diagnoses and do not include patient reported symptoms. Considering that symptoms account for the majority of outpatient visits and that older adults report pain, fatigue, and dyspnea as leading causes of disability, there is a need to characterize the burden of symptoms in the older adult population. Therefore we analyzed data from the 2011 National Health and Aging Trends Study. In-person interviews were conducted in 7601 community-dwelling adults aged ≥65 years. Participants were queried about the following symptoms: pain, fatigue, breathing difficulty, sleeping difficulty, depressed mood, and anxiety. Total symptom count ranged from 0–6. Prevalence of 0, 1, 2, 3, and ≥4 symptoms was 28.0%, 29.3%, 18.8%, 11.6%, and 12.2%, respectively. Several measures of physical capacity, including grip strength and lower-extremity physical performance, were associated with total symptom count. For example, participants with 1, 2, 3, and ≥4 symptoms had gait speeds that were 0.05, 0.06, 0.10, and 0.15 meters per second slower, respectively, than those with no symptoms, adjusting for specific diseases, total number of diseases, and other potential confounders ($P<0.001$). In summary, symptoms frequently co-occur among community-dwelling older adults and are strongly associated with decreased physical function, independent of disease burden. Symptoms represent a potential treatment target for improving function.

PARTITIONING OF TIME TRENDS IN PREVALENCE OF LUNG CANCER AMONG OLDER U.S. ADULTS

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The time trend of lung cancer prevalence is the result of three competing processes: changes in the incidence rate, stage-specific survival, and ascertainment at early stages. In this report we present a new approach to the evaluation of the contribution of each of the above components to the overall prevalence trend. Using SEER data, we found that the prevalence of lung cancer increases for females and decreases for males over the study period (1988–2013). The increase for females is due to increased incidence (explains approximately 45–50% of total trend) and improved survival (40–45% of total trend). The remaining 10–15% are explained by increased ascertainment at early stages. For males, the effect of increased survival is compensated by a rapidly declining incidence rate resulting in an overall decrease in prevalence over time. Application of the partitioning approach to histotype-specific prevalence (i.e., for adenocarcinoma, squamous-cell carcinoma, small-cell carcinoma) showed that these patterns held for histotype-specific cancers with the following exceptions: i) since 2005, adenocarcinoma incidence increased for males resulting in its higher prevalence; ii) ascertainment at early stages impacts the trends of squamous-cell and small-cell carcinoma more than of adenocarcinoma. The results suggest an increasing role of adenocarcinoma in lung cancer trends in the era of smoking cessation and lower effects of early ascertainment on cancer outcomes. This is important for improvement of cancer preventive strategies and more efficient use of the current funds available to the Medicare program, thus potentially increasing its cost effectiveness and by extension durability

SELF-RATED HEALTH AND MORTALITY IN CHINA, INDIA AND LATIN AMERICA – A 10/66 POPULATION STUDY

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Background: Strong empirical evidence from high income countries suggests that self-rated health (SRH) is useful as a brief and simple measure in the context of public health research. However, different cultures provide different frameworks for health evaluations, which require more studies on the association between SRH and mortality in low and middle income countries. This study aims to explore the prevalence of SRH and its association with mortality in older adults in Latin America, China and India in order to cross-culturally validate the construct of SRH.

Methods: Population-based cohort studies on 16,940 persons aged 65 years and older were conducted in catchment area sites in Cuba, Dominican Republic, Peru, Venezuela, Mexico, China, India, and Puerto Rico in 2003. SRH was assessed using the interviewer administrated question to the respondents "how do you rate your overall health in the past 30 days" and responses were set out on a scale from good, fair, to poor. Covariates included age, sex, and educational attainment, use of community health services during the last three months, hypertension, chronic obstructive pulmonary disease (COPD), diabetes, depression, and anxiety. Mortality was ascertained through a screening of all respondents until 2007.

Results: The prevalence of good SRH was higher in urban than rural sites, except in China. The largest prevalence of good SRH was found in urban India, followed by rural China and Peru. The largest prevalence of poor SRH was found in rural India, followed by Cuba, and the Dominican Republic. Men reported higher SRH than women, and depression had the largest negative impact on SRH at all sites. Those with poor SRH showed a 67% increased risk of death within four years compared to those with fair SHR after adjusting for age, gender, educational attainment, health factors and use of community health services.

Conclusion: There is a strong association between poor SRH and mortality also in low and middle income countries, even after adjusting for a number of health factors and baseline socio-demographic characteristics. These findings indicate that SRH can be used as an effective and valid indicator in public health research also in low and middle income countries.

