Trends of Caesarean Sections in Uganda: 2012-2015

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Caesarean Section

- Caesarean section – life saving surgical procedure in obstetric care
- 15% of births will require caesarean section
  - Too few may lead to death
  - Too many may indicate over utilization of service
- Risks and complications for the mother & baby
Caesarean section rate

- **Caesarean section rate (CSR)**
  \[
  \text{CSR} = \frac{\text{No. of Caesarean sections performed}}{\text{No. of deliveries in Unit}} \times 100
  \]

- Range of 5 - 15% recommended for life saving benefit by World Health Organization

- CSR used for measuring access to, utilization and quality of care for maternal health services in Uganda
Objectives

- Describe trends of CS rates
- Document prevalence of Caesarean sections by level of care and ownership
- Describe the distribution of CS rate by District
- Assess completeness of reporting by level of care
Data abstraction

- Secondary data from National Health Management Information System obtained - Monthly HMIS 108 reports
- All Health Facilities offering emergency obstetric care services included
- Data for the period 2012 – 2015 extracted
### CSR by level of care

<table>
<thead>
<tr>
<th>Level of care</th>
<th>No. of Facilities</th>
<th>Total Deliveries</th>
<th>C- Sections</th>
<th>CSR %</th>
</tr>
</thead>
<tbody>
<tr>
<td>HC IV</td>
<td>195</td>
<td>507,475</td>
<td>32,142</td>
<td>6.3</td>
</tr>
<tr>
<td>General Hospital</td>
<td>134</td>
<td>611,879</td>
<td>134,753</td>
<td>22</td>
</tr>
<tr>
<td>RR Hospital</td>
<td>13</td>
<td>287,593</td>
<td>72,705</td>
<td>25</td>
</tr>
<tr>
<td>Mulago NRH</td>
<td>1</td>
<td>124,804</td>
<td>31,570</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>343</td>
<td>1,531,751</td>
<td>271,172</td>
<td>18</td>
</tr>
</tbody>
</table>
Increasing trend of CSR

WHO Recommended Range

Increasing Cesarean Sections in Uganda
Increasing Cesarean Sections in Uganda

SCR at HC IV lowest in Eastern Region

<table>
<thead>
<tr>
<th>Period</th>
<th>Northern</th>
<th>Central</th>
<th>Western</th>
<th>Eastern</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>2</td>
<td>5</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>2013</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>2014</td>
<td>4</td>
<td>6</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>2015</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>
Most RRHs above recommended rates

- Gulu: 10
- Moroto: 13
- Lira: 17
- Mbale: 20
- Mubende: 20
- Masaka: 23
- Jinja: 28
- Fort Portal: 28
- Kabale: 28
- Soroti: 28
- Arua: 31
- Hoima: 34
- Mbarara: 37

WHO Recommended range
Public Vs Private Hospitals

Increasing Caesarean Sections in Uganda

C-section Rate

WHO recommended range

2012 2013 2014 2015

Period

Private Not For Profit

Public Hospitals
Increasing Caesarean Sections in Uganda

Less than half of HC IVs offer CS

<table>
<thead>
<tr>
<th>Period</th>
<th>HC IV Conducting C-Sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>32%</td>
</tr>
<tr>
<td>2013</td>
<td>40%</td>
</tr>
<tr>
<td>2014</td>
<td>50%</td>
</tr>
<tr>
<td>2015</td>
<td>47%</td>
</tr>
</tbody>
</table>
UPDF & Private Hospitals not reporting CS

Increasing Cesarean Sections in Uganda

<table>
<thead>
<tr>
<th>Year</th>
<th>Non Reporting Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>26%</td>
</tr>
<tr>
<td>2013</td>
<td>22%</td>
</tr>
<tr>
<td>2014</td>
<td>18%</td>
</tr>
<tr>
<td>2015</td>
<td>21%</td>
</tr>
</tbody>
</table>
Half of the Districts below 5% CSR

<table>
<thead>
<tr>
<th>Range of CSR (%)</th>
<th>Districts (n=112)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5</td>
<td>53</td>
<td>47.3</td>
</tr>
<tr>
<td>5 to 15</td>
<td>53</td>
<td>47.3</td>
</tr>
<tr>
<td>&gt;15</td>
<td>6*</td>
<td>5.4</td>
</tr>
</tbody>
</table>
Increasing Cesarean Sections in Uganda

13 Districts lack CS services
Limitations

- Surveillance data limited in quality and completeness
Conclusion

- Increasing trend of Caesarean sections at all levels of care
- $< 1/2$ of HCIVs do not offer emergency obstetric care
- Half of the Districts are $< 5\%$ minimum recommended Caesarean section rate
- Under-reporting of Caesarean sections in Private and UPDF Facilities
Recommendation

- Evaluate necessity of C-Sections in hospitals
- Increase coverage of EMoC services in Districts without
- Improve functionality of EMoC services at HC IV level
- Strengthen routine reporting from Private & UPDF Facilities
Acknowledgment

- Ministry of Health
- CDC
- MaKSPH