

On-road observations to identify potential contributors to road trauma, and opportunities for road safety improvements in Lao PDR

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Abstract

Road safety in Lao PDR is following the trend of increasing trauma with increasing population and motorised vehicle use. On-road observations of road user behaviours and road infrastructure were conducted to assess potential contributors to road crash deaths and injuries in Lao PDR. Lack of helmet and seat belt wearing, high travel speeds, lack of safe pedestrian amenity, limited road and roadside infrastructure, and use of intrinsically unsafe vehicles were identified as key contributors. These risk factors suggest that Lao PDR's road crash deaths and injuries can be greatly reduced by stronger enforcement, more comprehensive laws, and Safe System infrastructure.

Background Road safety in Lao People's Democratic Republic (Lao PDR) is following the trend of increasing trauma with increasing population and motorised vehicle use. Two to three wheeler vehicles make up the majority of the country's vehicle fleet (Nguyen, 2013), and vulnerable road users (motorcyclists, bicyclists and pedestrians) account for the majority of road deaths in Lao PDR (WHO, 2015).

Method On-road observations of road user behaviours and road infrastructure were conducted in the capital Vientiane and rural areas of Lao PDR to assess the extent to which well established risk factors that are known to contribute to road crash deaths and injuries exist in Lao PDR, based on well established risk factors.

Results The on-road observations highlighted low and/or inappropriate (e.g. worn without the strap done) helmet wearing, low seat belt wearing especially in the back seats, high travel speeds, failure to give way to pedestrians on marked pedestrian (zebra) crossings, pedestrians walking along the roadway, lack of pedestrian infrastructure (e.g. footpaths), use of pedestrian paths for purposes other than walking (e.g. commercial activities, parking), limited road and roadside infrastructure (e.g. sloped ends and fishtail ends), and extensive use of high risk vehicles (e.g. motorcycles, modified hand tractors) in Lao PDR. The motorcycle helmet law in Lao PDR requires both drivers and passengers to wear a helmet but does not specifically require that the helmet be fastened. On-road observations of helmet wearing in daylight hours revealed that 35.9% did not have the chinstrap done up. The observations further revealed that helmet wearing dropped at night compared to daylight hours in central Vientiane from 85.9% to 25.8% and in non-central areas of Vientiane from 69.0% to 44.7%. The seat belt law in Lao PDR does not cover rear seat passengers and seat belt wearing was virtually zero for rear seat occupants. Police were also observed not wearing seat belts in cars and not wearing helmets on motorcycles. Shops and stalls taking over the footpath are not uncommon in many countries, but the extent of the problem seemed particularly large in Lao PDR, with many vendors even taking over the road itself. Modified hand tractors and cargo areas of vehicles with no seat belts and facing sideways to the direction of travel were also found to be used as ways to transport passengers in Lao PDR, posing significant risks of death and serious injury (Ericson, 2010).

Conclusions These risk factors are manageable, and suggest that Lao PDR's deaths and injuries from road crashes can be greatly reduced by stronger enforcement, more comprehensive laws, and Safe System infrastructure. Opportunities are discussed based on international evidence.

References

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