Annual Report

Conference Series on Aging in the America: United States and Mexico

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Executive Summary

The third installment of the international Conference series on Aging in the Americas (CAA): "Biobehavioral Underpinnings and Social Interaction on Hispanic Health" convened from September 15 to September 17, 2009 at The University of Texas at Austin, AT&T Executive Conference Center.[1] The meeting brought together nearly 200 participants, including many of the world's leading researchers in older people of Mexican-origin from academia, science, and policy disciplines. The 2009 international CAA focused on critical issues in Hispanic health and health care policy with a special emphasis on older people of Mexican-origin in the United States and Mexico. Conference participants came together to discuss health issues facing the elderly Hispanics, including an aging boom brought on by large waves of Mexican immigrants. The ultimate goal was to develop a consensus agenda containing state-of-the-art research on how social, biological, and behavioral factors work in concert to create unique patterns of healthful aging for this underserved and understudied ethnic group.

The Conference was co-organized by a team of four Investigators: Principal Investigator, Jacqueline Angel and her Co-Investigators Kyriakos Markides, Fernando Torres-Gil and Keith Whitfield. During the Conference, participants used an interdisciplinary lens to discuss the unique situational factors and cultural behaviors that interact to impact the health and functioning of aging Mexicans from a bi-national perspective. Improved nutrition and living conditions have increased life expectancies at all ages in both countries. Despite improvements in general health levels in both the U.S. and Mexico, access to preventive and acute care remains problematic for many older Mexican-origin individuals in the U.S. For older Mexicans access to the full range of health care services is clearly superior in the U.S. than in Mexico. In Mexico high rates of poverty and a fragmented health care system place poor elderly individuals at risk of inadequate care. In the United States, despite nearly universal Medicare coverage, poor elders without supplemental Medigap policies often lack full access to high-quality health care. At all ages, the Mexican-origin population is the most inadequately insured subgroup in the United States. A large body of research shows that adequate coverage is clearly associated with better health and, on the other hand, a lack of coverage results in negative health outcomes. The papers were commissioned to compare the biobehavioral dimensions of health levels of individuals with roughly similar socioeconomic and cultural profiles in Mexico and the U.S. to begin to determine how structural factors relate to overall socioeconomic well-being and access to health care of older people of Mexican-origin. The participants shared experiences, gained knowledge, built new research networks, and broadened awareness of the potential methodological pitfalls of Hispanic heath and aging research. In addition, the invited speakers clarified and elaborated on a number of specific recommendations for action to further transdisciplinary approaches needed to develop new research agendas on Hispanic healthful aging. Throughout the course of the conference, participants were encouraged to develop a consensus on healthy aging in order to reduce the risk of poor health in the Hispanic population, an initiative supported by NIH Healthy People 2010. This third conference on Aging in the Americas, like the first two, focuses on

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- [1]The CAA Advisory Group used an NIA planning grant to meet prior to the third installment of the NIA-funded conference in Detroit (May 1, 2009) and Baltimore (November 20, 2008) and discuss the agenda for the September conference meeting in Austin, Texas.

Hispanic health but this time with a particular focus on the interaction of biological and social factors as they affect individual and group health levels. Environment/organism interactions have interested health researchers for decades, but more recently the mapping of the human genome has given rise to the possibility of a new depth of understanding in how individual genetic factors interact with environment to affect health and possibly other aspects of human behavior. Understanding how environmental factors interact with biological factors to affect health and other outcomes is a major undertaking because of the inherent complexity of the systems that we must deal with. Although twin studies have shown us that almost all aspects of human behavior have a genetic component, finding a single polymorphism or gene that accounts for individual differences is usually impossible since in most diseases, multiple genes act together in complex interactive ways. Defining and delineating the environment in which organisms live is also a challenge. Although characterizing the environment of fruit flies might be simple, for humans the environment includes the social, cultural, political, and economic systems that immediately affect our lives. Other difficulties arise in defining and delineating outcome measures, in the case at hand, health or disease, especially when those outcomes are social constructions, such as antisocial behavior.

With this in mind, the Conference organized the presentations along three thematic areas: developmental origins of healthful aging, biology and health-related behavior in the Hispanic population, and how social mechanisms interact with genetic biomarkers to impact the physical and mental health of older people of Mexican origin. In addition to the paper sessions, a consensus building discussion focused on the key findings, identifying areas of agreement, gaps in the literature, and new directions in research. The conference also included a juried poster session for graduate students and emerging scholars.

What follows next is a summary of the Conference, including the presentations, the outcomes of the consensus building session, and the overall evaluation by the external reviewer. The last section of the report provides an overview of planning activities for the fourth installment of the international CAA.

I. Background

The impetus for the conference comes from the growing recognition of health disparities in the Hispanic population. Hispanics are the fastest growing demographic group in the United States, representing one out of every six Americans. In the United States, non-Hispanic whites over the age of 65 may triple in the next 40 years, but the steep growth in the percentage of Hispanic people may increase by an 11-fold. Demographers estimate that the number of older Hispanics (65 years and over) is expected to triple by 2050 to 12.5 million. Because a greater proportion of older Hispanics will be from the Southwestern states' large immigrant population, especially those from Mexico and Central America, providing cost-effective and appropriate services to Hispanic elders will require a clear understanding of the inter- and intra-diversity of health care needs in different social circumstances. Although Mexico remains young as the result of high fertility the population over the age of 60 is also growing swiftly.

