

Supplementary Table 1 Hazard ratios and 95 % CI of CMM status for ePWV and WHtR (Participants with baseline stroke were excluded), CHARLS, 2011–2018 (n=8355)

| | HR (95 % CI) | P value |
|-------------|---------------------|---------|
| EPWV | 1.513(1.443,1.586) | *** |
| Q1 | Ref | |
| Q2 | 2.886(2.283,3.648) | *** |
| Q3 | 5.054(3.989,6.403) | *** |
| Q4 | 8.869(6.803,11.559) | *** |
| | | |
| WHtR | 2.069(1.761,2.433) | *** |
| Q1 | Ref | |
| Q2 | 1.359(1.118,1.653) | ** |
| Q3 | 2.003(1.664,2.414) | *** |
| Q4 | 2.977(2.478,3.578) | *** |

adjusted for age, sex, residence, marital status, education level, household expenditure, alcohol consumption, smoking and nighttime sleep duration
 Abbreviations: WHtR waist-to-height ratio, ePWV estimated pulse wave velocity, HR Hazard ratios

Supplementary Table 2 Hazard ratios and 95 % CI of CMM status for ePWV and WHtR (Participants with baseline diabetes were excluded), CHARLS, 2011–2018 (n=8246)

| | HR (95 % CI) | P value |
|-------------|---------------------|---------|
| EPWV | 1.517(1.457,1.592) | *** |
| Q1 | Ref | |
| Q2 | 3.008(2.410,3.947) | *** |
| Q3 | 5.483(4.176,6.998) | *** |
| Q4 | 9.658(7.271,12.589) | *** |
| | | |
| WHtR | 2.056(1.714,2.422) | *** |
| Q1 | Ref | |
| Q2 | 1.367(1.101,1.614) | ** |
| Q3 | 2.018(1.662,2.438) | *** |
| Q4 | 3.004(2.483,3.621) | *** |

adjusted for age, sex, residence, marital status, education level, household expenditure, alcohol consumption, smoking and nighttime sleep duration

Abbreviations: WHtR waist-to-height ratio, ePWV estimated pulse wave velocity, HR Hazard ratios

Supplementary Table 3 Hazard ratios and 95 % CI of CMM status for ePWV and WHtR (Participants with baseline heart disease were excluded), CHARLS, 2011–2018 (n=8052)

| | HR (95 % CI) | P value |
|-------------|---------------------|---------|
| EPWV | 1.512(1.435,1.576) | *** |
| Q1 | Ref | |
| Q2 | 3.028(2.385,3.912) | *** |
| Q3 | 5.502(4.278,6.955) | *** |
| Q4 | 9.613(7.285,12.617) | *** |
| | | |
| WHtR | 2.055(1.754,2.429) | *** |
| Q1 | Ref | |
| Q2 | 1.333(1.101,1.631) | ** |
| Q3 | 1.978(1.512,2.322) | *** |
| Q4 | 2.997(2.412,3.578) | *** |

adjusted for age, sex, residence, marital status, education level, household expenditure, alcohol consumption, smoking and nighttime sleep duration

Abbreviations: WHtR waist-to-height ratio, ePWV estimated pulse wave velocity, HR Hazard ratios

Supplementary Table 4 Hazard ratios and 95 % CI of CMM status for ePWV and WHtR (Participants who developed CMM within two years were excluded), CHARLS, 2011–2018 (n=8307)

| | HR (95 % CI) | P value |
|-------------|---------------------|---------|
| EPWV | 1.571(1.489,1.677) | *** |
| Q1 | Ref | |
| Q2 | 3.112(2.475,4.010) | *** |
| Q3 | 5.575(4.356,7.152) | *** |
| Q4 | 9.687(7.341,12.751) | *** |
| | | |
| WHtR | 2.102(1.792,2.488) | *** |
| Q1 | Ref | |
| Q2 | 1.383(1.135,1.702) | ** |
| Q3 | 2.039(1.687,2.464) | *** |
| Q4 | 3.014(2.501,3.647) | *** |

adjusted for age, sex, residence, marital status, education level, household expenditure, alcohol consumption, smoking and nighttime sleep duration

Abbreviations: WHtR waist-to-height ratio, ePWV estimated pulse wave velocity, HR Hazard ratios