*University of Pittsburgh, Pittsburgh, Pennsylvania, United States, 4. Columbia University, New York, New York, United States, 5. Oregon State University, Corvallis, Oregon, United States, 6. University of Pittsburgh, Pittsburgh, Pennsylvania, United States, 7. Beth Israel Deaconess Medical Center, Boston, Massachusetts, United States, 8. Kaiser Permanente Center for Health Research, Portland, Oregon, United States*

Data routinely collected in observational studies from phone calls, medical records, and death certificates can be used to categorize dementia, though there may be misclassification. We applied probabilistic bias analyses to assess the magnitude, direction, and uncertainty of the error due to misclassification of dementia data in the Cardiovascular Health Study (CHS). We categorized dementia among all participants (73,284 person-years) using medications, ICD-9 codes, use of proxy, and death certificates, and compared to the gold standard adjudicated dementia in the CHS Memory Studies (28,250 person-years). Using the gold standard, positive (PPV) and negative predictive values (NPV) of dementia categorization were estimated within strata defined by age and sex. In probabilistic bias analyses, we reclassified participants from the full study using estimated PPVs and NPVs in 5,000 replicates. We estimated the hazard ratio (HR) of dementia associated with age, race, sex, hypertension, diabetes, and APOE4 genotype in this bias analysis and compared these results to those using original data. ICD-9 codes had low specificity and were excluded in further analyses. The NPV was differential by sex (66% for females and 79% for males) and race (51% for blacks, 60% for whites). In bias analysis, the HR for black race was attenuated from 2.81 (95%CI:1.36-5.80) to 1.23 (95%CI:1.14-1.33). The estimate for hypertension was statistically significant only in bias analysis. Estimates and inferences for the other covariates were modestly different. Differential misclassification may lead to important biases of risk factors, but can be recognized and addressed using probabilistic bias analyses.

### PROMIS COGNITIVE FUNCTION AND CONCERN SCALES: LINGUISTIC VALIDATION IN AMERICAN SIGN LANGUAGE FOR DEAF OLDER ADULTS

Poorna Kushalnagar[1], *1. Gallaudet University, Washington, District of Columbia, United States*

Objective: To culturally and linguistically validate PROMIS Cognitive Functions and Concerns Scales in American Sign Language (PROMIS-ASL) for use with deaf older adults over 50. Methods: We used the standard procedures developed at the U.S. National Center for Health Statistics Cognitive Survey Laboratory to culturally adapt and translate items from the cognitive scales of the Patient Reported Outcomes Measurement Information System (PROMIS). We describe cultural adaptation and linguistic translation procedures led by a team of primarily deaf investigators. Using multidimensional exploratory or confirmatory factor analyses, we identify or confirm the items most likely to comprise each subset. Once the PROMIS-ASL version is finalized, we will compute test-retest reliability using ICC (intraclass correlation coefficient) from two-way random effects ANOVA models. Results: We produced an accessible patient reported outcomes cognitive measure in American Sign Language and a culturally appropriate set of items that are relevant to the experiences of deaf older adult over 50 users of accessible technology and services. Conclusions: The final PROMIS-ASL product with cognitive domain will be distributed for public use.

### USING SERIAL TRICHOTOMIZATION WITH NEUROPSYCH MEASURES TO INFORM DECISIONS ON FITNESS TO DRIVE AMONG OLDER ADULTS

Stephanie Yamin,[1] Valerie Ranger,[1] Arne Stinchcombe,[1] Frank Knoefel,[2] and Michel Bédard[3], *1. Saint Paul University (Ottawa), Ottawa, Ontario, Canada, 2. Bruyere Continuing Care, Ottawa, Ontario, Canada, 3. Lakehead University, Thunder Bay, Ontario, Canada*

Older adults report that driving provides a sense of independence and wellbeing. For some older adults, driving cessation becomes necessary due to their health status having an impact on their ability to drive safely. Decisions related to driving cessation are difficult and often left to the clinical judgement of primary care physicians. There is an interest in developing a method that could help assist physicians in making that determination. To date, there is no neuropsychological test that produces an acceptable level of sensitivity and specificity allowing for the determination of an individual's fitness to drive. Serial trichotomization involves classifying drivers as either pass, fail or indeterminate based on cut-points that leads to 100% sensitivity and specificity. The purpose of this study was to examine the serial trichotomization method using four common neuropsychological tests (i.e., 3MS, Trails A & B, clock drawing). Sensitivity and specificity for each test were established using a medical expert's clinical judgement. Charts of 105 patients at a tertiary memory disorders clinic were reviewed and data related to neuropsychological test scores and clinical judgement around fitness to drive were abstracted. After applying the trichotomization, 38.1% of the sample were classified as unfit to drive, 36.1% were classified as indeterminate, and 25.8% were classified as fit to drive. This study adds to the growing body of literature supporting the use of serial trichotomization to streamline decision-making about fitness to drive.

