

Skills Development for Research on Road Traffic Injuries

Samath D Dharmaratne

MBBS, MSc, MD

Secretary, Road Traffic Injuries Research Network,
Department of Community Medicine, Faculty of Medicine,
University of Peradeniya, SRI LANKA

5th January 2006
Plant Genetic Resource Centre,
Gannoruwa, Kandy,
Sri Lanka

Global Burden of Injury

- Estimated 5 million people died from **INJURIES** in 2000 (WHO 2002)
- Accounting for 9% of global deaths
- 90% of the injury deaths occur in low- and middle income countries

Burden of injury in Sri Lanka

- Injuries are the leading cause of hospital admissions (2000 per 100,000 population) (AHB, SL 2002).
- Injuries are the 10th leading cause of hospital deaths (AHB, SL 2002).

ROAD TRAFFIC INJURIES

- **Road traffic injuries** are the leading cause of injury related mortality and morbidity in Sri Lanka accounting for 25% to 30% of the burden (AS, SL 2004).

Global Burden of RTIs

- More than **20 million** people are injured and killed annually from RTIs (WHO 2004)
- Burden falls most heavily on **developing countries** (particularly Asia), due to the **rapid increase** in the number of vehicles
- By 2020, **2.3 million will die**

ROAD TRAFFIC INJURIES – Globally – Cost

- Economic cost estimated as **US\$ 518 billion** annually (TRL 2000)
- Of this **12.5%** or **US \$ 65 billion** is accounted for by the developing countries

Global Burden of RTIs

- Globally, RTIs will increase by over 60%
 - 80% increase in low and middle income countries
 - 30% decrease in high income countries

ROAD TRAFFIC INJURIES – Situation in Sri Lanka

- In the year 2000, **54,239** road traffic crashes were reported, killing **2,150** people and injuring **19,835** (TP data)
- **Daily** – 6 people are killed
- **Every hour** – 2 are injured
- **Every 10 minutes** – a RTC is reported

ROAD TRAFFIC INJURIES – Situation in Sri Lanka

- **No information about the unreported crashes.**
- **Documented that 25% of fatal RTCs are not reported (Wooton J et al 1996).**

Research needed

- To identify causes
- To interest policy makers
- To plan and implement preventive programs

Skills Development for Research

- Therefore the RTIRN is conducting this workshop

Welcome you all to this workshop

ROAD TRAFFIC INJURIES – Situation in Sri Lanka

- Majority killed and injured are **young people**, between 15-44 years.
- People needed for the development programs of the country.
- **Can SL afford to loose them?**

ROAD TRAFFIC INJURIES – Situation in Sri Lanka

- About 40% to 50% of the injured and killed are **pedestrians** (RHF 2004)-
?Poor people
- **Principal wage earner** - ?Increase in poverty
- RTIs are a **SOCIAL PROBLEM** affecting Sri Lankan society.

ROAD TRAFFIC INJURIES – Situation in Sri Lanka

- Economic loss range from Rs. 5 billion (5th MBI 2004) to Rs. 10 billion (US\$ = 100Rs.).
- Estimated loss from a (5th MBI 2004),
 - Fatal crash is Rs. 2,000,000
 - Injury crash is Rs. 35,000
 - Damage only crash is Rs. 17,000

ROAD TRAFFIC INJURIES – Situation in Sri Lanka

- It was estimated that in 1999, 0.5% of the GDP was lost from RTCs in Sri Lanka (5th MBI 2004)
- In rupees it was,