For these reasons, the international Conference Series on Aging in the Americas (CAA) is addressing critical issues confronting the aging of the Hispanic population. The field of

Hispanic health and aging in particular is urgently calling for research from an interdisciplinary and comparative perspective to inform specific public health interventions related to disease prevention and to identify improvements to public health systems that will protect the health of this understudied group. The conference series comes at a time when Hispanic health care for older adults is emerging as a profound important state budget and policy issue.

II. Findings and Conference Highlights

The conference presentations represent important transdisciplinary work and integrate biological, behavioral, and social factors that contribute to health and productive aging in older people of Mexican-origin in the United States and Mexico. In his after dinner talk, *Ronald Angel* covered a number of critical areas of biology and behavior. He addressed vital concerns about where genetics is with respect to scientific contributions to behavior. From his viewpoint, the real challenge was posed as a core question: To what extent do individual Hispanics control their lives and their health and to what extent are their lives and their health affected by factors outside their control, including genetic factors? The question takes on particular salience when one's ability to control one's life is constrained by social class factors related to historical disadvantages based on race and ethnicity. It is clear that the health problems of Hispanic subgroups must be addressed from multiple levels of analysis, and intervention and hopefully this conference can help illuminate the various possibilities. Approaches that focus solely on the individual or biological levels run the risk of failing to understand or deal with the impact of macro structural factors that determine group-specific educational and occupational opportunities and disadvantages, as well as the living and work conditions that expose individuals and communities to occupational and environmental pathogens.

On the other hand, approaches that ignore biology fail to take advantage of opportunities to refine individual risk profiles. The new interest in genetics is fueled to a large extent by the fact that using standard survey-based self reports of health behavior, illness conditions, and health outcomes has failed to comprehensively address the problem. At the appropriate level of analysis an understanding of the interaction of genes and environment offers great promise, especially in more accurate identification and understanding of risk. We know that Mexican-origin individuals are, as a group, at elevated risk of diabetes and its complications. Yet, like all human populations, the Mexican-origin population is highly outbred, and the ethnic label itself represents more of a political label than a meaningful genetic or medical category. The promising contribution of genetics is in allowing us to more accurately identify those individuals at highest risk of specific diseases and their complications. It might also make more targeted and effective interventions possible. For example, if someone identifies himself or herself as a Mexican or Mexican American a physician tests glucose levels and perhaps looks for other markers, such as glycosylated hemoglobin. A better understanding of genetics holds out hope for better prevention and treatment of disease. More studies are needed to address the question of how knowledge of group membership can be combined with biological and social factors to help understand the unique health risks of older Hispanics.

In his Keynote Lecture, *Mark Hayward* presented an engaging lecture that provided useful information on the developmental origins of healthful aging among Hispanics. Dr. Hayward raised important issues concerning the Hispanic paradox and other similar mortality

studies, particularly on the precautions of the problems in interpreting mortality information. He strongly encouraged interdisciplinary work with biologists to create a complete picture. He ended with a call for action to investigators in the social sciences to partner with those of us in the biological sciences given that work can be enhanced through collaboration.

Two of the papers addressed the subject of international differences in obesity. This is of great interest to researchers in Hispanic aging and other special populations. *Anthony Comuzzie* examined genetics and cultural influences on obesity in Hispanic Americans. His talk focused on purely genetic issues and provided useful examples to the neophyte social scientist interested in genetic issues. His findings show that the prevalence of obesity in Mexican Americans increases with age and also results from the increased prevalence of coronary vascular disease and type-II diabetes. T2DM obesity represents a complex condition with multiple associated phenotypes; that the patterns of observed variation in these traits results from both environmental (e.g., quantity and quality of food, reduced physical activity) and psychological stress factors as well as genes, however. Multipoint linkage analysis to search for quantitative trait loci (QTLs) have been identified in adult Mexican American populations, and thus effects the expression of numerous obesity related traits. His findings show that positional candidate genes for several of these QTLs have identified several SNP biomarkers with significant associations.

Eileen Crimmins in her analysis of the Mexican Family Life Study reached a similar conclusion. She examined the linkages between social circumstances and bio-behavioral health in Mexicans. Her results reveal the complex and nuanced problems with the measurement of acculturation/assimilation in the Mexican population, particularly how it relates to high levels of physiological dysregulation in weight and hypertension across the adult life cycle. Mexican women with low education tend to have higher weight than the lowest but less than the highest. Obesity and overweight are the strongest predictors of hypertension. The researchers also identified a substantial group of undiagnosed people. Future research needs to investigate the mechanisms explaining the lack of diagnosis, such as system-level factors. The results also point to elaboration of the model using biomarker data, such as dried blood spot screening to estimate cardiometabolic risk.

Hector Gonzalez and colleagues presented new evidence supporting a non-linear association between acculturation and health over the life course of older US Mexicans. They found that higher acculturation was associated with fewer problems with biomarkers of the metabolic syndrome, which is different from what is seen among younger adults. Higher socioeconomic position and healthcare access explain some, but not most of the relationship between acculturation and biomarkers of the metabolic syndrome. Dr. González and colleagues used data from the Sacramento Area Latino Study on Aging (SALSA).

Sylvia Mejia Arango provided much needed new information from the Mexican Health and Aging Study (MHAS) on the prevalence and incidence rates of cognitive impairment in the Mexican population 60 and over. With an increasing older population worldwide, particularly in the western hemisphere and in countries such as Mexico, Canada, and the United States mild and severe cognitive impairment represents major public health problem. Physical co-morbidities increased the overall risk of dementia (5.7 percent and 29 percent for cognitive impairment without functional limitations). The major factors associated with decreased cognitive

performance in the older Mexicans include: age, exercise (mental and physical), vascular diseases, such as diabetes and hypertension and related vascular risk factors such as hypercholesterolemia, and APOE genotype.

