Objective To explore the influencing factors and secular of road traffic injury (RTI) in China, and to furnish evidence to formulate strategy and measures to improve RTI.

Methods By using some indices such as level of traffic safety (LTS), level of population safety (LPS), mortal coefficient (MC) etc to evaluate and analyse the features of road injury in China.

Results Most of the increased traffic-related mortality is in rural areas, particularly among rural males. The 26–45 years age-group represented the majority of all fatalities and overall casualties, and the age-group over 65 year olds having an increased trend in China. The western provinces of Tibet, Ningxia, Xinjiang, Qinghai and Gansu are the most serious of RTI. In a word, the main risk factors of RTI in China are road quality, motorisation, volume of traffic transportation, maldriving and the behaviours of pedestrians.

Conclusions Preventive measures should focus on high-risk demographic groups and should be adapted to the composition of the traffic-related mortality.