5,047,158,558

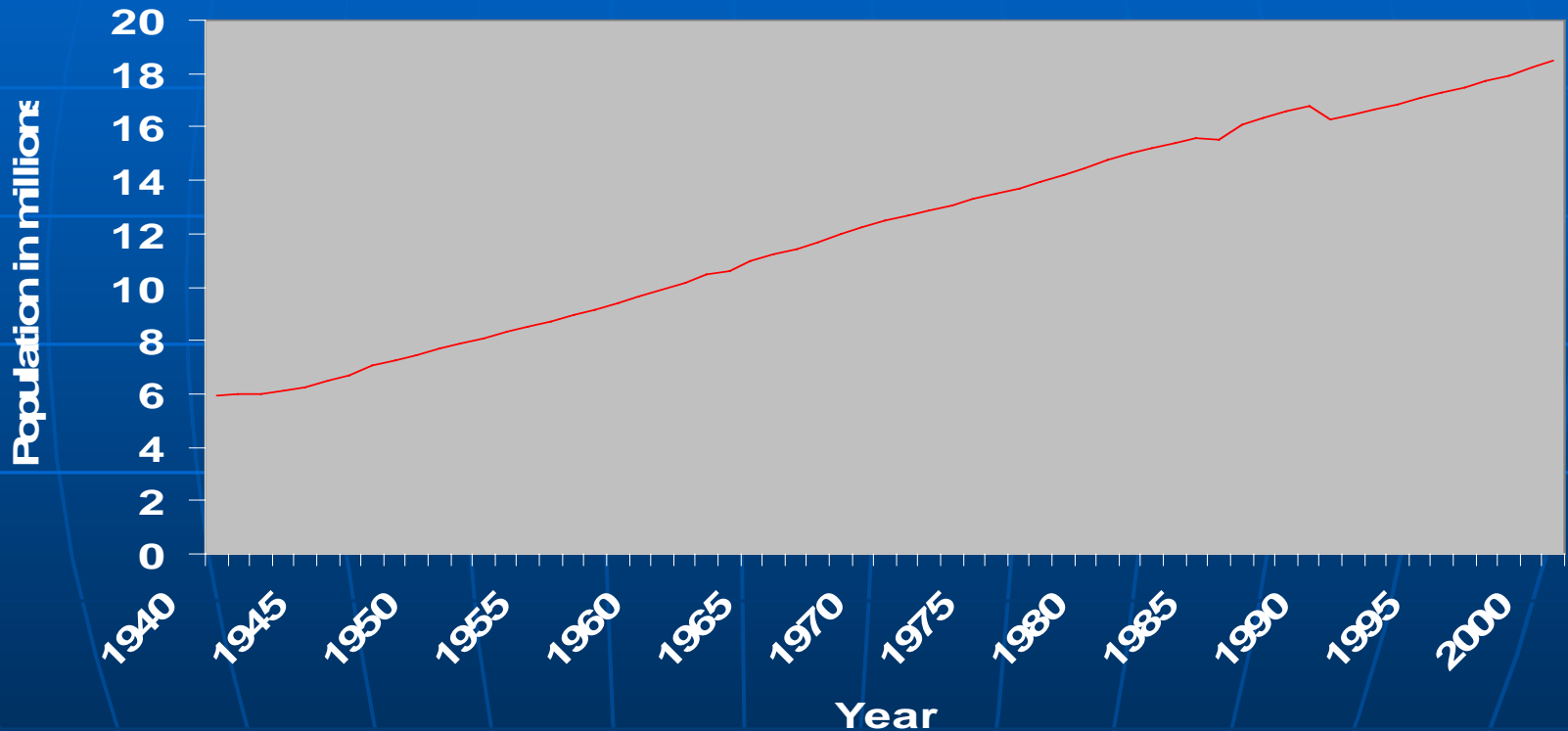
ROAD TRAFFIC INJURIES – Situation in Sri Lanka

- **Some statistics related to RTAs in Sri Lanka from 1940-1998 (CS data)**

	1940	1998	Increase
Road crashes	3979	50 959	12-fold
Deaths	168	2 023	11-fold
Motor vehicles	30 802	1 511 207	48-fold
Population	5 951 000	17 935 000	3-fold
Roads (km)	10 114	22 457 *	1.2 fold