On the last day of the conference, *Carlos Mendes de Leon* presented new descriptive data on late-life Hispanic health in the rapidly growing number of older Hispanics in the Midwestern United States. This is the first study to document geographic variation in disability across the United States. The results show that elderly Hispanics display more diverse backgrounds than in the Southwest region, which has important implications for aging in place. He recommends that future studies go beyond description to focus on causal mechanisms of modifiable risk factors. The collection of more systematic information on health risks and health disparities in older Hispanics in the Midwest could translate into interventions that focus on important differences within subgroups populations across different regions.

Maria Aranda used triangulation to examine frailty in Mexican Americans ages 75 and older. Using the fifth and sixth waves of the H-EPESE, she documented the protective effects of Mexican-origin communities in the southwestern United States on disabling illness (i.e., physical frailty). In addition, her lecture on cognitive frailty in Mexican American populations focused on the qualitative nature of declining health in older Hispanic-Americans. This study discerns richly textured elements in clinical interviews of elderly Mexican Americans suffering from clinical depression. The results underscore how this approach yields valuable information about cultural influences on mental illness. Structured questionnaires used are inappropriate giving the nature of the response task for detecting depression, anxiety and related mental disorders in elderly Mexican Americans. Dr. Aranda offered a compelling argument for new investigations addressing the cultural dimensions of mental health among Hispanic subgroups. *Kyriakos Markides* provided an overview of the Hispanic- EPESE highlighting new longitudinal findings of Mexican Americans aged 75 and over in five Southwestern states: Arizona, California, Colorado, New Mexico, and Texas. The major trends suggest that over time aging is associated with a higher prevalence of hypertensions, diabetes type II, ADL-disability, and cognitive impairment. The rates of disability and death due to stroke, cancer, and hip fracture may dissipate, however, with Hispanics living in more ethnically cohesive neighborhoods.

Veronica Montes de Oca examined the migrant experience among Mexican migrants. This work is groundbreaking because it is truly "bi-national" and covers the life course model in a systematic way. Also, it was comparative because it covered the effect of Mexican migration on health of older immigrants in both countries (U.S. and Mexico). Her qualitative data consisted of 18 interviews with Mexican migrants who returned to Guanajuato, Mexico (16 men and 2 women) after living in the United States. These richly textured data demonstrate the complex ways in which isolation in labor camps often leads to depression, alcoholism, and loneliness. These events became part of the accumulated life course of the aging migrants and intersect with childhood experiences, community of origin and destination, social networks, and labor activities, all of which influence the perception of health in old age.

Julio Frenk's cyber presentation on human security and health at the border underscored the implications of the effect of Mexican migration on health. He gave a thoughtful, well-delivered talk on the policy of health security among Mexicans and Mexican Americans on both

sides of the U.S./Mexico border. It was not a scientific talk, but a plea for health security and human rights. It included some "personal" political comments and views, with rhetorical linkages to the current administration bill on health care. The external reviewer commented that the topic of border health security, while contentious, might be an exciting topic for a forthcoming conference which is planned for 2010 on social, psychological, and biological factors that impact the acute and chronic care health care needs, especially long-term services of Hispanic elders.

In his Closing Keynote Lecture, *Luis Miguel Gutierrez*, Director of the Mexican Institute of Geriatrics stated that the growth of elderly population in the United States in Mexico presents a new challenge to health systems and family support networks in light of high rates of poverty, and profound inequity in access to services. He argued that future research needs to build upon and add to the biomedical model of disease and illness to include a broader definition of "ecological health" that would consist of a more comprehensive and useful approach to promote Hispanic healthful aging. Promising avenues includes empirical and clinical studies focusing on institutional and structural factors that prevent and postpone the onset of chronic disease. He underscored that adopting a life course perspective is critical for understanding ways to address disparities in physical and cognitive frailty, regulation of the metabolic syndrome (e.g., dyslipidemia, hypertension, glucose intolerance), and senile dementia of the Alzheimer's type in the Mexican-origin population. He called for urgency in recognizing the growing importance of the "dual burden" of disease (acute and chronic) in Mexico for geriatric care, particularly primary care, which requires better coordination, and more appropriate patient-centered care to achieve diabetes control, cancer screening, and weight management. The Institute's ultimate goal is to become a global leader in designing a fully integrated health and long-term care infrastructure for older adults. To facilitate these efforts, new opportunities will be created for networking across basic, clinical and social scientific research settings in Mexico and with countries worldwide.

III. Consensus Building Session

The consensus building session for the third international Conference series on Aging in the Americas (CAA) was held on the third day of the conference, September 17, 2009, between 2 and 4 pm. Conference Co-Presiders Drs. Kyriakos Markides and Keith Whitfield fielded questions from the audience, and discussion moderated by Jacqueline Angel. Four graduate student scribes documented the session on laptop computers and a mark-up board for the audience to view. After the session, graduate student scribes consolidated the notes recorded by computer and on the mark-up board in order to generate a report (notes were reviewed by Principal Investigator Jacqueline Angel).   In addition to the three main investigators and the four graduate student scribes, the session included 30 participants, including academics, scientists, and policy makers from the U.S. and Mexico. This combination of different disciplinary perspectives, including sociology, psychology, economics, biology, medicine among others served to enrich the multidisciplinary conversation on critical issues in Hispanic health and aging with an emphasis on people of Mexican-origin.

