



# MEASURING ROAD SAFETY PROGRESS

## ASIA-PACIFIC ROAD SAFETY OBSERVATORY WORKSHOP



GLOBAL  
ROAD SAFETY  
PARTNERSHIP

CELEBRATING 20 YEARS

The Global Road Safety Partnership is hosted by:



100  
1919-2019

## ABOUT US

- Hosted by the International Federation of Red Cross and Red Crescent Societies (IFRC)
- Headquartered in Geneva, Switzerland & Kuala Lumpur, Malaysia
- Founded in 1999 after IFRC's 1998 World Disasters Report:
  - Identified catastrophic number of traffic injuries and deaths and dramatic consequences on people and their livelihoods
  - IFRC, World Bank and British Govt's Dept for International Development (DFID) decided to create GRSP
  - Member-based organisation
  - Bring together governments, government agencies, private sector & civil society to urgently address road safety





## ABOUT US

- We are part of an extensive international multi sector network of partners committed to reducing road trauma
- Our people are professionals with expertise in road safety that includes academic research, project management, communications, journalism, advocacy, road policing, education and training





## CONSIDERATIONS

- WHO's Global Status Report highlights that many countries significantly under-report road traffic fatalities, e.g.

Country	2016 reported traffic fatality number	WHO estimated traffic fatality number
Vietnam	8,147	24,970
India	150,785	299,091
China	58,022	256,180





## CONSIDERATIONS

- Injury definitions vary (e.g. defining serious or minor injuries)
- Non-fatal injury reporting rates are very low or non-existent
- Contributing factors are often not recorded and investigative standards are poor
- Training and equipment is required to accurately identify;
  - **Pre-crash speed estimates**
  - **Alcohol involvement**
  - **Seat belts worn**
  - **Helmets worn**
  - **Vehicle factors**
  - **Plus a range of other factors**

**Systematic improvements in crash investigation, reporting, recording and analysis standards will take considerable time and investment.**



## PROXY FOR FINAL ROAD SAFETY OUTCOME MEASURES

Final outcome - reduction in road traffic deaths and serious injuries



- **Changes in behavioural outcome measures provide a barometer for final road safety outcome performance (overall trauma reduction). As examples;**
  - I. Reductions in free travel speed = reduced speed related road trauma
  - II. Reductions in percentages of drivers who are alcohol affected = reduced alcohol related road trauma
  - III. Increases in vehicle passengers using seat belts/child restraints = reduced un-restrained vehicle occupant trauma
  - IV. Increase in correct wearing rates of quality motor cycle helmets = reduced motor cyclist rider and passenger head trauma

