressed by focus group participants. The procedures included reading and summarizing the verbatim focus transcripts and comparing the summaries to prior coding conducted as part of the original analysis. Additional coding then commenced to address concepts that were not the subject of prior work. Common themes as well as variations in experiences are described.

Results: Preliminary analysis identified resilience strategies among Latina breast cancer survivors and differences in self-education and self-care between Latinas of varying acculturation levels. Preliminary resilience strategies identified include: family and friend support, faith community, maintaining positive attitude, pursuing healthful lifestyle changes and health education, and helping others. More acculturated Latinas appeared more empowered to educate themselves and be proactive in their recovery than less acculturated Latinas.

Discussion and Implications: Although this study identified notable differences (or within group disparities) in care experiences, it is important to recognize facilitators of strength and resilience in order to understand and disseminate strategies that support cancer survivors’ wellness.

Translational Significance: Findings from this study will help inform future cancer screening programs and interventions tailored to this population.
Nativity and Citizenship Effects on Older Adults’ Access to Care

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Background and Objectives: Building on recent work emphasizing the importance of considering nativity influences in research on health disparities, this study explores how nativity and citizenship status affect access to care.

Research Design and Methods: Using individual-level data from the 2011–2016 California Health Interview Surveys (CHIS), descriptive comparisons of US-born US citizen, naturalized citizen, and non-citizen older adults will be conducted to determine how, if at all, access disparities exist. Logistic regression models will be used to estimate nativity and citizenship associations with access-related indicators.

Results: In California, non-citizen older adults access health care at lower rates than citizen older adults. Relative to being a US-born citizen, being a non-citizen is associated with significantly lower odds of being currently insured, having a usual place to go to for health care, and having visited a doctor within the past year; and these effects persist even when controlling for a range of demographic and socioeconomic characteristics.

Discussion and Implications: Assuming the similarity of citizens’ and non-citizens’ healthcare needs, the continuation—and, for some indicators, the widening—of access differentials by nativity and citizenship status over time may potentially explain outcome disparities for older adults in the US.

Translational Significance: Nativity and citizenship matter for healthcare access, and warrant further consideration by scholars, policy makers, and providers interested in health disparities and immigrant populations.
The Role of Psychosocial Stress in Osteoporotic Fractures

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Background and Objectives: Aging related fracture incidence rate is greater among White women, but it is quickly increasing in Latina women. Additionally, mortality rates following hip fractures are higher in non-White women and may be related to treatment disparities. A better understanding of risk factors and mechanisms is imperative to address the increasing fracture burden among the rapidly aging Latina women. There is evidence that psychosocial stress increases fractures through stressed induced cortisol degrading bone mineral density (BMD). The objective of this study is to evaluate the role of psychosocial stress in altering BMD specific to Latina postmenopausal women.

Research Design and Methods: The WHI DXA cohort is a longitudinal cohort study in postmenopausal women in the USA including N=743 Latina women. Psychosocial stress was self-reported at baseline using three measures: Role Limitations due to Emotional Problems, Stressful Live Events, Social Functioning, Social Strain, and Social Support. Total Hip BMD was measured at baseline and year 3 using DXA. Descriptive cohort characteristics were compared on decreased BMD status. To evaluate the association between baseline psychosocial stress and decreased BMD we analyzed psychosocial stressors in log binomial models to estimate relative risk (RR) in Latina women.

Results: Confounders included age, BMI, education, and clinical trial arm. Social Support and Social Functioning were associated with decreased BMD in Latina women (RR=1.24, 95% CI: 1.07, 1.43 and RR= 0.99, 95% CI: 0.99, 1.00, respectively).

Discussion and Implications: For aging Latina women social network stress is associated with decreased BMD, supporting prior research indicating the protective effect of social networks to health outcomes in Latinos. This research suggests social network interventions may help to mitigate rising fracture rates in Latinos.

