Estimating the Healthcare Burden Post Conflict

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But what is the healthcare burden of conflict?: PrOTeCT NIHR grant

• Estimation of the healthcare cost of war

• How it changes with time

• Predictive modelling of conflict healthcare need

• Beirut (AUB) and Northern Sri Lanka as case studies

• Initial expert opinion then quantitative data
Global clinical steering group

• AUB, Sri Lanka

• UK/US military surgeons

• Humanitarian surgeons
Early post-conflict clinical challenges

- chronic wounds
- infection- osteomyelitis
- fracture non-union
Late post-conflict challenges

- scars and scar contracture
- limb deformity
- prosthetic care
Quantitative data: Beirut

- studying casualty cohort from 2006 war
- discrete cohort
- medical records at AUB
- longitudinal data
Quantitative data: Jaffna

• Jaffna Teaching Hospital records incomplete

• Jaffna Jaipur Centre electronic database of 3,500 cases over 30 years

• Can follow trends before, during and after conflict
• JJCDR established in 1987
• 1 registration date is from 1960, 40 from 1986
Number of Mine/ERW Death and Accidents: 2002 - 31 December 2018
Summary

• Need more data

• Burden post-conflict emerging

• Need greater co-ordination??
Thank you

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War- disease that won't go away
Current global conflicts
Annual number of deaths by cause, Syria, 2016

Data refers to the specific cause of death, which is distinguished from risk factors for death, such as air pollution, diet and other lifestyle factors. See sources for further details on definitions of specific cause categories.

Source: Institute for Health Metrics and Evaluation (IHME); Global Terrorism Database (GTD); Amnesty International
OurWorldInData.org/causes-of-death/ • CC BY-SA
Annual number of deaths by cause, Afghanistan, 2016

Data refers to the specific cause of death, which is distinguished from risk factors for death, such as air pollution, diet and other lifestyle factors. See sources for further details on definitions of specific cause categories.

Source: Institute for Health Metrics and Evaluation (IHME); Global Terrorism Database (GTD); Amnesty International
OurWorldInData.org/causes-of-death/ • CC BY-SA
Annual number of deaths by cause, United Kingdom, 2016

Data refers to the specific cause of death, which is distinguished from risk factors for death, such as air pollution, diet and other lifestyle factors. See sources for further details on definitions of specific cause categories.

Source: Institute for Health Metrics and Evaluation (IHME); Global Terrorism Database (GTD); Amnesty International
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Military weapons don't kill....

Lethal Weaponry

Firearms remain the most lethal weapon used against American soldiers in Afghanistan and Iraq, killing 20.3 percent of soldiers struck by a bullet. The chart shows the risk of death for weapons used against soldiers in hostile incidents from October 2001 to August 2009.

Source: Defense Department

THE NEW YORK TIMES
Casualties in Afghanistan continue to rise

Civilian casualties (2009-2016)

- **Deaths**
- **Injuries**

<table>
<thead>
<tr>
<th>Year</th>
<th>Deaths</th>
<th>Injuries</th>
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<tbody>
<tr>
<td>2009</td>
<td>2,412</td>
<td>3,557</td>
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<tr>
<td>2010</td>
<td>2,794</td>
<td>4,368</td>
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<tr>
<td>2011</td>
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<td>2012</td>
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<td>2013</td>
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<tr>
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<td>7,469</td>
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<tr>
<td>2016</td>
<td>3,498</td>
<td>7,920</td>
</tr>
</tbody>
</table>

Source: UN
Advances in military trauma

• Best survival ever seen in a trauma system

• Broke the correlation between injury severity and survival, i.e. could get almost anyone to survive

• Incremental improvements
Healthcare burden of UK military patients

- UK 626 dead; 13,100 wounded
- Well looked after
- Coherent healthcare system
- Motivated adults
- Small proportion of society
What about globally?

• huge numbers of wounded

• health system degraded

• significant number children

• larger proportion of the society