

How should we train trauma surgeons: Orthopaedic surgeon's view

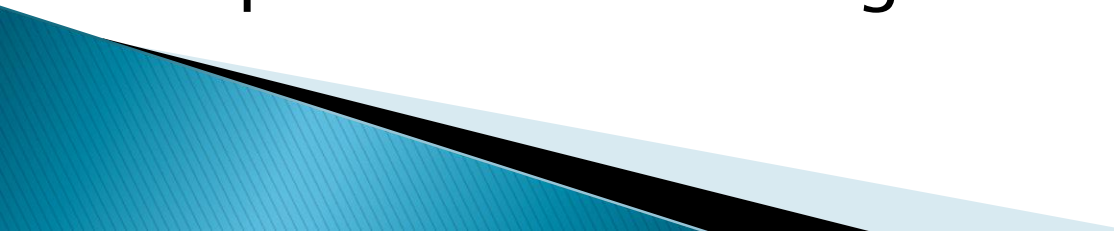
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Objectives

- ▶ To review how we are currently training trauma surgeon.
 - ▶ To assess the various issues that continue to challenge the way we are currently training trauma surgeons.
 - ▶ Address the question on how we should be training trauma health care workers to keep up with the challenges.
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Burden of disease

WHO

- ▶ Injuries form 12% world burden of disease
- ▶ 15–44 years account for more than 50% of injury related mortality

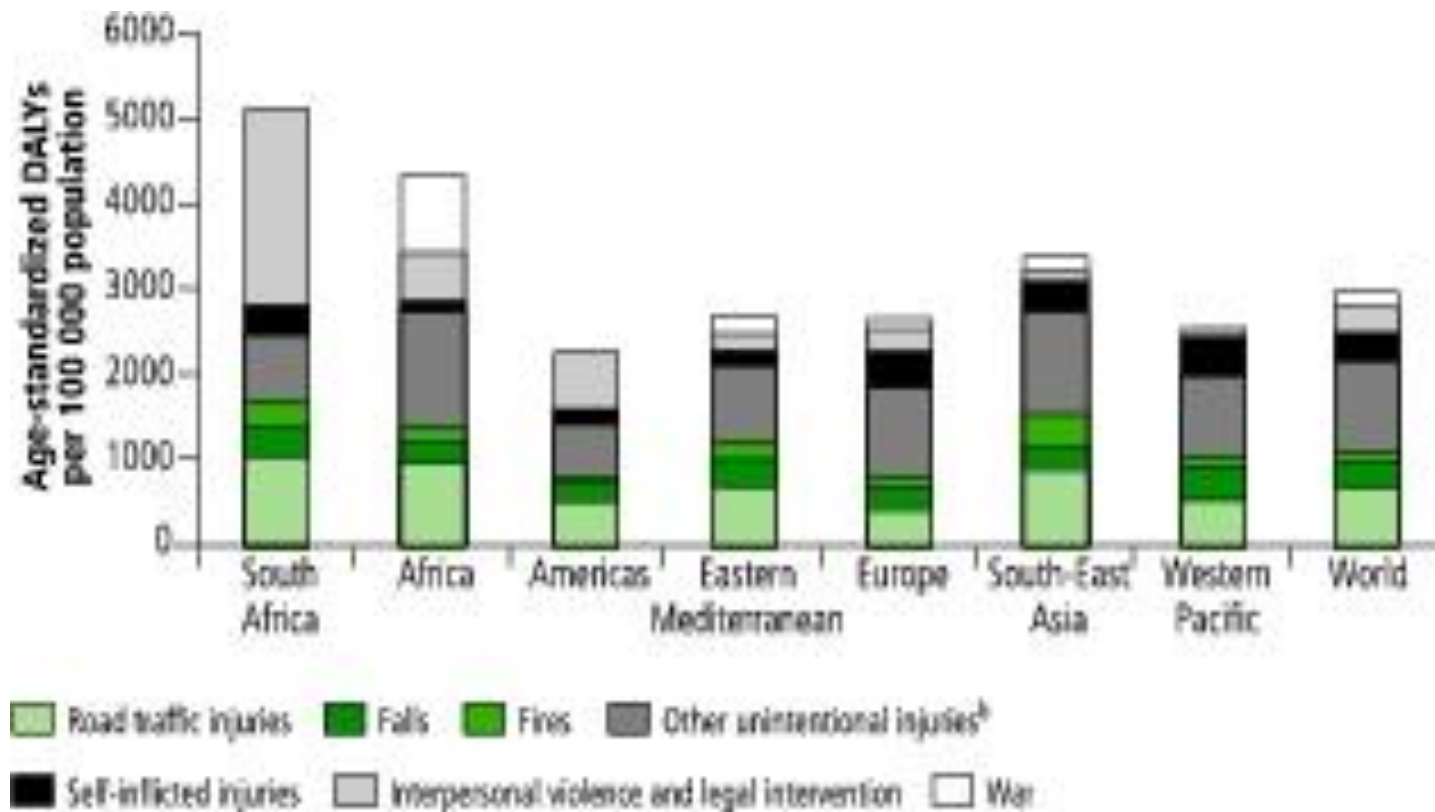
- ▶ Injuries have been acknowledge as one of the leading causes of mortality in the developing world
- ▶ It is estimated that Sub-Saharan Africa will show the largest increase in injury related burden of disease

