Health Systems Strengthening through Quality Improvement (QI) Approaches: The Lwala Community Alliance QI Initiative

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BACKGROUND

- Strengthening health systems in low- and middle-income countries remains an essential catalyst towards the attainment of universal health coverage (UHC).¹
- The World Health Organization (WHO) health systems framework presents an opportunity to assess and evaluate the performance of health facilities based on its six building blocks: leadership and governance; health workforce; medical products and technologies; information systems; healthcare financing; service delivery.²
- The Lwala Community Alliance is a non-profit organization, located in the Rongo sub-county of western Kenya, with a focus on improving the health outcomes of the sub-county’s inhabitants.
- Quality improvement (QI) project
  - Started mid-2018
  - Six (6) partnering government health facilities in the catchment area
  - To identify gaps for improvement and enhance the quality of health care services delivery.

METHODOLOGY

QI initiative:
- Commenced with a baseline health facility assessment (HFA) to generate an HFA score
- Facilities assessed on the six WHO health systems framework building blocks.
- Health Improvement QI (Plan-Do-Study-Act ‘PDSA’) model to identify and address problem areas.
  - Assessment tools employed include case observation guidelines (COGs); data quality audits (DQA); patient and staff satisfaction surveys
- HFA conducted on a biannual basis thereafter with QI programs running concurrently.
  - Three (3) rounds of HFA have been conducted so far.
- Data Analysis:
  - T-test (mean comparator test); ANOVA
  - STATA statistical software (version 15)

RESULTS

The results displayed pertain to 5 health facilities who were assessed in each of the three HFA rounds

<table>
<thead>
<tr>
<th>Facility</th>
<th>HFA Round One</th>
<th>HFA Round Two</th>
<th>HFA Round Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kochola</td>
<td>24</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>Minyanya</td>
<td>35</td>
<td>33</td>
<td>38</td>
</tr>
<tr>
<td>Ndege</td>
<td>31</td>
<td>32</td>
<td>38</td>
</tr>
<tr>
<td>Orido</td>
<td>13</td>
<td>18</td>
<td>26</td>
</tr>
<tr>
<td>Ngere</td>
<td>25</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Ngodhe</td>
<td>38</td>
<td>42</td>
<td>42</td>
</tr>
</tbody>
</table>

Figure 1: Total HFA scores (adjusted) per HFA round by health facility

Table 1: Differences in mean scores across the facilities between Rounds 1 & 3

<table>
<thead>
<tr>
<th>HFA Component (score)</th>
<th>HFA Round 1 mean score (Baseline)</th>
<th>HFA Round 3 mean score (1 year-post baseline)</th>
<th>Mean difference</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total HFA (adjusted)</td>
<td>21.6</td>
<td>38.8</td>
<td>17.2</td>
<td>9.99–24.41</td>
<td>0.0007</td>
</tr>
<tr>
<td>Leadership and Governance</td>
<td>17</td>
<td>34.2</td>
<td>17.2</td>
<td>7.44–26.96</td>
<td>0.0036</td>
</tr>
<tr>
<td>Finance</td>
<td>2.6</td>
<td>5.4</td>
<td>2.8</td>
<td>1.09–4.51</td>
<td>0.0061</td>
</tr>
<tr>
<td>Medical Products and Technologies</td>
<td>39.25</td>
<td>28.25</td>
<td>11</td>
<td>5.48–16.52</td>
<td>0.0006</td>
</tr>
</tbody>
</table>

** Decrease in score signifies an improvement; Excludes the Ngere Health facility

CONCLUSION

- Significant increases in average scores across the 5 health facilities were seen in the following areas: leadership and governance; finance; medical products and technologies and in overall HFA scores.
- Organizations such as Lwala, present an opportunity to implement QI projects in government health facilities in resource-limited settings.
- QI activities are an important driver of health systems’ strengthening towards the attainment of UHC (Sustainable Development Goal 3).
- Subsequent rounds of complete health facility assessment in all components will be required to assess the full scale of impact of the initiative.
- A complete assessment in all six WHO building blocks was not achieved for all health facilities over the three rounds (Limitation).

REFERENCES


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