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**PREVALENCE OF HYPERTENSION AND ITS DETERMINANTS AMONG ADULT RESIDENTS: A CROSS-SECTIONAL STUDY FROM SHANDONG PROVINCE**

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<sup>1</sup>Chu Jie, <sup>1</sup>Guo Xiaolei, <sup>2</sup>Ma Jixiang, <sup>1</sup>Xu Aiqiang, <sup>1</sup>Lu Zilong, <sup>1</sup>Zhang Jiayu, <sup>1</sup>Tang Junli, <sup>1</sup>Dong Jing, <sup>1</sup>Guo Xiaole. <sup>1</sup>Shandong Center for Disease Control and Prevention, Jinan 250014, China; <sup>2</sup>Chronic Disease Center, Chinese Center for Disease Control and Prevention, Beijing 102206, China

**Objectives** To estimate the prevalence of hypertension and explore its determinants among adult residents in Shandong Province, and provide scientific evidence for the establishment of hypertensive prevention and control in whole province.

**Methods** A representative sample of 15350 subjects aged between 18 and 69 were selected with multiple stratified and clustered sampling to acquire related information by questionnaire survey and physical measurement. The prevalence of hypertension was estimated and its main determinants were analysed by SURVEYLOGISTIC regression.

**Results** The prevalence of hypertension was 23.44% among adult residents in Shandong Province, and the average SBP and DBP were 121.1 and 78.8 mm Hg respectively. The prevalence in male with 25.71% was higher than in female with 21.13%, and the average SBP and DBP in male had a 6.3 and 3.1 mm Hg than in female. The prevalence in rural area with 24.57% was higher than in urban area with 20.77%, and the average SBP and DBP in rural area had a 3.5 and 1.4 mm Hg than in urban area. The prevalence of hypertension and average blood pressure all remarkably increased with age rising especially among residents aged less than 60. The prevalence of hypertension and average blood pressure in old women were higher than old man, while there were no significant difference between them. The analysis of influencing factors showed that the risk factors were age, male, BMI (overweight and obesity), waist circumference, Diabetes Mellitus, abnormally TC, abnormally TG and often drinking, and the protective factors were female and occasionally drinking. By the way, the association between BMI and hypertension was strongest among all influencing factors. The hazard of hypertension occurrence in overweight persons was about two times than in normal weight persons with OR of 1.728 (95% CI 1.451 to 2.059), while the hazard in obesities was nearly four times than normal weight persons with OR of 3.988 (95% CI 3.073 to 5.176).

**Conclusions** Hypertension is a multi-factors disease, and multiple factors could influence the hypertension occurrence. As a result, the comprehensive strategy and measurements of hypertension prevention and control should be established according to epidemiology of hypertension in different people and focus on early intervention to effectively prevent and control the hypertension occurrence.