ROAD TRAFFIC INJURIES – Situation in Sri Lanka

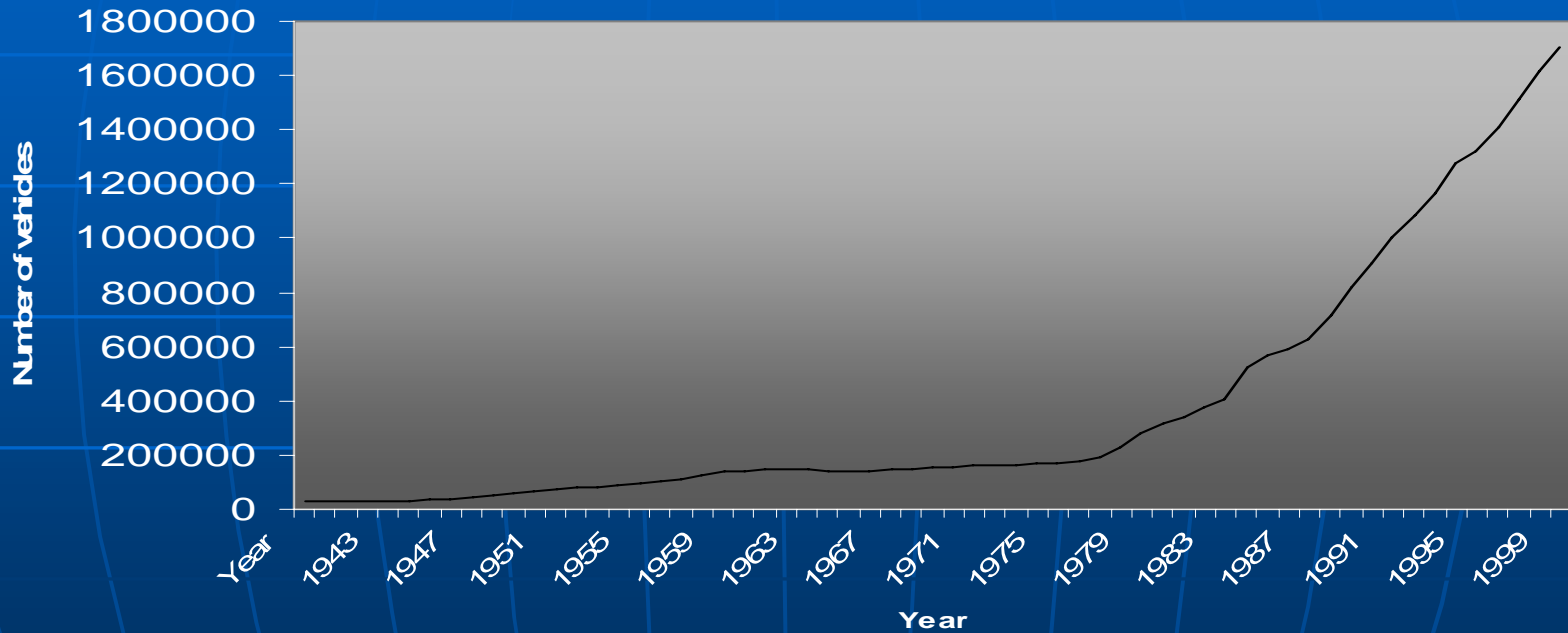
Population growth from 1940 - 2000



Population increased by 2 fold

ROAD TRAFFIC INJURIES – Situation in Sri Lanka

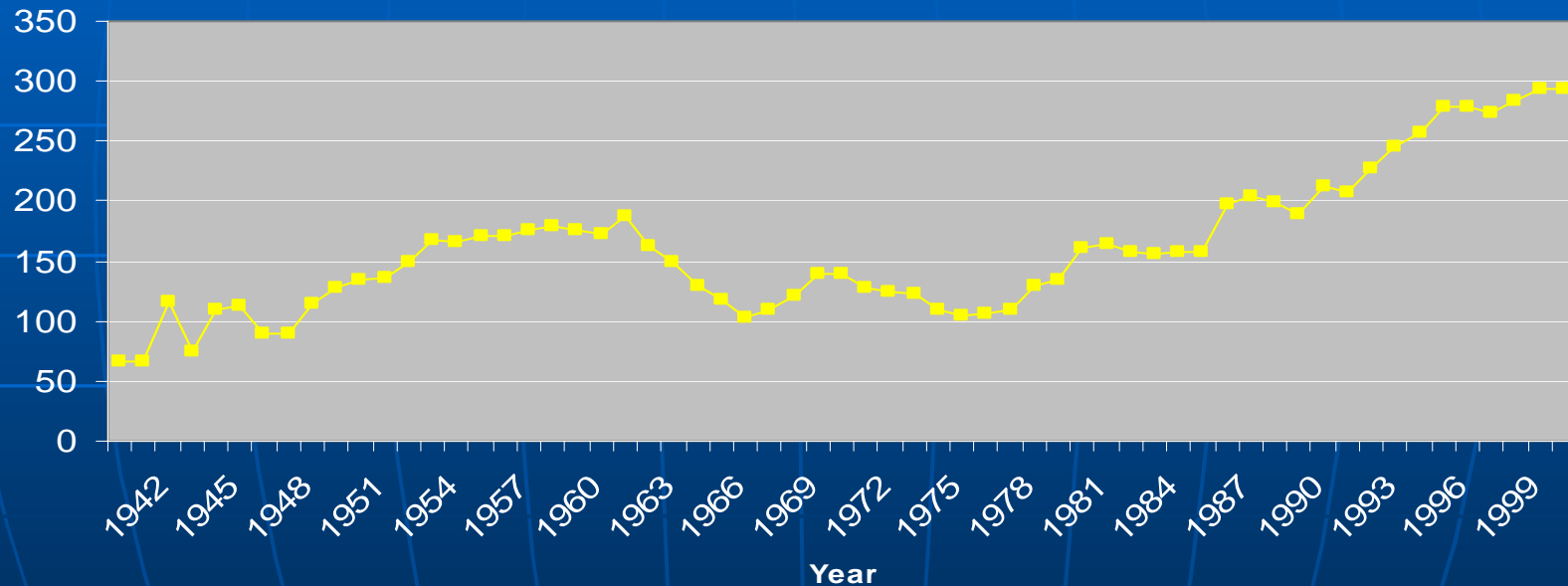
Increase in the number of registered motor vehicles (1940 - 2000)