Areas of agreement

Major themes were delineated from the two hour session: these included a systematic analysis of the following major points that were reached by consensus by participants, shown in Table 1 below. Many of these issues were highlighted by *Sidney Stahl* in his presentation, which provided valuable insights about the funding trends at the NIA and related issues.

Table 1. Points of Agreement in Hispanic Healthful Aging
▪ Understanding the intersection of genes and environment on Hispanic healthful aging to enable more accurate identification and more targeted interventions
▪ Health literacy among both English and non-English speaking patients, and the improvement of health communication between doctors and patients
▪ The effect of coping and resilience processes on health trajectories
▪ Comparing socially constructed vs. objective measures of Hispanic health in the U.S. and Mexico
▪ Disentangling the effects of Hispanic ethnicity, nativity, and social class on the aging process itself

Substantive (Genetic, Biobehavioral, Social/cultural). Understanding the intersection of genes and environment on Hispanic healthful aging. The promising contribution of genetics is in allowing us to more accurately identify those individuals at highest risk of specific diseases and their complications. It might also make more targeted and effective interventions possible. For example, if someone identifies himself or herself as a Mexican or Mexican American, a physician tests glucose levels and perhaps looks for other markers, such as glycosylated hemoglobin. A better understanding of genetics holds out hope for better prevention and treatment of disease. More studies are needed to address the question of how knowledge of group membership can be combined with biological and social factors to help understand the unique health risks of older Hispanics. For these reasons, participants agreed that it is crucial to focus on individual health through genes to build a more accurate picture of the health of the Hispanic population.

Examining the importance of health literacy and health communication for public health policy and interventions. Non-English speaking patients can experience problems when attempting to receive care from an English-speaking doctor. While patients may abuse prescribed medications, doctors may also abuse their power in prescribing them. Language barriers, age differences, and the doctor's mission training may affect this abuse. Health literacy problems exist irrespective of Spanish language barriers; even English-speaking patients can experience health literacy problems. There is a correlation between health literacy and obesity, with those who are less literate being at higher risk for being obese. Fidelity in communication is also a key factor associated with healthful aging in Mexican-origin communities along the Texas/Mexico border. Health literacy should be considered in addition to the individual's responsibility in seeking care.

Co*ping and resilience* are important aspects of dealing with environmental and biological conditions. Cultural identity may introduce a variety of emotions, some repressed. Given the same environmental and biological conditions, two individuals with different levels of resilience will have different health trajectories; resilience involves perception. Resilience also involves the mobilization of social capital, for example, as people have tended to do after farm crises; however, researchers should also recognize what social dimensions of family (or *familia*) configurations are harmful. Additional research is needed on the role of religion/spirituality on health.

Methods. Defining *health as a social construction but to also consider objective health indicators*. Mexican-origin families often do not believe in acknowledging sickness until it gets critical; there is some denial in acknowledging that a person is "sick" in Hispanic communities. *Assessing the effects of race/Hispanic ethnicity, nativity, and social class must be disentangled from the aging process itself*. Immigrants have higher rates of disability after age 65, but ethnic disparities in the aging experience tend to decline with age.

The extent to which future studies on Hispanic or Mexican-origin health outcomes can deal with *individual differences in disease susceptibility* are limited because detailed information on risk factors other than self-reported risk behaviors and family and personal health history are not readily available. Both theoretically and practically then it is imperative that we deal with the very real problems involved in the combination of different levels of analysis. The problems in explaining higher-order structures on the basis of lower-order phenomena are today the same as those that have bedeviled other theorists and researchers historically. The philosophical concept of emergence refers to the fact that the behavior of higher-order systems cannot be predicted from the characteristics of their constituent elements. When we are dealing with hugely complex collective and organizational phenomena, explanatory models must include, or even be restricted to, relevant system-level predictors. Relating depressed group educational attainment to characteristics of individuals places us at risk of a logical fallacy and potential racist bias that have tainted the debate on race differences in IQ and the Eugenics movement. The combination of variables or explanatory factors from different levels of analysis can produce serious confusion. Furthermore, while a mulitidisciplinary approach is ideal, it may also be an unrealistic or difficult goal for researchers.

New Directions

Table 2 provides a list of several new directions for research. First, it is clear that a growing need exists for a *multidisciplinary approach* to study the *unique experience and healthful aging of subgroups of the Hispanic person in the United States*. Demography is not destiny, but demographic differences in population diversity are important considerations. The Hispanic population is becoming the largest U.S. subpopulation, rapidly increasing in size.

As life expectancy increases, the burden of diabetes on society significantly increases. Second, Hispanics should not be considered a monolithic group. For example, Puerto Rican immigrants tend to be more disabled than other immigrants, and their immigration experience is different from that of Central Americans. Third, within-group racism and social stratification

based on multiple social criteria can also explain unequal access to health and social services in the older Mexican-origin population.

The *effect of child health behaviors on subsequent risk of obesity*. Health-related behaviors combined with increase exposure to stress in childhood leads to obesity for people of Mexican-origin in late life. Recent Mexican immigration can be considered a serious social stressor in mental health in late-life migrants in the U.S.

Table 2. New Directions in Hispanic Health and Aging
▪ unique experience and healthful aging of subgroups of Hispanic people in the United States and Mexico
▪ influences of the immigrant family experience on healthful aging (e.g., immigrants as a source of caregiving, etc.)
▪ effect of negative child health behaviors increases risk of later-life Mexican-origin obesity
▪ dynamics of immigration processes, including emigration from and reimmigration to Mexico when examining late-life health problems
▪ effects of immigrant selection, including lower rates of immigration among the elderly
▪ multidisciplinary approach (i.e., study multiple social criteria, the environment, and biomarkers/genes at different points in the adult life course and over time).

