

# MA

## UPDATES OF ROAD SAFETY STATUS IN MALAYSIA

Radin UMAR R.S.

Professor Ir. Dr., Road Safety Research Centre, Universiti Putra Malaysia  
(Received January 18, 2005)

### 1. INTRODUCTION

Since the last decade, Malaysia has experienced a remarkable period of economic expansion and growth in population, economy, industrialisation and motorisation. The population increased from 19.5 to 25.6 million at an average growth rate of about 3% per year. During the same period, the total length of paved roads increased from 60,734 to about 71,814 kilometres while registered vehicles increased from 7,210,089 to 13,878,000 vehicles in 2004 (Table 1). Over a span of 10 years, ownership increased accordingly from 2.7 persons per vehicle in 1994 to 1.9 persons per vehicle in 2004, though almost half are motorcyclists.

The increase in population and motorisation led to a consequent increase in the number of road traffic accidents. From 148,801 cases in 1994 (Table 1), the number doubled to a total of 326,817 cases in 2004. The number of fatalities (death within 30 days after an accident) however, increased at a much slower rate from 5,159 in 1994 to 6,223 in 2004. Note that the upward trend of fatalities dropped in 1997 after consistently positive growth since 1986.

### 2. NATIONAL SAFETY TARGET AND INTERVENTIONS

In 1995, the Road Safety Research Centre, at Universiti Putra Malaysia was mandated with the task of

reviewing the earlier national safety target. The outcome of the research<sup>1</sup> was the statistical model which predicted some 9,127 deaths in the year 2000 if traffic exposure continued to increase at the projected rate (Figure 1).

To offset the upward trend in fatalities, an integrated road safety program was introduced to both prevent and reduce future traffic accidents as well as to reduce injuries during and after accidents. Strategies were categorised into exposure control, crash prevention, crash reduction, behaviour modification, injury control and post injury programs. Among the new initiatives were:

- The National Accident Database System
- The Five Stages Road Safety Auditing
- The National Blackspot Programs
- Road Safety Research and Evaluation
- Conspicuity Initiatives for Motorcycles
- National Targeted Road Safety Campaign
- Revision of the Road Transport Act (Revision 1999)
- Integrated Enforcement
- New Helmet Standard MS1-1996
- New Children's Motorcycle Helmet Initiative

Road safety research and scientifically driven initiatives have been recognised as the critical success factors of the safety investments in Malaysia. In addition, a new road safety department was recently set up to specifically plan, coordinate, implement and evaluate the safety interventions in the country.

Table 1 General road accident statistics in Malaysia

Year	Population	Vehicles Registered	Road Length (Km)	Number of Accidents	Casualties			
					Death	Serious	Slight	Total
1994	19,494,000	7,210,089	60,734	148,801	5,159	13,387	29,957	48,503
1995	20,096,700	6,802,375	60,734	162,491	5,712	15,313	31,127	52,152
1996	21,169,000	7,686,684	60,734	189,109	6,304	14,218	32,953	53,475
1997	21,665,600	8,550,469	63,382	215,632	6,302	14,105	36,137	56,574
1998	22,679,600	9,141,357	63,382	211,037	5,740	12,068	37,896	55,784
1999	22,711,900	9,929,951	64,981	223,166	5,794	10,366	36,777	52,937
2000	23,200,000	10,589,804	64,981	250,417	6,035	9,773	34,246	50,054
2001	23,263,600	11,302,545	64,981	265,175	5,849	8,680	35,944	50,473
2002	23,263,600	12,068,144	64,981	279,237	5,887	8,424	35,171	49,482
2003	25,048,300	12,868,934	71,814	298,651	6,286	9,040	37,415	52,741
2004	25,600,000	13,764,837	71,814	326,817	6,223	9,234	38,624	54,081

