A PROPOSED MINIMUM SET OF ROAD SAFETY INDICATORS FOR DATA COLLECTION, ANALYSIS AND REPORTING BY ALL AFRICAN COUNTRIES.

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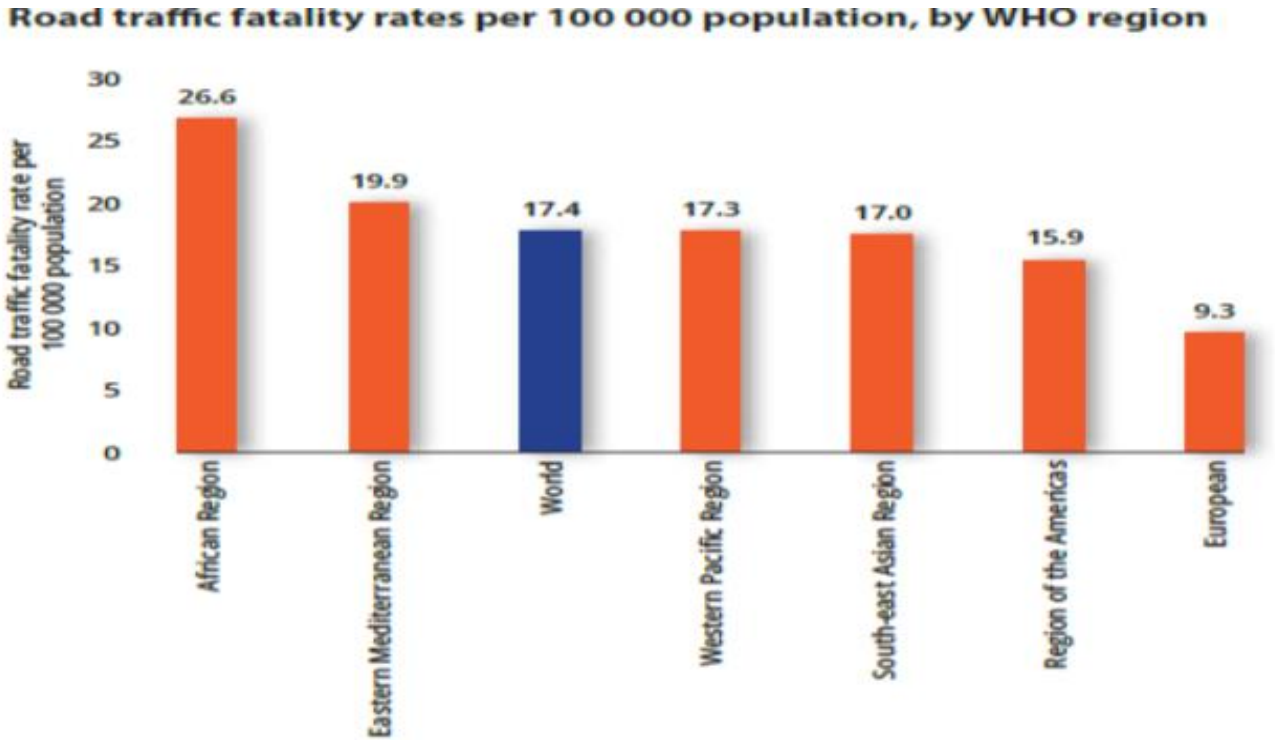
WHO 2105 GLOBAL ROAD SAFETY STATUS REPORT

- Africa region: road traffic fatalities increased from 24.1 per 100,000 population in 2010 to 26.6 per 100,000 population in 2013.



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WHO Status Report ctd

- Lack of detailed knowledge on the number of road crashes and fatalities occurring in Africa
- Lack of information on factors leading to road crashes or affecting their consequences
- Estimates the number of road fatalities in Africa was 31% of world total in 2013

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WHO Status Report ctd

- 40% African countries have not taken sufficient action in:
  - Establishing/strengthening/harmonising the injury data system
  - Engaging local research centres
  - Building capacity for road safety data management
  - Mandatory reporting using standardised data
  - Sustainable funding for road safety data management.

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- Fewer than 18% of countries monitor indicators such as seatbelt or helmet-wearing rates.

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CHALLENGES FACED IN ROAD SAFETY DATA MANAGEMENT IN AFRICA

- People
- Processes
- Technologies

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PEOPLE

Examples of challenges related to people:

- Level of training
- Lack of understanding of definitions and interpretations
- Lack of understanding of importance of data collection
- Data collection neglected or incorrect
- Lack of understanding of importance to complete crash report
- Underreporting

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PROCESSES

Examples of challenges related to processes:

- Inaccurate capturing of data from crash report forms
- Timeliness of data affected by number of times forms are handled and capturing delayed
- Delays caused by processes handled by offices outside the custodial office
- Inaccuracy as a result of “errant keystrokes”

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TECHNOLOGIES

- Data is not collected electronically – has an affect on timeliness, accuracy and completeness
- GPS and GIS maps are not used – influences the precise determination of location of crashes
- The absence of “Data Warehouses” – this could assist with the availability of data and integration with other systems

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Data contributing to essential research

The data obtained through the minimum set of indicators could provide answers to some fundamental questions:

- What type of vehicles are involved in crashes (age, type)
- What kinds of features in road infrastructure are involved in consequences of crashes (trees, guide rails, poles, etc.)
- What type of roads are crashes most commonly occurring on?
- Which gender/age is more likely to be involved in crashes?
- Which hours or day period are the most dangerous in terms of number of crashes?
- Which crashes can something be done about technically? (vehicle or road infrastructure)
- Which protective measures have the highest benefit for reducing crashes?
- What type of countermeasures could save lives?
- Which crash type is most commonly fatal?