Understanding the influence of the immigrant family experience on healthful aging. Audience members mentioned various aspects of the immigrant experience: worksite raids, establishment of detention centers, parents not knowing the status of their children, hatred against immigrants, adapting one's understanding of health to that of a new country, immigrants as a cheap source of caregiving, etc. All of these factors have a profound important impact on stress. Health problems may be declining in Mexico because of emigration, and rates of return to Mexico should also be taken into account. Researchers studying immigrant health should consider influences of immigrant selection, including lower rates of immigration among the elderly.

IV. Poster session abstracts of winning papers.

In addition to the invited scientific paper sessions, the conference organized a poster session for the emerging scholar mentorship program. The poster session was designed to attract students and post-doctoral trainees to the meeting. The event showcased poster presentations by emerging scholars whose abstracts were reviewed and selected for display at the conference. For a complete list of abstracts and conference presenters see www.utexas.edu/lbj/caa

According to the external reviewer, the poster session was well-received and one of the highlights of the conference. The main reason for this is that the scientific poster session gave graduate students, post-doctoral trainees, and geriatric fellows a venue for presenting their

original work to the community at large. In this setting, the interaction between faculty and emerging scholars helped to foster intellectual development and mentoring opportunities among emerging scholars. Organized again by Dr. Terrence Hill and employing the same format as the 2005 conference, the poster session served as a medium for conveying information to emerging, mid-career, and senior Hispanic health and aging scholars as well as policy makers. The procedure of selection and appropriate content of the posters was determined by a panel of peer-reviewers which consisted of one Advisory Group member and other selected experts on the topic. The criteria used to accept abstracts included empirical research projects that reported actual, not promised, results about aspects of healthful aging among people of Mexican origin or Hispanic background in the United States and Latin America. To promote and ensure continuity across conferences, each poster session included the following themes: 1) Aging and Health in Mexico and the United States; 2) Aging policies and Hispanic Health and Long-term Care, and 3) Biobehavioral factors and Hispanic health. The poster session also provided individuals an opportunity to present a poster on applied research they have conducted on new or different methodological techniques used to improve understanding and knowledge that may inform effective behavioral interventions, preventive health practices, and geriatric care arrangements. To facilitate one-one-one interaction and networking, the poster presentation was held just outside the Lecture Hall where all participants were located to assure maximum interaction. We should also note that a mentoring program reception and dinner was held immediately following the invited speakers on Wednesday to facilitate further feedback on the work presented at the poster session.

Seventeen emerging scholars from the United States and Mexico presented peer-reviewed research on Hispanic health and aging in a poster format. Three judges (Dr. Terrence Hill, Dr. Steven Wallace, and Dr. Rebeca Wong) evaluated the work based on the following set of criteria:

1. BACKGROUND   0 1 2 3 4 5 _____
Does the poster present relevant/ appropriate background research/theory?
Are the aims of the project, including research questions and hypotheses, clearly stated?
Are the aims of the project relevant/ original/ appropriate/ important?

2. METHODS   0 1 2 3 4 5 _____
Does the poster adequately describe the data source?
Are the data appropriate given the aims of the project?
Does the poster provide an analytic strategy?
Is the analytic strategy appropriate given the data source and project aims?
Does the poster adequately describe the data analytic procedures?
Are the data   analytic procedures appropriate given the data source and project aims?

3. RESULTS   0 1 2 3 4 5 _____
Are the results clearly presented?
Are the results adequately described in text format?
Is the presentation of results relevant/ appropriate given the aims of the project?

4. CONCLUSION   0 1 2 3 4 5 _____
Are key results adequately summarized?
Is each project aim/research question/hypothesis adequately discussed?

Are ambiguous results adequately addressed?
Does the poster adequately consider relevant theoretical and/or policy implications?
Does the poster discuss reasonable avenues for future research?
Are all concluding remarks valid (i.e., supported by the data)?

5. PRESENTATION   0 1 2 3 4 5 _____
Is the poster adequately designed (i.e., clearly organized and easy to navigate)?
Are tables and text readable/neat/attractive?
Are tables and text free of spelling and/or grammatical errors?
If questions were asked, were they adequately addressed?

TOTAL POINTS _____

The following winners placed in the top three award categories:

First Place

Adina Zeki al Hazzouri, University of Michigan and Mary Haan, University of California, San Francisco

Nativity, Childhood Socioeconomic Status And Late Life Health: A Comparison Of Cognitive Performance In The Mexican Health And Aging Study (MHAS) And The Sacramento Area Latino Study On Aging (SALSA)

Background. Growing evidence suggests that childhood socioeconomic status (SES) influences late-life cognition. Migration and nativity may influence the association between childhood SES and late life cognition. **Method**. This analysis compares the cross sectional association between childhood SES measured as mothers or father's education and performance on a standardized scale of the delayed wordlist recall (DELREC) in the MHAS and the SALSA studies. Participants education was tested as a mediator for the association between childhood SES and cognitive performance. Nativity (birth in Mexico or the US) and migration (migration to the US) was evaluated as an effect modifier of those associations. 5253 MHAS participants and 1789 SALSA participants aged 60+ were included in a combined analysis. Nativity was coded as: Mexican resident, Mexican immigrant to the US and Mexican American born in the US. **Results**. Lower father's education was associated with lower performance on the DELREC as some elementary school (2% lower) or no school (19% lower) compared to more than elementary school. Adjustment for the respondent's own SES reduced the associations by 115% and 74% respectively. Lower mother's education (none or some elementary school was also associated with lower DELREC scores. Nativity modified the association between father's education and DELREC such that among Mexican residents, those whose father had no education had significantly lower DELREC scores than US born MAs whose fathers had no education. A similar pattern existed for mother's education. Respondent's education mediated the association between childhood SES and DELREC score. **Conclusion**. Lower parental education as a marker of childhood SES may be associated with lower performance on a word recall memory test., one's education are important exposures experienced at different life course stages and whose interplay with childhood SES influence late-life cognition.

