## **MODULE 1**

# ROAD SAFETY MANAGEMENT: PRACTICAL ACTIVITY WEBINAR

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**Vulnerable Road Users** 







- Exposed to greater danger in a crash because of little or no protection from impact forces
  - e.g., Pedestrians; Riders of 2 & 3 wheelers
- Most at risk due to limited task capability
  - e.g., Young or inexperienced drivers; Children
- Less resilient if injured
  - e.g., The elderly; Children





# Road traffic crashes are 1 St cause of death among people aged 5-29

## Why Are We Vulnerable?



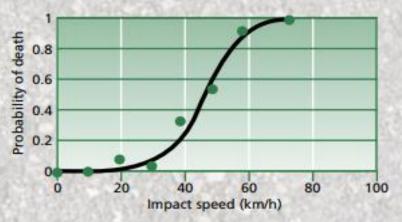


 Human body can only tolerate a certain amount of physical force before injury occurs

Larger impact force = greater injury to your body

The relationship between speed and injury severity is particularly critical for vulnerable road users such as pedestrians and cyclists. For example, pedestrians have been shown to have a 90% chance of survival when struck by a car travelling at 30 km/h or below, but less than 50% chance of surviving an impact at 45 km/h. Pedestrians have almost no chance of surviving an impact at 80 km/hr.

#### Pedestrian fatality risk as a function of the impact speed of a car



Source: Pasanen E, 1991.



#### Pedestrians

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 90% chance of surviving when hit by car at 30km/h or less

- Less than 50% chance of surviving impact at 45km/h
- Almost no chance of surviving impact at 80km/h







Global status report on road safety 2018

## VRU must be considered in:





- Policy making
  - e.g., Graduated Licensing systems = restrictions while inexperienced
- Safer vehicle design
- Education & training for the task
- Design & maintenance of infrastructure
- Post-crash care

## **Type Answer into the Chat Box**







What Contributes to Pedestrian Vulnerability?









- Human body can only withstand limited force
- No external shell for protection
- Low visibility compared to vehicles
- Roads designed for motorised vehicles, with little safe passage for people
- Pedestrian walk patterns not considered when building infrastructure
- Overhead and under road crossings not always accessible, safe, well maintained

## **Type Answer into the Chat Box**







What Contributes to Children's Vulnerability?









Size, height, growth patterns, co-ordination, balance:
body less able than adult to cope with impact forces

**Cognitive development** 

Limited capacity for decision making, reasoning, impulse control, judgements (eg speeds)

- Risk taking behaviour
   Intentional & unintentional (children cannot always control own safety)
- Peer influence
- Roads constructed without considering children
- Parents not always good role models of safe behaviours









Human Frailty









Physical forces when things collide







Reduce opportunity for impact force to damage us





Those who are most vulnerable on the road require special consideration and need your leadership.



Your actions can assist in saving the lives of those most in need of protection while using the road.

Every country needs strategies to help priortise protection of vulnerable members of society.









Discussion Time

#### STRATEGIES TO IDENTIFY KEY ROAD SAFETY ISSUES



## **Activity – Small Group Discussion**



Discuss the strategies and approaches you take in your country/state/city to identify the key road safety issues that need to be addressed.

What do you look for?

Who do you collaborate with?

Which data do you access?

10 minute discussion & please appoint a rapporteur









**Report Back** 

















Lead Road
Safety
Agency Role

## Lead Agency – Taking Action

#### You are the lead agency:

- Why you? Why is the lead agency important?
- **Co-ordination.** Who should be involved in addressing the road safety problem?
- What is your road safety problem? What information/data do you have?
- The plan. What evidence based interventions/actions can you use to solve the problem? How much of the problem will they address
- Who will approve the plan? Who needs to agree to the actions /interventions? Who will fund them?
- Awareness and Promotion

Internal

## **Lead Agency Considerations**

## The Lead Agency is important because:

- Leadership is needed to mobilise people and agencies to develop and implement policies, actions and strategies
- Effective action requires collaboration and coordination across a number of group/agencies eg health, transport, finance and law enforcement agencies
- The need to focus on key issues
- Ensure that there is efficient allocation of resources – no duplication or mixed messages.



## Lead Agency Considerations – the road safety problem?

- What is your road safety problem?
  - Do you have enough data/information to make good decisions. Do you know:
    - the ages children, adults, older people?
    - what part of the road network mid block, intersections, are there footpaths, what is the speed limit?
    - what type of vehicles are involved in the crashes motorcycles, passenger cars, trucks?
    - how much the injuries cost the health system? the community? Insurance companies?
- Data is also important for monitoring and evaluation.



