OBJECTIVES To examine trends of the burden of hospitalization for acute myocardial infarction (AMI) in Beijing.

METHODS AMI hospitalization information came from Beijing Hospital Discharge Information System. Information of census registered population in Beijing was obtained from Beijing Municipal Bureau of Statistics. All hospitalized cases with AMI from the year 2007 to 2012 were analyzed regarding hospitalization rate, in-hospital mortality, co-morbidities, the use of revascularization, and in-hospital cost. Trends of hospitalization rates and in-hospitalization mortality rates were examined by Poisson regression after adjusting for age and/or sex. Trends in prevalence of selected comorbidities over the study period were calculated using the modified Poisson regression after adjusting for age. Trends in hospital cost over time were calculated using multiple linear regression model after adjusting for age and/or sex.

RESULTS During 2007-2012, a total of 79,943 patients hospitalized in Beijing with the primary discharge diagnosis of AMI were enrolled, of whom 67.5% were male. The AMI hospitalization rate experienced an increase from 80.5 per 100,000 to 120.4 per 100,000 (P <0.0001). Hospitalization rates of men were notably higher than those of women across all age groups (P <0.0001). The rates increased with age except for the age of 85 years and older. The greatest increase were observed in men aged <54 years (42.9%) and in women aged 45-54 years (82.5%). There was a decline in in-hospital mortality over time from 11.0% in 2007 to 8.9% in 2012 (P <0.0001). In-hospital mortality rates were higher in women than those in men amongst patients at all age groups, except for those aged >85 years. Significant increasing trends were found for prevalence of hypertension, dyslipidemia, diabetes, atrial fibrillation, and renal failure from 2007 to 2012 (all P <0.0001). The rate for percutaneous coronary intervention (PCI) was higher in men and increased among both sexes through the study period.

CONCLUSIONS During the study period the hospitalization rates for AMI increased especially for younger and middle-aged population, suggesting a greater need for intensive primary prevention efforts in the high-risk population in Beijing. However, a decline in in-hospital mortality was noticed during 2007 to 2012, indicating the improvement in the in-hospital treatment of AMI in Beijing.

OBJECTIVES To examine the relationship between sleep disturbances (SD) and the risk development of myocardial infarction (MI) among men ages 25 to 64 years.

METHODS Within the framework of program, WHO MONICA-psychosocial was examined representative sample of men 25-64 years old (1994 year). Total sample was 657 persons. SD were measured at baseline and at the use of the Jenkins’ questionnaire. Incidence of news cases of MI was revealed at 14-year follow-up. Cox-proportional regression model was used for an estimation of hazard ratio (HR).

RESULTS Only 1/3 of the 25 to 64-year old male subjects with the first MI referred to their sleep as “good”, whereas 2/3 had SD (63.1%). The risk of development of MI within 5 years at group of men with SD was 2.43 (95%CI 1.27-8.59) times higher than without it. For the following 10 years, risk of development of MI was 2.6 (95%CI 1.35-9.41) times higher in men with SD. Within 14 years HR=2.3 (95%CI 1.1-4.6), (p<0.05) Most frequently of MI occurred in men with SD and higher negative psychosocial factors, i.e. widowers, divorced, those with primary and not-completed secondary school education and those engaged in hard and moderate manual labor and head, with low index social network.

CONCLUSIONS The results demonstrate that SD present a social problem and contribute greatly to the risk of MI in men. The highest frequency of MI occurred in men and SD and negative social gradient. Supported by Grant of Russian Foundation for Humanities No 140600227.

OBJECTIVES Hypertension has psychosomatic aspects and has been associated with depression, depression can increase the risk of sudden cardiac death. Studies of factors associated with symptoms of depression in the elderly in China are scarce, especially for those with hypertension residing at home in the general population. We conducted a cross-sectional study to determine the risk factors for depression in a hypertensive population residing in Beijing.

METHODS Data for these analyses came from the Beijing Longitudinal Study of Aging. This cross-sectional study comprised 1064 people aged >60 years dwelling at home in the general population in Beijing, China. Trained staff using a comprehensive geriatric assessment questionnaire and standard instrument in China, completed the assessments. Symptoms of depression were scored according to the Center for Epidemiologic Studies-Depression (CES-D) screening test.

RESULTS Results of the single factor analysis of demographic characteristics revealed that elderly people with hypertension who lived in rural areas and were illiterate had a higher incidence of depression. Factors that were associated with a higher incidence of depression were living in a rural area, being illiterate, without a mate, low income, experiencing a significant stressful life event, poor sleep pattern, poor functional status, and poor cognitive function. The logistic regression analysis showed that literacy, life events, sleep quality, and functional status had independent effects on the incidence of depression symptoms in elderly patients with hypertension (P = 0.023, 0.000, 0.000 and 0.000, respectively).

CONCLUSIONS Our study determined risk factors for depression in elderly patient with hypertension, and these risk factors are modifiable. Early detection and treatment of symptoms of depression in hypertensive patients is of great importance in the treatment and management of hypertension. Follow-up studies should be conducted to further explore the association between risk factors and outcomes.

OBJECTIVES To investigate whether childhood adiposity and its cumulative burden during childhood are associated with risk of subclinical cardiovascular diseases (CVD) in early or middle adulthood, and whether the risk could be reversed by becoming a non-overweight adult.

METHODS Data was obtained from Beijing BP cohort study, which was a population-based prospective study started in 1987 from Beijing, China. Since then, nine surveys had been conducted (once a year from 1988-1994, one at 2005, and one at 2011), which resulted in multiple observations of risk factors from childhood to adulthood. Carotid-femoral pulse wave velocity (cPWV), carotid artery intima-media thickness (cIMT), and left ventricular mass index (LVMI) were measured in the last 2011 survey among 1256 adults aged 27-42 years. There was a total of 5 708 annual visits for an average of 4.5 visits per person, and the average follow-up period was 22.9±6.0 years.