Preventing Road Traffic Injuries: International efforts in road safety

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Department of Injuries and Violence Prevention

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1.2 million deaths
Road traffic injury mortality rates (per 100 000 population) in WHO regions, 2002

<table>
<thead>
<tr>
<th>Region</th>
<th>Africa</th>
<th>Americas</th>
<th>South East Asia</th>
<th>Europe</th>
<th>Eastern Mediterranean</th>
<th>Western Pacific</th>
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<td>14.8</td>
<td>16.6</td>
<td>11.1</td>
<td>31.1</td>
<td>11.9</td>
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<td>17.2</td>
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Legend:
- No data
- 19.1–28.3
- 16.3–19.0
- 12.1–16.2
- 11.0–12.0
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<thead>
<tr>
<th>Rank</th>
<th>0–4 years</th>
<th>5–14 years</th>
<th>15–29 years</th>
<th>30–44 years</th>
<th>45–59 years</th>
<th>≥60 years</th>
<th>All ages</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Lower respiratory infections</td>
<td>Childhood cluster diseases</td>
<td>HIV/AIDS</td>
<td>Ischaemic heart disease</td>
<td>Ischaemic heart disease</td>
<td>Ischaemic heart disease</td>
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<td>1 118 385</td>
<td>1 043 978</td>
<td>5 812 863</td>
<td>7 153 056</td>
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<td>Diarrhoeal diseases</td>
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<td>Diarrhoeal diseases</td>
</tr>
<tr>
<td>3</td>
<td>Low birth weight</td>
<td>Lower respiratory infections</td>
<td>Self-inflicted injuries</td>
<td>Road traffic injuries</td>
<td>Road traffic injuries</td>
<td>Road traffic injuries</td>
<td>Road traffic injuries</td>
</tr>
<tr>
<td>4</td>
<td>Malaria</td>
<td>HIV/AIDS</td>
<td>Tuberculosis</td>
<td>Ischaemic heart disease</td>
<td>HIV/AIDS</td>
<td>Lower respiratory infections</td>
<td>HIV/AIDS</td>
</tr>
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<td>5</td>
<td>Childhood cluster diseases</td>
<td>Drowning</td>
<td>Interpersonal violence</td>
<td>Self-inflicted injuries</td>
<td>Chronic obstructive pulmonary diseases</td>
<td>Childhood cluster diseases</td>
<td>Childhood cluster diseases</td>
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<td>6</td>
<td>Birth asphyxia and birth trauma</td>
<td>Malari</td>
<td>Lower respiratory infections</td>
<td>Interpersonal violence</td>
<td>Trachea, bronchus, lung cancers</td>
<td>Diabetes mellitus</td>
<td>Childhood cluster diseases</td>
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<tr>
<td>7</td>
<td>HIV/AIDS</td>
<td>Tropical cluster diseases</td>
<td>Fires</td>
<td>Cerebrovascular disease</td>
<td>Cirrhosis of the liver</td>
<td>Hypertensive heart disease</td>
<td>Childhood cluster diseases</td>
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<tr>
<td>8</td>
<td>Congenital heart anomalies</td>
<td>Fires</td>
<td>Drowning</td>
<td>Cirrhosis of the liver</td>
<td>Stomach cancer</td>
<td>Tuberculosis</td>
<td>Tuberculosis</td>
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<tr>
<td>9</td>
<td>Protein-energy malnutrition</td>
<td>Tuberculosis</td>
<td>War</td>
<td>Lower respiratory infections</td>
<td>Self-inflicted injuries</td>
<td>Tuberculosis</td>
<td>Trachea, bronchus, lung cancers</td>
</tr>
<tr>
<td>10</td>
<td>STDs excluding HIV</td>
<td>Protein-energy malnutrition</td>
<td>Hypertensive disorders</td>
<td>Poisonings</td>
<td>Stomach cancer</td>
<td>Colon and rectum cancers</td>
<td>Malari</td>
</tr>
<tr>
<td>11</td>
<td>Meningitis</td>
<td>Meningitis</td>
<td>Maternal haemorrhage</td>
<td>Fires</td>
<td>Liver cancer</td>
<td>Nephrits and nephrosis</td>
<td>Nephrits and nephrosis</td>
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<tr>
<td>12</td>
<td>Drowning</td>
<td>Leukaemia</td>
<td>Ischaemic heart disease</td>
<td>Maternal haemorrhage</td>
<td>Diabetes mellitus</td>
<td>Alzheimer and other dementias</td>
<td>Low birth weight</td>
</tr>
<tr>
<td>13</td>
<td>Road traffic injuries</td>
<td>Falls</td>
<td>Poisoning</td>
<td>War</td>
<td>Lower respiratory infections</td>
<td>Liver cancer</td>
<td>Diabetes mellitus</td>
</tr>
<tr>
<td>14</td>
<td>Endocrine disorders</td>
<td>Violence</td>
<td>Childhood cluster diseases</td>
<td>Drowning</td>
<td>Breast cancer</td>
<td>Cirrhosis of the liver</td>
<td>Hypertensive heart disease</td>
</tr>
<tr>
<td>15</td>
<td>Tuberculosis</td>
<td>Poisonings</td>
<td>Abortion</td>
<td>Liver cancer</td>
<td>Hypertensive heart disease</td>
<td>Oesophagus cancer</td>
<td>Self-inflicted injuries</td>
</tr>
</tbody>
</table>
Age distribution
Road traffic injury mortality in Africa, 2002

60% of deaths from road traffic injuries occur among those younger than 30 years old
Road traffic death rates (per 100 000 population) in selected African countries

