Good practices, national and regional observatories on road safety

Road Safety Information Systems

Road Safety Management in the Arab countries

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Outline

Traditional approach
• Crash characteristics among the dead
  • Counting the dead
• (Selected) general population performance indicators
  • E.g., safety belt use; alcohol among drivers
• Characterizing non fatal victims

Approach needed in 2018
1. What is needed?
   Implement Safety legislation
     For people
     For infrastructure
     For vehicles
   Initiate enforcement
2. Can we measure progress in process (e.g., enforcement) and outcomes (fatalities, non fatalities)?
Task 1. What is needed?

We have enough information on what is implemented and what not (and where)

From publicly available data sources. Besides WHO’s country profiles, there are data from more than 20 other references (WEF, ESRA, UNECE, GBD, WB,...)

e.g.,
- FIA country profiles –to be released Dec 2018
  Up to 225 items
- Similar to UNECE’s SafeFITs, or IRF’s dashboard
- ESCWA’s own survey
- New WHO’s global status report to be released on December 7th, 2018
But ...what else is needed?

Examples of a few indicators for these 12 targets approved in 2018:

- Halve the proportion of vehicles traveling over the posted speed limits
- Effectively enforced legislation on helmet
- Reached almost 100% of the proportion of motorcycle rides correctly using their helmets
- Implemented and effectively enforced legislation requiring the use of safety belts for all motor vehicle occupants
- Implemented and effectively enforced legislation requiring the use of child-restraint systems meeting appropriate standards
- Reached close to 100% proportion of all motor vehicle occupants using safety belts
- Reached 100% proportion of all child motor vehicle occupants using standard child restraint systems
- Implementing and effectively enforcing regulations on safety for child restraint systems sold
- Implemented and effectively enforced on driving under the influence of alcohol and/or other psychoactive substances
- Implemented and effectively enforce legislation restricting or prohibiting the use of mobile phone while driving
- Implemented and effectively enforced regulation and audits of driving time and rest periods for professional drivers
- Achieve national targets of the time interval between a crash resulting in serious injury and the provision of first professional emergency care
Task 2. Can we measure progress?

**SDG GOAL 3:** Ensure healthy lives and promote well-being for all at all ages

**TARGET 3.6:** By 2020, halve the number of global deaths and injuries from road traffic accidents

**SDG GOAL 11:** Make cities and human settlements inclusive, safe, resilient and sustainable

**TARGET 11.2:** By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons
## On SDG 3.6 (2014 data in 2015 WHO report)

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of countries</th>
<th>Total population (000s)</th>
<th>Total reported road deaths by countries</th>
<th>Total WHO road death counts</th>
</tr>
</thead>
<tbody>
<tr>
<td>World (total)</td>
<td>194</td>
<td>7312528</td>
<td>622268</td>
<td>1207617</td>
</tr>
<tr>
<td>Africa</td>
<td>49</td>
<td>1001415</td>
<td>63830</td>
<td>242772</td>
</tr>
<tr>
<td>Americas</td>
<td>35</td>
<td>986707</td>
<td>127645</td>
<td>138361</td>
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<tr>
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<td>4112685</td>
<td>322066</td>
<td>694817</td>
</tr>
<tr>
<td>Europe</td>
<td>43</td>
<td>733385</td>
<td>56220</td>
<td>59406</td>
</tr>
<tr>
<td>North Africa and Western Asia</td>
<td>23</td>
<td>439973</td>
<td>50713</td>
<td>69157</td>
</tr>
<tr>
<td>Oceania</td>
<td>14</td>
<td>38363</td>
<td>1794</td>
<td>3004</td>
</tr>
</tbody>
</table>
On SDG 3.6 in ESCWA region

<table>
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<td>127 645</td>
</tr>
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</tr>
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<td>43</td>
<td>733 385</td>
<td>56 220</td>
</tr>
<tr>
<td>North Africa and Western Asia</td>
<td>23</td>
<td>439 973</td>
<td>50 713</td>
</tr>
<tr>
<td>In particular, ESCWA members</td>
<td>18</td>
<td></td>
<td>41 465</td>
</tr>
<tr>
<td>Oceania</td>
<td>14</td>
<td>38 363</td>
<td>1 794</td>
</tr>
</tbody>
</table>

What to do when you are missing one of every three road fatal victims?

One of two choices

1) assume underreporting is random and continue policy making using police-derived data and its analysis

2) investigate the nature of underreporting
   - Likely, more rural areas, more vulnerable users, single crashes, etc....
     - Promote improvements in population coverage

31% difference, 31% difference
Explaining the differences in fatality counts

Is there a civil (vital) registration system in place?

- More than 78 countries in the world have no operational civil registration systems reporting to WHO
  - 11 of them in ESCWA region

- (temporary) solution: mathematical model for all causes of death

Even when there is a civil registration system in place

- Some countries do not cross-check their data
  - E.g., Spain. 2012 was the first year when traffic authorities established a protocol to periodically validate road deaths against civil registration system
How can we improve measuring progress?

