Improving PMTCT services through a participatory Continuous Quality Improvement (CQI) approach in Nyanza region of Western Kenya

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Background

- Vertical transmission remains the most common way children acquire HIV in sub-Saharan Africa.

- Quality PMTCT service delivery is essential.

- We examined the impact of a participatory Continuous Quality Improvement (CQI) approach to improving health care capacity for PMTCT service delivery.
Methods

The baseline CQI was carried out in January – June 2012

Data captured at 123 sites

The CQI involved randomly selecting patient files

Performance at ≥90% was good and < 90% was targeted for improvement

The Plan Do Study Act (PDSA) cycle along with a multidisciplinary team (MDT) approach was used

To assess the CQI approach, focus was put on priority variables at baseline and annual follow up
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline Period (Jan_Jun2012)</th>
<th>Follow-up (Jan_Jun2013)</th>
<th>Follow-up (Jan_Jun2014)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>n/N (%)</td>
<td>RR (95% CI)</td>
<td>p-value</td>
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<tr>
<td>Appropriate antiretroviral regimen (AZT)</td>
<td>1050/1261 (83%)</td>
<td>1140/1195 (95%)</td>
<td>1.15 (1.11-1.18) P&lt;0.001</td>
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<td>Appropriate antiretroviral regimen (HAART)</td>
<td>510/594 (86%)</td>
<td>700/721 (97%)</td>
<td>1.13 (1.09-1.17) P&lt;0.001</td>
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<tr>
<td>Early Infant Diagnosis</td>
<td>1162/1324 (88%)</td>
<td>1027/1157 (89%)</td>
<td>1.01 (0.98-1.04) P=0.441</td>
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<tr>
<td>Infant Feeding</td>
<td>704/855 (82%)</td>
<td>684/725 (94%)</td>
<td>1.15 (1.11-1.19) p&lt;0.001</td>
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<tr>
<td>Baseline CD4 at first ANC</td>
<td>883/1539 (57%)</td>
<td>1366/1803 (76%)</td>
<td>1.32 (1.26-1.39) p&lt;0.001</td>
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<td>Family and partner HIV testing</td>
<td>1475/2082 (71%)</td>
<td>3985/5486 (73%)</td>
<td>1.03 (0.99-1.06) P=0.120</td>
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<td>Pediatric timely CD4</td>
<td>556/717 (78%)</td>
<td>426/512 (83%)</td>
<td>1.07 (1.02-1.13) P=0.120</td>
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Lessons Learnt

The CQI approach, enabled teams to identify, measure, and address underperforming indicators with sustained improvements in PMTCT.

The CQI approach is scalable in similar settings and can potentially boost quality PMTCT service delivery.

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