## SESSION 3600 (PAPER)

### SOCIAL DETERMINANTS OF HEALTH

### COMMUNITY-LEVEL SOCIAL DETERMINANTS OF MORTALITY IN OLDER ADULTS: AN ASSESSMENT OF RHODE ISLAND CITIES AND TOWNS

Steven A. Cohen,[1] Julia Broccoli,[1] Heather O'Neill,[2] and Mary L. Greaney[1], *1. University of Rhode Island, Kingston, Rhode Island, United States, 2. PixelsforHumans, East Greenwich, Rhode Island, United States*

Addressing the causes of place-based health disparities among older adults have focused on understanding social determinants of health on a large geographic level, such as region, state, or county. However, there is a growing realization for the need to understand how place-based characteristics at smaller geographic areas relate to population health and contribute to successful aging. The purpose of this study was to assess the magnitude of the associations between place-based social determinants and life expectancy (LE)

among older adults and related measures. Methods: LE at age 50 (LE50) and age 65 (LE65), and the age-specific mortality rate (ASMR) for ages 65+ (ASMR65) were calculated from mortality data (2009-2011) from the Rhode Island (RI) Department of Health (RIDoH) using abridged life table methods for each RI city/town. City/town-specific LE and ASMR were linked to the US Census, RIDoH, and other databases that include social determinants: demographics, household composition, wealth, education, environment, food insecurity, crime, transportation, and rural-urban status. Bivariate and partial correlations were examined between city/town-level LE50, LE65, and ASMR65. Results: LE50, (range: 29.3-34.0 years) was most strongly associated with the percent of the population with at least a bachelor's degree ($r=0.652$, $p<0.001$), per capita income ($r=-0.632$, $p < 0.001$), and percent multigenerational households ($r=-0.489$, $p=0.003$). The associations between both LE65 and ASMR65 and examined social determinants were more attenuated, however. Discussion: These results highlight substantial place-based disparities in mortality and potentially addressable social determinants that could improve population health for older adults and reduce place-based disparities among neighboring communities.

## COPING STRATEGIES AS MODERATORS OF NEGATIVE HEALTH IMPACTS FROM RELOCATION AT VERY OLD AGE

Bjorn Slaug,[1] and Oliver K. Schilling[2], *1. Department of Health Sciences, Faculty of Medicine, Lund University, Lund, Sweden, 2. Department of Psychological Ageing Research, Institute of Psychology, Heidelberg University, Heidelberg, Germany*

Relocation at very old age is a major life event that may have profound psychological impact. The loss of a home environment that has shaped important aspects of the life course can have negative health impacts, such as lower life satisfaction, depressive symptoms, loss of perceived autonomy and functional independence. However, from an ecological theory perspective, implying that patterns of health and well-being are impacted by a dynamic interplay of personal and environmental factors unfolding throughout the life course, the individual's adaptive repertoire and resources influence how the individual manages and copes with such major life events as relocation to a new housing environment. To study if coping strategies moderated negative health impacts from relocation at very old age, we utilized longitudinal data of older community-living people from Sweden and Germany who had relocated at some point over a nine-year period (N=79, aged 80+ at baseline). A mixed model approach, adjusting for age at time of relocation, was used to analyze moderating effects of different coping strategies, defined according to Staudinger, Freund & Smith (1995). We found pro-active coping strategies such as reminding oneself of previous ability to solve problems, to significantly moderate negative effects on perceived functional independence and resilient strategies such as letting things just have their course, to significantly moderate negative effects on life satisfaction. We found no significant moderation of depressive symptoms. These results suggest that individual disposition to use different coping strategies can moderate the impact on health that relocation at very old age has.

## INTERVENTIONS FOR LONELINESS AMONG OLDER ADULTS IN FACILITIES: A SYSTEMATIC REVIEW

Nicolas Quan,[1] and Matthew Lohman[1], *1. University of South Carolina, Columbia, South Carolina, United States*

Loneliness affects an estimated 1 in 3 older adults ages 65 and over in America. According to a 2017 report by AARP, a lack of meaningful social contact among older adults is associated with $6.7 billion dollars of federal healthcare spending. Research suggests that interventions such as social facilitation and skills development may decrease loneliness; however, the effectiveness of such interventions for older adults living in long-term care facilities is unclear. Articles matching search criteria were collected from PubMed, PsycInfo and Web of Science from 2009 to 2019. Inclusion criteria were: 1) intervention studies, 2) individuals age >= 65, 3) participants living in a long-term care facility such as a nursing home, assisted-living, or hospice facility. Randomized controlled trials, quasi-experimental and single-group studies were included. Title and abstract screening, as well as full text extraction followed PRISMA guidelines. A total of 16 articles that met inclusion criteria were identified. The interventions included video chatting with family members, human-volunteer interaction, human-robot interaction, humor therapy, a reminiscent radio program, laughter therapy and gardening education. Fourteen studies demonstrated a statistically significant decrease in loneliness from baseline to post-intervention. Laughter therapy showed the greatest reduction in loneliness. Diversity of intervention types and loneliness measures meant we could not estimate a pooled measure of effectiveness. Results suggest that there are several effective interventions to reduce loneliness among older adults in facilities; however, lack of standardized measures and high-quality studies limits comparisons between intervention types and generalizability to different populations.

## MULTIPLE CHRONIC CONDITIONS AND ACCELERATED AGING IN PEOPLE EXPERIENCING HOMELESSNESS

Julie Zuniga,[1] Whitney Thurman,[2] and Dong Eun Jang[1], *2. University of Texas at Austin College of Pharmacy, Austin, Texas, United States, 1. The University of Texas at Austin School of Nursing, Austin, Texas, United States*

The median age of the U.S. homeless population is increasing, and PEH often experience accelerated aging compared to the general population. Moreover, PEH have disproportionately high rates of chronic illness, psychological distress, and poor health status. The purpose of this study was to investigate associations between morbidity, psychological distress, and healthcare utilization in PEH. The specific aims of this study were to: 1) determine the prevalence of multiple chronic conditions in PEH, 2) analyze whether prevalence varies by level of psychological distress, and 3) analyze associations between age, health conditions, and psychological distress. We used data from the 2010 National Health Interview Survey. Analysis included descriptive statistics, t-tests, chi-square tests, ANOVA, and correlations. Homelessness was operationalized using the variable from the NHIS asking if the individual had spent >24 hours homeless in the past year. Measures included demographics, 11 chronic conditions, and psychological distress. PEH (n = 1809) were majority male (68.9%), White (66%), and unmarried (61.1%). Mean age of