Orthopedic trauma in Africa
The silent epidemic
What epidemic?
Immediate

Late
Injuries and violence – the facts (WHO, GBD)

- 90% of all trauma-related deaths occur in LMICs
- Trauma accounts for 40% of deaths among young people
- For every death, there are 10 to 50 others living with a trauma-related disability
Percent of all seriously injured who die

2 Mio of the 5.8 Mio injured people who die each year could be saved.
Approach to global health problems

Obstetrics/safe motherhood

Global orthopedic trauma care
Recipe for success

1. Define and collect data
2. Define essential services required
3. Measure availability and quality of services
4. Focus on population needs
5. Get political
6. Apply the solutions
A world of opposites

Obstetrics/safe motherhood  Global orthopedic trauma care
It is only 60 years since this revolution begun in Switzerland
More than 16,000 surgical volunteers and 100,000 affiliated surgeons with a common vision

This is the result of a private-private partnership with no government funding
AO Alliance activities in Africa

- Network of faculty expanding
- No government money
- Activities in:
  1. Education
  2. Fellowships
  3. Research
  4. Infrastructure
Care of the injured in Africa

Prevention

Acute care
(trauma care)

Pre-hospital
(trauma response systems)

Post-hospital
(rehabilitation)

AO Alliance Foundation
DALY (Disability-Adjusted Life-Year)

- One DALY = loss of 1 year of healthy life
- 2 dimensions of health:
  - Mortality → QUANTITY OF LIFE (YLL)
  - Morbidity → QUALITY OF LIFE (YLD)
- DALY = YLL + YLD

Cost-effectiveness: not only for HICs

Traction $1,107 / DALY averted
Nail $888 / DALY averted/better results

_Traction requires bed stays of around **84 days**, where operative treatment requires stays of **5 days**._

[Article citation]

Cost-effectiveness of replacing skeletal traction by interlocked intramedullary nailing for femoral shaft fractures in a provincial trauma hospital in Cambodia

Richard A. Gosselin · Merja Heitto · Lew Zirkle
What are the cost savings?

- WHO estimates yearly GDP costs of treating injuries worldwide at $550 billion
  - If $50 billion is invested in injury prevention / treatment and this decreases burden and costs by 10% (conservative)
  - Annual savings: $55 billion (>100% ROI)

Could industry and philanthropic partners fund a transformation in care of the injured in Africa?

A network of African surgeons and nurses is already developing with motivation and skills to deliver this transformation.
The panel

- Abdoulie Janneh, President, African Governance Institute, former Executive Secretary, UN Economic Commission for Africa
- Manjul Joshipura, Consultant Orthopedic and Trauma Surgeon and Director, Academy of Traumatology in India, former WHO scientist (VIP Unit)
- Jim Harrison, Consultant Orthopedic and Trauma Surgeon, Chester, UK and AO Alliance Africa Regional Director
- Samba Koné, Trauma Orthopedic Surgeon, CHU Cocody - University Hospital
- Jacob Plange-Rhule, Rector, College of Physicians and Surgeons of Ghana