Objective To explore the incidence of acute coronary events and the corresponding trends from 2007 to 2009, as well as upon stratification by age, sex and districts in registered permanent residents of Beijing.

Methods This study was based on the Beijing Acute Myocardial Infarction Surveillance Platform, with public data formed by linking the hospital discharge to the cause-of-death register in Beijing. This platform contains 80763 acute coronary events aged more than 25 years old during the period from 2007 to 2009. The present study included 68390 acute coronary events, who were the registered permanent residents of Beijing. The incidence rates were age standardised using the registered permanent residents of Beijing aged more than 25 years old derived from the Beijing Statistics Bureau.

Results The age-standardised incidence of acute coronary events was escalating year by year among all subjects, and it rose by 8.1% in the year 2009 compared to 2007. In males, the age-standardised incidence increased by 11.1% from the year 2007 to 2009, which was higher than that in females (2.5%). Except for the 25–34 year age group and 85 years and over age groups, there was a year-on-year increase in the incidence in each age group. In particular, for the 35–39 year age group, the incidence increased by 37.4% in the year 2009 compared to 2007, making it the largest increase. Although the incidence of acute coronary events among the three areas (urban, suburbs and outer-suburbs) increased annually during the study period, the outer-suburbs had the largest growing range, with an increment of 16.4% in the year 2009 compared to 2007. Furthermore, this incidence was high to low in the outer-suburbs, suburbs and urban respectively in each year, and Huairou district had the highest incidence rates.

Conclusion The present study collectively demonstrated that the incidence of acute coronary events, among the registered permanent residents aged more than 25 years old, increased annually from the year 2007 to 2009 in Beijing, and was higher in males, in older age groups and in outer-suburbs districts. Our data added weight to the evidence regarding the appreciation and establishment of cardiovascular disease prevention, and lends some reference for other similar studies.