

Cost Analysis for Scale-Up of Postpartum Family Planning in Rwanda

May 2018

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Background

Unmet need for family planning (FP) can result in unwanted or mistimed pregnancies, leading to delayed or no antenatal care and posing health risks for both mothers and infants. In Rwanda, 19% of women of childbearing age want to delay or stop having children, but are not using any form of contraception.¹ This unmet need is much higher among women who are less than two years postpartum, at 51%.² The World Health Organization recognizes the immediate postpartum period (within 48 hours after birth) as a prime opportunity to reach women with a wide range of contraceptive methods, many of which are long lasting. In 2016, the Ministry of Health (MOH) in Rwanda, with support from the US Agency for International Development's flagship Maternal and Child Survival Program (MCSP), introduced an integrated postpartum FP (PPFP) package in four districts, later scaling up to an additional six districts.

To inform continued scale-up of the PPFP approach to all 30 districts in Rwanda, this document presents the rationale, methods, and findings of a cost analysis. Based on the cost inputs required to implement the approach in four MCSP-supported districts, a flexible cost model was developed to project the costs of scaling up the approach to national level. The outputs of the model provide information on the expected range of financial resources needed to bring the PPFP approach to national scale in Rwanda. This cost analysis allows national policy makers to anticipate how costs may change under different scale-up scenarios.

Summary of PPFP Approach and Costed Activities

The intervention integrates multiple strategies to improve health care providers' counseling and clinical skills to provide an array of PPFP methods, including:

- **Training on FP-methods counseling and PPFP clinical skills:** delivering curriculum to health care providers on integrated FP-methods counseling and PPFP clinical skills
- **Mentorship:** regular mentoring visits by district-based providers who engage with hospital and health center providers to identify gaps and reinforce the practice of FP counseling and PPFP clinical skills
- **Focused quality improvement:** tailored quality improvement activities to assess outcome indicators and identify facility issues during mentorship visits

¹ Ministry of Finance and Economic Planning/Rwanda, Ministry of Health/Rwanda, and ICF International. 2015. Rwanda Demographic and Health Survey 2014-15. Kigali, Rwanda: National Institute of Statistics of Rwanda, Ministry of Finance and Economic Planning/Rwanda, Ministry of Health/Rwanda, and ICF International.

² Moore Z, Pfitzer A, Gubin R, Charurat E, Elliott L, Croft T. 2015. Missed opportunities for family planning: an analysis of pregnancy risk and contraceptive method use among postpartum women in 21 low- and middle-income countries. *Contraception* 92(1): 31–39.

The following integral activities to implement the intervention were costed:

- **Preparatory activities**, such as providers' skills assessment, training equipment procurement, orientation with district health stakeholders, and health center orientation on the PPF approach
- **Training of trainers (TOT)** and refresher TOTs over the course of scale-up to create a cadre of master trainers who will deliver trainings to hospital and health center providers on FP counseling, from the antenatal to postpartum period, and PPF clinical skills
- **FP counseling and PPF clinical skills training** for hospital and health center providers held at facilities, including refresher trainings every two years over the course of scale-up; cost drivers included trainer salaries, travel fees, and materials
- **Mentorship** and support for quality improvement activities by senior district-based providers, including dedicated start-up activities to build the capacity of mentors and travel and facilitation fees

Methodology and Assumptions

Cost data from the roll-out of the PPF approach in four MCSP-supported districts from November 2015 to October 2016 were retroactively collected from May to

September 2017. The information needed was compiled through structured interviews with program staff and documents from the MCSP Rwanda country office and MCSP headquarters. The collected data were analyzed using an activity-based approach to identify the key cost inputs and drivers for scale-up. Using the inputs expended to implement the approach in the first four MCSP-supported districts, cost modeling was conducted to estimate the costs of scale-up to other districts under a range of scenarios. The model also translated the costs from an implementer's perspective (i.e., MCSP) to that of the MOH, generating cost estimates to support sustainability of the approach in the future. The modeling also included scenarios analysis, which allowed variation in the pace of scale-up and modifications to key activity assumptions (e.g., number of mentors, frequency of mentorship visits). A key assumption of the analysis is that activities remain consistent as the package is expanded to other districts.

