HTA in Sub-Saharan Africa and its use in priority setting

Sam Hollingworth & Mohamed Gad

Setting Health Priorities 2018
Why?

- HTA in SSA
- What do we know?
- Two approaches
  1. Literature search
  2. HTA survey
Why?

• HTA in SSA
• What do we know?
• Two approaches
  1. Literature search
  2. HTA survey
How?

- Literature search:
- Databases: PubMed, Embase, Scopus, Proquest, Business
- Dates: xx to yy
- Terms:
  - HTA
  - SSA
  - Capacity building
What?

• ~6,000 articles
• title and abstract scan + full text review
• N=48
• descriptive analysis
• narrative synthesis
## Results – study types

<table>
<thead>
<tr>
<th>Study type</th>
<th>Journal article</th>
<th>Confer. abstract</th>
<th>Other</th>
<th>TOTAL</th>
</tr>
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<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td><strong>Primary research</strong></td>
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</tr>
<tr>
<td>Qualitative</td>
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<tr>
<td>Interview</td>
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<tr>
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<tr>
<td><strong>Mixed</strong></td>
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<tr>
<td>Survey + others</td>
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<td>2</td>
<td>4%</td>
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<tr>
<td>Discrete choice experiments</td>
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<td>-</td>
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<tr>
<td><strong>Review</strong></td>
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<td></td>
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<tr>
<td>Systematic review</td>
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<td>8%</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Other (editorial, letter, etc.)</strong></td>
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<td><strong>TOTAL</strong></td>
<td>37</td>
<td>77%</td>
<td>6</td>
<td>13%</td>
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</table>
### Results – Countries I

- Many SSA countries
- 4 countries = 53% of all papers
- South Africa, Ghana, Uganda, Cameroon
- 27 (56%) only one country
- 9 (19%) ≥ 2 countries
- 12 (25%) no country specified (e.g. SSA, LMIC)

<table>
<thead>
<tr>
<th>Country</th>
<th>n</th>
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<tbody>
<tr>
<td>South Africa</td>
<td>16</td>
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<tr>
<td>Ghana</td>
<td>9</td>
<td>14%</td>
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<tr>
<td>Uganda</td>
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<tr>
<td>Cameroon</td>
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<tr>
<td>Ethiopia</td>
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<tr>
<td>Mali</td>
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<tr>
<td>Tanzania</td>
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<tr>
<td>Kenya</td>
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<tr>
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<tr>
<td>Rwanda</td>
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<tr>
<td>Benin</td>
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<tr>
<td>Botswana</td>
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</tr>
<tr>
<td>Burkina Faso</td>
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<td>2%</td>
</tr>
<tr>
<td>Chad</td>
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<td>2%</td>
</tr>
<tr>
<td>Cote d'Ivoire</td>
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<td>2%</td>
</tr>
<tr>
<td>Gabon</td>
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<td>2%</td>
</tr>
<tr>
<td>Guinea</td>
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</tr>
<tr>
<td>Namibia</td>
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</tr>
<tr>
<td>Niger</td>
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<td>2%</td>
</tr>
<tr>
<td>Senegal</td>
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<td>2%</td>
</tr>
<tr>
<td>Swaziland</td>
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<td>2%</td>
</tr>
<tr>
<td>Zambia</td>
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<td>2%</td>
</tr>
<tr>
<td>Zimbabwe</td>
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<td>2%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>64</td>
<td>100%</td>
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</tbody>
</table>
Results – First authors

- 23 authors from SSA
- Of those, 20 authors are academics - university or research institutes
- 25 authors from other countries (11 from Americas, 10 from Europe/UK)

