Improving Pedestrian Safety in Low and Middle Income Countries (LMICs): Implications of Research and Practice

Dr Mark King, CARRS-Q

Presentation to UN ESCAP Expert Group
Seoul, Republic of Korea, 8 May 2013
A Decade of Action Priority for the Coming Year(s)

Over a third of road traffic deaths in low- and middle-income countries are among pedestrians and cyclists. However, less than 35% of low- and middle-income countries have policies in place to protect these road users.
Outline

• What the research says is important for pedestrian safety
• The challenges for pedestrian safety in LMICs
• Priorities for promoting pedestrian safety in LMICs
Pedestrian Characteristics (1)

- **Demographics:**
  - Working age (15-44) over-represented
  - Very young and very old most vulnerable
  - Males predominate
  - Tend to have lower incomes

- **Impairment**
  - Alcohol an important risk factor
  - Drugs and fatigue possibly
  - Distraction
Pedestrian Characteristics (2)

- Illegal behaviour:
  - Crossing against signals
  - Crossing at places where it is not allowed
  - Crossing to/from public transport
  - Jaywalking
  - Walking on the road instead of the footpath

(Note overlap with road environment issues)
Driver Characteristics

- Occupational drivers
- Impairment
- Illegal behaviour:
  - Not stopping at signals
  - Not giving way at crossings
  - Speeding
at 30 km/h – 1 in 10 will die

at 50 km/h – 5 in 10 will die

at 60 km/h – 9 in 10 will die
Road Environment Characteristics

• No (or inadequate) separation of pedestrians from vehicles:
  – No footpaths, or poor quality, or obstructed
  – Long distances between safe crossing points
  – Lack of road shoulders
  – Lack of medians
  – Wide roads
• Lack of crossing facilities or “unattractive”
• Darkness (link to road user factors)
Vehicle Characteristics

• High proportion of trucks and buses
• Very high proportion of motorcycles in some countries – gap selection issue
• Poor vehicle maintenance (brakes)
• Traffic mix (partly road environment)
• “Unfriendly” vehicles
Additional Challenges in LMICs (1)

- Population growth – high proportion of children
- Drift to urban living – unplanned settlements
- Rapid motorisation
- Inadequate/poorly regulated land use planning
Additional Challenges in LMICs (2)

- Legal frameworks
- Enforcement levels
- Limited maintenance budgets
- Socio-economic factors lead to high levels of pedestrian demand
- Power relations
- Development focus favours road transport
Characteristics of good interventions

• Achieve road safety benefits:
  – Preferably “demonstrated” benefits, i.e. evaluations show an impact
  – Economic and social benefits can be costed
• Do not cost too much:
  – Government and community economic costs
  – Social costs
• Fit with the context (important when adopting an intervention from elsewhere)
Priorities for Pedestrian Safety

• The first 4 pillars

<table>
<thead>
<tr>
<th>National activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pillar 1</td>
</tr>
<tr>
<td>Road safety</td>
</tr>
<tr>
<td>management</td>
</tr>
<tr>
<td>Pillar 2</td>
</tr>
<tr>
<td>Safer roads</td>
</tr>
<tr>
<td>and mobility</td>
</tr>
<tr>
<td>Pillar 3</td>
</tr>
<tr>
<td>Safer vehicles</td>
</tr>
<tr>
<td>Pillar 4</td>
</tr>
<tr>
<td>Safer road users</td>
</tr>
<tr>
<td>Pillar 5</td>
</tr>
<tr>
<td>Post-crash response</td>
</tr>
</tbody>
</table>

www.carrsq.qut.edu.au
Safer Roads and Mobility

- Provision and maintenance of crossing facilities that people will use
- Speed reduction measures, e.g. schools
- Lighting at key locations
- Adequate and well-maintained footpaths kept clear of obstacles
- Ped safety audits/RSA with ped focus – in design, prioritised for existing roads
- iRAP-style ped safety investment plans
Prioritizing pedestrian safety interventions and preparing a plan of action

3.1 Why assess the pedestrian safety situation? ........................................... 43
3.2 How to assess the pedestrian safety situation ........................................ 44
  3.2.1 Assessing the magnitude, trends and patterns of pedestrian fatalities and injuries .......................................................... 44
  3.2.2 Assessing risk factors for pedestrian injury ..................................... 48
  3.2.3 Assessing the policy environment and existing initiatives on pedestrian safety .............................................................. 51
3.3 Preparing a pedestrian safety action plan ............................................. 62
  3.3.1 Mobilising stakeholders .................................................................. 54
  3.3.2 Core components of an action plan .................................................. 56
3.4 Summary ....................................................................................... 58
References ............................................................ 59
Safer Vehicles

- Enforcement of in-service vehicle standards, especially brakes and lighting
- “Pedestrian-friendly” standards for new vehicles
Safer Road Users

- **Education (pedestrians and drivers):**
  - Legislation, rights and responsibilities
  - Risk factors (children, night, impairment)

- **Enforcement to achieve more legal and orderly interaction between drivers and pedestrians:**
  - Signals respected
  - Marked crossings respected
Road Safety Management

• Legislation:
  – Clearly establishes rights and responsibilities
  – Publicised adequately

• Governance support

• Institutional capacity - knowledge, structures, balance of priorities, funding

• Land use planning - explicitly considers pedestrian needs and effectively regulated

• Empowerment – pedestrian advocacy
Together we can save millions of lives.

DECADE OF ACTION FOR ROAD SAFETY 2011-2020
www.decadeofaction.org
Questions?

mark.king@qut.edu.au

Mark your Diaries!
25-28 August 2013, Brisbane
Registrations now open!
http://t2013.com
20th International Council on Alcohol, Drugs & Traffic Safety Conference

T2013 International Conference
25-28 August 2013
Brisbane, Queensland, Australia

Registrations open now!

www.t2013.com