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Amelia Mazzei Date

Needs Assessment and Scale-Up Recommendations
for Integrated HIV and Family Planning Services in Rural Rwanda

By

Amelia Mazzei
Master of Public Health

Hubert Department of Global Health

_____

Dr. Susan Allen
Committee Chair

_____

Dr. Kristin Wall
Committee Member

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By

Amelia Mazzei

Doctor of Naturopathic Medicine
National University of Natural Medicine
2015

Bachelor of Arts in Sociology
Reed College
2007

Thesis Committee Chair: Susan Allen, MD, MPH

An abstract of
a thesis submitted to the Faculty of the
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Abstract

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By Amelia Mazzei

Projet San Francisco (PSF), the Rwanda branch of the Rwanda Zambia HIV Research Group (RZHRG), has pioneered effective and culturally appropriate behavioral health interventions for HIV prevention and family planning in Rwanda. Since August of 2015, PSF has been implementing an NIH-funded operations research study of HIV and family planning service integration that emphasizes long-acting reversible contraceptive (LARC) methods. The intervention includes community-based family planning counseling and referral via community health workers (Animateurs de Sante or ADS) and seeks to engage couples, as well as individuals, whenever possible. In its first year, this new fertility goal-based (Couples) Family Planning Counseling ((C)FPC) intervention was scaled up to 8 different government clinic catchment areas in Kigali, and served over 3000 new LARC clients.

PSF is now considering further expansion of (C)FPC to areas beyond Kigali. Building on formative research conducted by the Rwanda Zambia HIV Research Group, I examined the compatibility of PSF's Kigali-based (C)FPC program with the needs and capacities of rural Rwandan public health centers (HC). I conducted a multi-step process of (C)FPC program evaluation and rural HC clinical needs assessment in order to inform decision-making around future expansion of (C)FPC to rural Rwandan health centers. This work has resulted in a final report that provides updated information on service provision and promotion as well as preliminary recommendations to inform the expansion of PSF's (C)FPC services to non-urban populations in Rwanda. This report, which argues for the desirability and feasibility of (C)FPC service expansion to rural Rwanda, forms the basis for a new NIH grant proposal. The proposal, to be submitted in May 2017, will seek funding for a new operations research study regarding (C)FPC program expansion.

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Additionally, I greatly appreciate the many health center staff members across Rwanda who agreed to participate in this project. In the midst of heavy workloads and competing demands, each one volunteered multiple hours of their time in order to contribute to an improved understanding of the needs, capacities, and barriers surrounding HIV and family planning services for rural Rwandans. Throughout the needs assessment process, I witnessed an impressive dedication to patient care and many examples of creative problem solving in constrained and challenging circumstances.

I am most grateful to Emory's GFE committee, who funded the travel necessary for my work. Janeen Drakes and Rachel Parker of RZHRG were both a tremendous help during the planning stages, as were Gelsey Hughes and Kristina Countryman. Thank you to Dr. Kristin Wall for agreeing to be a part of my thesis committee and for the insights and guidance provided during the writing stages. Thanks always to Lana and Oumer. And finally, thanks to Theresa Nash at the Hubert Department of Global Health, who has been a continuous source of support and enthusiasm throughout my time at Rollins.

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CHAPTER 1
INTRODUCTION

Background and Significance

Rwanda experiences a disproportionate burden of HIV infection and disproportionately high fertility rates and population density[1]. Family planning (FP) is a top priority for the Ministry of Health, as effective contraceptive options are not widely or consistently available in the country.[2] Recent data show that almost half (47%) of Rwandan women would prefer to have no more children, and about 40% would like to delay having additional children by at least 2 years.[3] Long-acting reversible contraceptive (LARC) methods have been demonstrated to be ideal for those intending to delay pregnancy for 2 or more years: they have a low failure rate, are not subject to issues of user error, have few adverse effects, and are relatively unaffected by inconsistency in supply chains.[4] Despite the clear applicability of LARC methods to the Rwandan context, there has been historically low LARC access and uptake by Rwandan women.

The Rwanda Zambia HIV Research Group (RZHRG) has led the implementation of couples' voluntary counseling and testing ((C)VCT, an evidence-based HIV prevention intervention) in Rwanda for over 30 years. In 2014, RZHRG's Kigali branch, Projet San Francisco (PSF), also began piloting couples' family planning counseling ((C)FPC), a community-based family planning initiative. The (C)FPC model pairs health center (HC) provision of LARC such as intrauterine devices (IUDs) and contraceptive implants with the promotion of fertility goal-based family planning (FP) and (C)VCT services by community health workers (Animateurs de Sante or ADS) who are tasked with home-based distribution of oral contraceptive pills and administration of injectable contraception (Depo-Provera).