Registered motor vehicle increased by 54 fold

ROAD TRAFFIC INJURIES – Situation in Sri Lanka

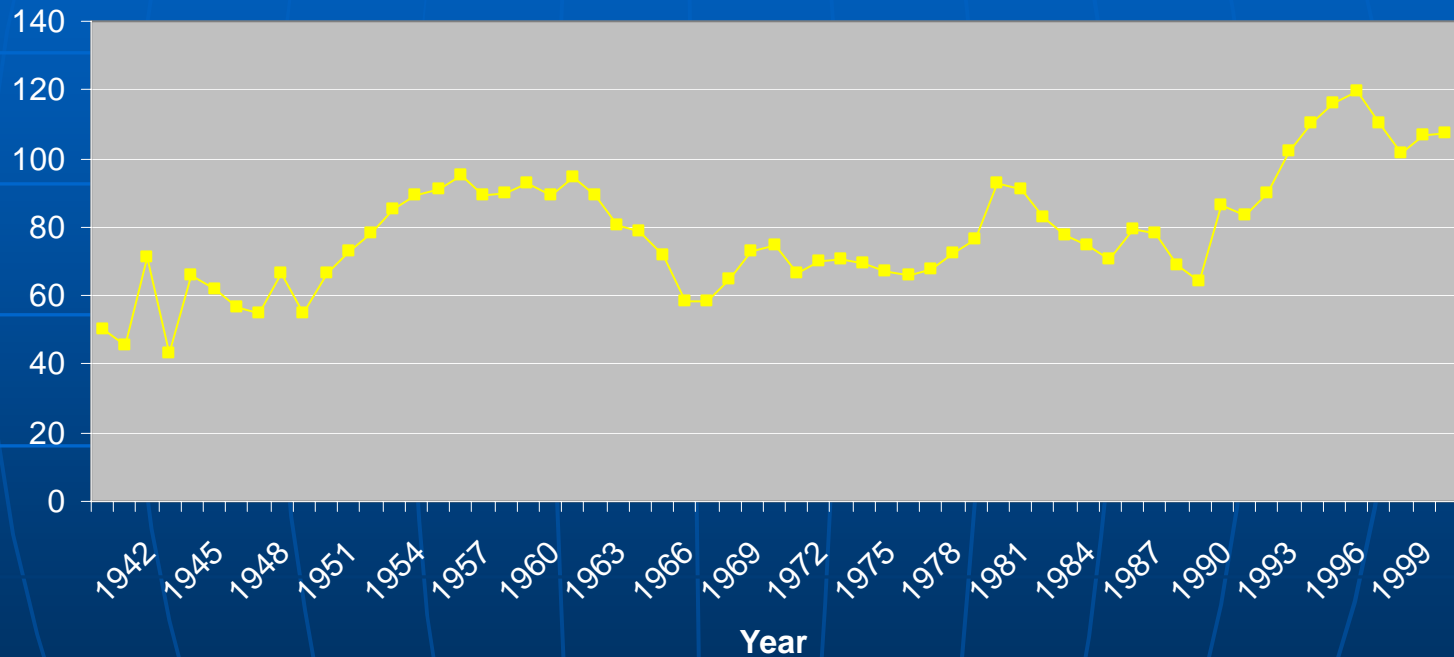
Road traffic accidents per 100,000 population 1940 - 2000



