EVALUATION OF PRE-HOSPITAL CARE: DOES BOLIVIA NEED A TRAUMA FIRST RESPONDERS COURSE?

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GLOBAL INJURY-RELATED MORTALITY

~5.8 million deaths/year as a result of injury (10% of global death)

>90% occur in low- and middle-income countries (LMICs)

Injury-death rates are higher in LMICs than higher-income countries

TARGETED CORRECTIVE ACTION

- System reforms that maximize benefit and minimize cost
- Augment, not replace, existing systems
- WHO Essential Trauma Care Project Guidelines
WHO TIERS OF PRE-HOSPITAL CARE

First Responder Care

Basic Pre-Hospital Trauma Care

Advanced Pre-Hospital Trauma Care
We sought to justify the need to develop and implement a trauma first responder’s course in Bolivia by evaluating the burden of traumatic injury and capacity of the existing healthcare system to respond to traumatic events in the department of Potosí.
Los Primeros Auxilios
BOMBEROS

Ante Todo
Salvar Vidas!

POLICIA

119
METHODS
DIAGNÓSTICO RÁPIDO
REESTRUCTURACIÓN DE LAS REDES DE SERVICIOS DE SALUD

DEPARTAMENTO DE POTOSÍ
RESULTS
RESULTS: MOH, POTOSI

- Potosi: 118,218 km²  
  (10.76% of the country)

- ≈ population of 788,406  
  (7.82% of the country)

- 65% of pop: 10-60 yrs

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 year</td>
<td>10,662</td>
<td>10,233</td>
<td>20,895</td>
<td>2.7</td>
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<tr>
<td>1 year</td>
<td>10,581</td>
<td>10,198</td>
<td>20,779</td>
<td>2.6</td>
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<td>2 to 4 years</td>
<td>31,781</td>
<td>30,739</td>
<td>62,520</td>
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<td>5 to 9 years</td>
<td>52,823</td>
<td>51,130</td>
<td>103,953</td>
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<td>10 to 20 years</td>
<td>103,154</td>
<td>99,637</td>
<td>202,791</td>
<td>25.7</td>
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<td>21 to 59 years</td>
<td>149,820</td>
<td>160,746</td>
<td>310,566</td>
<td>39.4</td>
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<td>&gt; 60 years</td>
<td>27,975</td>
<td>38,927</td>
<td>66,902</td>
<td>8.5</td>
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<tr>
<td>Total</td>
<td>386,796</td>
<td>401,610</td>
<td>788,406</td>
<td>100</td>
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</tbody>
</table>
RESULTS: MOH, POTOSI

- 471 health-facilities
  - 466 Level 1 (98.94%)
  - 4 Level 2 (0.0085%)
  - 1 Level 3 (0.0021%)

- ≈4.26 physicians/10,000 persons
  - 289 Full Time, 93 Half Time

- Ancillary Staff
  - 2.05/10,000 Population
  - 162 Full Time, 0 Half Time

[Level of Care, Departmental Health Facilities (%)]
RESULTS: BOMBEROS IN POTOSI

- 12 firefighters: in department’s capital city
- 1254 pre-hospital cases (January 2012 and April 2013)
  - 738 traumatic accidents
  - 459 medical emergencies
  - 57 unspecified events
RESULTS: LA RAZON IN POTOSI

Nationally:
- January 1 and February 14, 2013
- 109 reported fatalities
- 342 non-fatal injuries due to mass-transit road traffic accidents between January 1 and February 14, 2013

Potosi:
- 28 fatalities
- > 85 injuries
CONCLUSIONS: BOLIVIA AND POTOSI

- Burden of trauma is great
- Limited trauma support capabilities

A context-appropriate pre-hospital TFRC targeted at local firefighters and laypersons is essential to augment Bolivia’s and Potosí’s capacity to provide trauma care.

- Course to be validated and effectiveness evaluated prospectively
THANK YOU