

Youth and Road Trauma Forum

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Summary

In Australia, as in many other countries, young drivers are significantly over-represented in road fatalities and serious injuries. In New South Wales drivers under 26 years hold 15% of licences but represent 25% of road fatalities [1]. Young males account for 79% of the drivers under 26 years of age involved in fatal crashes. A 17-year-old-driver (with a P1 licence) is **four times** more likely to be involved in a fatal crash than a driver aged 26 or older. Nearly half of all trauma admission to NSW Trauma Centres in 2006 with serious injuries were the result of road trauma and of these admissions, almost a third were aged 15 - 24 years [2]. At Westmead Hospital (one of the largest in Sydney), 23% of all Trauma Admissions in 2007 resulted from road trauma and 27% of these road trauma admissions were young people aged 15 - 25 years [3].

The *Youth and Road Trauma Forum* was developed to address these shocking statistics relating to young people and road crashes. The Forum's primary objective is to reduce the road fatality and injury rates of young people via education and information that empowers them to make safer choices - as drivers and as passengers. The content of the Forum includes motoring information, driver safety, vehicle safety with information on first aid, trauma care, brain injury, drug and alcohol and the role of each of the Emergency Services. The forum's content supports key messages in school's Personal Development, Health and Physical Education (PDHPE) road safety curriculum as an attitude based driver education program, and is aimed to help young people assess their attitudes and behaviour on the road.

The forum is a one-day program held at the Acer Arena that is repeated over 3 days. Students witness and experience first hand the potential risks associated with driving and being a passenger. This is road safety being delivered in an engaging and dynamic manner.

The morning session is focused on the crash scenario, which includes the lead up to a car crash involving 3 young people and a motorcyclist. The scenario shows the interaction of the rescue services at a crash scene and the potential consequences of being involved in a crash as well as the patient's journey through the hospital from the emergency department to rehabilitation. It also shows the legal consequences for the driver.

Following the crash scenario, 3 presenters from the Brain Injury Unit at Westmead Hospital who have all suffered a traumatic brain injury as either a pedestrian, passenger or driver of a car, give talks about their experiences which is a powerful reminder of how trauma can affect anyone.

Following these talks, there are 19 interactive displays for the students to participate in and access information including: Westmead Hospitals Emergency Department, Careflight (Rescue Helicopter Service), Sydney West Area Health Service Organ and Tissue Donation, NSW Ambulance Service, NSW Police Force, NSW Police Crash Investigation Unit, NSW Fire Brigade, NRMA Mobile Member Centre, NRMA Youth Membership, NRMA Vehicle and Road Safety, NRMA Safer Driving Display, Brain Injury Unit (Think Twice Program) and Brain injury Association, Trent Driving School, Community Drug Action Team, St John Ambulance, Volvo Truck Rollover Simulator, Australian Red Cross, Subaru Cars and the NSW Wheelchair Sports Association.

The afternoon session of the program includes a demonstration of wheelchair basketball involving students attending the forum. We have a speaker who has sustained a spinal injury due to a car crash. There is then a stopping distance demonstration showing vehicle safety with audience participation.

Introduction

The aim of the forum is to reduce the mortality and morbidity of our youth via engaging road safety education and provide information that empowers them to make safer choices.

Globally more than 1.2 million people are killed on the road annually, 4,000 000 of those are under the age of 25. World Health Organisation (WHO) states that 'the bulk of these crashes are predictable and preventable' [4]. Statistics obtained internationally show that road crashes are the leading cause of death among the 15 to 19 year age group. The WHO has shown that road collisions cost an estimated US \$518 billion globally in material, health and other expenditure [4].

In the age group 15 – 25, in NSW in 2006 there were 142 road trauma deaths, which is 25% of all road trauma deaths. 44% of the total number of trauma related admissions were due to road trauma [2]. In 2006 Westmead Hospital had 2967 admissions with trauma related injuries, of these 184 were young people under the age of 26 involved in road trauma, 2 of which died [3].

The Youth and Road Trauma Forum has been running since 2005 when it was first introduced as part of Westmead Hospitals Trauma Week Forum. In 2005, 464 students attended from 10 local high schools. 2006 saw 4000 students attend the forum over 2 days from 31 schools. 2007 had 10,000 students attend from 86 high schools across NSW and the ACT, and ran over 3 days. 2008 had nearly 12,000 students from 103 NSW High Schools.

Method

Our youth have the capacity and ability to change their behaviours that put them at risk of road related incidents. Death and serious injury is still occurring despite the education being received in the schools and hence there was a need to develop an injury prevention program that approached this problem in a totally different format.

The health promotion model used for the Youth and Road Trauma Forum is based on the SOPIE model as described by Egger *et al* [5]. This formula has proven to be very successful over the past 3 years of the Youth and Road Trauma Forum and has scope to grow and develop with the program. Issues identified from 2005 Trauma Week such as a need for an indoor venue that enabled expansion and facilitated better sound and vision, necessitated sponsorship to be sought. A number of organisations were approached with NRMA Motoring & Services responding to partnership. This non-government agency applauded the initiative and has partnered with us for the last three years to provide an integrated approach to planning and funding. They also brought their expertise on vehicle safety features and tyre safety, safe stopping distances and youth road safety.

An invitation was extended to all government and non-government high schools in NSW and the ACT for years 10, 11 and 12. The schools that attended in 2008 covered the greater Sydney region as well as other major regional centres and rural communities. The forum was free to the students and schools and the only cost to them was in transport to and from the event and lunch.

Innovation

The Youth and Road Trauma Forum is the only formal road safety program developed that incorporates all emergency services as well as numerous health care providers and non-government organisations. It enables all students in NSW High Schools to access current information in prehospital care, rehabilitation as well as expertise on car and tyre safety, safe stopping distances, car safety features and driver behaviour.

Applicability to other settings

There has been increased interest from other Australian states and South Australia is in the process of organising a similar event after attending and evaluating the Youth and Road Trauma Forum.

This activity is transferable to other settings provided there is support and commitment from the Emergency Services as well as the Area Health Service. Commitment from all key stakeholders is vital in the organisation of this event. The forum results in injury prevention reaching a large target audience at an affordable cost that can be transferable to many settings.



1. Roads and Traffic Authority, NSW. Year 2006 Annual Statistics Statement. Table 27a,74. Sydney, Australia. www.rta.nsw.gov.au/roadsafety
2. New South Wales Institute of Trauma and Injury Management, *The NSW Trauma Registry Profile of Serious to Critical Injuries 2006*, Prepared by D Martens, Sydney, Australia.
3. Westmead Hospital Trauma Service, Trauma database: Sydney, Australia.
4. World Health Organisation 2007, Road traffic crashes leading cause of death among young people (2007), World Health Organisation 2007, Geneva, viewed 30 April 2007. www.who.int/mediacentre/news/releases/2007/pr17/en/print.html
5. Egger G, Spark R, Donovan R (2005). *Health promotion strategies and methods*. Second Ed. McGraw Hill: Sydney, Australia.