• Developing/improving Data systems
  • Including, but not limited to crash-related data systems
  • Vehicle registration systems
  • Road inventory systems
  • Driver license registration systems
  • Civil and vital registration systems
  • Sanctions and infractions registrations systems

• Standardizing Variable definition (and value definition)
  • Mostly settled in international agreements (e.g., UNECE, ITF and EuroStat glossary)
  • Ongoing work on some others, including performance indicators

• Setting Targets and indicators
How to improve data collection?

**Regional Road Safety Information Systems (a.k.a. Regional Observatories*)** can be the tool to facilitate country level improvements and speeding up the convergence into world-wide common standards

- Countries should be encouraged to systematically and over time build the minimum set of indicators for data capturing and analysis into their road safety information systems.
- This comprehensive set of indicators should cover the whole sector and use that information to improve safety and more transparent and rational decision making.
- There exist software/data collection templates that can be easily (and economically adapted) to different country environments
- There exist hardware to facilitate local data collection
- Various relevant organisations support the initiatives on to establish a road safety observatory
- By bringing interested parties together, regional observatories accelerate capacity building, system implementation, and intervention adoption
- There are enough examples of working observatories from which to build on....

*Observatories is only a term, they can be Statistics Departments with the capacity to produce reliable data
What are we at FIA doing on observatories?

We created a working group together with WB and ITF and formalized it.

Since late 2016 we have been working on:

- Europe (CARE/ERSO) – participated in definition of new 2030 indicators and targets
- Latin America (OISEVI)
- Africa (ARSO)
- ESCWA
- South East Asia

LOI, Leipzig May 2017

MoU, Leipzig May 2018
• Established in 1988
• Working group within International Transportation Forum (within OECD)
• Currently 30 countries*, government and non-government organizations pay a yearly membership to be part of it
• So far, mostly crash-related data
• Collects aggregated data (tabulated data) and publishes it after a validation process

*From ESCWA, only Morocco
CARE

- Established in 1993* to gather crash data in European countries
- Collects individual-level data
  - Much greater analytical possibilities
- 33 EU governments report the data of crashes leading to death and/or injuries
- In 2018 our team participated in discussions to select targets and indicators for 2030


*European Council Decision 93/704/EC of November 30 1993 "on the creation of a Community database on road accidents"
Over time, additional EU-funded research projects built on complementary aspects: in-depth crash investigation (e.g., DAKOTA), attitudes and self-reported behaviour (SARTRE now ESRA), depository of best practices... and this was called ERSO

ERSO’s name will eventually disappear after full integration into a broaden CARE framework
Established in 2012
- Preceeded by many years of bilateral collaborative projects and a 2008 political resolution by SEGIB

- 19 Latin American countries + Spain. Initially stablished as an independent organization headed by Traffic authorities of member countries

- Since Nov 15, 2018, part of a road safety integral program within SEGIB under heads of state

- Collects aggregated data

- Acts as forum for policy discussion

- Facilitated twinning projects, training from IRTAD, funding of data collection on attitudes and self-reported behaviour (ESRA), etc

Website currently under remodelling
Established in Nov 2018

- After several political commitments (AU level) and three workshops during 2018: February (Senegal), July (Nigeria) and November (Morocco)

- Agreed on: by Laws, crash-related variables to collected, and work plan 2019-2021

- Seeking hosting by African Union

- Morocco, Nigeria, Kenya, Benin, Cameroon, Uganda and South Africa in Steering committee already, others to join. 23 others have expressed interest

- Initially will collect aggregated data but wants to collect it disaggregated

- Includes program to improve civil and vital registration systems together with WHO
Other regional efforts

Safer Africa
• 3 year EU funding ending in 2019. Multiple goals.
• On data,
  • Surveyed 29 African countries* to assess data collection practices and issued recommendations
  • Five ongoing pilots**
  • Created a depository http://www.africanroadsafetyobservatory.org/

ESRA (www.esranet.eu)—attitudes and self-reported behaviour (e.g., perception of risk, acceptance of road safety measures)

*None ESCWA except Mauritania and Libya
** None ESCWA
How to move forward?