Since August of 2015, PSF has implemented (C)FPC in partnership with ADS and 8 government clinics in Kigali. (C)FPC and (C)VCT share PSF's signature couples'-based model, and the two can be readily integrated to provide cohesive HIV prevention and family planning service delivery.[5] By training ADS in LARC counseling and referral,

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[1] US Central Intelligence Agency. "Country Comparison: Total Fertility Rate." Retrieved Feb 23, 2016 from https://www.cia.gov/library/publications/theworld- factbook/rankorder/2127rank.html.
[2] NIH B2 Year 3 Progress Report on Rwanda Family Planning. RZHRG, 2015.
[3] National Institute of Statistics of Rwanda (NISR) [Rwanda], Ministry of Health (MOH) [Rwanda], and ICF International. 2015. Rwanda Demographic and Health Survey 2014-15: Key Indicators. Rockville, Maryland, USA: NISR, MOH, and ICF International. Retrieved Feb 23, 2016 from http://dhsprogram.com/pubs/pdf/PR53/PR53.pdf.
[4] NIH R01 Rwanda Family Planning. Rwanda Zambia HIV Research Group, 2011.
[5] Khu NH, Vwalika B, Karita E, et al. Fertility goal-based counseling increases contraceptive implant and IUD use in HIV-discordant couples in Rwanda and Zambia. Contraception. 2013:88(1):74-82.

PSF has been able to build on existing networks in order to enhance demand for LARC methods and to better integrate family planning services into their already robust HIV services.[6] In just 8 months, the (C)FPC initiative has been expanded to 8 Kigali clinic catchment areas, reaching over 3000 couples. Preliminary monitoring data suggests that (C)FPC has been highly effective in increasing LARC uptake and in integrating HIV-FP services. PSF has successfully implemented (C)VCT as a nationwide standard of care in Rwanda, drastically reducing HIV incidence countrywide. There is potential for (C)FPC to have the same effect on total fertility rates, which is critical given the extensive unmet need for FP in meeting Rwandan women's fertility goals, along with the high population density and relative scarcity of arable land in Rwanda.[7]

Family planning initiatives have the potential to improve public health via multiple mechanisms: delaying first pregnancies impacts adolescent health and gender equity[8], spacing additional pregnancies impacts maternal and child health outcomes[9], and reducing pregnancies overall supports poverty alleviation efforts.[10] Use of reliable contraceptives in conjunction with (C)VCT reduces maternal to child transmission of HIV, either by preventing pregnancies altogether or by allowing potential parents to plan pregnancies with advance knowledge of their HIV status and with prior initiation of HIV treatment.[11] Additionally, reducing unwanted pregnancies is essential in the fight to end maternal mortality from abortion.[12]

Qualitative research conducted by Kristina Countryman and Gelsey Hughes in 2015[13] found that lack of familiarity with LARC methods and misconceptions about the safety and efficacy of LARC methods were the primary client-side obstacles to scaling up LARC provision in Rwanda. Importantly, their research also demonstrated that PSF's preliminary (C)FPC pilot program, conducted in 2 Kigali HCs in 2014, was positively received by ADS and clients and led to high LARC uptake in the target group. This research motivated the implementation of (C)FPC in 6 additional Kigali HCs, making a total of 8 HCs that continue to offer (C)FPC programming to date. As (C)FPC has increased client-side demand for LARC within the catchment areas, capacity for LARC provision has been simultaneously scaled up through PSF-sponsored staff trainings and through supplemental material support.