TRENDS IN DIABETES MELLITUS AND RELATED HEALTH OUTCOMES 1991–2013: ACHIEVEMENTS AND CHALLENGES

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Diabetes mellitus type 2 (T2D) is an increasingly prevalent chronic disease that affects elderly individuals aged 65+ more than any other age group in the United States. In this study we used Medicare 5% (1991–2013) data for elderly U.S. adults aged 65+ to identify and study the properties of the trends of T2D and associated adverse health outcomes of the cardiovascular (congestive heart failure, myocardial

infarction), cerebrovascular (stroke), renal (chronic renal disease, acute renal failure, ESRD), ocular (age-related macular degeneration, glaucoma, blindness) and cognitive (Alzheimer's disease and/or dementia) systems. We found a notable decrease in the rates of all cardio- and cerebrovascular outcomes. For example, in the general population, the prevalence of congestive heart failure increased from 1991 to a peak in 2005, followed by a slow but persistent decline. The T2D population mirrored this tendency though at higher levels, consistent with the additional risk posed by T2D. All renal and cognitive outcomes as well as glaucoma and age-related macular degeneration, continue to present challenges to public health – associated rates have been going up throughout the whole study period with acute renal failure showing the most dramatic all-year increase (average yearly percentage increase of 15.68 %). Contributions of possible causes of the observed trends including increased survival, improved quality and intensity of treatment, changes in clinical diagnosis criteria and administrative coding rules were identified, quantified and accounted for.

THE ROLE OF SOCIAL SUPPORT IN INCIDENT FUNCTIONAL LIMITATIONS AMONG CHINESE OLDER ADULTS

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We explored the associations between forms of social support and incident functional limitations in Chinese older adults, using a nationally representative sample (n=17,174) in the China Health and Retirement Longitudinal Study (CHARLS) upon 2 year follow-up. Social support was evaluated at baseline as (1) received any financial support from family within the last year, and (2) perceived availability of instrumental support with basic functions like eating or dressing if needed. Incident functional limitations included three outcomes: any newly reported difficulties with (1) physical functions, (2) activities of daily living (ADL), and (3) instrumental activities of daily living (IADL). The cohort ranged in age from 45 to 101 years, was 51.6% female, with 36.3% received financial support and 69.1% perceived instrumental support. At baseline after adjusting for age, those who received financial support tend to be older, female, less educated, rural, and have more children and poorer health. Those who perceived instrumental support tended to be female, rural, and have better self-rated standard of living and better health. Using multiple Poisson regression adjusting for age, gender, demographic characteristics, socioeconomic status, and baseline health, both received financial support and perceived instrumental support had statistically significant inverse associations with all three outcomes of incident functional limitation (e.g. for perceived instrumental support, RR=0.85 for physical limitations; RR=0.77 for ADL limitations, and RR=0.86 for IADL limitations, $p<.01$ for all). Our results suggest that forms of social support in China may be associated with reduced risk of functional decline in Chinese older adults.

SESSION 2245 (SYMPOSIUM)

THREE MODELS OF INTEGRATING GERIATRICS INTO PRIMARY CARE: GERIATRIC WORKFORCE ENHANCEMENT PROGRAMS

Chair: C. Clarke, *The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina*
Co-Chair: S. Hardin, *East Carolina University, Charlotte,*; M. Heflin, *Duke University, Durham, North Carolina*

Critical shortages in Geriatricians require innovative training models. The Health Resources and Services Administration has funded 44 Geriatric Workforce Enhancement Programs (GWEPs) nationally with the mandate to integrate geriatrics into primary care. In this session the North Carolina GWEP programs describe three approaches to partnering with a variety of primary care practices to enhance the quality of care for older adults across settings such as rural solo practitioner's offices, federally qualified health centers and urban group practices embedded in large health systems. Each program design is unique and context dependent however session attendees will glean useful strategies to apply in their own settings.

INTEGRATING GERIATRICS INTO PRIMARY CARE THROUGH A PRACTICE MANAGEMENT EFFICIENCY APPROACH

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Background: Critical shortages in Geriatricians require innovative training models. The Health Resources and Services Administration funded three 3 Geriatric Workforce Enhancement Programs in North Carolina to integrate geriatrics into primary care. Building upon previous curricula, the University of North Carolina at Chapel Hill (UNC-CH) is moving training into clinical settings: an internal medicine residency clinic, a corporately owned family practice clinic and federally qualified health centers.

Methods: Because significant barriers exist to the adoption of evidence-based geriatrics in a busy practice, UNC-CH chose a bottom-up approach. To increase the adoption each practice chose one geriatrics syndrome and UNC-CH aligned practice change effort with community needs and pre-existing quality indicators. Structured evaluations of workflows and training gaps were conducted to identify efficiencies. Evaluation metrics included: measuring patient referral patterns and staff confidence and efficiency in managing their geriatric patients, pre and post intervention. New protocols were developed and tested using a plan, do, study, act (PDSA) methodology. Population based and individual evaluation metrics were developed collaboratively.

Results: Some increased efficiencies were noted with changes in workflow patterns. Whole team training allowed paraprofessional staff to actively support patient screening for geriatrics syndromes. Increased patient referrals were documented.

Conclusions: Training of paraprofessional staff can lead to improved screening for geriatric syndromes. Practice change efforts to enhance geriatrics in primary care are most