<table>
<thead>
<tr>
<th>Region</th>
<th>Academic</th>
<th>Government</th>
<th>Other</th>
<th>NA</th>
<th>TOTAL</th>
</tr>
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<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
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<tr>
<td>SSA</td>
<td>20</td>
<td>42%</td>
<td>3</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>America</td>
<td>9</td>
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<td>0</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Europe/UK</td>
<td>8</td>
<td>17%</td>
<td>1</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>4%</td>
<td>0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>39</td>
<td>81%</td>
<td>4</td>
<td>8%</td>
<td>48</td>
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</table>
Results – Corresponding/last authors

- 14 authors from SSA
- 34 authors from other countries
- more distributed to various countries than first authors

<table>
<thead>
<tr>
<th>Region</th>
<th>Academic</th>
<th></th>
<th>Govt</th>
<th></th>
<th>Other</th>
<th></th>
<th>NA</th>
<th></th>
<th>TOTAL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
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<td>%</td>
<td>n</td>
<td>%</td>
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<tr>
<td>SSA</td>
<td>11</td>
<td>23%</td>
<td>2</td>
<td>4%</td>
<td>1</td>
<td>2%</td>
<td>-</td>
<td>-</td>
<td>14</td>
<td>29%</td>
</tr>
<tr>
<td>America</td>
<td>5</td>
<td>10%</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>4%</td>
<td>-</td>
<td>-</td>
<td>7</td>
<td>15%</td>
</tr>
<tr>
<td>Europe/UK</td>
<td>15</td>
<td>31%</td>
<td>2</td>
<td>4%</td>
<td>3</td>
<td>6%</td>
<td>-</td>
<td>-</td>
<td>20</td>
<td>42%</td>
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<tr>
<td>Other</td>
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<td>2%</td>
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<td>-</td>
<td>4</td>
<td>8%</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>32</td>
<td>67%</td>
<td>4</td>
<td>8%</td>
<td>8</td>
<td>17%</td>
<td>4</td>
<td>4%</td>
<td>48</td>
<td>100%</td>
</tr>
</tbody>
</table>
## Results – Participants; Technology

<table>
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<tbody>
<tr>
<td>Policy maker</td>
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<td>44%</td>
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<tr>
<td>Other (health professionals, NS e.g. stakeholders)</td>
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<td>10%</td>
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<tr>
<td>Not applicable</td>
<td>22</td>
<td>46%</td>
</tr>
<tr>
<td>Total</td>
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<table>
<thead>
<tr>
<th>Technology</th>
<th>n</th>
<th>%</th>
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<tbody>
<tr>
<td>Pharmaceuticals</td>
<td>12</td>
<td>25%</td>
</tr>
<tr>
<td>Medical device</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Not applicable</td>
<td>34</td>
<td>71%</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100%</td>
</tr>
</tbody>
</table>
Results – narrative synthesis I
Results – narrative synthesis II
Acknowledgements

• Dr Sam Hollingworth (U Queensland)
• Dr Su-Yeon Yu (U Queensland)
• Ms Christine Dalais (U Queensland)
• Dr Francis Ruiz (iDSI)
• Dr Mohamed Gad (iDSI)
• Prof Kalipso Chalkidou (iDSI)
Bibliometric analysis I

- VosViewer (vosviewer.com)
- Hollingworth, Yu & Dalais
- WoS articles n=42 (NB total n= 48)
- Analysis - bibliographic data
  - country
  - all keywords
- Analysis - text data
  - title and abstract
Countries

Type of analysis: co-authorship
Unit of analysis: countries
Counting methods: fractional counting
Min no. documents of a keyword: 3
Type of analysis: co-occurrence
Unit of analysis: all keywords
Counting methods: fractional
Min no. documents of a keyword: 3
Title and abstract

Text data analysis: title & abstract
Counting methods: binary
10 documents of a keyword: 5
Three clusters
Bibliometric analysis II

- VosViewer (vosviewer.com)
- Hollingworth, Yu & Dalais
- Ghana + National Health Insurance Scheme, NHI Authority, health benefits package, essential medicines list
- n=205
- Analysis - bibliographic data
  - country
  - all keywords
- Analysis - text data
  - title and abstract
Type of analysis: co-authorship
Unit of analysis: countries
Counting methods: fractional
Min no. documents of a keyword: 5
All keywords

