

who were chronologically older at baseline. More favorable ATOA scores were associated with less increase in hearing problems. Higher scores on continuous growth went along with less increase in hearing problems, whereas higher social loss scores were associated with a steeper increase in vision problems. Several associations increased with advancing age. Our findings suggest that subjective age views indeed predict late-life changes in sensory problems.

#### ARE DIFFERENT DISEASES IN OLD AGE CONNECTED WITH DIFFERENT ATTITUDES TOWARD OWN AGING AND SUBJECTIVE AGE?

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Subjective views on aging (VoA; e.g., subjective age, attitude toward own aging "ATOA") are regarded as important biopsychosocial markers of aging but their antecedents are not entirely clear. Besides general risk factors (depression, cognition, activities of daily living), we compared multiple disease groups to establish connections between specific morbidities and risk for negative VoA. Data was drawn from the ActiFE-Ulm study for which a representative sample of community-dwelling older people (65-90 years) was recruited. Follow-ups were conducted 7.7 years (median) after recruitment (T2; N=526). Self-reported depression at T1 was the strongest general risk-factor for negative VoA at follow-up (both subjective age and ATOA). Back pain predicted negative ATOA, whereas rheumatism was associated to both negative ATOA and older subjective age. We conclude that diseases are differentially associated with VoA. Further, mental health problems such as depression seem to be of higher importance for VoA as compared to other factors.

### SESSION 5585 (SYMPOSIUM)

#### FACTORS ASSOCIATED WITH AGING BIOMARKERS: FINDINGS FROM THE NATIONAL HEALTH AND AGING TRENDS STUDY

Chair: Laura Samuel

Co-Chair: Thomas KM Cudjoe

Discussant: Eileen Crimmins

Few studies have examined associations between socioeconomic, psychosocial and environmental characteristics with biological markers of aging among nationally representative older adult samples. This symposium will present results from four studies that examine the associations between 1) socioeconomic factors (i.e. financial strain and income to poverty ratio), 2) environmental characteristics (i.e. home disorder, street block disorder and

community social cohesion) 3) social isolation (i.e. household size and social network), and 4) subjective well-being (i.e. positive affect, self-realization and personal mastery) as they relate to biomarkers of aging (hemoglobin A1c, IL-6, high-sensitivity CRP, and cytomegalovirus). Biomarker samples were obtained in 2017 via dried blood spots from 4,648 (88%) of the 5,265 self-responding participants of the National Health and Aging Trends Study (NHATS). NHATS is an ongoing study that conducts annual in-home interviews, which recruited a nationally representative cohort of Medicare beneficiaries aged 65+ residing in the contiguous United States in 2011 and replenished the sample in 2015. All analyses for the four studies presented in this symposium adjusted for demographic and socioeconomic characteristics and other potential confounders. Sampling weights were applied to account for study design and non-response so that inferences can be generalized to US adults aged  $\geq 67$  in 2017. Sessions of this symposium will highlight the socioeconomic, psychosocial and environmental characteristics that are associated with aging biomarkers. These results have clinical, policy and public health implications. These results can inform the development of interventions and policies aimed at improving biologic aging across the lifespan and reducing disparities in biologic aging.

#### FINANCIAL RESOURCES AND BIOMARKERS OF AGING IN THE NATIONAL HEALTH AND AGING TRENDS STUDY

Laura Samuel,<sup>1</sup> Laken Roberts,<sup>2</sup> Danielle Boyce,<sup>2</sup> Melissa Hladik,<sup>1</sup> Sarah LaFave,<sup>1</sup> and Sarah Szanton,<sup>1</sup> 1. *Johns Hopkins University, Baltimore, Maryland, United States*, 2. *Johns Hopkins University School of Nursing, Baltimore, Maryland, United States*

Lower income and financial strain (i.e. difficulty making ends meet) are associated with worse aging biomarkers, but evidence among nationally representative samples is limited. This cross-sectional study tested whether income to poverty ratio (analyzed separately for those  $< 500\%$  vs.  $\geq 500\%$  poverty threshold) and financial strain are associated with biomarkers of aging among NHATS participants aged  $\geq 65$  years ( $n=4,648$ ), adjusting for age, race/ethnicity, gender, smoking, BMI, and diabetes diagnosis for hemoglobin A1c. Sampling weights were applied. Among those with incomes  $< 500\%$  poverty, higher income was associated with lower hemoglobin A1c ( $b = -0.0196$ ,  $p = 0.007$ ), CMV ( $b = -0.0689$ ,  $p < 0.001$ ) and CRP ( $b = -0.0428$ ,  $p = 0.012$ ). Among those with incomes  $\geq 500\%$ , higher income was associated with lower IL-6 ( $b = -0.0001$ ,  $p = 0.023$ ) and lower CMV ( $b = -0.0001$ ,  $p < 0.001$ ). Financial strain was not associated with biomarkers. Income is more strongly associated with biomarkers among the lower income group, calling for special attention to this vulnerable population.

#### GETTING UNDER THE SKIN: THE ASSOCIATION BETWEEN SOCIAL ISOLATION AND INFLAMMATORY MARKERS

Thomas KM Cudjoe,<sup>1</sup> Carl Latkin,<sup>2</sup> David Roth,<sup>3</sup> Roland Thorpe, Jr.,<sup>3</sup> and Cynthia Boyd,<sup>1</sup> 1. *Johns Hopkins University School of Medicine, Baltimore, Maryland, United States*, 2. *Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, United States*, 3. *Johns Hopkins University, Baltimore, Maryland, United States*

Social isolation is a risk factor for morbidity and mortality comparable to well-established risk factors including smoking, hypertension, and a sedentary lifestyle. Specific mechanisms that connect social isolation to important health outcomes remain unclear. We examine the cross-sectional relationship between social isolation and two biological markers: Interleukin-6 (IL-6) and C-Reactive Protein (CRP) in a nationally representative population of community dwelling older adults (IL-6:  $n=4336$ , CRP:  $n=4178$ ) from the National Health Aging Trends Study in 2017. Adjusting for age, gender, race, income, tobacco use, body mass index, and multiple chronic conditions, we found that social isolation compared to no social isolation was associated with higher levels of IL-6 ( $p = 0.043$ ) and CRP ( $p = 0.038$ ). These results suggest that investigating inflammatory pathways between social isolation and morbidity and mortality is important.