- Ethiopia
- Rwanda
- Rep. Congo
- Cameroon
- Benin
- Senegal
- Ghana
- Nigeria
- Kenya
- South Africa
- Botswana
- Avg for HICs
- The World

Rate per 100 000 population

Source: Jacobs et al. 2000
20-50 million injuries
Most are vulnerable road users
Road traffic crashes are predicted to rise
RTIs are more complex in LMICs
Road safety should be addressed using a “systems approach”
Road safety is a shared responsibility

Government & Legislative Bodies

Users / Citizens

Media

Industry

Professionals

Police

NGOs, Special Interest Groups

Road Injury Prevention Policy
Road traffic injuries are a public health problem
WHD and launch of World Traffic Report
7 April 2004
African launches of WRRTIP

South Africa

Kenya

Ethiopia

Angola
Focus on successful interventions

**HELMETS**

Most motorcycle deaths are a result of head injuries. Wearing a motorcycle helmet correctly can cut the risk of death by almost 40%, and the risk of severe injury by 70%.

After passing helmet legislation in **Malaysia** there was a 30% reduction in motorcycle deaths.

A hospital-based study in **Nigeria** revealed that none of head injured motorcyclists were wearing a helmet at the time of their collision.

Launched 25 August 2006
Consuming alcohol before driving increases the risk of a crash as well as the likelihood that death or serious injury will result. Passing a drink–driving law and enforcing it can reduce the number of road deaths by 20%.

With the exception of South Africa, drink-driving laws in Africa are vague or not enforced. No pedestrian laws.

No African countries have drug-driving laws despite the known increased crash risks.
Focus on successful interventions
SEAT-BELTS and CHILD RESTRAINTS

Wearing a seat-belt reduces the likelihood of being ejected from a vehicle, thereby decreasing the risk of death or serious injury by 40%-65%.

After passage/enforcement of seat belt law in the United Kingdom there was a 35% reduction in hospital admissions.

In Australia there was a 26% reduction in car occupant deaths.

Most countries in Africa have seat-belt laws for drivers, but few have child-seat laws.
Focus on successful interventions

SPEED

Speed kills all types of road users - drivers, pedestrians and cyclists. A 5% cut in average speed can reduce the number of fatal crashes by as much as 30%.

After passing and enforcing a 5 km/hr REDUCTION in the speed limit in Switzerland there was a 12% reduction in deaths.

After INCREASING the speed limit by between 2-4 miles/hr in the USA there was a 19-34% increase in deaths.
Pedestrians and cyclists can be difficult to see on the roads and are therefore at risk of road traffic injuries. Wearing lightly-coloured or reflective clothing makes them much more visible and can help avoid collisions.

Promising studies underway:

In **Uganda**, motocyclists are encouraged to wear reflective vests.

In **South Africa**, children's school clothes and bags are reflectorized.
Focus on successful interventions
LOW COST ENGINEERING MEASURES

Simple low-cost engineering measures save thousands of lives every year.

Speed bumps in **Ghana** reduced crashes by 35% at a high-risk crash site.

Building a pass over a busy **Ugandan** road has reduced the number of deaths among school children.
Emergency medical services

WHO Executive Board Resolution
26 January 2007
Emergency care systems

Guidelines for essential trauma care
Road Safety is no Accident

- Country events
- World Youth Assembly (23-24 April, Geneva)
  - Youth declaration
  - Results video and drawing competitions
- 2nd Stakeholders Forum

www.who.int/roadsafety/
### Predictions for Africa - 2030

#### Leading causes of **DEATH**

<table>
<thead>
<tr>
<th>#</th>
<th>Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ischaemic heart disease</td>
</tr>
<tr>
<td>2</td>
<td>HIV/AIDS</td>
</tr>
<tr>
<td>3</td>
<td>Cerebrovascular disease</td>
</tr>
<tr>
<td>4</td>
<td>COPD</td>
</tr>
<tr>
<td>5</td>
<td>Lower respiratory infections</td>
</tr>
<tr>
<td>6</td>
<td>Perinatal conditions</td>
</tr>
<tr>
<td>7</td>
<td><strong>Road traffic accidents</strong></td>
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<tr>
<td>8</td>
<td>Diarrhoeal diseases</td>
</tr>
<tr>
<td>9</td>
<td>Diabetes mellitus</td>
</tr>
<tr>
<td>10</td>
<td>Malaria</td>
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</tbody>
</table>

#### Leading causes of **DALYs**

<table>
<thead>
<tr>
<th>#</th>
<th>Cause</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>HIV/AIDS</td>
</tr>
<tr>
<td>2</td>
<td>Perinatal conditions</td>
</tr>
<tr>
<td>3</td>
<td>Unipolar depressive disorders</td>
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<td>4</td>
<td><strong>Road traffic accidents</strong></td>
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<tr>
<td>5</td>
<td>Ischaemic heart disease</td>
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<tr>
<td>6</td>
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<td>Diarrhoeal diseases</td>
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<td>8</td>
<td>Cerebrovascular disease</td>
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<tr>
<td>9</td>
<td>Cataracts</td>
</tr>
<tr>
<td>10</td>
<td>Malaria</td>
</tr>
</tbody>
</table>
Road traffic crashes can be prevented

The diagram shows the fatality rate per 100,000 population for the UK, Australia, and the USA from 1960 to 2002. The fatality rate for all three countries has decreased significantly over the years, indicating that road traffic crashes can be prevented with effective measures.
Steps to consider for Africa

- Political commitment
- Lead agencies at national level
- Focus on effective prevention measures
- Strengthen trauma care
- Develop data collection systems
- Create a culture of safety
THANK YOU

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