

Background

1. 35 000 children under 14 are injured from RTA annually in China, four out of 10 are pedestrians, 70% students walk to school.
2. Speed increases 1 kilo, injury incidence increases 3%.
3. School zone speed limit is 30 kilo in China. However, it is often ignored by drivers.

Objectives Exploring a measure to enhance the speed limit signage visibility in school zone and could be used friendly by schools.

Methods

1. Three schools in a community with a higher RTA incidence were identified.
2. The baseline of vehicle speed entering the school zone was recorded by observers, 30 min for each observation (morning, noon and afternoon), when children to and off school.
3. A movable intervention speed limit flashing light was developed to enhance the speed limit signage visibility and was set for 50 m seen by drivers before entering school zone.
4. Vehicle speed was recorded again with the intervention in the same way as the baseline.

Results

1. 2400 vehicles' speed was recorded in the baseline and with the intervention respectively.
2. The baseline shows 1431 vehicles over 30 kilo; among which 608 vehicles over 40 kilo.
3. The intervention shows 769 vehicles over 30 kilo, a 46.4% drop; among which 255 vehicles over 40 kilo, a 58.1% drop.

Conclusions

1. Vehicle speed limit for the school zone could be controlled by enhancing speed limit signage visibility.
2. The intervention with a movable speed limit flashing light on-and-off school is practical for school use.