<table>
<thead>
<tr>
<th>Present</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing data</td>
<td>Gathering new data</td>
</tr>
<tr>
<td>Phase 1: 1A Mobilizing and disseminating known facts</td>
<td>Phase 2: ... on Burden</td>
</tr>
<tr>
<td>Phase 3: ... on Attitudes and Behavior and interventions</td>
<td>Phase 4: ... on Exposure</td>
</tr>
<tr>
<td>1B Improvements on existing crash-related data systems...</td>
<td></td>
</tr>
<tr>
<td>Fatalities</td>
<td>Legislation</td>
</tr>
<tr>
<td>Non fatal injuries</td>
<td>Interventions (e.g., alcohol random breath tests), Observations and Perceptions (by people and decision makers)</td>
</tr>
<tr>
<td></td>
<td>Km travelled by mode</td>
</tr>
</tbody>
</table>

**CARE (ERSO)**

**OISEVI**

**ARSO**

Time units can be decades...or years, if we use what we have learnt during this time. E.g., ARSO has achieved in 1 year what OISEVI took at least 5 years to achieve.
Spain, a late but successful comer to road safety

Road traffic deaths, 1960-2016

Road Safety Strategy 2011-2020; indicators and values

<table>
<thead>
<tr>
<th>Indicadores</th>
<th>Cifra Basal 2010</th>
<th>Cifra 2015</th>
<th>Cifra 2016</th>
<th>Cifra objetivo 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Baja de la tasa de fallecidos de 37 por millón de habitantes.</td>
<td>09</td>
<td>30</td>
<td>30</td>
<td>Inferior a 37</td>
</tr>
<tr>
<td>2. Reducción del número de heridos graves en un 30%</td>
<td>2.650</td>
<td>0.465</td>
<td>0.755</td>
<td>0.050</td>
</tr>
<tr>
<td>3. Casos nuevos fallecidos en accidentes de retención motorizada</td>
<td>12</td>
<td>5</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>4. 25% menos de conductores de 18 a 24 años fallecidos y heridos graves en un 30%</td>
<td>320</td>
<td>303</td>
<td>301</td>
<td>616</td>
</tr>
<tr>
<td>5. 10% menos de conductores fallecidos mayores de 65 años</td>
<td>265</td>
<td>200</td>
<td>205</td>
<td>183</td>
</tr>
<tr>
<td>6. 30% reducción de fallecidos por accidente</td>
<td>100</td>
<td>300</td>
<td>300</td>
<td>321</td>
</tr>
<tr>
<td>7. 1 millón de viajeros más sin que se incremente su tasa de mortalidad</td>
<td>1.2</td>
<td>1.2</td>
<td>1.4</td>
<td>1.2</td>
</tr>
<tr>
<td>8. Casos fallecidos en torninos en zona urbana</td>
<td>101</td>
<td>61</td>
<td>80</td>
<td>0</td>
</tr>
<tr>
<td>9. 20% menos de fallecidos y heridos graves causados por intervención médica</td>
<td>3.479</td>
<td>2.928</td>
<td>3.024</td>
<td>2.773</td>
</tr>
<tr>
<td>10. 35% menos de fallecidos por salvavidasía en carretera convencional</td>
<td>520</td>
<td>265</td>
<td>270</td>
<td>394</td>
</tr>
<tr>
<td>11. 33% menos de fallecidos en tornino</td>
<td>170</td>
<td>101</td>
<td>No disponible</td>
<td>110</td>
</tr>
<tr>
<td>12. Bajar del 1% los pedidos en aire expresado en los controles preventivos de tráfico</td>
<td>0.6% (anual)</td>
<td>0.8% (anual)</td>
<td>0.8% (anual)</td>
<td>No disponible</td>
</tr>
<tr>
<td>13. Reducir en 50% el % de vehículos furgon que superan el límite de velocidad en más de 20 km/h</td>
<td>12.5% (anual)</td>
<td>2.0% (anual)</td>
<td>15.0% (anual)</td>
<td>No disponible</td>
</tr>
</tbody>
</table>

Rate per 100,000 pop.
Additional evidence that together we can do it better and faster
For each domain, set targets from improvement and monitoring progress

Observatories can

• Provide guidance on priorities for regional priority setting
• Facilitate collaboration in defining still missing data sources and collecting data from most appropriate source
• Facilitate adoption of:
  • Indicator definers
  • Data collectors

### Example of quality check evolution: Number of deaths

<table>
<thead>
<tr>
<th>Country/year</th>
<th>2017</th>
<th>2019</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>OK</td>
<td>OK</td>
<td>OK</td>
</tr>
<tr>
<td>B</td>
<td>Underreporting 25%</td>
<td>Underreporting 12%</td>
<td>OK</td>
</tr>
<tr>
<td>C</td>
<td>Lacks vital reg. Systems</td>
<td>Lacks vital reg. systems</td>
<td>Underreporting 40%</td>
</tr>
<tr>
<td>D</td>
<td>Underreporting 5%</td>
<td>OK</td>
<td>OK</td>
</tr>
<tr>
<td>E</td>
<td>Lacks vital reg. systems</td>
<td>Underreporting 25%</td>
<td>Underreporting 5%</td>
</tr>
</tbody>
</table>
Summing it up

• No need to wait to begin action
  • Embrace, adopt, enforce recommendations
• Embrace performance and outcome indicators. Embrace/modify targets
• Invest in data system improvements according to existing (and often free of charge systems)
  • Pay attention to link to civil and vital registration systems to avoid bias in analysis
• Take advantage of the errors from others in the past – you can jumpstart: read, ask. Glad to share!
Thanks!

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