RTAs per 100,000 population increased by 3 fold

ROAD TRAFFIC INJURIES – Situation in Sri Lanka

Road traffic injuries per 100,000 population



Road traffic injuries per 100,000 population increased by 114%

ROAD TRAFFIC INJURIES – Situation in Sri Lanka

Road traffic fatalities per 100,000 population



Road traffic fatalities per 100,000 population increased by 3 fold

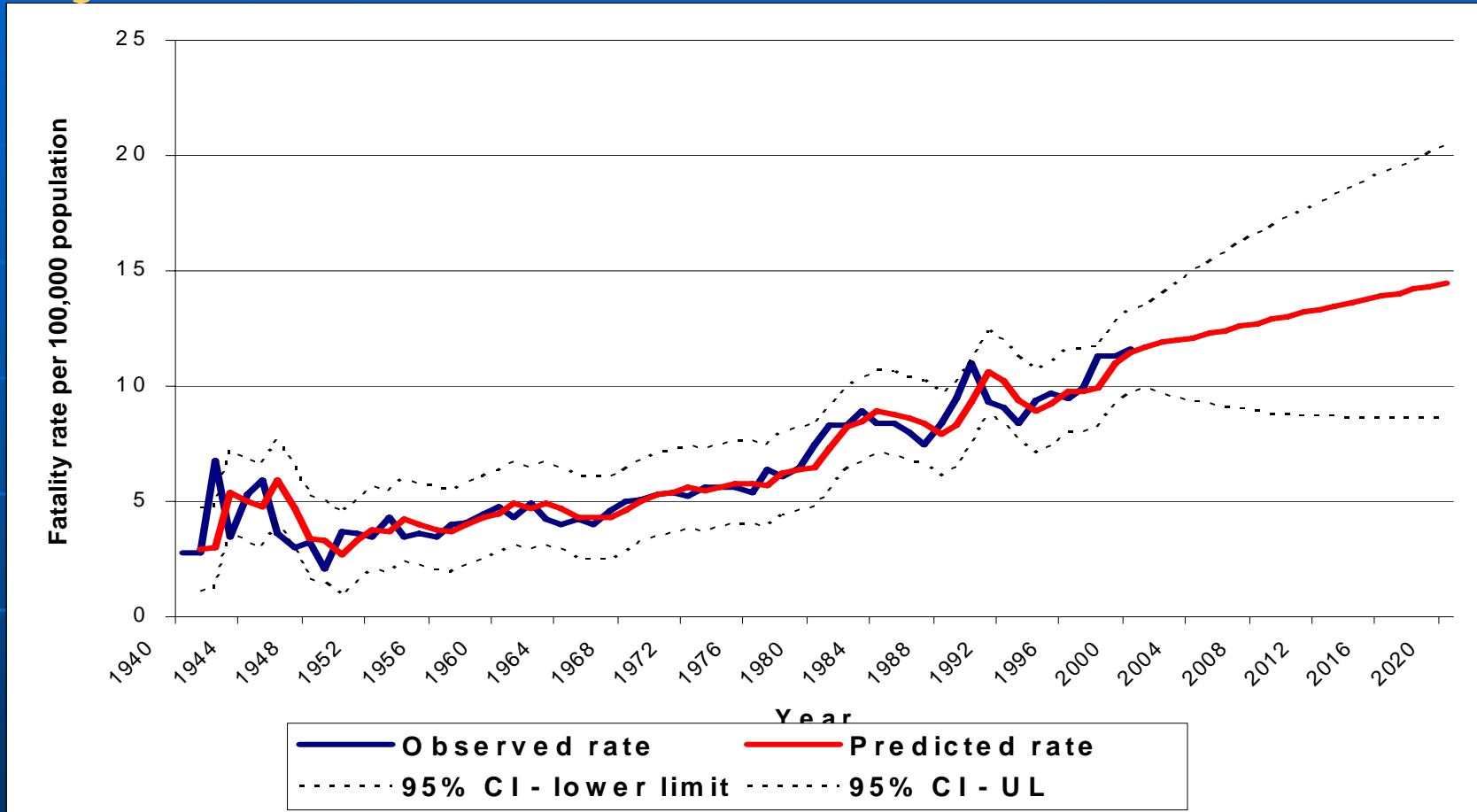
ROAD TRAFFIC INJURIES IN SRI LANKA

– The future

- If no action is taken, in the next 20 year (Safety 2004),
 - **50,000 will die**
 - **400,000 will be injured**
 - **More than**
Rs. 20 x 5,047,158,558
will be lost

ROAD TRAFFIC INJURIES IN SRI LANKA – The future

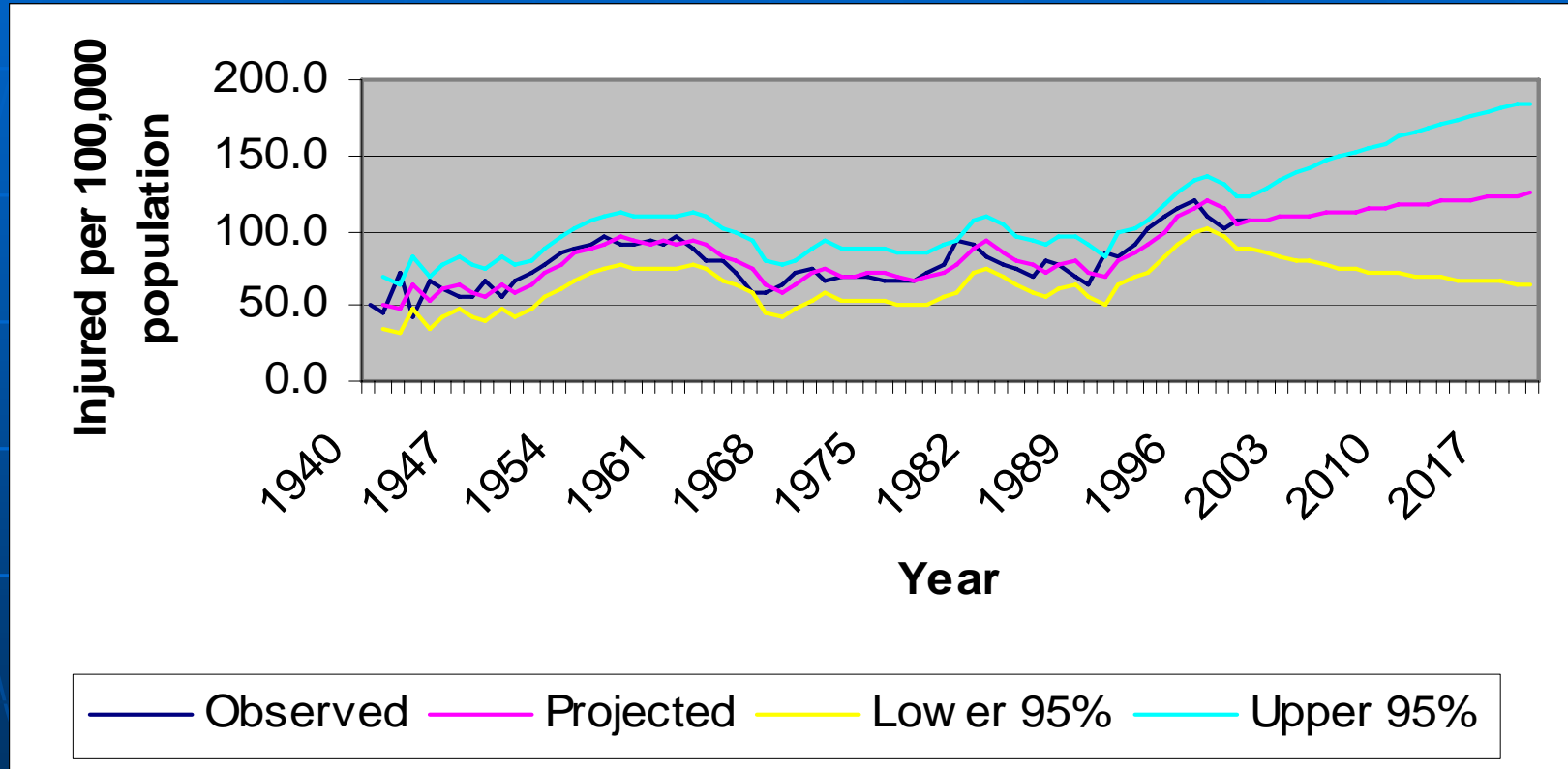
Projected rate for road fatalities in Sri Lanka



