SESSION 2580 (PAPER)

HEALTHCARE UTILIZATION AND OUTCOMES

COST OF US EMERGENCY DEPARTMENT AND INPATIENT VISITS FOR FALL INJURIES IN OLDER ADULTS: 2016–2018
Lisa Reider1, Jason Falvey2, Safiyah Okoye1, and Joseph Levy1, 1. Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, United States, 2. University of Maryland Baltimore, Baltimore, Maryland, United States, 3. Johns Hopkins School of Nursing, Baltimore, Maryland, United States

Falls are a leading cause of injury among older adults. While numerous studies have estimated the economic burden of falls, how health care spending varies by sociodemographic and injury factors is not well understood. The purpose of this study was to describe the average annual frequency of emergency department and inpatient visits and associated costs for fall injuries among older adults in the United States and identify factors associated with higher cost using data from the 2016-2018 National Inpatient Sample and National Emergency Department Sample. The study cohort included encounters with an ICD-10 external cause of injury code for fall (W00-W19). Number of visits was computed using survey weights. Direct visit cost was estimated from charges, applying cost-to-charge and professional fee ratios. On average, an estimated 2.7 million (95%CI: 2.5-2.9) fall-related ED visits and 1.1 million (95%CI: 1.1-1.2) inpatient visits occurred annually. The annual average cost was $1,105 (95%CI: $1,083-$1,127) per ED visit and $18,047 (95%CI: $17,905-$18,189) per inpatient visit totaling $22.9 billion annually. Higher inpatient cost was associated with age (65-74: $20,258 vs 85+: $16,183), gender (men: $19,541 vs. women: $17,181), and race (White: $17,570 vs. Black/Hispanic: $19,602); higher ED cost was associated with age (65-74: $1,009 vs. 85+: $1,198) and dementia diagnosis ($1,369 vs. $1,073). Fifty five percent of inpatient and 25% of ED visits were for fracture which had higher cost compared to sprains, dislocations, and superficial injuries. Results indicate growing number of fall-related admissions and costs underscores need for targeted prevention and intervention strategies.

FORECASTING THE REGIONAL DISTRIBUTION OF HOME CARE PATIENTS USING BIG DATA OF INSURANCE CLAIMS IN JAPAN; 2015 TO 2045
Yasuhiro Nakashish1, Yuichi Nishioka2, Yuki Tsugihashi2, Tomohiro Kakinuma3, Tatsuya Noda1, Tomoaki Imamura3, and Manabu Akahane1, 1. National Institute of Public Health, Wako, Saitama, Japan, 2. Nara Medical University, Kashihara, Nara, Japan

Regional distribution of home care patients and future demand in Japan are unknown. This study aimed to reveal the actual situation of home care patients by region and forecast demand up to 2045. Linked complete health and long-term care insurance claims data on Nara Prefecture (around 1% of the total population and area of Japan) patients aged 75 years or older who received planned and/or urgent medical treatment by physician home visit between April 2015 and March 2016 were extracted and analyzed by sex, age group, and municipality. We calculated the proportion of home medical care utilization and projected the number of home care patients for every five-year period up to 2045 across five administrative areas of the medical service in Nara Prefecture. Data on 12,656 patients, including 1,455 aged 75–79 years, 2,753 aged 80–84, 3,854 aged 85–89, and 4,594 aged 90 years or older, were extracted. The current proportion of patients receiving home medical care (unadjusted for age) by medical service administrative area showed a difference of up to 1.6 times for those aged 90 years or older. Results of forecasting showed a marked increase in the number of patients aged 90 years or older, with overall numbers continuing to increase up to 2040, reaching a maximum of around 25,759 then decreasing thereafter. The future increase in home care patient numbers could vary by age and area, and our findings suggest that public health policy based on the future demand in each area will be required.

HOW ARE MULTIPLE CHRONIC CONDITION COMBINATIONS DIFFERENTIALLY ASSOCIATED WITH HEALTH SERVICE USE?
Aaron Ogletree1, and Benjamin Katz2, 1. National Institutes of Health, Washington, District of Columbia, United States, 2. Virginia Tech, Blacksburg, Virginia, United States

A growing body of literature describes important advances in the study of chronic conditions, most notably a paradigm shift from the study of individual chronic conditions to the study of multiple chronic conditions (MCCs). Despite these advances, little research has explored MCC combinations, and almost no published research has explored how MCC combinations are related to health service utilization. Using data from the 2018 wave of the Health and Retirement Study, we categorized 16,447 older adults into one of 32 groups using self-reports of five prevalent chronic conditions: arthritis, diabetes, heart problems, hypertension, and respiratory problems. ANOVAs assessed associations between MCC combinations and two self-report measures of health service use: (1) number of medical visits, including emergency room visits, clinic visits, and house calls; and (2) total out-of-pocket costs for major medical expenses. Results show that older adults with more conditions had a greater number of medical visits (p< 0.0001). The pattern between total number of conditions and out-of-pocket costs is less clear, though still varied significantly (p< 0.01). Findings demonstrate variability in outcomes among MCC combinations with the same total number of conditions. Those in the Heart-Hypertension-Respiratory group averaged 9 medical visits while those in the Arthritis-Diabetes-Heart group averaged 16. Adults in the Diabetes-Heart group averaged $2,546 in out-of-pocket costs, which is nearly double the costs reported by the Diabetes-Heart group. Findings highlight complex associations of MCC combinations with health service use, and can inform resource allocation, policy priorities, and care planning among providers serving older adults with MCCs.

