Drunk Driving & Traffic Casualties
Case Study: India

By
Dr. Rohit Baluja
President, IRTE & Director, College of Traffic Management

------- Geneva 23 September 2013 -------
Road Safety: Definition

Safety Factor

Manifestation In Each Of The Components Of Traffic Management

- Traffic Legislation
- Traffic And Road Engineering
- Vehicle Regulation
- Elements And Methodology Of Driver/Rider, Training & Testing
- Traffic Enforcement
- Public Awareness
- Post-crash Management

Road Safety: Definition

Safety is our responsibility.
Diagnosis

Human Disease

PATHOLOGY
- cause/etiology,
- mechanisms of development (pathogenesis),
- structural alterations of cells (morphologic changes), and
- the consequences of changes (clinical manifestations)

Road Crashes

ROAD PATHOLOGY (CRASHOLOGY)
- factual causes behind serious & fatal road crashes
- catalytic agents which are leading to unsafe roads
- consequences of road crashes.
Objectives of Crash Investigation

- **What** took place
- **Why** it happened
- **Why** serious consequences
- **How** to prevent the incident in future
- **How** to prevent the consequences
Parameters Investigated

- The road
- The vehicle
- The driver
- The road user other than the motorist
- Environmental factors
Most collisions have more than one causative factor

Precipitating Factors (What went wrong)

Contributing Factors (Why did it go wrong)
The form used by the Great Britain police to report contributory factors includes a list of 77 contributing factors.

<table>
<thead>
<tr>
<th>Contributory factor reported in accident</th>
<th>Fatal</th>
<th>Serious</th>
<th>Slight</th>
<th>All accidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Environment Contributed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor or defective road surface</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Deposit on road</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Slippery road</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Inadequate/masked signs or markings</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Defective traffic signals</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Traffic calming</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Temporary road layout</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Road layout</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Animal/Object in carriageway</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: *Contributory factors to road accidents*  
David Robinson and Richard Campbell, *Transport Statistics: Road Safety*, Department for Transport
Causes of Road Crashes
Developing Countries- India (2012)

- Fault of Driver: 78.70%
- Fault of Cyclists: 13.90%
- Fault of Pedestrian: 1.20%
- Defect in Condition of Motor Vehicle: 0.90%
- Defect in Road Condition: 1.40%
- Weather Condition: 1.40%
- All other Causes: 2.50%
Road Fatalities in India 1,38,258 in year 2012
Fatalities in India:
1,30,037
Scientific Investigation

• There is a need to investigate into:
  Causative Factors which lead to the occurrence of Road Traffic Violations
A Case Study in Delhi
Extent of Daily Road Traffic Violations

When Police Reported only 30,000 Violations

146 million Violations
138 million moving violations
34 million faulty engineering
Study from National Institute of Mental Health and Neuro sciences (NIMHANS)

- The hospital surveys revealed that the victim was under the influence of alcohol in 28% of hospitalized traffic injuries.
- The extent of drivers under the influence of alcohol varied from 11% as detected by the older methodology of suspicious police checks to 40% as detected by random checking of all drivers.
- Among those tested positive, 35% were above the legally permissible limits of 30 mg/100 ml when checked on breath analyzer.

Source: Gururaj and Benegal, 2002
7835 or 5.63% Persons were killed due to intake of alcohol/drugs by Drivers

Source: Ministry of Road Transport & Highways 2012
Surveys conducted by IRTE in Metro cities of India

- **BAC Level**
  - Yes: 81%
  - No: 13%
  - Don't Know: 6%

- **Enforcement**
  - Yes: 65%
  - No: 31%
  - Don't Know: 4%

Awareness about the enforcement done by police against Drunken Driving

Surveys conducted by IRTE in Metro cities of India.
Surveys conducted by IRTE in Metro cities of India

Likelihood to be Prosecuted

- High
- Moderate
- Low
Towards understanding the problem

A Robust System of Traffic Enforcement and Crash Investigation relating to drunk-driving needs to be put in place
Sponsored by ICAP

• CAPACITY BUILDING TRAINING PROGRAMS FOR
  • POLICE OFFICERS
Sponsored by ICAP

- Training of Drivers of Commercial Vehicles
  - On
  - RESPONSIBLE DRINKING
  - “DON’T DRINK & DRIVE”
  - 4400 Drivers have since been trained
Road Safety Initiatives in the Asia-Pacific Region by the UNECE 67th Session of the WP1& Europe-Asia Road Safety Forum

By
Dr. Rohit Baluja
President, IRTE & Director, College of Traffic Management

------- Geneva 23 September 2013 -------
Asia-Pacific Region
No. of Fatalities: 3,61,400