By 2020, RT Fatalities rate will increase by 25% to reach 14.5 fatalities per 100,000 population (Safety 2004)

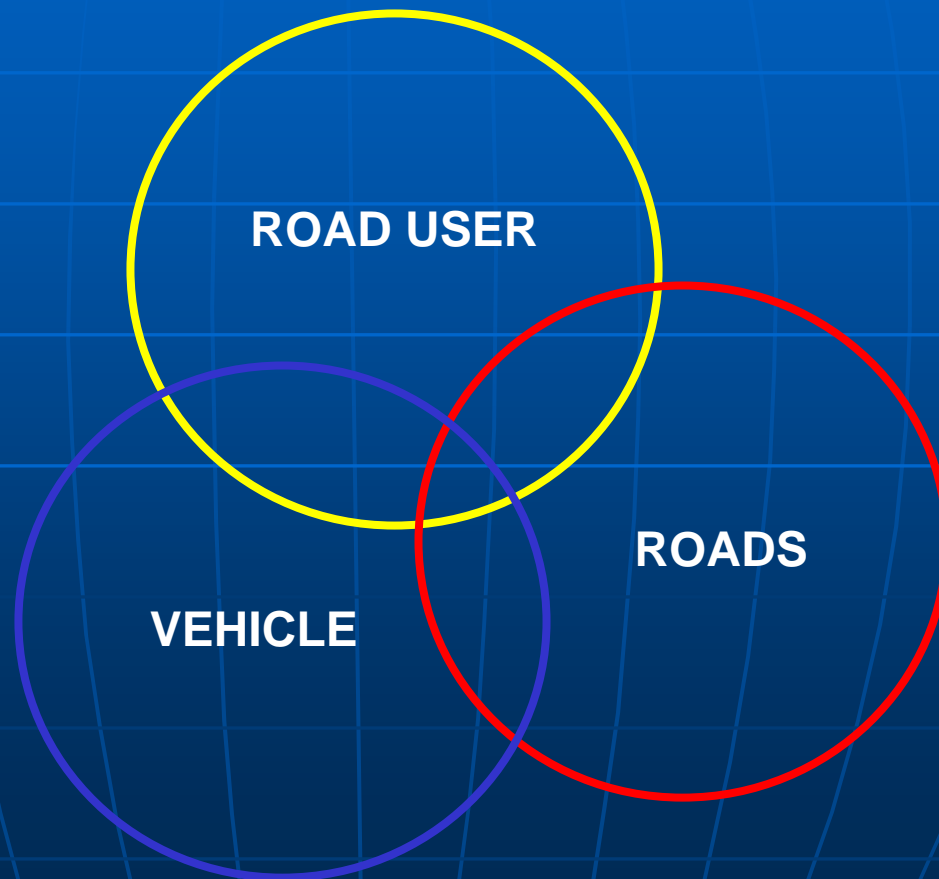
ROAD TRAFFIC INJURIES IN SRI LANKA – The future

Projected rate for injured from RTAs in Sri Lanka



By 2020, RTI rate will increase by 16% to reach 174.7 per 100,000 population (ISC 2004)

Road Traffic Injury Prevention Requires a “Systems Approach”



ROAD TRAFFIC INJURIES IN SRI LANKA

- IS AN IMPORTANT DISEASE WHICH HAS ASSUMED EPIDEMIC PROPORTIONS
- **WHY NO ACTION?**
- Even though everyday at least one RTC is reported in media