Second Place

César González, PhD candidate (El Colegio de México); Rebeca Wong, PhD (Sealy Center on Aging, UTMB); Rafael Samper-Ternent, MD (Sealy Center on Aging, UTMB)

Mortality Risk in Older Adults in Mexico: the Role of Communicable and Non-Communicable Diseases

Background. In Mexico, non-communicable chronic diseases are the most common causes of death in older population. Diabetes mellitus, malignant tumors, and ischemic heart disease account for more than 50% of deaths in this population. However, an additional burden of disease due to communicable conditions, like tuberculosis, still remains. **Objectives**. The purpose of this study is to establish the extent to which coexistence of communicable and non-communicable diseases increases the risk of mortality in older adults. **Method**. Using data from the Mexican Health and Aging Study (MHAS) for adults aged 60 an older, logistic regressions were performed to estimate the risk of mortality between 2001 and 2003 due to communicable, non-communicable diseases, and a combination of both. Communicable diseases were examined as follows: hypertension and arthritis were analyzed individually; heart attack, stroke, cancer and lung disease were grouped in a composite score referred as HASCL. Communicable diseases were also analyzed as a composite that included: liver or kidney infection, tuberculosis and pneumonia. Covariates included in the analysis were sex, age, education level, marital status, and location size. **Results**. Incidence of HASCL increases the risk of two-year mortality by 22%. The presence of non communicable diseases in 2001 and 2003 increased the same risk by 7%. Persons with incidence of at least one of the HASCL group that also had at least one communicable disease in 2001 and 2003 had a risk of mortality of 52%. Presence of at least one non-communicable disease in 2001 increased mortality risk by 12%, while presence of a newly diagnosed non-communicable disease between 2001 and 2003 increased the risk by 48%. Education level, location size, hypertension and arthritis were not significantly related to higher risk of mortality. **Conclusion**. A higher mortality risk was associated with new conditions that were diagnosed between 2001 and 2003. Communicable diseases contributed noticeably beyond non-communicable diseases towards the risk of mortality in older Mexican adults. The results provide evidence of the mixed epidemiological regime that still prevails in Mexico, and points toward the design of old-age health interventions that are tailored accordingly.

Third Place

Felicia Wheaton and Eileen M. Crimmins, University of Southern California

Weighing In: The Relationship Between Domestic Migration In Mexico And BMI And Waist-To-Hip Ratio In Later Life

Background. Older Mexicans have been highly mobile within Mexico and past migration has had significant consequences for current body mass index (BMI) and waist-to-hip ratio (WHR)

in later life. These are useful measures of cardiovascular risk and important predictors of diabetes mellitus. **Method**. Data from the first wave of the Mexican Family Life Survey (MxFLS), collected in 2002, indicate that nearly 40% of Mexicans age 50+ have migrated for a period of at least one year (N=3,636). Respondents were categorized according to migration history and whether thy lived in a rural or urban area at age 12 and in 2002, for a total of six groups, but here only the 4 largest are discussed. **Results**. Overall, approximately 47% had a high-risk WHR while 70% were overweight and 31% were obese. Logistic regression results controlling for age and sex show that relative to rural non-migrants, all other groups had significantly higher odds of being overweight, obese, or both (p<0.05). When additional variables were held constant, there were no longer significant differences in odds of being overweight. Albeit greatly reduced for urban non-migrants and rural-urban migrants, differences in obesity odds persisted. In both models, only rural-rural migrants had greater odds of high-risk WHR. Interestingly, rural-rural migrants had higher odds of being obese, despite having similar characteristics to rural non-migrants. Rural-urban migrants had greater odds of being obese and of having high-risk WHR. **Conclusion**. Thus, it appears that older Mexican migrants from rural localities, especially those now residing in urban areas, are especially at risk for the health problems associated with excess body weight.

V. Evaluation

Dr. Robert Wallace, MD, MS and the Irene Ensminger Stecher Professor of Epidemiology and Internal Medicine, Department of Epidemiology at the University of Iowa Hospitals and Clinics attended the three day conference to provide an overall external assessment of the conference. In his opinion, the willingness to formally evaluate the program using an outside observer provides some additional objectivity. In his report he stated that "Overall, the program was well-considered and executed, and made better by a panel of advisors……Very well organized with entirely relevant content, generally consonant with the professed goals. The program was full of useful information and suitable time for informal interchange. Good audiovisual facilities and assistance available for speakers. Varied formats for presentations were a clear benefit, keeping up interest, including lecture formats, poster sessions, roundtables and informal question sessions. The "summing up" session at the end to obtain new ideas and further assess the quality of the meeting is a very useful practice. On Wednesday, there were a couple of problems with keeping the speakers on schedule, and a firmer hand would have been helpful, particularly to give each speaker more time for questions. Even so, this format resulted in spontaneous exchange between the speaker and the audience, allowing the speaker to elaborate on points of inquiry.