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[6] PSF Fourth Quarterly Report, 2015. Rwanda Zambia HIV Research Group, 2016.
[7] Rwanda State of Environment and Outlook Report: Land use and agriculture. http://www.rema.gov.rw/soe/chap3.php. Retrieved Apr 6, 2017.
[8] World Health Organization. "Adolescent Pregnancy." http://www.who.int/maternal_child_adolescent/topics/maternal/adolescent_pregnancy/en. Retrieved Mar 26, 2017.
[9] World Health Organization. (2005). Report of a WHO Technical Consultation on Birth Spacing. Geneva, Switzerland. 13-15 June 2005.
[10] United Nations Development Fund. (2009). Family Planning for Health and Development: Actions for Change. Report of the International Conference on Family Planning. Kampala, Uganda. 15-18 Nov 2009. http://www.unfpa.org/publications/family-planning-health-and-development. Retrieved 26 Mar, 2017.
[11] Cohen, Susan A. (2008). Hiding in Plain Sight: The Role of Contraception in Preventing HIV. *Guttmacher Policy Review* 11(11), 2-5.
[12] WHO Fact Sheet: Preventing unsafe abortion. http://www.who.int/mediacentre/factsheets/fs388/en/. Retrieved Apr 6, 2017.
[13] Hughes, G and Countryman, K. LARC in Rwanda. PowerPoint Presentation. Rwanda Zambia HIV Research Group. Presented Fall 2015, Emory University, Atlanta GA.

This project provides additional value to existing formative research by looking both more deeply at (C)FPC results and more broadly at the existing barriers to (C)FPC implementation on a larger scale and in a rural context. It validates the impact of (C)FPC on LARC uptake, now with quantitative rather than qualitative methods and with a larger group of participating HCs. It also examines the supply-side factors that will need to be addressed, on a larger scale and in sustainable ways, in order to meet the expected growing demand for LARC as (C)FPC is more broadly implemented.

Project Overview and Report Components

The key objective of this project is to support PSF in planning for expansion of ADS-driven (C)FPC to HCs outside of Kigali. In order to plan appropriately, PSF requires 1) a detailed evaluation of the effectiveness of (C)FPC delivered in the home by ADS, and 2) an updated needs assessment regarding the potential for integrated HIV/FP services in rural clinics. As such, my specific aims are to evaluate the impact of (C)FPC on LARC uptake in Kigali; to assess unmet need and capacity for (C)FPC and LARC provision among rural HCs in Rwanda; and to synthesize results from both analyses in order to make preliminary recommendations regarding the applicability of ADS-driven (C)FPC and LARC provision outside of Kigali. This multi-step process has produced the three requested deliverables summarized below.

Adequacy Evaluation and Review of Program User Demographics

To evaluate PSF's existing ADS-driven (C)FPC services in Kigali, I conducted an analysis of previously gathered data from participating government HCs. This adequacy evaluation compares monthly LARC insertion counts for yearlong pre- and post-(C)FPC implementation periods, by individual HC and as an aggregated group. Implant insertion and IUD insertion are considered both separately and together.

One clinic was excluded from analysis due to the unavailability of comparable baseline data. Taken in aggregate, the 7 remaining HCs showed a meaningful and statistically significant increase in LARC uptake following (C)FPC implementation: the monthly average for implants increased by 176 insertions and the monthly average for IUDs increased by 31 insertions. When considered individually, 6 of the 7 HCs showed meaningful and statistically significant increases in LARC uptake. One HC showed a slight decrease in LARC uptake (-2.3 average monthly insertions), which was not statistically significant. The greatest increases were seen in implant uptake, with smaller and less consistent increases in IUD uptake.

Among the clients seeking (C)FPC services in response to ADS promotional service invitations, certain trends were noted regarding demographic features that corresponded with LARC uptake outcomes. Features associated with LARC uptake included having three or more living children and having received couples-based invitations (for women in cohabiting or married relationships). Prior LARC use and a lack of experience with any modern FP methods (such as oral contraceptive pills or Depo-Provera injections) were both correlated with LARC uptake. Among LARC users, IUDs were much less

popular than implants. IUD uptake among LARC users was associated with higher educational level, being legally married, and having received couples-based invitations.

See Chapter 2 for a more detailed discussion of evaluation results and program user demographics. See Annex A for tables presenting full pre- / post-(C)FPC evaluation data.

Rural Clinical Needs Assessments Report

I conducted clinical needs assessment of 30 rural HCs in Rwanda that were previously selected by PSF for potential expansion of the ADS-driven (C)FPC program. My assessment focused on the infrastructure, materials, and human resources needed for LARC demand creation and provision of integrated HIV and family planning services, and collected data on existing service provision, unmet need, current capacity and resources needed for scale-up. I drew on a prior needs assessment conducted in 2013 to determine how service provision has shifted over the past three years, as (C)VCT has been more broadly implemented and as initial attempts to expand access to LARC have been made.