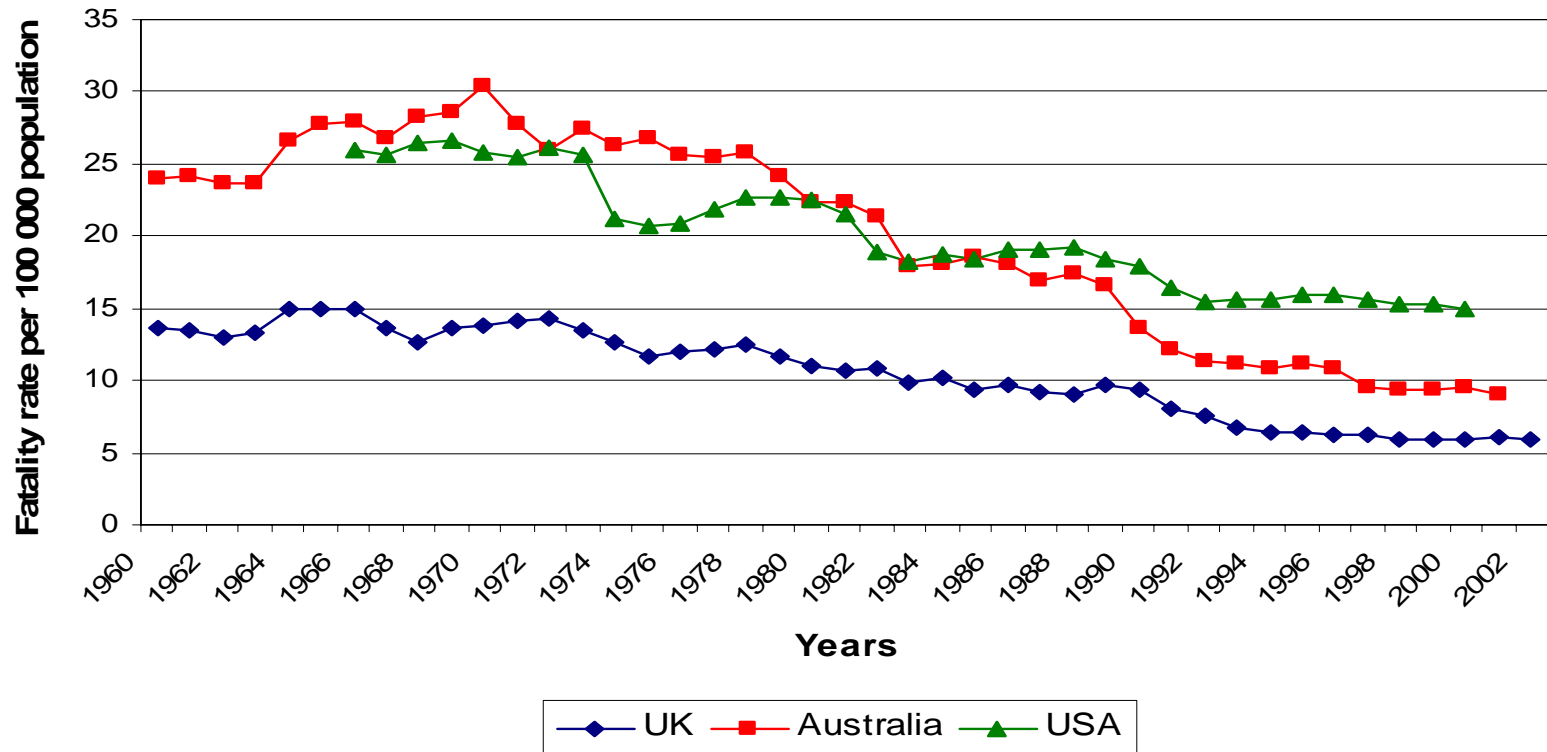
ROAD TRAFFIC INJURIES IN SRI LANKA

- Dengue, Malaria and TB kills far less but they have programs and campaigns for their prevention and control (AHB 2002)
- Even one death attracts huge media attention
- **WHY?**
- I do not know, but is scary? I or you might be the next victim.