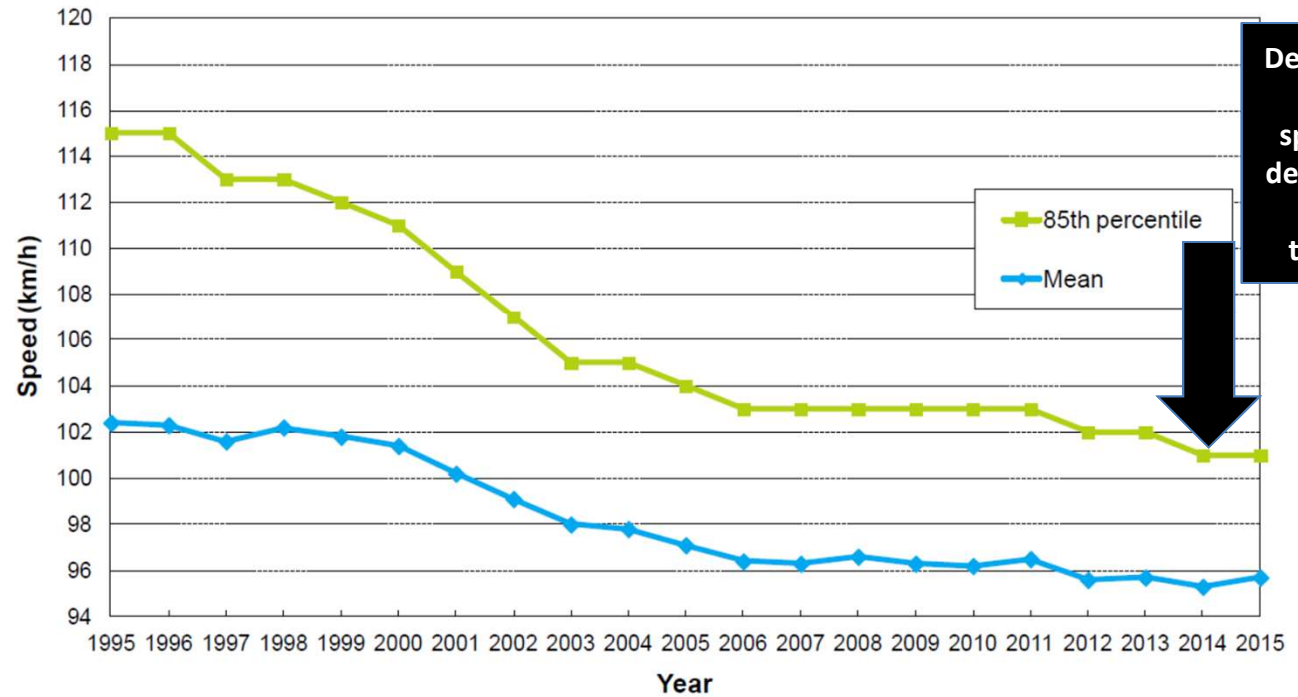
A systemic, methodologically sound, and geographically relevant national survey of behavioural outcomes provides highly valueable data on improving or degrading road safety system performance.