Translational Significance: Strong social networks are related to good bone health and may prevent fractures in Latinos. Fracture research should investigate the role of community cultural capital including social networks in Latino health.
Sexual and Reproductive Behavior among Aging, Near-Homeless Hispanic and White Substance-using Women

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Background and Objectives: Health is generally understood to be connected with age, socioeconomic status (SES), race and ethnicity. In order to best provide for all individuals, including those belonging to at risk populations, we herein assess socioeconomic background, knowledge and perceptions related to reproductive health among women with substance use issues.

Research Design and Methods: Data were collected by interviewing Hispanic (N=226) and White (N = 448) women currently using drugs and alcohol, prior to implementing a curriculum that provided information about sexual and reproductive health.

Results: The sample reflects a mixed aged population of very low SES and respondents indicating challenging life situations. Nearly every second woman disclosed being raped in the past. 92% of the women gave birth to at least one child in their lifetime. One fifth of the mothers gave up their child(ren) for adoption, and 10% experienced having at least one child removed by Child Protective Services. One out of eight women reported having three or more male sex partners the past 30 days. Over 33% of women were diagnosed with one or more sexually transmitted infections (STIs) once in their lifetime. While a majority believed that male condoms (67%) and other barrier contraceptives (45%) are effective to prevent HIV infection, surprisingly many (35%) believed that hormonal contraceptives, spermicides, vasectomy and/or tubal ligation are somewhat or very effective in preventing HIV infection.

Discussion and Implications: Our study demonstrates the compounded challenges women in this study group face, suggesting that efforts to help these women should be holistic, and not focus only on singular aspects. Future analysis will test the hypothesis that older individuals, in both the Hispanic and White groups, preferentially take greater ownership regarding the use of contraceptives and sexual behavior to prevent STIs due to their greater life experience including own encounters with contracting and living with a sexually transmitted disease.

Translational Significance: Such baseline data as reported in this study are required to understand, promote and improve health outcomes over the life course, and particularly as at risk populations age.
Use of the Cultural Space of the Elderly in Guadalajara, Mexico City and Monterrey

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**Background and Objectives:** The work offers information about a less studied topic regarding old age in Mexico, specifically, about the use of cultural spaces by elderly people. By use, it is understood not only the visits by older people, but also, as will be seen, use is also the significance of volunteering, looking to go to museums to create and recreate their social capital and continue, or begin, to nurture their cultural capital. The work is guided under the lines of active aging, in which mobility, autonomy and access to culture are fundamental human rights for the elderly. Special attention is given to three states in Mexico and its major cities: Guadalajara, Mexico City and Monterrey.

**Research Design and Methods:** The database used for analytics is the 2016 Museums Statistics, managed by the National Institute of Statistics and Geography. This database allowed us to analyze and crosstab a variety of variables along with age as the control variable.

**Results:** The results show that there is a significant number of older people who attend museums, as well as, who help and work as volunteers in museums. A relevant result show that some of the attendees to museums declared to be interested in cultural spaces due to motivation during their childhood. This fact should be compared with recent generations.

**Discussion and Implications:** Even though, public policies (federal and local) should promote more ways to the information and access to the elderly for these facilities in order to engage and encourage active aging in Mexico and to promote generational and social connectedness for elderly people. Interest and assistance to museums, and cultural spaces, lack of studies and comparisons in Mexico, especially for the third age group. Implications on this kind of studies should point to social connectedness of the elderly and intergenerational interaction.

**Translational Significance:** Research on the use and access to cultural activities and expressions among elderly should improve and disseminate its importance as tools to connect them with the society, their context and with other generations.
Initial Findings from the Evaluation of Recuerdos Perdidos/Lost Memories, a Telenovela for Caregivers of People with Alzheimer’s Disease

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**Background and Objectives:** The number of Latinos with Alzheimer’s Disease (AD) is expected to grow by 832% by 2060, yet, there is a lack of understanding of the disease. The Alzheimer’s Association of Greater Los Angeles launched a bilingual, telenovela-style video series entitled “Recuerdos Perdidos/Lost Memories” to increase awareness and educate Latino caregivers about AD. Through sharing the story of a Latino family as they experience their grandmother’s decline with AD, it provides information about AD, explains the warning signs of the condition and process of getting a diagnosis, outlines the disease progress and what to expect, as well as ways to access supportive services. This poster presents findings from an evaluation conducted with viewers.