#### THE HOME, BLOCK, AND COMMUNITY ENVIRONMENTS AND BIOMARKERS OF AGING IN THE NATIONAL HEALTH AND AGING TRENDS STUDY

Laken Roberts,<sup>1</sup> Laura Samuel,<sup>2</sup> Danielle Boyce,<sup>1</sup> Melissa Hladek,<sup>2</sup> Sarah LaFave,<sup>2</sup> and Sarah Szanton,<sup>2</sup>  
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Prior studies have linked household and community conditions to the health and functioning of older adults. However, few studies have investigated associations between household, block, and community environmental conditions with biomarkers of aging. This study used NHATS Round 7 (2017) data on 3,283 community-dwelling older adults to test cross-sectional associations between interior and exterior household disorder, block disorder, community social cohesion, and four biomarkers: C-reactive protein, hemoglobin A1c, cytomegalovirus, and interleukin-6. Survey-weighted models adjusted for age, sex, race/ethnicity, income, education, homeownership, housing type, and metropolitan area; HbA1c was stratified by diabetes diagnosis. Greater interior household disorder was associated with higher IL-6 ( $\beta=0.06$ ,  $SE=0.025$ ,  $p=0.014$ ) and, among diabetics, greater block disorder was associated with higher HbA1c ( $\beta=0.11$ ,  $SE=0.05$ ,  $p=0.046$ ). These results link home and block environmental characteristics with biomarkers of aging, suggesting that modifiable aspects of older adults' living environments may be related to disease and disability risk via physiologic dysregulation.

#### GREATER SUBJECTIVE WELL-BEING ASSOCIATED WITH LOWER INFLAMMATORY PROTEINS IN AN OLDER ADULT SAMPLE FROM THE NHATS

Melissa Hladek,<sup>1</sup> Shang-En Chung,<sup>1</sup> Thomas KM Cudjoe,<sup>2</sup> Laura Samuel,<sup>1</sup> Sarah Szanton,<sup>1</sup> and David Roth,<sup>1</sup>  
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Subjective well-being (SWB), comprised of cognitive and affective evaluations of life, is associated with better health outcomes and lower mortality, but mechanisms are poorly understood. We examine the associations between SWB and its subscales with two biomarkers: Interleukin-6 (IL-6) and

C-Reactive Protein (CRP), both common inflammatory indicators associated with mortality and increased cardiovascular disease. Dried blood spot data collected from 4,648 older adults NHATS participants in 2017 was used. After adjustment for age, sex, race/ethnicity, education, tobacco, body mass index and chronic disease, we found greater SWB and greater scores on subscales including positive affect, self-realization and personal mastery were all significantly associated with decreased IL-6 and CRP. Conversely, increases in negative affect was significantly associated with increased IL-6 and CRP values. This study adds evidence of a potential mechanistic mind-body connection pathway.

#### SESSION 5590 (SYMPOSIUM)

##### FACTORS THAT PROMOTE VULNERABILITY VERSUS RESILIENCE AMONG OLDER DISASTER SURVIVORS

Chair: Judith Robertson Phillips

Discussant: Rachel Pruchno

Catastrophic environmental events, such as floods and hurricanes, are associated with widespread destruction and loss of life. Older adults, who often have health challenges and medical co-morbidities, appear to be at greater risk for adverse post-disaster outcomes, such as depression, worry, and medical uncertainty, than younger adults impacted by the same disaster. Researchers, therefore, are interested in identifying factors that tend to bring about vulnerability and adverse outcomes for older adults during and after a disaster, as well as factors that may generate resilience and psychological well-being for older adults. The purpose of this symposium is to present research based on multiple disaster experiences and to examine factors associated with vulnerability and resilience. The first two speakers introduce empirical findings from research that addresses flooding, the 2016 Baton Rouge flooding and the frequent flooding of coastal Louisiana brought about by coastal erosion. The next two presenters explore successful VA and Non-VA Home-Based programs during and after the 2017 Hurricane Maria in Puerto Rico and during the 2017 Atlantic hurricane season. The final speaker highlights the impact of lifetime trauma on the recovery of older adults following a natural disaster. Collectively, these presenters will provide evidence of how lifetime adversity is a factor promoting vulnerability for older adults after a disaster. Critically, they will also examine how age, disaster preparedness, intense patient tracking, VA support networks, and community resources and programs are protective factors generating resilience post-disaster for older adult populations.

##### DISASTER STRESSORS AND PSYCHOLOGICAL WELL-BEING AFTER A FLOOD

Katie E Cherry, Alyssa De Vito, Matthew Calamia, and Emily Elliott, *Louisiana State University, Baton Rouge, Louisiana, United States*

Hurricanes and floods have mental health consequences for younger and older adults alike. In August of 2016, historic flooding in Baton Rouge, Louisiana resulted in billions of dollars in damages. In this study, we compared 223 mostly middle-aged and older adults on mental health indicators. The majority of the sample ( $n = 137$ ) were non-coastal residents and the remainder ( $n = 86$ ) were former