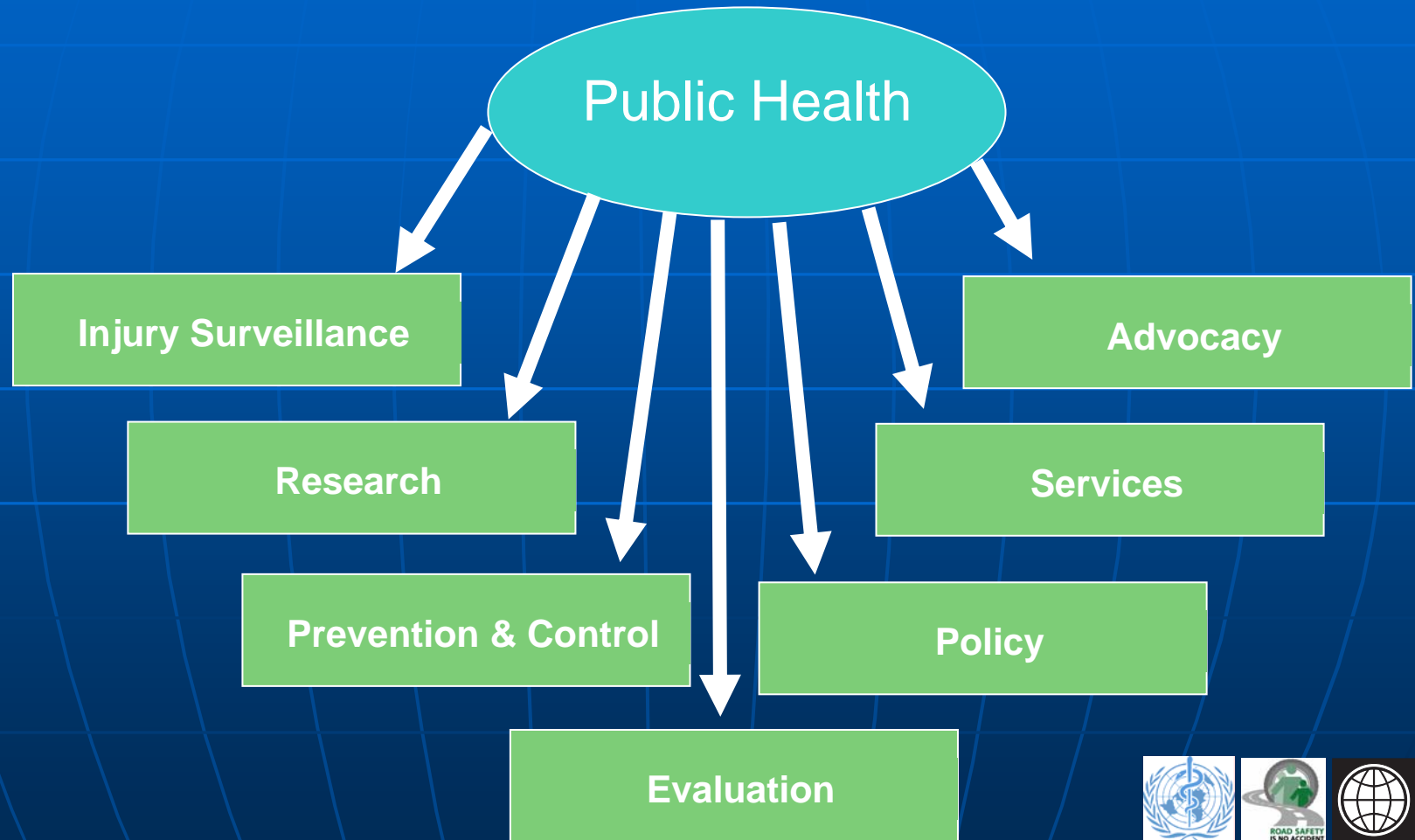
ROAD TRAFFIC INJURIES IN SRI LANKA

- Epidemic
- No action or interest by relevant people
- Reason for my interest in this disease

Road Traffic Injury Prevention can be Achieved



Road Traffic Injuries are a Public Health Problem



HEALTH PROFESSIONALS AND RTI RESEARCH

- Health professionals taking an interest is very important to generate interest among others, especially politicians
- Easy accessibility in collecting data
 - From hospitals, police etc.

ROAD TRAFFIC INJURIES IN SRI LANKA – PREVENTION & CONTROL

- Appoint a DIRECTOR for INJURY PREVENTION in the Ministry of Health
- Form a CAMPAIGN for INJURY PREVENTION
- Establish an INJURY SURVEILLANCE SYSTEM

ROAD TRAFFIC INJURIES IN SRI LANKA – PREVENTION & CONTROL

- FORM AN ACTIVE COMMITTEE WITH POWER,
- Consisting of all related people, such as Doctors, Engineers, Police, Policy makers, EMVs, RDA and UDA representatives, drivers (CTB, PVT bus, TW, School vans) etc.

ROAD TRAFFIC INJURIES CAN BE PREVENTED – in Sri Lanka

- But, copying strategies directly from developed countries might not work.
- **WHY?**
- Because the scenario is different.
- Need to find local risk factors and solutions

ROAD TRAFFIC INJURIES CAN BE PREVENTED – in Sri Lanka

- For which local research is needed
- For research money is needed
- To get money, people with money have to recognize that RTIs and deaths are a significant problem

VISION AND MISSION OF RTIRN

- To reduce RTI's in Low & Middle Income Countries

Road Traffic Injuries Research Network (RTIRN)



RTIRN SECRETARIAT IN SRI LANKA

- Opportunity for Sri Lanka as well as regional countries to highlight the importance of RTIs

VISION AND MISSION OF RTIRN SECRETARIAT

- To generate knowledge on RTIs
 - At Launch of the SECRETARIAT – 4th January 2006
 - Workshop on “Skills development in RTI research” – 5th January 2006
 - Newsletter
 - Increasing membership
 - Web site

VISION AND MISSION OF RTIRN SECRETARIAT

- Thereby generate interest in RTI's among relevant people to investigate them – research
- Research needs funds
- More people becoming interested will generate more funds which will make more people interested etc.
- Capacity building

RTIRN SECRETARIAT

- Most of the regional countries have people interested in RTIs
- Sri Lanka very few
- Having the Secretariat in Sri Lanka will be a great opportunity for me as well as the people of Sri Lanka to address this forgotten National Tragedy
- Thank you

THANK YOU

Public Health Emergency and Disaster Management Training Course

13th December 2005

**Road Traffic Injuries –
Group work**

Group one

Topic: Develop a Road Traffic Injury/ Accident Surveillance System

- What is it?
- Why it is needed?
- Plan a RTI SS – identify resources needed, construct one – local or national
- Cost ?effectiveness
- Monitoring and evaluation

Group two

Topic: Develop a RTI/RTA prevention program/campaign

- Justification
- Objectives
- Identify resources
- Cost? – effectiveness
- Location
- Monitoring and evaluation

Group three

Topic: How to quantify the under reported RTAs/RTIs in Sri Lanka