**Research Design and Methods:** Individuals responded to surveys after having watched the telenovela during an in-person caregiver training session or online.

Results: The majority of the viewers (n=328) were age >65 (66%), female (75%) and identified as Hispanic/Latino (55%). Almost 90% of the participants stated that watching the telenovela helped them understand what AD was, and to recognize the signs of AD (86%). 84% stated that watching it helped them understand the process of getting a diagnosis and to see how the disease affects the whole family (91%). Similar results were found among online viewers (n=129). In thinking about feelings before and after watching this telenovela, both groups showed significant decreases in their level of embarrassment and ability to criticize AD related behaviors.

**Discussion and Implications:** This telenovela appears to facilitate information for Latino adults about the signs of AD, getting a diagnosis and how the disease affects the family. It also appears to reduce stigma around the condition.

**Translational Significance:** The “Recuerdos Perdidos/Lost Memories” telenovela can serve as a culturally appropriate, psychoeducational resource that can be used to address lack of understanding about AD which can lead to stigma.
Effectiveness of a Psychoeducation Program Based on Family-Systemic Therapy

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Background and Objectives: Families need a comprehensive attention to provide high-quality caregiving to older adults. The constant need of adaptation of family members to multidimensional responsibilities demands ways of preventing and resolving family conflicts; nevertheless, supportive strategies are usually aimed at primary caregivers. This pilot study had the purpose to design, implement and evaluate the short-term effects of a psychoeducation program to improve family communication and decision-making regarding health care practices for older adults.

Research Design and Methods: Between 2016 and 2017, we conducted a pre-experiment, using a single group, pretest-posttest design. 16 family caregivers, from 5 families, joined a five-session workshop delivered in their homes. Participants filled out a 56-item survey on family caregiving needs of older adults and agreed to be video recorded during communication activities planned in each program session. Data were analyzed by using a mixed methods approach.

Results. Family caregivers were all women aged 40 to 71 years, 87.7% were offspring and 12.5% were living with their parents (aged 80.0 ± 6.69 years). We identified a significant difference within the pretest and posttest assessment of effective communication: in the “comprehensive family care planning” activity (Z=2.422, p<0.05) and in the “hypothetical situation” activity (Z=3.289, p<0.05); also, a significant difference was found in the non-effective communication component: in the “choosing healthy snacks” activity (Z=2.07, p<0.05).

Discussion and Implications: The psychoeducation program increased effective communication between caregivers (positive connotation, opinion expression, and negotiation techniques); meanwhile, it decreased non-effective communication (criticism, hostility and inflexibility behaviors). Further studies with higher sample sizes should also incorporate multi-center design and test long-term effects of this type of intervention in both caregivers and care receivers.

Translational Significance: The findings suggest that families may benefit from psychoeducation programs that work with family dynamics and promote collaboration to meet their needs through life course.
Medication Adherence among Chronically Ill Hispanic Patients: A Comparison of Adherence Strategies

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Background and Objectives: Prevalence of chronic disease is high among low income, diverse patients. Medication adherence is a key component of chronic disease management, hence the need for its assessment.

Research Design and Methods: Using data from the Medication Adherence, Health Literacy and Cultural Health Beliefs Study, we examined medication adherence within Hispanic participants ages 19-69. Participants (N=100; 49% female), recruited from a federally-qualified health clinic, reported at least one chronic disease: hypertension (58%), dyslipidemia (37%), diabetes (44%), depression (47%), and anxiety (22%). Thirty eight percent had not completed high school, 18.2% were homeless, and 58% had monthly incomes under $1000. We asked participants what strategies they used to remember to take their medications and what strategies helped them ascertain whether they had taken them.

Results: Results indicated that participants did not adequately adhere to their medication (54% based on self-report). The youngest age group (19-30 years) had the lowest rate of medication adherence (25%), while the oldest age group (61-69 years) had the highest (67%). We asked participants what strategies they used to remember to take their medications and what strategies helped them ascertain whether they had taken them. Participants reported a variety of methods including memory or reminders, pill organizers, routine, other people, and body cues. Expectedly, responses varied by age group. Notably, all groups similarly used memory or reminders but, patients 19-30 years old were less likely to use pill organizers (11%) and routine (11%) than older patients (20%-44%).