Rapid assessment case load as bases of injury surveillance

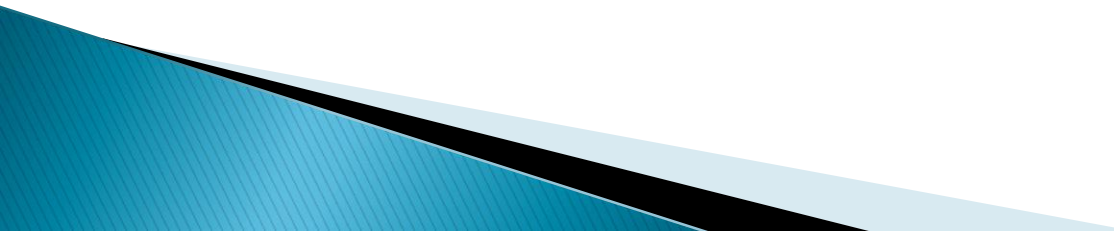
Richard Matzopolous –MRC

- ▶ 75% are seen at State facilities and 25% in private facilities
- ▶ 1.5 million a year are seen at state facility
- ▶ Highest reported in Gauteng 11023 Western Cape 7868
- ▶ Violence accounted for 50% followed by road traffic accidents

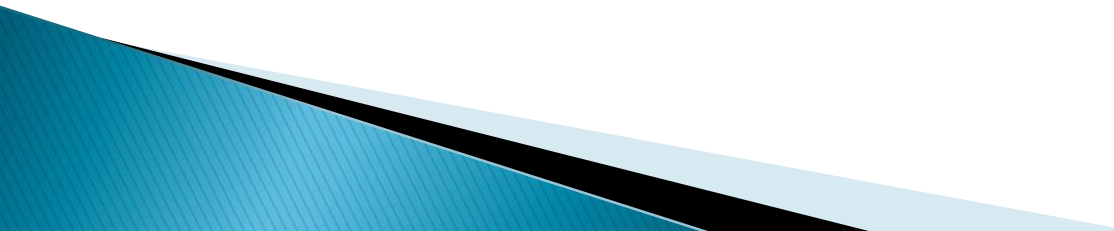
Type of injury



Parkinson et al Edendale hospital 2013

- ▶ The injury pyramid of morbidity and mortality was higher than that in Europe
 - ▶ Lower limbs, head injuries, upper limbs and abdominal injuries
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What do we need to address in the training of Trauma Surgeon?

- ▶ Quality, Quantity and relevance
 - ▶ Competency:
 - Must acquire all the advanced skills in the management of the critically injured
 - Organize and direct trauma services
 - Teach and research
- 

How are we currently training?

CMSA – Certificate in Trauma Surgery

- ▶ **Faculty** must be registered as a trauma surgeon subspecialty with the HPCSA
- ▶ **Trainee and Curriculum:**
 - 2 years
 - 12 months in ICU
- ▶ **Facility** must be accredited by HPCSA and should have a verification as level 1 Trauma unit

Faculty Supervision

Thomson et al 2001

Australasian Committee of Surgeons

- ▶ Trauma Resuscitation
 - low rate of consultant supervision
- ▶ Complex Trauma Operations
 - Low rate of supervision in Orthopaedics

Minimum of 4 specialist for 24/7 cover

- Availability of registered Trauma specialist
- Availability of posts

Outcome associated with nonsurgeon versus surgeon trauma team leaders

Jennifer M. Ahmed et al Halifax 2007

No difference

	nonsurgeon	Surgeon
ISS	21	22
Survival to 3 hours	96.8%	96%
Survival to discharge	84.6%	84.6%
Length of stay	13 days	12 days
TRISS z score	0.64	0.99

Non-surgical care plays a major part in the management of patients

In-house versus on call surgeon

Helling TS et al Kansas City J Trauma

10 years ISS >15

No difference

Fulda GJ et al Delaware J Trauma

ISS 20

No difference response rate less than 15 minutes

Trauma is not a surgical disease

S Green

3% of adult trauma team activation

0.35% of paediatric trauma team activation

FAST

CT Scan

Resuscitation

Non-surgical
care

- ▶ We need trauma management system/team
- ▶ Other surgical members should be allowed in that space
- ▶ In addition Nonsurgical members should be accommodated in that space;
Emergency Medicine, Anesthesiologist,
Intensivist

Trainee recruiting

- ▶ Feminization of medical school

Old boys club – surgical personality

- ▶ Diminished interest in working dark hours

There must be some alternative to a system that chews up individual and crushes families with such ruthless efficiency

Fewer applicants from the top
10% of Medical school

General surgical registrars prefer
non-trauma subspecialties

Baby sitting

Penetrating wounds common in the
uninsured

Options 1

Acute Care surgery

Non-operative care

GIT, Orth, Neurosurg, Plastic

Society demands a surgeon of
highest possible caliber

Adapt to changing environment

Non operative care
training
Multidisciplinary

Surgical
subspecialties

Orthopaedic

Neurosurg

Facility

- ▶ Accreditation criteria

How many currently
meet the criteria?

- ▶ Level II

How we are currently training them

What are the challenges: a specialty
under threat

Look at ways in which we should
adapt:
Be inclusive