Estimating costs to scale-up a postpartum family planning intervention in Rwanda

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Motivation for analysis

• Inform discussions on the scale-up of PPFP in Rwanda

• Understand the key cost drivers for scaling up an integrated PPFP training and mentorship intervention
  • Based on MCSP support to Government of Rwanda (GOR) to implement the PPFP training and mentorship model

• Estimate the costs for the GOR to sustainably maintain intervention coverage
Methodology

• Used activity-based costing approach that identified the core activities of the PPFP approach as implemented by MCSP

• Retroactively collected data on costs and quantities of inputs based on MCSP approach in four initial districts

• Using MCSP input quantities and standard GOR/MOH unit costs, modeled financial costs for the GOR/MOH to scale-up approach in other districts while maintaining approach in original ten MCSP-supported districts
Costed Activities from Intervention

Preparatory
- Provider skill assessment and trainer identification
- District orientations
- Training model procurement

Training of Trainers
- National TOT (with follow-up)
- Refresher TOT

Provider Training
- FP counseling skills (follow-up and refreshers every 2y)
- PPFP clinical skills (follow-up and refreshers every 2y)

Mentor Capacity Building
- Capacity building of selected mentors to serve as district-based mentors

Mentorship
- Bi-monthly visits during first 1-2 quarters of implementation
- Average 8 mentor visits per year after first year
- Regular mentor oversight visits
Mentorship is the largest cost driver for implementation (excluding PPFP commodities)

1 USD = 893 RWF

Scale-up — Maintenance

17 districts — 24 districts — 30 districts

Total Annual Cost (millions)

Preparation — Training of Trainers — Provider Training — Mentorship Capacity-Building — Mentorship

Note: “Start-up” refers to costs associated with district receiving implementation package for the first-time that year; “Maintenance” refers to districts that have received package in previous year(s).
Travel costs & facilitation fees comprise the majority of costs, underscoring the resources needed to conduct mentorship*.

1 USD = 893 RWF

*Excludes PPFP commodities
Annual maintenance costs *per district* are approximately 50% less than costs during first-year of introduction.

**First Year of Introduction**
- Mentorship: 35%
- Mentorship Capacity-Building: 9%
- Provider Training: 39%
- Training of Trainer: 2%
- Preparation: 15%

**USD 35,000**
- RWF 31 million

**Maintenance**
- Preparation: 15%
- 19%
- 1%
- 6%

**USD 17,500**
- RWF 15 million

Note: Preparation category includes training equipment replacement in maintenance years.
Estimated costs of package suggest it is a relatively low-cost intervention

- **Average annual district cost:**
  - RWF 31 million / USD 35,000 in first year of introduction
  - RWF 15 million / USD 17,500 in subsequent years to maintain

- **Annual cost per capita**
  - First year of introduction: RWF 87 / USD 0.10
  - Annual per year maintenance: RWF 37 / USD 0.05

- **Annual cost per woman of reproductive age***
  - First year of introduction: RWF 326 / USD 0.40
  - Annual per year maintenance: RWF 140 / USD 0.20

- RWF 450-500 million / USD 500,000 total cost per year to maintain represents less than 0.5% of domestic government expenditures on health** (excluding PPFP commodities)

*Based on approx. 3 million women aged 15-49 (2017 UN Population Prospect); 11.92 million pop
**Global Health Expenditure Database
PPFP training and mentorship intervention demonstrated increases in counseling and PPFP method uptake

The PPFP training and mentorship intervention is relatively low-cost and has shown to increase counseling and uptake of PPFP methods.

Source: MCSP 2018
Using costing data for advocacy

• Ensure perspective of costing speaks to what costs a government would need to assume to scale and maintain an intervention

• Communicate costs in easily understood units (e.g., per capita or per district/administrative unit)

• Relate costs to current levels of domestic spending (when available)

• Demonstrate relative affordability against outputs/outcomes of an intervention (when available)
Questions?

Thank you!
For more information, please visit www.mcsprogram.org

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Additional slides
## Costed Activity Detail