Figure 1. Annual costs by intervention strategies, in millions of Rwandan francs

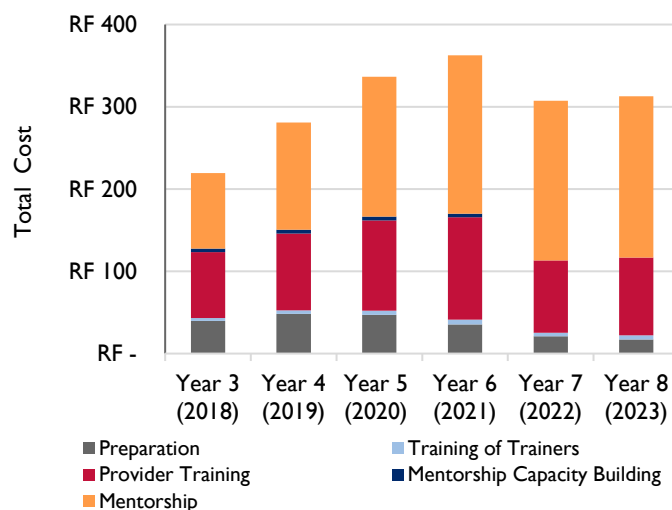
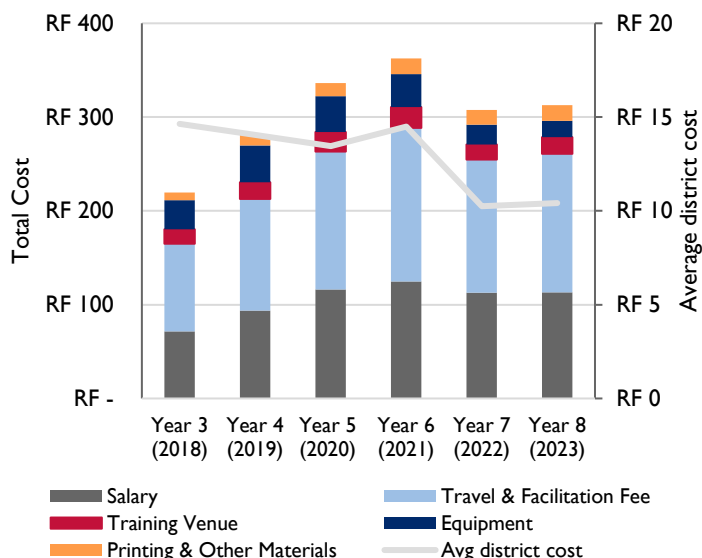


Figure 2. Annual cost by category and average district cost, in millions of Rwandan francs



The outputs of the cost modeling exercise represent the costs associated with scaling up an ideal approach³ to 30 districts over the course of six years and the costs associated with maintaining the approach for at least two additional years. The results are based on standard cost inputs, such as MOH standard salary and per diem rates, and annual cost inflation (one percent). The analysis does not include the salary costs of district-based mentors, who are assumed to be existing staff.

Key Findings⁴

Across the main components of the PPF package (and start-up activities), mentorship constitutes the largest cost driver for the overall intervention, followed by initial and refresher FP counseling and PPF clinical skills trainings, and then preparatory activities in each district the year they first implement the package (**Figure 1**). When excluding the level of effort of district-based mentors, by far the largest cost drivers were travel and facilitation fees (**Figure 2**). Total annual costs for implementation increase through the next four years (Y3–Y6) of scale-up, but then drops to an average total annual maintenance cost of approximately RF 305 million (USD 360,000). This estimated annual cost represents less than one percent of the government’s health spending.⁵ Similarly, the average cost per district drops over time; when all districts are implementing, the average district cost is approximately RF 10 million (USD 12,000) per year to maintain the approach (**Figure 2**). After full scale-up, the average cost per woman of reproductive age (15–49 years) is RF 100. Should costs of mentor salaries be included in the estimates, the total annual cost and average district costs after full scale-up increase by 25 percent.

Implications for Scale-up

This cost modeling exercise demonstrates that the intervention package for PPF is a relatively affordable and scalable intervention for increasing FP coverage in Rwanda. Further analysis and scenario planning at the district level could show the cost implications of modifying the intensity of the package, such as increasing the frequency of mentoring. These modeled scenarios can aid in planning and discussions on the appropriate form of the PPF package to scale to national level. Coupled with improvements in health worker capacity and changes in PPF coverage in the initial 10 MCSP districts, the cost analysis provides important inputs for longer-term sustainability planning for this PPF approach in Rwanda.

This brief is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of the Cooperative Agreement AID-OAA-A-14-00028. The contents are the responsibility of the Maternal and Child Survival Program and do not necessarily reflect the views of USAID or the United States Government.

³ The “ideal” package includes all preparatory activities; TOT for all district trainers in FP counseling and PPF clinical skills; training of 30 providers per district in FP counseling; training of 18 providers per district in PPF clinical skills; one training mannequin and two postpartum IUD kits per facility replaced every two years; two mentorship visits in the first year, followed by six in recurring years; and biannual mentorship oversight visits. Costs for two-day refresher TOT and provider trainings (counseling and clinical skills) have been estimated occurring every two years and assuming a 15 percent annual trainer and health worker turnover rate with full replacement.

⁴ These results assume full scale-up to 30 districts by Year (Y) 6/2021 and maintenance costs in Y7–Y8. The 30 districts include the 10 MCSP-supported districts and the 20 remaining districts. For the 10 MCSP-supported districts, only costs to maintain the approach have been included, starting in 2018. After scale-up in four MCSP-supported districts in Y1, the sequence follows six districts in Y2 (MCSP priority districts), five districts in Y3, five districts in Y4, five districts in Y5, and five districts in Y6.

⁵ Rwanda National Health Accounts, 2014