Type of analysis: co-occurrence
Text data analysis: all keywords
Counting methods: fractional
Min no. documents of a keyword: 3
Title and abstract

Text data analysis: title & abstract

Counting methods: binary

Min no. documents of a keyword: 5
Title and abstract - cluster 1

health insurance scheme

likelihood
determinant
association
logistic regression
effect
payee
majority
relationship
insurance
health facility
drug
place
proportion outcome
order
difference
national health insurance auth
place
health insurance scheme
universa
provider
implemen
sub saharan
knowledgeafrica
research
Title and abstract - cluster 3

health insurance scheme
national health insurance auth
policy maker
influence
implementation
perspective
context
service provider
sustainability
concern
practice
development
literature
article
research
sub saharan africa
order
pattern
extent
availability
knowledge africa
Acknowledgements

• Dr Sam Hollingworth (U Queensland)
• Dr Su-Yeon Yu (U Queensland)
• Ms Christine Dalais (U Queensland)
• Dr Francis Ruiz (iDSI)
• Prof Kalipso Chalkidou (iDSI)
Outline

- HTA in SSA
- What do we know?
- Two approaches
  1. Literature search
  2. HTA survey
Why?

➢ HTA is an effective tool to support priority setting (PS) in health at multiple decision-making levels.
➢ Stakeholder groups need to understand HTA appropriate to their role and to interpret and critique the evidence produced.
➢ iDSI has been working in sub-Saharan Africa (SSA) since 2013 to develop local capacity and support countries to implement robust HTA processes.
Aim

✓ assess the current health system priorities and policy areas of demand for HTA
✓ identify gaps in data and skills to improve the targeting of capacity-building in SSA
How?

1. **iDSI survey** (revised, cross-sectional)
   - Distribution to \( n=357 \)
     - iDSI networks, AfHEA (African Health Economics & Policy Association; afhea.org)
     - policy makers and those who inform policy decisions (national, sub-nat.)
     - those who are interested how HTA can improve PS in health,
     - potential suppliers of HTA-relevant data
   - Analysis + explore key themes

2. **Industry survey**
   - HTAi (Asia)
   - poor response, no data presented
Survey findings I

- N=51 responses (14%), 14 SSA countries
- Mostly universities and ministries of health
- Main limitations
  - Low response rate 14%, many Ghana and Nigeria
  - Self-selected respondents
- HTA → an important and valuable PS tool with a key role in the design of health benefits packages, clinical guideline development, and service improvement.
Survey findings I

- Consider some tables/figures??
Survey findings II

- **Medicines** were the technology most identified as being a critical area for undertaking HTA (followed by vaccines and public health programs), especially because of their high costs and ability to address major disease burdens.

- The use of HTA to address safety issues (e.g., low quality medicines) and value for money concerns was seen as particularly important, perhaps reflecting problems in SSA relating to service quality and efficiency.
Survey findings III

- The perceived **availability and accessibility** of suitable **local data** to support HTA varied widely but in many instances was considered **inadequate and limited**.
- Strong need for **training support** in **research methodology and data gathering** for HTA evidence.
Conclusions

- This survey across SSA was successful in raising awareness of HTA as a tool for priority setting and identifying key gaps in data and capacity.
- iDSI will develop a more tailored and expansive survey around the key themes identified in this initial survey to tailor engagement strategies and target capacity building.
Acknowledgements

• Dr Sam Hollingworth (U Queensland)
• Dr Mohamed Gad (iDSI)
• Dr Thomas Wilkinson (U Cape Town)
• Ms Jessica Fraser (iDSI)
• Mr Alex Winch (iDSI)
• Ms Rebecca Trowman (HTAi)
• Dr Francis Ruiz (iDSI)
• Prof Kalipso Chalkidou (iDSI)