Quality of life and complications in lower limb amputees in Tanzania: results from a pilot study
## Injury and Disability in LMICs

<table>
<thead>
<tr>
<th>Causes</th>
<th>2015</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DALYs (000s)</td>
<td>% total</td>
</tr>
<tr>
<td>All Causes</td>
<td>2,668,295</td>
<td>100</td>
</tr>
<tr>
<td>Injuries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unintentional injuries</td>
<td>290,667</td>
<td>11</td>
</tr>
<tr>
<td>Road injury</td>
<td>212,207</td>
<td>8</td>
</tr>
<tr>
<td>Intentional injuries</td>
<td>76,020</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>78,460</td>
<td>3</td>
</tr>
</tbody>
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WHO, 2016

- By 2030, injuries will be:
  - 5th overall cause of death
  - 4th overall cause of ill-health
- For every injury-related death, there are ~50 injury-related disabilities
Injury → Disability: A pipeline of multiple failures
Study Objectives

• Determine the…
  • Socioeconomic demographics of lower-extremity amputees
  • Causes and characteristics of amputations
  • Health-related outcomes and quality of life in amputees
  • Barriers to prosthetic-provision
Demographics

- Predominantly male (79.5%)
- 61% completed primary education (7th grade)
- 81% informally employed
- 82% had no insurance coverage
Socioeconomic Status

• Average income
  • Patient: 130000 TSh
  • Household: 197000 TSh

• Average number of people supported by the patient: 3

• 71% of patients had electricity and 36% had piped water at home.
Baseline Health Information

- Majority did not have significant comorbidities
  - Diabetes (18%)
  - Vascular disease (4.5%)
- 86% never-smokers
- Average baseline EQ5D index was 0.92
- 61% with negative PHQ-9 depression screening at baseline
  - Mild depression (29%)
Amputation Information

- Right-sided (55%)
- Below-knee amputations (52%)
- Road traffic accidents (64%)
Complications

- 39 patients had at least 1 point of follow-up
- 51% had a complication
  - 48% Delayed healing
  - 33% Infection
- 33% patients needed reoperation
- 26% actually received reoperation
Health-related Outcomes

- Average up & go time remained slow even at 6 months
  - 15.4 seconds
- Average 4m walk time remaining slow even at 6 months
  - 8.5 seconds
Quality of Life

• Quality of life remained poor over time
  • Average EQ5D: 0.85 at 6 months
• However...
• Depression decreased over time
  • Average PHQ-9: 2.3 at 6 months
Financial Outcomes

- Few patients returned to work
  - 19% at 6 months
- Average weekly salary decreased over time
  - 57,000 TSh at 6 months

1 Tanzanian Shilling equals 0.00044 US Dollar

<table>
<thead>
<tr>
<th>57000</th>
<th>Tanzanian Shilling</th>
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</thead>
<tbody>
<tr>
<td>25.08</td>
<td>US Dollar</td>
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</table>
Prosthetics

- Only 4 patients had a prosthetic at 6 months
- Barriers:
  - Lack of materials
  - Unsuitable wound
  - Cost
Conclusions

• Amputations: preventable cause of disability
• Amputees are a neglected population
  • high rate of post-operative complications
  • poor quality of life
  • extremely limited access to prosthetics
Solutions

- Educational initiatives
- Improved access to lower extremity prosthetics and rehabilitation
- Higher-quality research to improve amputee care
Thank You!

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