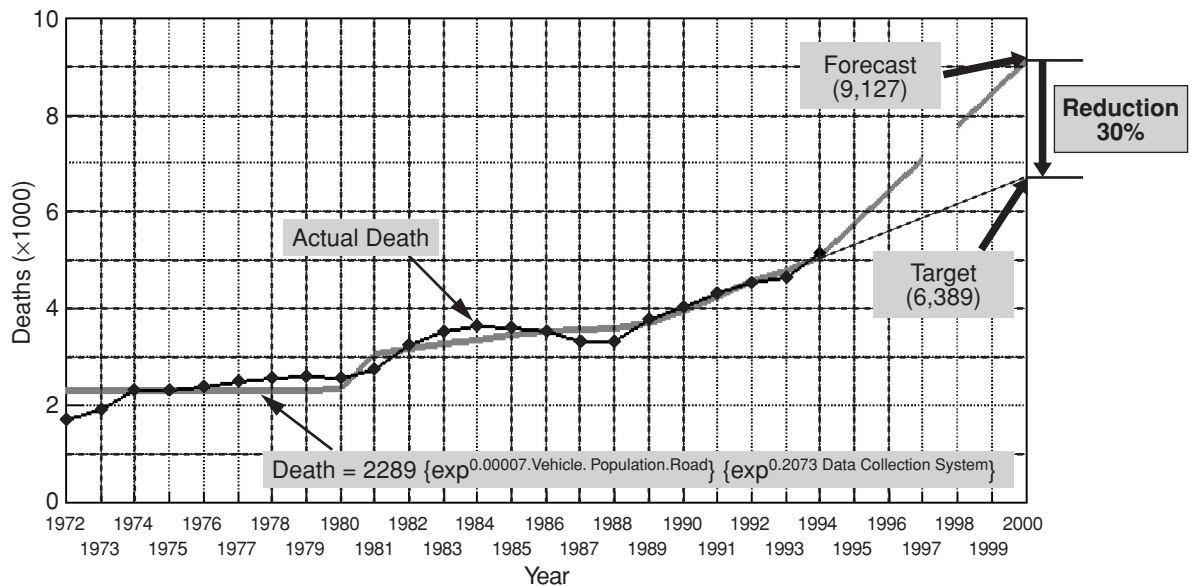


Fig.1 Fatality model and safety target in Malaysia

### 3. OVERALL IMPACT OF SAFETY INITIATIVES IN MALAYSIA

An analysis on the impact of the safety interventions<sup>2</sup> shows that the safety intervention measures were able to significantly reduce ( $p < 0.05$ ) traffic deaths and offset the upward fatality trend in Malaysia (Figure 2).

Following this positive trend, new safety targets have been established based on deaths per 10,000 vehicles, 100,000 population and billion vehicle-kilometers traveled. By the year 2010 and 2020 for example, Malaysia is benchmarking against the world's best to reduce her fatality rate to less than 3.0 and 2.0 deaths per 10,000 vehicles respectively. This is achievable as the fatality in-