Discussion and Implications: This study demonstrates consistency and variation across age groups in relation to medication adherence strategies. Age appropriate medication adherence strategies can prove beneficial to chronic disease management.

Translational Significance: The use of different adherence strategies and how they are impacted by age-related cognitive strengths and limitations should be considered when healthcare providers counsel patients on best practices regarding their medication regimens.
Gender Differences in End-of-Life Care in Older Mexican American Adults

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**Background and Objectives:** Disparities in end-of-life (EOL) services use (e.g., hospice) among older Mexican Americans (MAs) are well documented. A systematic integrative literature review was conducted to investigate factors that influence access to EOL services among older MAs and their families, and to identify existing knowledge gaps related to EOL services use.

**Research Design and Methods:** Using keywords hospice use, hospice care, EOL care, attitudes toward EOL, Hispanics, Latinos, or MAs in CINAHL and PubMed, resulted in 233 unduplicated articles. The final sample (n=20) included reports written in English that involved participants aged 50 years and older who identified themselves as MA. Reports where MAs were not equally represented in the sample were excluded. Content analysis was conducted using a priori codes from the Ethno-Cultural Gerontological Nursing Model (ECGNM).

**Results:** Findings suggest that older MA women are less positive towards life-sustaining technology (LST); whereas older MA males were more positive about using LST treatments. Reports also indicate that older MA women appear to trust the health care system to honor their wishes at EOL, as compared to older MA males who expressed feeling disempowered, fear harm, and seek protection from the health care system at EOL.

**Discussion and Implications:** Gender differences related to EOL were discovered in eight of the 20 articles suggesting that gender is a significant factor associated with EOL care. As the older MA population increases, tackling disparities in EOL services use requires attention to how gender influences EOL care.

**Translational Significance:** These findings are significant for public health because it challenges the notion that all Latinos, regardless of age, gender, and subgroup, experience EOL in the same manner. This review cautions healthcare providers, researchers, and policymakers against assuming the one-size-fits-all approach to EOL decision-making. Older MAs have varying life experiences that are influenced by different factors such as ethnicity, gender, and culture.
Hispanic Advantages in Later Life Disability: New Insights on Nativity and Social Support

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Background and Objectives: In attempt to explain Hispanic health advantages in later life, the literature commonly suggests that social support specific to Hispanic/Latino families may be protective for health. Yet empirical tests of the social support hypothesis have been limited by a lack of social network data from representative samples with immigrants. This study innovates by incorporating social network variables, as well as measures of local residential context, to test whether social support drives Hispanic advantages in disability in later life.

Research Design and Methods: We draw data from the National Social Life Health and Aging Project, a nationally representative sample of community-dwelling older adults in the U.S. and one of the only sources of information on older adult social networks. Using multiple logistic regression, we estimate the odds of disability in the activities of daily living. We stratify all models by nativity. We use these models and a descriptive analysis to explore whether Hispanic dis/advantages in later life disability are explained by acculturation, social network characteristics, or local context.

Results: Consistent with previous work, we find that, among U.S.-born older adults, Hispanic ethnicity is associated with lower odds of disability. But the effect of Hispanic ethnicity on disability is reversed among immigrants, becoming disadvantageous. We find evidence that local instrumental support, and not individual social network characteristics, is protective for disability.

Discussion and Implications: This study provides evidence that nativity is an important moderator of the effect of Hispanic ethnicity on disability risk in later life. Living in a place where neighbors help each other is protective against disability and partially mediates the association between Hispanic ethnicity and disability among immigrants. By distinguishing between nativity and ethnicity, our research highlights the relative nature of Hispanic health advantages and the need for further research on residential contexts.

Translational Significance: Discrimination may place Hispanic immigrants in neighborhoods with more poverty and less support, putting them at greater risk for disability than other immigrants to the U.S. Rather than having a large social network, it appears that living in a community where one can count on neighbors for help reduces risk of disability among older adults.
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