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<thead>
<tr>
<th>Strategy</th>
<th>Activity</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Preparation</strong></td>
<td>Provider skill assessment</td>
<td>Situational analysis in 10 districts for 4 technical areas; assume 12.5% for PPFP</td>
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<td></td>
<td>District field visits for trainer identification</td>
<td>Field visits in PPFP sites to identify potential trainers</td>
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<td>District stakeholder orientation meetings</td>
<td>Orientation meeting for HF managers in each district; costs reported are for one district</td>
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<td></td>
<td>Health center orientation on new knowledge and skills</td>
<td>Visit health facilities to facilitate introductions of new activities on-site</td>
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<td></td>
<td>Training model procurement</td>
<td>Procurement of Mama-U postpartum uterus training models and PPIUD kits (2) per facility; replaced every two years</td>
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<td><strong>National ToT</strong></td>
<td>National ToT on PPFP clinical skills</td>
<td>Train national trainers on PPFP clinical skills; 9 trainees Y1</td>
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<td>National ToT follow-up on PPFP clinical skills</td>
<td>MCSP staff member will follow-up with national trainers at their respective HF; completed follow-up of 9 trainees in 4 days</td>
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<tr>
<td></td>
<td>Refresher TOT</td>
<td>Occurs every two-years assuming turnover and replacement of trainers</td>
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<tr>
<td><strong>Provider Training</strong></td>
<td>Counseling training</td>
<td>Counseling training of clinical staff from all health facilities; 2 people/HF (approx. 30 trainees)</td>
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<td>Counseling post-training follow-up</td>
<td>Post training follow-up of trainees using a checklist</td>
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<td>Clinical skills provider training</td>
<td>Training off-site at hospitals using anatomic models at the district level; approx. 18 people per district for four-days</td>
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<td>Clinical skills post-training follow-up</td>
<td>Post-training follow-up at health facility</td>
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<tr>
<td></td>
<td>Refresher training - Counseling</td>
<td>Refresher training for counseling; only included in model</td>
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<tr>
<td></td>
<td>Refresher training - Clinical skills</td>
<td>Refresher training for clinical skills; only included in model</td>
</tr>
<tr>
<td><strong>Mentor Capacity Building</strong></td>
<td>District trainer capacity building for mentorship</td>
<td>Capacity building of selected staff at health facility level to serve as district mentors</td>
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<tr>
<td><strong>Mentorship</strong></td>
<td>Clinical mentorship</td>
<td>Mentor visits to facility staff; select number of visits first year and then subsequent years; user selected</td>
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<td>Monitoring of PPFP mentorship</td>
<td>Central level staff monitor the implementation of mentorship at districts; user selected</td>
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Assumptions

• Activities remain consistent across scale-up and maintenance period
• Salary costs include:
  • Technical management roles
  • Coordinator roles
  • Trainers
  • Mentor oversight
• Other costs include: transport, facilitation fee, equipment, training costs, printing
• Used MOH salary rates and transport/per diem rates for projecting costs
• Mentoring visits covers more FP methods than just PPFP
• Annual cost increase of one percent*
• Costs not included:
  • Commodities other than training devices
  • Facility/infrastructure costs
  • Indirect costs other than management of technical activities

* Based on annual changes in Rwanda consumer price index (RNSI)
Modeling Assumptions

- Standard MOH salary bands and transport/per diem rates
  - Key findings exclude salary costs of mentors in relevant activities
- Annual cost inflation of 1%*
- Mentoring visits covers more FP methods than just PPFP
- Excludes indirect costs other than management/oversight of technical activities
- Excludes PPFP commodities

<table>
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<tr>
<th>Activity assumptions in cost model scenario</th>
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<tr>
<td>ToT trainees per year:</td>
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<td>Training kits per facility:**</td>
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<td>Counseling trainees per district:</td>
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<td>Clinical skills trainees per district:</td>
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<td>Trainee annual turnover:**</td>
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<td>Refresher TOT and training frequency (counseling and clinical skills):***</td>
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<td>Mentors per district:</td>
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<tr>
<td>Avg. mentor visits per facility per year (first year; bimonthly 4 months):</td>
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<tr>
<td>Avg. mentor visits per facility per year (maintenance years):</td>
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<td>Mentor oversight visits per district per year:</td>
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*Based on 2016 v 2017 CPI comparison from NISR
**Includes one training mannequin and two PPIUD kits; replacement every two years
***Based on Lopes, et al. (2016) on cross-country rates of health workforce attrition; 15% average for low-income countries.
Assumes new trainees in each district every year; refresher training cohorts align with the new trainees per year and accounts for turnover
When including mentor salary costs, total annual costs increase by approximately 33%.

**Average district cost in maintenance phase (2020)**

- **Without Mentor Salary**
  - Equipment: RF 2,898,838
  - Printing & Other: RF 1,069,741
  - Training Venue: RF 14,734,703
  - Travel & Facilitation: RF 11,069,741
  - Salary: RF 2,898,838
  - Total: RF 11,069,741

- **With Mentor Salary**
  - Equipment: RF 2,898,838
  - Printing & Other: RF 1,069,741
  - Training Venue: RF 14,734,703
  - Travel & Facilitation: RF 11,069,741
  - Salary: RF 6,563,800
  - Mentor Salary: RF 6,563,800
  - Total: RF 14,734,703

**Increase:** RF 3,665,962 (33%)