He also noted that the "conference had good audiovisual facilities and assistance available for speakers, but the technical problem with the "Skype" conference session needs some attention. We agree but also believe that while the "Skype" presentation was not seamless, the technology allowed us to highlight critical issues on human health and aging in Mexico from one of the foremost leaders in global public health, Dr. Julio Frenk. As Dr. Wallace indicated in his review, "the bringing together of several senior experts from the U.S. and Mexico showed good balance and was useful for promoting informal interchange. The speakers were all accomplished investigators and overall the presentations were of good to excellent quality (see the individual assessments of the formal presentations below). Bringing in students from other relevant classes

was a plus, but they should enter the room in a manner that would be less distracting. Evaluation forms submitted by conference participants were very positive. Overall, the amenities and facilities were excellent. The conference center and hotel were very accommodating and comfortable. Food and other refreshments were of high quality. Assistance from the conference staff was excellent. Dr. Jacqueline L. Angel and her advisors are to be congratulated for planning and execution of this meeting, which met its goals admirably."

One of the goals for the papers from the third CAA conference is to have them featured in a peer reviewed periodical of the prominence of the *Journal of Aging and Health*. In light of the exciting findings and valuable insights gained from the conference, we have submitted a proposal for a Special Issue of *Journal of Aging and Health* to be edited by Keith E. Whitfield, Jacqueline L. Angel, Rebeca Wong, Hector M. González. While much has described about the health of older Mexicans in the United States, few have examined the complex relationship between biology, culture and behavior. The papers in this Special Issue of the *Journal of Aging and Health* entitled: *Biobehavioral Dimensions of Healthful Aging: Transdisciplinary Perspectives in the Mexican-Origin Population in the United States and Mexico* represent important transdisciplinary work into the biological and behavioral aspects of health among older Mexicans in the United States. We contend that the term "biobehavioral" is quickly becoming a popular manner of characterizing this broad area of research encompassing biological underpinnings of behavior or behavioral implications for biological phenotypes. This broad conceptualization reflects the interest in providing a deeper level of understanding of how a complex phenomenon like aging can be understood in an ecologically valid, multivariate fashion. Biobehavioral inquiries are now a widely accepted approach used to improve understanding of age related changes in health and disease in late life. How these relationships occur in the Hispanic population, unique caveats, and the impact of language, culture, and immigration to known biobehavioral relationships have not been well studied. More specifically, while much has described about the health of older Hispanics in the United States, few have examined the complex relationship between biology, culture and behavior in the older-Mexican-origin population.

To insure that the papers are sound and of high quality, we propose to collect unbiased reviews of each paper from two independent scientists who are at "arms reach" from each publication they are reviewing (meaning they don't have direct connection/collaboration with the authors of papers they are asked to review). Each paper will conform to the format (abstract format, reference citation, etc) for scientific papers typically accepted for review by the journal. The reviews will evaluate significance, methodological approach, and the appropriateness of interpretations. Reviewers will be given 8 weeks to provide a review of the manuscripts they agree to evaluate. Once the reviews have been completed, the editors will serve as a third review in cases of unbalanced reviews (one positive review and one negative) and help to clarify revisions needed to get papers to the standards of excellence typical of the journal. Feedback will be sent to the authors of each paper and given 30 days to respond. Each author will provide a written response to the critique with their revised manuscript. The editors will then serve as the final review and evaluate the revision to assure that all critical features of the review have been addressed.

The papers in this Special Issue of the *Journal of Aging and Health* titled Biobehavioral Dimensions of Healthful Aging in the Hispanic population represent important transdisciplinary work into the biological and behavioral aspects of health among older people of Mexican ancestry in the United States. The papers will provide unique insights about situational and cultural factors that interact to impact the biological, physiological, and physical aspects of health in older people of Mexican origin or descent. Ultimately, these findings could inform public health interventions related to disease prevention and help to promote Hispanic health for elders living in the United States. We should note that Bob Wallace concurs with this objective. He believes that both substantive and methodological presentations at the conference funded by NIA would fit nicely would serve well in an issue of the *Journal of Aging and Health*. Additionally, he recommends including a section on binational research resource issues that would be very useful to readers of the journal, a suggestions with which we wholeheartedly agree.

This special issue would address several areas of interest. The special issue would consist of a preface and 11 empirical papers, each of 20-25 pages in length. Paper topics would include:

Preface: Developmental Origins of Healthful Aging among Hispanics:
1. Toward a Transdisciplinary Conceptual Framework, Keith Whitfield, Duke University; Jacqueline Angel and Mark Hayward, The University of Texas at Austin

2. Genetic and Cultural Influences on Obesity Among Mexican Americans Anthony Comuzzie, Southwest Foundation for Biomedical Research

3. Links Between Social Circumstances and Biobehavioral Health in the Mexican Population, Eileen Crimmins, University of Southern California

4. The Metabolic Syndrome, Biomarkers and the Acculturation-Health Relationship Among Older Mexican Americans, Héctor González, Wayne State University

5. Cognitive Impairment in the Mexican Population: Prevalence and Incidence Rates of Dementia and Mild Cognitive Impairment, Silvia Mejía Arango, Colegio de la Frontera Norte, Tijuana, Mexico

6. Hispanic Aging in the Midwest: Health Status of Older Hispanics Who Live in the Midwest Region of the United States, Carlos Mendes de León, Rush Medical School, Chicago

