The Costs and Cost-effectiveness of a District Strengthening Strategy to Mitigate the Three Delays to Quality Maternal Healthcare: Results from Uganda and Zambia

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Cost and Cost-effectiveness Objectives

1. How much did SMGL cost?
   – In total?
   – Per delay?

2. What was the cost-effectiveness of SMGL?
   – What did it cost per death prevented?
   – What did it cost per year of life gained?
Methods

• Compare SMGL to what would have happened without SMGL (‘counterfactual’)

• Effects: How many deaths were prevented?
  – SMGL: Previously discussed for 2016
  – Counterfactual: 2012 deaths in SMGL districts + national trends to estimate what would have been in 2016

• Costs: How much more did SMGL cost?
  – SMGL: Primary data collection including implementing partner and government costs
  – Counterfactual: estimated based on districts with no SMGL
Cost Per District by Delay

- **Uganda SMGL**
  - US Dollars (thousands): 1,499
  - First Delay: 10%
  - Second Delay: 66%
  - Third Delay: 20%
  - Above community/facility costs: 4%

- **Uganda Counterfactual**
  - US Dollars (thousands): 653
  - First Delay: 94%
  - Second Delay: 9%
  - Third Delay: 10%
  - Above community/facility costs: 4%

- **Zambia SMGL**
  - US Dollars (thousands): 1,184
  - First Delay: 14%
  - Second Delay: 67%
  - Third Delay: 9%
  - Above community/facility costs: 6%

- **Zambia Counterfactual**
  - US Dollars (thousands): 425
  - First Delay: 95%
Average Number of Deaths Per District (2016)

- Uganda SMGL: 539 deaths
- Uganda Counterfactual: 621 deaths
- Zambia SMGL: 185 deaths
- Zambia Counterfactual: 245 deaths

Legend:
- Maternal deaths
- Newborn deaths
## Cost-effectiveness

### Incremental:

<table>
<thead>
<tr>
<th></th>
<th>Cost per death averted</th>
<th>Cost per life year gained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda</td>
<td>$10,311</td>
<td>$177</td>
</tr>
<tr>
<td>Zambia</td>
<td>$12,514</td>
<td>$206</td>
</tr>
</tbody>
</table>
Was SMGL cost-effective?

• WHO [loosely]: Cost per life-year gained below GDP per capita is cost-effective:

• **Zambia**: $206 per life year gained is 16.4% of the GDP per capita of $1,257

• **Uganda**: $177 per life year gained is 25.6% of the GDP per capita of $692
What would SMGL Cost (roughly)?

- **Zambia**: The additional costs were $4.85 per person per year
  - Could be paid for by increasing health spending from the 5.4% to 5.8% of GDP.

- **Uganda**: The additional (incremental) costs associated with SMGL were $1.36 per person per year
  - Could be paid for by increasing health spending from the 7.3% to 7.5% of GDP.
Thank You!

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