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PROPOSED MINIMUM SET OF INDICATORS

Variations in the African data collection systems and the type and quality of data collected necessitates the development and provision of a harmonised (standardised) minimum set of indicators within a structure which allows for maximum flexibility to add on indicators to fulfil individual countries' needs.

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The need for a standardised minimum set of road safety indicators.

- Road crash data are collected in African countries by the use of their own national collection systems.
- The variations in the systems and the type and quality of data collected necessitates the development and provision of a harmonised (standardised) minimum set of indicators
- The minimum set of indicators can serve as a powerful tool which would make it possible to identify and quantify road safety problems throughout Africa, evaluate the efficiency of road safety measures, determine the relevance of community actions and facilitate the exchange of experience in this field.
- It is acknowledged that more variables and values could be necessary to better describe and analyse the road accident phenomenon than is provided in the minimum set of indicators.
- The flexibility of the set makes it possible for countries to add more variables should their management systems require it.

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Proposed minimum set of road safety indicators for data collection, analysis and reporting.

- A minimum set of standardised data elements has been developed which will allow for comparable road accident data to be available nationally, regionally and internationally.
- The indicators are based on the analysis of the currently available national crash data collection systems in Europe.
- The set of proposed road safety indicators was sent to 30 countries with the request to indicate which of them they regard as minimum indicators to be included in a system in order to obtain meaningful information to be used internally (nationally) and to be provided externally (internationally) to make valid comparisons.
- The following countries responded to the request for feedback: Botswana, Ethiopia, Gambia, Ghana, Malawi, Mauritius, South Africa, Sierra Leone, South Sudan, Tanzania. The proposed indicators were also discussed in meetings with authorities in Kenya, Nigeria, Benin, Cameroon and Togo.
- The set of indicators can be implemented on a voluntary basis in the national crash collection systems of the African countries.
- Progressively, more and more common road crash data from the various countries will be available in a uniform format.
- In this way the present disaggregate collection of data on road safety, will gradually contain more and more compatible and comparable data, allowing for more reliable analyses and comparisons.

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CATEGORIES OF INDICATORS

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CRASH RELATED INDICATORS

1. Crash identification number
2. Crash date
3. Crash time
4. Crash location
5. Crash type
6. Impact type
7. Weather conditions
8. Light conditions
9. Crash severity

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ROAD RELATED INDICATORS

10. Type of road way
11. Road functional class
12. Surface conditions
13. Speed limit
14. Road obstacles
15. Junction
16. Traffic control at junction
17. Road Curve
18. Road segment grade

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VEHICLE RELATED INDICATORS

19. Vehicle number
20. Vehicle identification number (VIN, issued by manufacturer)
21. Vehicle registration number
22. Vehicle type
23. Vehicle make
24. Vehicle model
25. Vehicle year of manufacture
26. Engine size
27. Vehicle special function
28. Vehicle manoeuvre (what the vehicle was doing at the time of the crash

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PERSON RELATED INDICATORS

29. Person ID
30. Occupant's vehicle number
31. Pedestrian's linked vehicle number
32. Date of birth
33. Sex
34. Type of road user
35. Seating position
36. Injury severity

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PERSON RELATED INDICATORS

37. Safety equipment
38. Pedestrian manoeuvre
39. Alcohol use suspected
40. Alcohol test
41. Drug use
42. Driving licence issue date
43. Age
44. Hit and run

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EXAMPLES

1	Crash identification number	Definition: The unique identifier (e.g. a 10-digit number) within a given year that identifies a particular crash. Obligation: Mandatory Data type: Numeric or character string Comments: This value is usually assigned by the police as they are responsible at the crash scene. Other systems may reference the incident using this number.

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Surface conditions

Definition: The condition of the road surface at the time and place of the crash.

Obligation: Mandatory

Data type: Numeric

Data values:

1 **Dry:** Dry and clean road surface.

2 **Snow, frost, ice**: Snow, frost or ice on the road.

3 **Slippery:** Slippery road surface due to existence of sand, gravel, mud, leaves, oil on the road. Does not include snow, frost, ice or wet road surface.

4 **Wet, damp:** Wet road surface. Does not include flooding.

5 **Flood:** Still or moving water on the road.

6 **Other:** Other road surface conditions not mentioned above.

9 **Unknown:** The road surface conditions were unknown.

Comments: Important for identification of high wet-surface crash locations, for engineering evaluation and prevention measures.

CONCLUSIONS

- 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.
- Various relevant organisations should support the initiatives on the continent to establish a road safety observatory.
- Develop a comprehensive set of performance indicators covering the whole sector and use that information to improve safety and more transparent and rational decision making.

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END

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