years. To evaluate cumulative risk burden throughout childhood or adulthood, the growth curve of BMI and BP for each individual were constructed using a mixed-effects model by SAS PROC MIXED within both childhood and adulthood. The area under the growth curve (AUC) was calculated by using an integral calculus formula to characterize the overall BMI and BP levels throughout childhood and adulthood.

**RESULTS**
The tracking coefficient between childhood AUC and adult AUC of BMI (r = 0.635, \( P < 0.001 \)) was greater than between initial childhood level and last adult level of BMI (r = 0.575, \( P < 0.001 \)). After adjusting sex and age at final adulthood, BMI at initial adulthood, at final adulthood, as childhood AUC, and as adult AUC were all associated with high cfPWV, high cIMT, and high LVMI at adulthood. After additionally controlling for covariates, four BMI measures still significantly related with high cIMT and high LVMI, but not with high cfPWV at adulthood. Both BMI measured at final adulthood and adus weight were also predictive of adult high cIMT and high LVMI, whereas neither BMI measured at final childhood nor as childhood AUC was associated with adult high cIMT and high LVMI. Subjects who were overweight in adulthood, irrespective of their childhood adiposity status, had significantly increased risks of high cIMT and high LVMI.

**CONCLUSIONS**
Childhood adiposity is associated with carotid atherosclerosis and left ventricular hypertrophy at adulthood but not with arterial stiffness. However, reduction in weight from childhood to adulthood could attenuate and even eliminate the risk of subclinical CVD at adulthood.

GW26-e0404
Optimal blood pressure in patients after stroke in rural areas of China
Miaomiao Zhao, Jie Zhang, Jue Li
Heart, Lung and Blood Vessel Center, Tongji University School of Medicine, Shanghai, China

**OBJECTIVES**
To our knowledge, no publication has estimated the association between average follow-up blood pressure (BP) and the risk of developing adverse events and/or mortality among stroke survivors in rural areas of China. The purpose of this study was to investigate the impact of different BP categories on risk of developing worse outcomes and evaluate the target range of BP in patients after stroke in rural areas of China.

**METHODS**
We performed a post-hoc analysis of 1058 patients with a history of stroke or transient ischemic attack (TIA) from the NCRCHS. The average follow-up systolic blood pressure (SBP) and diastolic blood pressure (DBP) were categorized into 10 mm Hg increments. The primary outcome was a composite of death due to any cause, nonfatal coronary heart disease (CHD) and nonfatal stroke. The secondary outcomes included any recurrent stroke, CVD events, CVD mortality, and all-cause mortality, considered separately.

**RESULTS**
The relationship between BP (systolic and diastolic) followed a J- or U-shaped curve with primary and secondary outcomes, DBP was independently associated with an increased risk of all-cause mortality. Both SBP and DBP were independent risk factors for LVH. For DBP, compared with the reference group (SBP 110-119 mm Hg), SBP >110 mm Hg and DBP of 80-89 mm Hg were associated with a significantly increased risk of primary outcome. After adjusting for baseline confounders, compared with the reference group (SBP 110-119 mm Hg), SBP >110 mm Hg and DBP >150 mm Hg were significantly associated with an increased risk of primary outcome. For the secondary outcomes, SBP >140 mm Hg was associated with an increased risk of recurrent stroke and SBP >160 mm Hg was associated with an increased risk of total CVD events. Both SBP <110 mm Hg and SBP >170 mm Hg significantly increased the risk of CVD and all-cause mortality. For DBP, compared with the reference group (DBP 80-89 mm Hg), patients with DBP >70 mm Hg or DBP <90 mm Hg had a significantly increased risk of primary outcome. For the secondary outcomes, DBP >90 mm Hg significantly increased the risk of both recurrent stroke and total CVD events. DBP >70 mm Hg and DBP >100 mm Hg were independently associated with an increased risk of CVD mortality. DBP >70 mm Hg and DBP >90 mm Hg were independently associated with an increased risk of all-cause mortality. Patients with SBP <110 mm Hg or SBP >140 mm Hg / DBP >70 mm Hg or DBP >90 mm Hg had significantly and independently increased risk of worse outcomes.

**CONCLUSIONS**
For stroke survivors, a J- or U-shaped curve association exists between BP and the risk of future CVD events and mortality, with lowest event rates in the BP range of 110-119 mm Hg systolic and 80-89 mm Hg diastolic. SBP of 110-119 mm Hg and DBP of 70-89 mm Hg are the appropriate range for patients after stroke in rural areas of China.

GW26-e0701
Arterial stiffness is increased in healthy subjects with a positive family history of hypertension
Hongyu Wang, Jinbo Liu, Hongwei Zhao, Huan Liu, Yingyan Zhou
Department of Vascular Medicine; Peking University Shouyang Hospital, Beijing 100444, P. R. of China

**OBJECTIVES**
A positive family history of hypertension is a risk factor for cardiovascular diseases. In the present study, we investigated the value of pulse wave velocity (PWV) in healthy subjects with a positive family history of hypertension.

**METHODS**
255 healthy subjects (M/F: 75/180) were divided into two groups according to without (group 1) or with (group 2) a positive family history of hypertension. Carotid-femoral pulse wave velocity (cfPWV) was measured by an applanation tonometer.

**RESULTS**
Our results showed that CF-PWV was significantly higher in group 2 than in group 1 (0.978±1.64 vs 9.16±1.44 m/s, \( P < 0.001 \)). The levels of systolic blood pressure (SBP), pulse pressure and mean blood pressure (MAP) were significantly higher in group 1 than in group 2 (all \( P < 0.05 \)). High-density lipoprotein cholesterol (HDL-C) was significant different between initial childhood and adult (1.40±0.26 vs 1.00±0.06, \( P < 0.001 \)). The levels of triglycerides (TG) and high-density lipoprotein cholesterol (HDL-C) were significantly different in group 1 than in group 2 (all \( P < 0.05 \)). Multiple linear regressions showed that age, family history, gender, smoking, and MAP were independent influencing factors of CF-PWV in the entire study group.

**CONCLUSIONS**
Our present study showed PWV is significantly higher in healthy subjects with a positive family history of hypertension. Family history might play an important role in this process. However, to be able to evaluate the prognostic value of PWV, prospective studies in families with hypertension are needed.