Preliminary conversations with HC directors suggest that rural LARC uptake has not increased, despite the enhanced availability of these methods.[14] I adapted an assessment tool that was piloted during the 2013 needs assessment, and added additional questions to assess current ADS involvement, competencies, and availability. The needs assessment utilized a mixed-methods approach that combined survey data collection, semi-structured key informant interviews, and structured observations.

A comparison of 2013 and 2016 needs assessment data found no significant changes in rural LARC provision over the three-year period. While direct comparisons regarding capacity for LARC services were difficult to make, due to an absence of complete and clear baseline data on material supplies and on staff training and confidence, HC staff generally shared a sentiment that capacity for LARC provision had not meaningfully increased since 2013. The need for more robust FP services across Rwanda, including LARC promotion and provision, has persisted despite significant gains within Kigali.

The needs assessments found that participating HCs recognize a need for FP and LARC service provision strengthening, and would welcome additional training and material support to build capacity in this area. HCs were overall highly confident in the ability of their partnering ADS to effectively promote LARC methods, and in the applicability of the (C)FPC model. Key areas for targeted support were identified and include a widespread need for durable medical equipment and related electrical supply (such as gynecological exam tables and backup solar / generator systems to power sterilization equipment) as well as a need for enhanced LARC insertion trainings for nurses that incorporate hands-on skills building and ongoing supervision.

See Chapter 3 for a more detailed discussion of needs assessment results. See Annexes B and C for the data collection tool, map, and itinerary.

[14] Allen, S. Personal communication, March 2016.

Expansion Desirability and Feasibility Report

I apply a review and synthesis of the program evaluation and needs assessment findings in order to assess the compatibility of PSF's existing (C)FPC program with the rural Rwandan context. Strengths and weaknesses of the ADS-driven (C)FPC model for LARC promotion are considered in light of the current needs and capacities of rural HCs, allowing for an informed discussion of the appropriateness and feasibility of (C)FPC expansion. Guided by this new research, I propose a set of recommendations for next steps to program expansion.

LARC uptake has remained low at rural HCs, despite the increasing national availability of LARC methods and numerous LARC insertion trainings for rural providers. The (C)FPC adequacy evaluation yielded promising results, suggesting that the (C)FPC program model can be an effective intervention to scale up LARC uptake in Rwanda. Needs assessment findings emphasized the need for material support to enhance access to functional and durable FP clinic equipment and reliable power supply infrastructure, along with a need for more interactive, skills-based LARC insertion trainings paired with ongoing clinical supervision of FP nurses. These key needs will need to be addressed in order to build rural capacity for LARC provision.

Simultaneously, community awareness of LARC methods will need to be increased in order to ensure that available FP services are accessed. The effectiveness of ADS in promoting (C)FPC services has been demonstrated in Kigali, and is likely to be transferrable to the rural context given rural HC's longstanding partnerships with, and high confidence in, rural ADS. Additional training of rural ADS will be required before they are prepared to participate in (C)FPC promotion; a key barrier to be addressed is the high existing workload of ADS partnering with participating rural HCs.

Successfully expanding (C)FPC to rural HCs will require addressing each of these needs and barriers. This will be best achieved through continued partnership with the 30 participating HCs and through NIH operational research funding to support (C)FPC implementation in each. Well-planned monitoring and evaluation of the expansion should be instituted immediately, in order to assess (C)FPC impact at each site, to identify problem areas and course-correct as needed, and in order to inform possible future expansion to additional rural HCs not included in the 2016 needs assessments.

See Chapter 4 for a more detailed discussion of (C)FPC compatibility with the needs and capacities of rural Rwandan HCs, along with recommendations and next steps for (C)FPC expansion. See Annex D for a concise list of action areas stemming from this report, and Annexes E and F for materials pertaining to the maintenance of continued partnerships with participating HCs.

Ethical Considerations

I did not conduct human subjects research during the course of this project. All programmatic data that were used during the evaluation component had been previously de-identified. In accordance with RZHRG requirements, I have completed CITI certification in Social and Behavioral Research, Biomedical Research, and Good Clinical Practices. All RZHRG human subjects research projects are covered under PSF's IRB approvals through Emory University and though the Republique du Rwanda Comite National D'Ethique (Republic of Rwanda National Committee on Ethics).