7. Predictors of Frailty at a Two-Year Follow-Up in an Old-Old Mexican American Population, María P. Aranda, University of Southern California and Laura Ray (UTMB)

8. Contextualizing the Burden of Diabetes, Disability and Two-Year Mortality Risk in Older Mexicans, Jennifer Salinas, University of Texas-Houston Health Science Center, Brownsville

9. The Migration Experience Among Mexican Migrants: A Comparative Study Concerning Health in Later Life, Verónica Montes de Oca (UNAM) and Rogelio Saenz, Texas A&M University

10. Nativity, Childhood Socioeconomic Status and Late Life Health: New Evidence from the MHAS and SALSA, Adina Zeki al Hazzouri, University of Michigan and Mary Haan, University of California, San Francisco

11. Healthful Aging in Mexico: Biobehavioral Perspectives, Luis Miguel Gutiérrez, National Mexican Institute on Aging

12. Agency versus Structure: Challenges and Opportunities in Mexican-origin Aging Research Ronald J. Angel, The University of Texas at Austin

The manuscript timeline would be as follows:

Outline   December 1, 2009

Draft Completed   March 2010

Peer Review Completed   May 2010

Final Drafts   August 2010

Publish   December 2010

VI. Future Conferences

The fourth installment of the international Conference Series on Aging in the Americas will be held on September 15-17 at The University of Texas at Austin. The purpose of this conference is to examine the demography of disability in Mexico and the United States and its consequences for elder care. How do institutional and social factors influence the situation of frail and disabled elderly Mexican Americans in the United States, as opposed to those in Mexico? This knowledge would provide new insights in areas where the coordination of health and social services is widely needed for families. Caring for elderly parents will require developing innovative methods for overcoming private and institutional obstacles. In addition, the conference will identify options in family elder care in the U.S.-Mexico borderland. How will low-income Mexican families, now living in the United States, care for their aged parents in the context of the second epidemiologic transition? Although remittances to siblings still living in Mexico exists, the dynamics of transnational families appears to be changing due to the following: a) a greater proportion of permanency in the United States; b) dual nationality; c) declining remittances as Mexicans focus on their U.S. family commitments; d) growing pressures for family reunification, namely, elderly Mexicans coming to live with their U.S. resident children and grandchildren. The collection of papers will address the long-term consequences of the aging Mexican American population care and living arrangements and

provide much needed information for guiding future research that can be used by scholarly investigators and policy makers.

The speakers selected for this conference bring a substantive research program which is at least 5 years or older on aging and long-term care in the Mexican-origin population. The participants are each recognized as a noted national or international expert in the field with multiple citations on the topic of their talks. Other selection criteria include affiliation with at least one international aging and health organizations focusing on Mexican-origin Aging and health, such as the Conference Series on Aging in the Americas (CAA), The Network for Research on Aging in Latin America (REALCE), Pan American Health Organization, and Reves International Network on Health Expectancy and the Disability Process.

Selected Highlights

The 2009 International Conference on Aging in the Americas (CAA) began with a dinner at the LBJ Library on Tuesday, September 15, 2009.

Jacqueline Angel, Professor of Sociology and Public Affairs opened the program: **"**Biobehavioral Underpinnings and Social Interaction on Hispanic Health" with **THE WELCOME.**
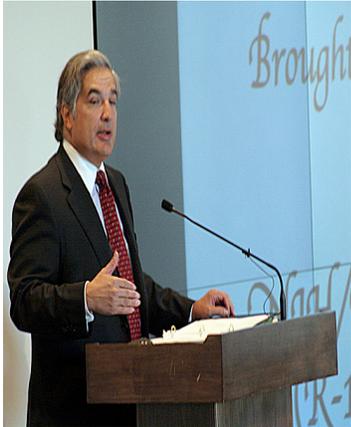
Peter Ward, C.B. Smith Sr. Centennial Chair in US-Mexico Relations and Professor of Public Affairs and Sociology introduced the **After Dinner Speaker**.

Dr. Ronald Angel, Professor of Sociology made a presentation: "Agency versus Structure: A New Twist on an Old Debate."
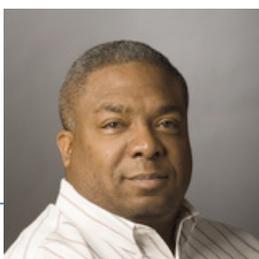
Keith Whitfield, Professor of Psychology, Duke University introduced the **Keynote Speaker**.

U.T. Chancellor
Francisco Figarroa

U.T. Vice Provost and Dean
of Graduate Studies,
Victoria Rodriguez

Winner Graduate Student
Poster Session, Zeki al
Hazzouri, U. Michigan and
Terrence Hill, Chair Juried Panel

Eileen Crimmins, Invited Speaker

Conference Co-Organizer, **Kyriakos Markides**
with **Hector Gonzalez**, **CAA Advisory Group
Member**, Jennifer Salinas, and Keith Whitfield.

LBJ PhD student, Stipica Mudrazija
and Rebeca Wong, Poster Judge and
CAA Advisory Group Member

More photos found at http://www.utexas.edu/lbj/photos/2009-2010_events/aging_in_the_americas_conference/slideshow

ACKNOWLEDGMENT

We are grateful to the following sponsors for providing generous support for the Third international Conference on Aging in the Americas (T-CAA): Biobehavioral Underpinnings and Social Interaction on Hispanic Health. The Third CAA was held on September 15-17 at The University of Texas at Austin campus.

SPONSORS

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