POPULATION TRENDS IN HEALTHCARE USE BY MEXICAN ADULTS AGED 60 AND OLDER WITH AND WITHOUT COGNITIVE IMPAIRMENT
Brian Downer, Jose Eduardo Cabrero Castro, and Rebeca Wong, University of Texas Medical Branch, Galveston, Texas, United States

Government policies that have greatly expanded health insurance coverage in Mexico have taken place in the
context of rapid population aging and an increasing number of older adults living with cognitive impairment. We used data from the Mexican Health and Aging Study to investigate population-level trends in self-reported healthcare use by cognitive status in 2001, 2012, 2015, and 2018. Healthcare measures included having an outpatient procedure, any doctor visits, staying >1 nights in the hospital, and screenings for high cholesterol, diabetes, and hypertension. All outcomes were dichotomized as yes/no. The sample sizes included 6179 (2001), 8924 (2012), 9429 (2015), and 8916 (2018) participants aged 60 and older who completed a direct interview (total N=33,448). Participants with cognitive impairment were identified using five cognitive assessments (2001 n=1000; 2012 n=1273; 2015 n=1467; 2018 n=1372). Generalized estimating equations that adjusted for demographic characteristics and self-reported health conditions were used. The adjusted odds of having spent >1 night in the hospital, outpatient procedures, any doctor visits, and preventive screenings were significantly higher in 2012, 2015, and 2018 than in 2001 regardless of cognitive status. Overall, participants with cognitive impairment had significantly higher adjusted odds for >1 nights in the hospital (OR=1.31, 95% CI=1.20-1.42), but significantly lower odds for any doctor visits (OR=0.81, 95% CI=0.75-0.88), outpatient procedures (OR=0.70, 95% CI=0.57-0.85), and preventive screenings for high cholesterol (OR=0.75, 95% CI=.70-0.81), diabetes (OR=0.78, 95% CI=0.72-0.85), and hypertension (OR=0.76, 95% CI=0.70-0.82). These results are important to understanding the healthcare needs of Mexico’s growing older adult population.

THE LONGITUDINAL RELATIONSHIPS BETWEEN SOCIAL ISOLATION AND HEALTH OUTCOMES: THE ROLE OF PHYSICAL FRAILTY
Fereshteh Mehrabi, and François Béland, University of Montreal, Montreal, Quebec, Canada

Social isolation is a public health issue that is linked to poor health outcomes. However, the mechanisms underlying this association remain unclear. The main objective of this study was to explore whether changes in frailty moderated the relationship between changes in social isolation and changes in health outcomes over two years. We examined the mediating role of changes in frailty when the moderation hypothesis was not supported. A series of latent growth models (LGMs) were used to test our objectives using data from three waves of the FRÉLE study among 1643 Canadian community-dwelling older adults aged 65 years and over. Missing data were handled by pattern mixture models with the assumption of missing not at random. We measured social isolation through social participation, social networks, and social support from different sources of social ties. We assessed frailty using the Fried frailty phenotype. Our moderation results revealed that high levels of changes in social participation, support from friends, nuclear, and extended family members, and social contacts with friends were associated with greater changes in cognitive and mental health among frail older adults with diminished physiological reserves compared to robust older adults. Additionally, changes in frailty mediated the effects of changes in social participation and social contacts and support from friends on changes in chronic conditions. This longitudinal study suggests that frailty moderated the relationships between social isolation and mental and cognitive health but not physical health. Overall, social support and strong friendship ties are key determinants of frail older adults’ health.

SESSION 2590 (SYMPOSIUM)

IMPLEMENTATION AND IMPACT OF MANAGED LONG-TERM SERVICES AND SUPPORTS IN PENNSYLVANIA
Chair: Howard Degenholtz

In 2018, Pennsylvania began implementing a mandatory Medicaid managed care program called Community HealthChoices (CHC). CHC replaces the 1915(c) aging waiver and 4 other waiver programs that covered adults with disabilities and people with acquired brain injury. The new program covers people receiving long-term services and supports (LTSS) in both nursing homes and home and community-based settings as well as people dually eligible for both Medicaid and Medicare. The program is administered by 3 managed care organizations (MCOs) that are obligated to coordinate with Medicaid Behavioral Health, Medicare Advantage and D-SNP plans. The MCOs are incentivized to serve people with LTSS needs in community-based settings by increasing access to HCBS and supporting transitions from nursing homes back into the community. This symposium will present findings from a comprehensive, mixed-methods evaluation of the program. Drawing from our qualitative interviews with key stakeholders and examination of program materials, we will describe some of the challenges of the implementation process. Next, we will share findings from interviews with cohorts of participants conducted before and after implementation of the new program. Next, we will present findings from analysis of Medicaid claims data to examine changes in use of home and community-based services as well as overall rebalancing. Finally, we will present both qualitative and quantitative data on person-centered service planning- a critical requirement for HCBS programs.

EFFECT OF COMMUNITY HEALTHCHOICES ON PARTICIPANT QUALITY OF LIFE AND PSYCHOLOGICAL WELL-BEING
Howard Degenholtz, University of Pittsburgh, Pittsburgh, Pennsylvania, United States

A stratified random sample of participants was interviewed in each region of Pennsylvania during each phase of the implementation. In addition, comparison groups were interviewed from the third implementation region. This allowed us to draw causal inferences regarding the effect of the program on participant quality of life and psychological well-being. The sample was stratified to represent: people age 21-59 and those over age 60 who receive home and community-based services (HCBS), plus people age 21 and older who are dually eligible for Medicaid and Medicare but do not use long-term services and supports. We found that engagement in preferred activities both inside and outside the home increased among people who used HCBS and those who did not. In addition, psychological well-being improved slightly while the prevalence of depressive symptoms declined. In