

is greater among young-old adults in their 50s than among the older-old adults aged 80 and higher. Our finding challenges the single-disease framework that is often used in previous studies examining risk factors for shingles. Our finding highlights the need for primary prevention and treatment of multimorbidity for reduction of shingles cases among older adults, especially young old adults in 50s.

RURAL-URBAN DISPARITY IN BIOMARKER RISKS FOR CARDIOVASCULAR DISEASE AMONG CHINESE MIDDLE-AGED AND OLDER ADULTS

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Cardiovascular disease (CVD) is a leading cause of adult mortality in China, accounting for 45% of deaths from noncommunicable disease. Moreover, Chinese health status and health services are disproportionately divided between urban and rural areas. This study examined rural-urban differences in age trajectories of CVD risk, measured by C-reactive protein (CRP), high-density lipoprotein (HDL) cholesterol, body mass index (BMI), and waist circumference. This study also investigated whether community factors, including recreational amenities, infrastructure availability, physical environment, public facilities, and health services, may explain such rural-urban disparities. We used data from the baseline data of the China Health and Retirement Longitudinal Study (2011), including 11,528 respondents from 440 communities, who were aged 45 and older and participated in the biomarker survey. Multilevel models revealed that rural adults had a higher level of HDL and lower levels of CRP, BMI, and waist circumference compared to their urban counterparts. Rural adults also had slower age-related increases in trajectories for CRP, HDL and BMI. Associations of physical environment and public facilities with CVD risks were largely explained by rural-urban disparity. However, the availability of infrastructure explained both between- and within- rural-urban differences in BMI and waist circumference. Models were controlled for previously diagnosed CVD conditions, individual demographic characteristics, self-rated health, activities of daily living, depressive symptoms, physical activity, smoking and drinking behaviors. Findings contribute to the understanding of prevalence and disparities in biomarker risks for CVD among Chinese middle-aged and older adults. Intervention implications are discussed to address the emerging health disparities.

POORER DIET QUALITY OBSERVED IN OLDER ADULTS WITH A GREATER NUMBER OF CHRONIC DISEASES

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Unhealthy lifestyle behaviors, including poor diet over many years, contribute to the development of chronic diseases, especially overweight/obesity, hyperglycemia, hypercholesterolemia and hypertension. Because poor diet is common to the diseases, it supports the notion of concurrently managing comorbidities through improved diet. Therefore, the purpose of this study was to assess differences

in diet quality and nutrient intakes, in adults aged 65 years and older, by the number of chronic conditions. Data from 7,169 adults, aged 65 years and older, from the 2005-2016 National Health and Nutrition Examination Survey were assessed for selected chronic diseases from laboratory data: overweight/obesity (body mass index >25); hyperglycemia (glycated hemoglobin >5.7%); hypercholesterolemia (total cholesterol >200 mg/dL); hypertension (blood pressure >120/80 mmHg). The number of chronic diseases was computed per participant. Dietary intakes and diet quality score were assessed using 24-hour dietary recalls. Few adults had none of the selected chronic disease (n=79;1.4%), with others presenting 1 indicator (n=677;9.8%), 2 indicators (n=1,762;25%), 3 indicators (n=2,741;38.9%) and all 4 indicators (n=1,910;24.9%). Diet quality was significantly lower in those with three or four chronic diseases (P<0.001). Adults without any of the selected chronic diseases consumed significantly more calories, carbohydrates, fiber and added sugars, as well as folate, vitamin C and calcium than those with chronic diseases (P<0.001). Overall, dietary intakes from the day of intake were different for those with or without chronic diseases. These findings strengthen the need to promote healthy eating in older adults with one or more chronic conditions to help improve outcomes.

ASSOCIATION BETWEEN LEVEL OF PAIN AND DEPRESSION AMONG CHRONICALLY ILL OLDER ADULTS IN RURAL ALABAMA

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Pain and depression, two of the common symptoms among chronically ill older adults, have been found to be related in various populations; however, further knowledge is needed about their relationships and moderating factors among community-dwelling, chronically ill older adults, particularly in lower-income, rural areas with limited healthcare resources. Therefore, this study aimed to examine the association between pain level and depression among chronically ill older adults in rural areas. A total of 100 residents of a rural county in West Alabama, who are 55+ and have chronic illnesses and pain, were recruited from four community senior centers and were interviewed using a structured questionnaire. Pain levels were assessed by the Philadelphia Geriatric Center (PGC) Pain Scale, and depression by an abbreviated version of the Center for Epidemiologic Studies Depression Scale (CES-D). Bivariate correlation and multivariate analysis were conducted. The correlation between pain and depression was significantly positive ($r = .35$, $p < .001$). The results of the model indicated that pain scores and other control variables explained approximately 18 percent of the variance in depression. The multivariate analysis results confirmed that those who had higher pain scores were significantly likely to have increased depression scores ($b = 4.97$, $SE = 1.52$, $p < .01$). Education marginally significantly moderated the relationship between pain and depression ($p = .059$). The previously reported positive pain-depression relationship exists among chronically ill older adults in rural areas, calling for tailored interventions to reduce their pain and its impact on depression.