

## NEWSLETTER

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### *Worldwide Summary*

The WHO and the Global Epidemic of Trauma.

Every year there are 5.8 million deaths and more than 100 million people injured from violence and accidents<sup>1</sup>. This causes a significant amount of disability and economic loss, especially considering that 90% of the problem occurs in low and middle-income countries (LMICs). Much of this burden could be decreased by prevention and improvements in trauma care.

In 1990 road traffic accidents were the 9th leading cause of mortality worldwide. It is projected that by 2030 road traffic accidents will be number 5<sup>2</sup>.

In May 2007 Ministers of Health from 193 WHO Member States met in Geneva for the Sixtieth World Health Assembly. The World Health Assembly is the governing body of the World Health Organization and WHA resolutions are the main policy mechanisms for directing WHO programs. These resolutions provide the WHO with a mandate to undertake activities in a specific area. The WHA assembly adopted resolution 60.22 on Trauma and Emergency Care Systems<sup>3</sup>. The resolution was in 10 parts but its key message was to “urge” member states to “do more in the area of trauma prevention and management”<sup>2</sup>

There were a further 10 requests to the Director General of the WHO for various assistances to the member states so that they could in fact “do more”.

In order to promote such improvements globally, over 100 trauma care leaders from 39 countries from all WHO regions met two years later at a WHO Global Forum on Trauma Care in Rio de Janeiro. A large number of key stake holders attended, including 12 presidents and other officers from international professional societies, as well as 30 highly placed officials from national organizations.

Participants sought to “develop a strategy to promote greater political commitment to affordable and sustainable improvements in trauma care”<sup>1</sup>. The summary statement from the Rio meeting was that “WHO should take the lead in developing a Global Alliance for Care of the Injured”, and the WHO’s Department of Violence and Injury Prevention and Disability (VIP) was to explore internally within WHO the steps needed to set up such an alliance<sup>1</sup>.

In the meantime and for 10 years prior to that WHA plenary meeting in Geneva in 2007 (and the subsequent WHO Global Forum on Trauma Care in Rio in 2009), the Primary Trauma Care (PTC) organization has been teaching and training trauma care responders and providers in low and middle income countries.

(<http://www.primarytraumacare.org/>) The PTC mission has been to provide health care workers with the necessary skills and knowledge to improve trauma management and the outcome from accident and violence. PTC has been vigorously promoting and propagating a strategy of affordable and sustainable improvements in trauma care all since the first PTC course was conducted in Fiji in 1997.

There are significant differences in outcome following injury in countries of different economic levels. One study reports mortality in the seriously injured increasing from 35% in the US, to 55% in middle income Mexico, to 63% in low income Ghana<sup>3</sup>. Similarly injured people are nearly twice as likely to die in a low income setting than in a high income setting<sup>4</sup>.



PTC Course 2011 - Hanoi Medical University Hospital

# PTC Primary Trauma Care Foundation

The effect of improving organization and planning of trauma care in high income countries have shown survival gains of 8–50% through the improved organization and planning that comes with trauma systems<sup>5</sup>.

Many injury deaths in low income settings could probably be treated well, and economic constraints are only part of the reason for the disparities in trauma outcomes between countries at different economic levels. There is much that can be done to strengthen trauma and emergency care services through improved organization and planning<sup>6</sup>. Several programs in low income countries have already documented decreased mortality through cost effective sustainable improvements in training, equipment, and organization and planning<sup>7, 8</sup>.

Primary Trauma Care is now in over 60 countries and courses have been conducted in Vietnam since 2002. With 20 courses in Hanoi, Thanh Hoa, Đà nang, Quang Ninh, and Quy Nhon.

## Trauma in Vietnam

Vietnam is a country of nearly 90 million with approximately 6.5 million living in the capital Hanoi. Injury is one of the leading causes of death in hospital in Vietnam and 80% of this is due to road trauma. The tertiary trauma centre in Hanoi is the Viet Duc hospital and is the major trauma referral centre for northern Vietnam with traffic accidents accounting for over 64% of all injuries treated (from Sydney Uni Bulletin 2007) and 74% of these are as a result of motorcycle accidents. Eighty three percent of patients arriving from outside the Hanoi metropolitan area present to Viet Duc with little or no pre-hospital emergency care, probably significantly contributing to the morbidity and mortality.



Hanoi transport Options

The motor vehicle fatality rate in Australia has dropped from 30.4 deaths per 100,000 population (2002) to 7.7, a total of 1,616 in 2007<sup>9</sup>. This reduction has been achieved in spite of a significant increase in motor vehicle use. The 2007 vehicle fatality rate for Vietnam was 16.1 per 100,000, a total of 12,4909. The motor vehicle fatality rate in Australia dropped from 8.0 (1970) to 0.8 per 10,000 registered motor vehicles (2007). For Vietnam the comparative figure is a staggering 124 per 10,000 vehicles<sup>10</sup>.

