OBJECTIVES Based on seven cardiovascular health factors and behaviors, the American Heart Association proposed the Cardiovascular Health Score (CHS). It has been widely used to estimate cardiovascular health status of individuals. The aim of this study was to investigate the impact of different CHS on year-to-year blood pressure variability (BPV).

METHODS Based on CHS, we defined three groups: first group, 0–4 points; second group, 5–9 points; and third group, 10–14 points. The impact of CHS on year-to-year blood pressure variability were analyzed.

RESULTS A total of 41,710 individuals met the inclusion criteria (no history of stroke, transient ischemic attack, myocardial infarction, malignant tumor, or atrial fibrillation) and had complete blood pressure data. The standard deviation of systolic blood pressure (SSD) was 10.87 mmHg in 41.90% of the total population, and in 55.90%, 45.00%, and 36.90% of the first, second, and third groups (P < 0.05). The coefficient of variation of the mean blood pressure (CV) was 28.32% in 44.40% of the total population and in 50.70%, 44.30%, and 44.30% of the first, second, and third groups respectively (P < 0.05). Multivariate logistic regression analysis revealed that higher CHS was a protective factor against increasing year-to-year BPV, which persisted after adjusted for baseline systolic blood pressure and other risk factors.

CONCLUSIONS In summary, CHS was negatively related to year-to-year BPV, which further supported that healthier lifestyle might contribute to better blood pressure management.

OBJECTIVES Essential hypertension (HTN) is the most common cardiovascular disease that can lead to the left ventricular hypertrophy (LVH). The end stage LVH is a major cause of heart failure in elderly patients. QT prolongation is an independent risk factor for sudden cardiac death and all-cause mortality. In this study we aimed to investigate the prevalence of acquired long QT syndrome (LQTS) and gender differences.

RESULTS Among hospitalized patients, the all-cause mortality rate in patients with a markedly prolonged QT (>500 ms, n=299) and control group (QT ≤ 440 ms, n=543). Regardless of clinical outcomes the control subjects were selected by matching age (62±15 years), gender (58% F) and admission diagnosis to the LQTS group (63±15 years, 58% F). The death of all causes occurred during hospital stay and after discharge was investigated in all study subjects. The risk factors to cardiac mortality were also elucidated. Cox regression and Kaplan-Meier survival analyses were performed to determine the effects of markedly prolonged QT on all-cause mortality.

RESULTS 1) After a follow up of 255±63 days, the LQTS subjects with a markedly prolonged QT (292±38 ms vs. 414±24 ms, P<0.0001) had a much higher all-cause mortality than the control group (29% vs. 11%, P<0.0001). After adjusted with covariates, the hazard ratio for the LQTS group was: 10.627 (95% CI 1.03-109.86, P< 0.05). 2) More patients in the LQTS group had a baseline condition of hypertension (50% vs. 44%, P<0.0001), type-2 diabetes mellitus (25% vs. 0, P< 0.0001), acute coronary syndrome (9% vs. 3%, P< 0.0001), syncope and life-threatening ventricular arrhythmia (6% vs. 0.6%, P< 0.0001).

CONCLUSIONS Among hospitalized patients, the all-cause mortality in patients with a markedly prolonged QT is significantly higher than those without QT prolongation. The prevalence of cardiovascular disease and type-2 diabetes mellitus is higher in LQTS. Other than the known risk factors, hypertension is a common contributing risk factor to LQTS.

OBJECTIVES Hypertension is the prevailing public health issue worldwide, and 50% of cardiovascular disease was induced by hypertension. The highest prevalence was reported in Tibet province in China by epidemic investigation 20 years ago. However, during the last 20 years, there was no new data in Tibet in spite of the dramatic increasing prevalence of hypertension in China recently. It is needed to perform assessment about the current prevalence of hypertension in Tibet in order to assist the public health policy.

RESULTS From Sep, 2010 to Jun, 2011, 1859 adults were enrolled in Chamba district, Tibet, China. All participants were provided questionnaires and physical examination. The age standardized prevalence of hypertension, diabetes, overweight/obesity, awareness rate, rate of treatment and control rate were assessed. Multivariate logistic regression was performed to evaluate the risk factors of hypertension in Tibet.

RESULTS The prevalence of hypertension is 55.3%, which is higher than the average level of China. The awareness rate, rate of treatment and control rate is 41.9%, 19.2% and 7.4%, respectively. The prevalence of diabetes, overweight or obesity, dyslipidemia, and current smoking were 6.2%, 33%, 41.1%, and 6.1%, respectively. Prevalence of hypertension in Tibetan is 1.1 times that of Han living in Tibet. Prevalence from lowest to highest is temple, urban and rural in turn according to the resident place. By multivariate logistic regression, the risk factors of hypertension in Tibetan included altitude of dwelling, resident place, gender, educational level, diet, family income yearly, and age (P<0.05).