# EXAMPLE OF SPEED SURVEY DATA



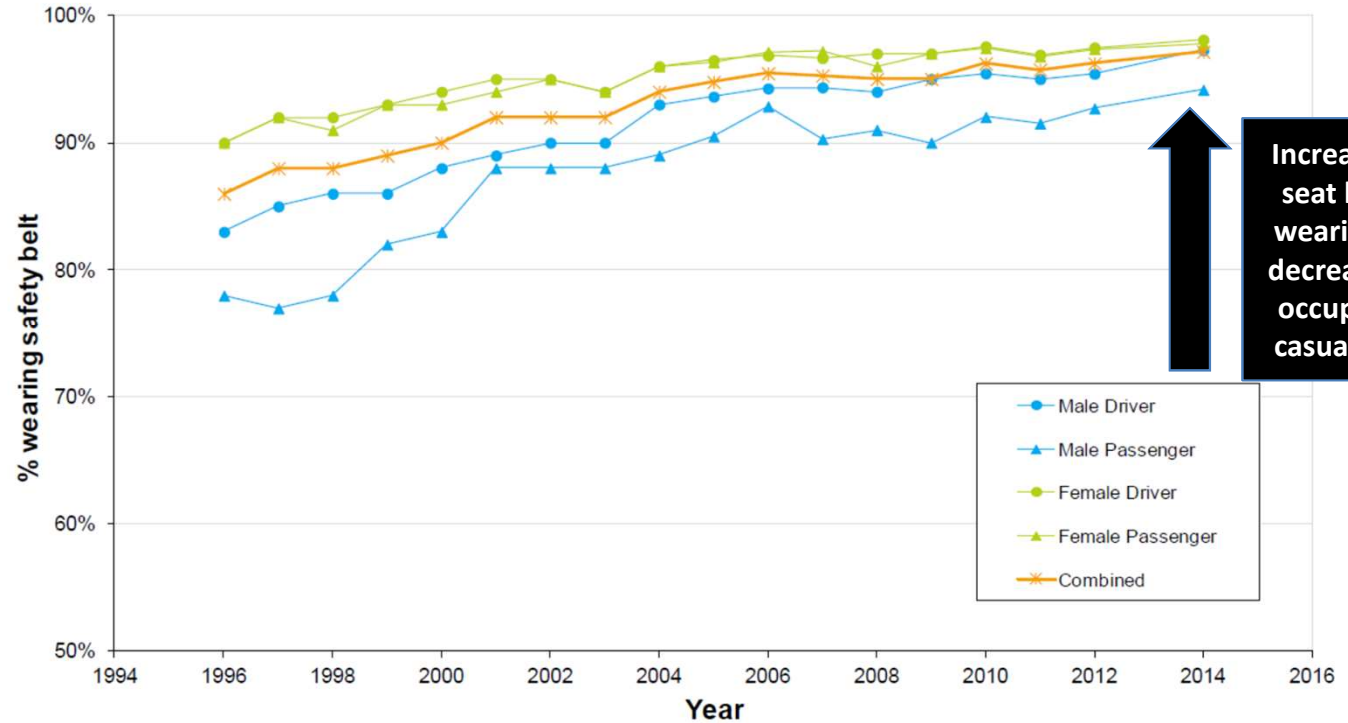
### Open road car speeds



Decreasing mean speeds = decreasing road trauma

# EXAMPLE OF SEAT BELT SURVEY

Figure 1: Safety belt wearing rates for front seat adults, 1996-2014



Increasing seat belt wearing = decreasing occupant casualties



# EXAMPLE – WHEN TO SURVEY FOR DRIVER ALCOHOL (HIGH ALCOHOL HOURS)



Alcohol related fatal/injury crashes						Greater than average (91)		
2008-12	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
12:00-1:59 am	64					61	319	327
2:00-3:59 am	31					30	256	295
4:00-5:59 am	22	15	34	48	62	180	215	
6:00-7:59 am	19	15	22	35	45	104	132	
8:00-9:59 am	15	17	12	22	26	45	51	
10:00-11:59 am	10	12	22	23	20	41	37	
12:00-1:59 pm	21	19	25	28	30	50	55	
2:00-3:59 pm	33	47	43	46	57	80	66	
4:00-5:59 pm	38	76	84	94	104	108	103	
6:00-7:59 pm	73	86	108	101	182	183	135	
8:00-9:59 pm	69					256	131	
10:00-11:59 pm	65					299	96	
Total	460	591	776	950	1337	1921	1643	

Survey times/days of the week must be at highest risk periods

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## PROXY FOR FINAL ROAD SAFETY OUTCOME MEASURES



- Changes in public attitudes to road safety provide a secondary barometer of road safety outcome performance (i.e. ESRA – E-Survey of Road users’ Attitudes) and cross country comparisons.
- Collecting comparable (inter)national data on road users’ opinions, attitudes, and behaviour with respect to road traffic risks.
- Examples include:
  - I. Understanding the perceived likelihood of drivers being checked for alcohol ***(i.e. effectiveness of police drink drive enforcement)***
  - II. Understanding perceptions of likelihood of being stopped for speeding ***(i.e. measure of police enforcement effectiveness)***
  - III. Measuring support for seat belt enforcement ***(i.e. informing governments about public readiness for active seat belt enforcement.)***



# PUBLIC ATTITUDE MEASUREMENT - ESRA



Table 1: Themes covered within the ESRA1 questionnaire

Theme	Number of questions	Number of sub-questions and original variables
Attitudes towards road safety	3	64
Behaviour of other road users	2	18
Subjective safety and risk perception	2	28
Involvement in road crashes	2	15
Enforcement	6	11
Self-declared (unsafe) behaviour in traffic	2	31
Support for policy measures	2	23
Use of different transport modes	6	20
Other items (e.g. socio-demographic information)	7	12
Total	33	222





## GRSP RECOMMENDATIONS

- Improving crash investigation, reporting, recording and analysis is critically important but will take years and significant investment.
- Regularly (annually) collecting important behavioral outcome measures allows countries to effectively monitor long term road safety performance as crash reporting accuracy is improved.
- Behavioral outcome measures can be rapidly collected.
- Collecting public perceptions data (ESRA) is a secondary monitoring tool allowing cross national comparison and for road safety performance to be monitored over time.
- Surveys must be methodologically sound!
- GRSP strongly encourages the Asia-Pacific Road Safety Observatory and Member Countries to invest in these measures.



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