European Region
No. of Fatalities: 87,285
Traffic Control Devices & Road Traffic Legislations

- Form the very basis of a safe, efficient and disciplined traffic management system.
- Devices not installed or contrary to the standards prescribed or not in conjunction with the traffic legislations, road traffic violations and crashes increase resulting in a fall of road user culture.
- **Uniformity** assists road users, law enforcement agencies, accident investigation and traffic courts by providing all the same interpretation uniformity assists highway engineers through efficiency in installations, maintenance and administration.
International License in Contracting States should denote adherence/uniformity of

- Rules of Road Regulation (Convention of Road Traffic)
- &
- Signs, Signals and Road Markings (Convention on Road Signs and Signals)
Need to impress upon countries to become Contracting Parties
# Need for Global Harmonization

<table>
<thead>
<tr>
<th></th>
<th>Conventions on Road Traffic</th>
<th>Conventions on Road Signs &amp; Signals</th>
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<tbody>
<tr>
<td><strong>1949</strong></td>
<td>1949</td>
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<tr>
<td><strong>1968</strong></td>
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<td>1968</td>
</tr>
<tr>
<td><strong>Permanent Member states</strong></td>
<td>36</td>
<td>25</td>
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<tr>
<td><strong>Non-member States</strong></td>
<td>59</td>
<td>19</td>
</tr>
<tr>
<td><strong>Countries not acceded to Conventions</strong></td>
<td>99</td>
<td>151</td>
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<td>110</td>
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<td>121</td>
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</table>
As per Geneva Convention
Delhi, India: 4, December, 2013

UNECE, UNESCAP, Ministry of Road Transport & Highways, Government of India and IRTE invite Member States of UNECE & UNESCAP and other Invitees to Participate

Europe-Asia Road Safety Forum
Europe-Asia Road Safety Forum

To allow for a more conductive exchange of views and best practices between European and Asian government officials and experts.
4 December 2013: Europe-Asia Forum and the 67th Session of the Working Party 1

9:00-10:00 am: Registration

10:00-11:00 am: Inaugural Session of both events:

- Welcome: Dr. Rohit Baluja
- Address: Mr. G.K. Pillai, Former Union Home Secretary, Government of India and Advisor-IRTE
- Address: Mr. Oscar Fernandes, Union Transport Minister, Government of India
- Address: Ms. Eva Molnar, Director, Division of Transport, UNECE
- Address: Mr. Dong-Woo Ha, Director, Transport Division, UNESCAP
- Address:

11:00-11:30 am: Tea

11:30 am-1:00 pm: European Presentations

1:00-2:15 pm: Lunch

2:15-3:30 pm: Asian Presentations

3:30-4:00 pm: Tea

4:00-5:00 pm: Formulation of a Europe-Asia Road Safety strategy:

- Presentations for partnership and cooperation
- Possible stakeholders
- Secretariat
- The way ahead
Delhi, India: 5 & 6 December, 2013

UNECE, Ministry of Road Transport & Highways, Government of India and IRTE

Invite

Member States of UNECE & UNESCAP and other Invitees to Participate

67th Session of the Working Party 1
5th December

- 9.45 am to 11.00 am Session 1
- 11.00-11.30 am Tea
- 11.30 am to 1.00 pm Session 2
- 1.00 pm to 2.00 pm Lunch
- 2.00 pm to 3.15 pm Session 3
- 3.15 pm to 3.45 pm Tea
- 3.45 pm to 5.00 pm Session 4
- Cocktails Dinner at 7.00 pm
6th December

- 9.30 am to 10.45 am Session 1
- 10.45 am -11.15 am Tea
- 11.15 am to 12.45 pm Session 2
- 12.45 pm to 1.30 pm Lunch
- 1.30 pm to 2.45 pm Session 3
- 2.45 pm to 3.15 pm Tea
- 3.15 pm to 4.30 pm Session 4
- Time for City Visit
Road Safety Hall of Nations
December 7th

A morning-evening trip from Delhi to the Taj Mahal at Agra is being hosted by the IRTE

Departure 6.00 am Arrival Agra: 10 am
Departure Agra 2.30Pm Arrival Delhi 7.-8.00 pm
The College of Traffic Management

NCR Delhi, India
For Information and Registration

Contact Mr. Robert Nowak at +41 (22) 917 12 67
or by e-mail: Robert.Nowak@unece.org

For Hotels, Logistics and other information:
Could we Focus

Pedestrian Safety
Request an early confirmation

• We look forward to welcoming you in India
• Shall appreciate an early confirmation
• Please do not hesitate to ask for any special support from the IRTE Secretariat
Thank You

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