## Lead Agency Considerations – Interventions

#### What action(s) or interventions to take?

- Is urgent action required? What short term actions can be taken?
  - Are speed limit reductions required?
  - Are rules/legislation already in place? Can Police enforcement be increased? Eg for speeding, failing to give way, red light running, drink driving
- What can be done that is more sustainable?
  - New infrastructure can be **low cost** eg raised zebra crossings, centre median platforms, safe routes to schools or **higher cost** eg footpaths, traffic signals,
  - Vehicle design improve standards for new vehicles including AEB, pedestrian design fronts.
- Can you make a good business case for your intervention?
  - Does the intervention have a good evidence base?
  - Is the funding request realistic does the Benefit to Cost Ratio look good?
  - Do you have support from other key agencies /stakeholders?
- What will be the main barriers to getting your interventions supported/ approved?
  - Political support can you build a solid business case, community popularity, lack of knowledge about the problem?
  - Lack of knowledge eg how to build low cost infrastructure, effective enforcement strategies?



## Lead Agency Considerations – Coordination

Who should be involved in solving the road safety problem?

 Who cares about pedestrian safety – Health Dept? Education Dept/Schools?, Local Government? Victims Groups? These agencies can be advocates for action/change/funding.

 Who benefits economically/financially if fewer people are killed and seriously injured? Health Department? Insurance companies? These agencies can help fund or provide information for the business case for action.

 Who needs to be involved in delivering the road safety intervention/ actions? Police, roads department, health department. These agencies need to be co-ordinated and their actions monitored.

• Do all stakeholders agree to the intervention/action? About what success looks like? The target, how you will monitor and evaluate?

Lead agency role is to coordinate agencies to develop, monitor and evaluate actions to address the road safety problem.



## Lead Agency Considerations – Awareness and Promotion

A **communications plan** to create awareness of the road safety problem & actions to address it is important.

- Awareness raising of the road safety problem is important:
  - Mobilizes politicians into action
  - It gathers community support for action and change.
- Promotion of change
  - Key stakeholders need to know what is happening when early briefings and good support materials are important to ensure support for your action(s).
  - Important that community understand
    - the law is changing, speed limits have changed, new infrastructure is being built, that there is more enforcement – what is changing, why and what do I as a driver or pedestrian need to do?
  - Keeping people informed results of enforcement how many caught, are less people being injured, do people like the new pedestrian crossing? Don't stop communicating.



# COORDINATING PRIORITIZATION OF EVIDENCE-BASED INTERVENTIONS





#### **Activity – Small Group Discussion**

**Scenario:** There has been a 35% rise in pedestrian deaths in your city in the past 12 months **Activity:** 



Your group has been asked by the Ministerial Council for Road Safety to make a recommendation on a solution to this issue. You need to outline your case for a specific intervention:

- Groups X to X: Lower the speed limit in highly pedestrianised areas to 30km/h
- Groups X to X: Implement a low-cost speed calming infrastructure program (roundabouts, pedestrian crossings etc)
- Groups X to X: Launch a school road safety education initiative focusing on pedestrian awareness

Focus on justification - Why should this be adopted/actioned/prioritised? Keep in mind consideration of political and economic costs and partnership/relationship management

20 minute discussion & please appoint a rapporteur









**Report Back** 

## **HOMEWORK ASSIGNMENT**

<u>Dates</u>: July 19 – July 28, 2021 (submit to course email by 11:59pm Manila time)

<u>Topic:</u> Improving pedestrian safety in your country through improved coordination and planning – developing a workplan.

#### **Activity:**

The National Road Safety Agency (NRSA) in your country has identified the need to prioritise the reduction of pedestrian deaths and injuries. You must prepare a work plan (using template) to better integrate pedestrian safety into your country's national road safety strategy.









## **HOMEWORK ASSIGNMENT**

#### Activity:

The NRSA in your country has identified the need to prioritise the reduction of pedestrian deaths and injuries. You must prepare a work plan (using template provided) to better integrate pedestrian safety into your country's national road safety strategy.

#### **Key Elements:**

- Review your country's current road safety strategy
- Identify 2-4 key issues to focus on to improve pedestrian safety
- Describe the activities you would undertake to ascertain who is doing what currently on these issues
- Prioritize 2-3 interventions to improve pedestrian safety in your country
- List the Sustainable Development Goals (SDGs) that might be associated with your interventions
- List all relevant stakeholders that need to be involved
- Develop an activity plan that outlines how you will achieve inclusion of the key interventions into the strategy, including how you will engage key stakeholders.
- Rationale Describe how you would recommend your prioritized interventions to convince the NRSA that this is where they should invest their resources to improve pedestrian safety









#### **EXAMPLES OF ROAD SAFETY PLANS/STRATEGIES**



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- Bangladesh
- Malaysia
- India
- Viet Nam