## Primary Trauma Care in Vietnam

The first PTC course in Vietnam was conducted in Ho Chi Minh city in 2002. Subsequent courses have been conducted in Hanoi and a number of provincial hospitals outside the capital. Over 700 doctors have attended these courses. A considerable amount of work has been undertaken to develop road safety preventative strategies with motor cycle helmets being made mandatory in 2007 and the establishment of a national universal access number for the ambulance.

The Viet Duc hospital is one of the major teaching hospitals in Vietnam and has hosted the PTC courses since 2003. There is very strong support from the Viet Duc department of Surgery (Dr Nguyen Duc Chinh), Hanoi Medical University (Professor Nguyen Huu Tu), and the Vietnamese Society of Anaesthetists (Dr Cong Thang). In addition, the PTC courses have the endorsement of the Deputy Director General, International Cooperation Department in the Ministry of Health. The Sydney University Hoc Mai foundation has supported Vietnamese PTC fellows for scholarships in Australia since 2007.

<http://sydney.edu.au/medicine/hocmai/>



Dr Skinner Dr Perndt and Dr Chinh at Viet Duc Hospital Hanoi

# PTC Primary Trauma Care Foundation

The 2011 PTC course in Hanoi brought the total number to nearly 800 attendees. The Vietnamese faculty included Dr Nguyen Chinh, Professor Nguyen Tu and three junior instructors. The course ran over two days and involved a mixture of lectures, scenario teaching, skill stations and discussion groups. The course is now conducted in Vietnamese, adding to the challenge of the scenarios and small group discussion teaching for the visiting Australian lecturers. The primary and secondary survey concept was very readily appreciated and mannequins in the scenario sessions provided plenty of opportunity for everyone to practice the ABCDE routine.



Skills Stations The Primary Survey and Resuscitation



Prof Tu  
Hanoi Medical University  
Hospital

Has PTC made a difference to the trauma statistics in Vietnam? At this stage it is impossible to definitively answer this question. Has EMST teaching made a difference in Australia or New Zealand? A rigorous, appropriately funded and supported epidemiological pre and post trauma training intervention study is needed. Vietnam, with the infrastructure, clinical and administrative support given to our PTC programme, is an ideal platform to undertake



Dr Perndt Instructing at Hanoi University Medical Hospital

such a study and we are making efforts to attract appropriate funding to support this undertaking. In the absence of any hard evidence PTC will continue to be taught and enthusiastically embraced by the new generations of young Vietnamese doctors. The next courses are being conducted in April/May 2012 in both Hanoi and Ninh Binh province.

**Dr Haydn Perndt**  
**Associate Professor Marcus Skinner**  
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## References

1. [http://www.who.int/violence\\_injury\\_prevention/services/traumacare/global\\_forum\\_meeting\\_report.pdf](http://www.who.int/violence_injury_prevention/services/traumacare/global_forum_meeting_report.pdf)
2. [http://www.who.int/violence\\_injury\\_prevention/road\\_safety\\_status/report/statistical\\_annexes\\_en.pdf](http://www.who.int/violence_injury_prevention/road_safety_status/report/statistical_annexes_en.pdf)
3. [http://apps.who.int/gb/ebwha/pdf\\_files/WHA60/A60\\_R22-en.pdf](http://apps.who.int/gb/ebwha/pdf_files/WHA60/A60_R22-en.pdf)
4. Mock C N, Jurkovich G J, nii-Amon-Kotei D. et al Trauma mortality patterns in three nations at different economic levels: implications for global trauma system development. *J Trauma* 1998. 44804–814.
5. Mann N C, Mullins R J, MacKenzie E J. et al A systematic review of published evidence regarding trauma system effectiveness. *J Trauma* 1999. 47S25–S33.
6. Mock C N WHA resolution on trauma and emergency care services. *Inj Prev.* August 2007. 13(4): 285-286.
7. Mock C, Arreola-Risa C, Quansah R. Strengthening the care of injured patients in developing countries: a case study of Ghana and Mexico. *Inj Control Saf Promot* 2003. 1045–51.
8. Husum H, Gilbert M, Wisborg T. et al. Rural prehospital trauma systems improve trauma outcome in low income countries: a prospective study from North Iraq and Cambodia. *J Trauma* 2003. 541188–1196.
9. [http://whqlibdoc.who.int/publications/2009/9789241563840\\_eng.pdf](http://whqlibdoc.who.int/publications/2009/9789241563840_eng.pdf)
10. [http://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_traffic-related\\_death\\_rate](http://en.wikipedia.org/wiki/List_of_countries_by_traffic-related_death_rate)