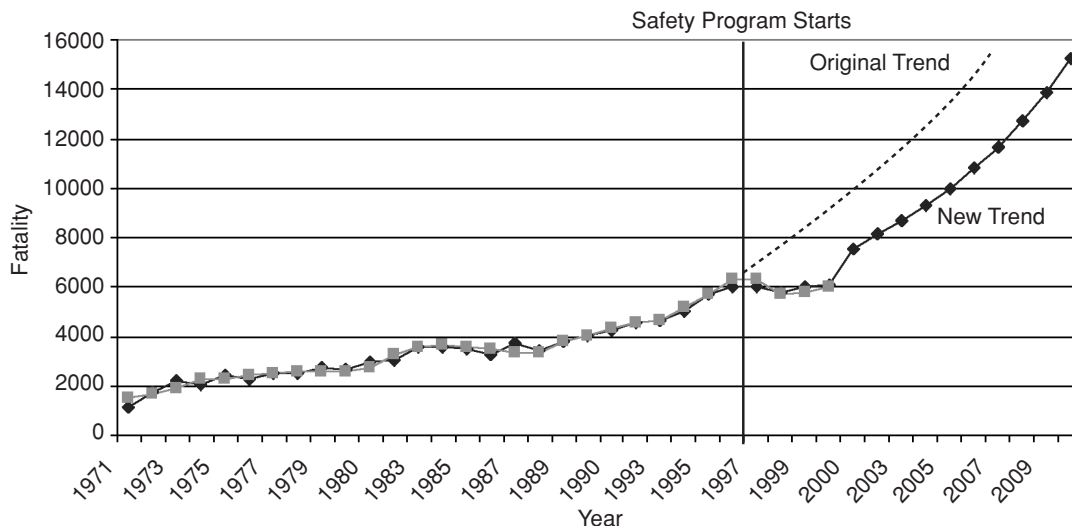
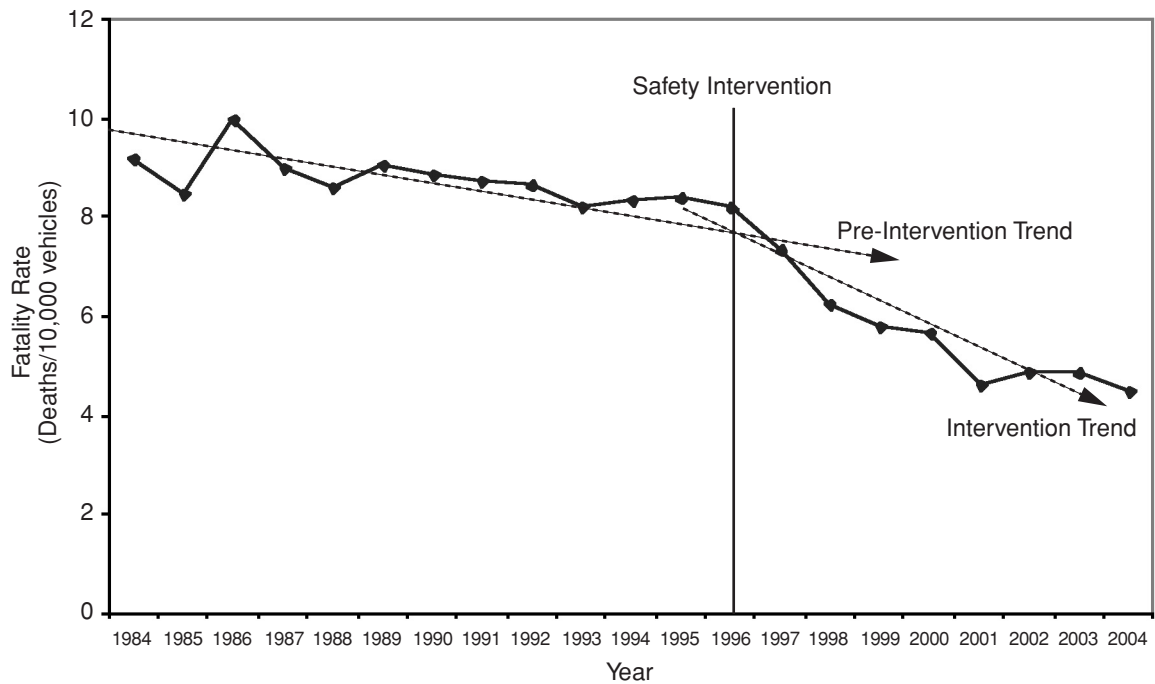


Fig.2 Predictive model of yearly traffic deaths



**Fig.3 Fatalities per 10,000 vehicles**

dex per 10,000 vehicles reduced at a much faster rate (Figure 3) in the last few years especially after the safety interventions. With the recent endorsement of the National Road Safety Blueprint 2001-2010, strategic activities have prioritized and key performance indicators have been established. They are monitored regularly by the Road Safety Department Malaysia and will be regularly reported to the Cabinet Committee on Road Safety chaired by the Prime Minister of Malaysia.

## REFERENCES

1. Radin Umar R.S. Fatality Models for Malaysia: Towards Year 2000. "Pertanika Journal Science and Technology" 6(2): pp.1-13. (1998).
2. Law T.H. and Radin Umar R.S. The Malaysian Government's Road Accident Death Reduction Target for Year 2010. "IATSS RESEARCH" 29(1). (2005).