CHAPTER 2
ADEQUACY EVALUATION AND REVIEW OF PROGRAM USER DEMOGRAPHICS

Description of Program to Be Evaluated

PSF, a long-standing research and capacity building project and a Center for Excellence for (C)VCT and LARC training, is notable for its success in developing the (C)VCT model that has now been adopted as a standard of care within national health policy in Rwanda. Seeking to leverage the existing strengths of the (C)VCT model for further strengthening of family planning programming in the country, PSF pioneered an integrated HIV/FP program known as (Couples) Family Planning Counseling ((C)FPC). Like (C)VCT, (C)FPC is driven by ADS who educate and promote services at the village level; ADS engage potential clients and issue invitations to women and couples for (C)FPC services at local HCs. Providers are trained to inquire about fertility goals, and to promote LARC methods to all women and couples who indicate that they don't want a pregnancy for at least two years. (C)FPC focuses on facilitating dialogue between couples about their fertility goals, educating clients about the range of FP options available, and creating links between HIV prevention strategies and FP strategies.

The development of (C)FPC was informed by formative research. KAP studies relating to LARC methods began in 2009 with both nurses and (C)VCT clients, followed by a small pilot study of preliminary (C)FPC programming in 2 Kigali HCs in 2014. The following year, promising results from this pilot study led PSF to expand (C)FPC to an additional 6 HCs in Kigali, making a total of 8 HCs that continue to offer the program to date.

Adequacy Evaluation Methods and Limitations

To evaluate PSF's existing ADS-driven (C)FPC services in Kigali, I conducted an analysis of previously gathered data on participating government HCs. I defined the outcome of interest as LARC (IUD or implant) insertion, either on the day of (C)FPC services or on a subsequent visit. The evaluation compares monthly LARC insertion counts over the 12-month period leading up to (C)FPC implementation with monthly LARC insertion counts over the 12-month period following (C)FPC implementation. Implant insertion and IUD insertion are considered both separately and together.

Data on monthly LARC service provision was sourced from HC FP logbooks, which each HC maintains on-site. Data specific to (C)FPC participants was sourced from (C)FPC program records, which ADS and PSF staff collaborate to maintain. All of the original data collection and entry in both cases was conducted by ADS and/or HC staff

by hand in paper logbooks, with later entry into PSF's online data management system for data cleaning and management conducted by PSF's data and IT manager.

12-month periods pre- and post-(C)FPC implementation were matched in order to account for possible seasonal variation in LARC uptake, given the potential impact of weather patterns and government or religious holidays on client access to HC. Because HCs did not all implement (C)FPC at the same time (start dates varied from August 2015 to October 2015), the aggregated LARC uptake comparison for all HCs considered together uses comparison periods of 10 months duration; this adjustment ensures that the aggregated comparison has no missing data points, controls for possible seasonal variation, and avoids miscategorization of HC monthly data into pre- and post-implementation categories. The comparison periods for aggregate analysis are October 2014 through July 2015 (pre-implementation) and October 2015 through July 2016 (post-implementation), as those time periods represent months that all HCs included in the analysis fell into the same pre- and post-implementation categories.

Program evaluation data were organized into MS Excel spreadsheets as it became available. All pre- / post- comparisons were made using two-tailed paired T tests, and were conducted using free statistical analysis software[15] available online. The threshold for statistical significance was set at $p < 0.05$ for all tests. Analysis of client demographic features associated with various LARC outcomes was conducted using free online statistical analysis software[16] to generate relative risks. For analysis of demographic features associated with LARC uptake among (C)FPC clients, the 2x2 tables placed refusal of LARC in the first column because refusal was a rare outcome for this population. For analysis of implant versus IUD uptake among (C)FPC users who chose LARC, the 2x2 tables placed IUD in the first column because IUD uptake was much less common than implant uptake. All missing demographic data were excluded from relative risk calculations.

While this operational adequacy evaluation is not as robust as a plausibility or probability evaluation, and thus cannot yield the same level of certainty regarding the causal impact of (C)FPC programming on LARC uptake, it does measure the observed change in LARC uptake following (C)FPC implementation. LARC uptake datasets were not available for control groups of non-participating HCs, making a quasi-experimental evaluation approach unfeasible. Despite these limitations, the evaluation does show a clear, meaningful, and statistically significant increase in LARC uptake following (C)FPC implementation. Given the absence of change in other influencing factors, such as level of government support for LARC, cost of LARC insertion, and the absence of other known LARC promotion / capacity building projects taking place in target areas, it can be reasonably deduced that changes in LARC uptake are likely attributable to (C)FPC programming.

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15 The Social Science Statistics website offers free online statistical tools, available at http://www.socscistatistics.com/tests/ttestdependent/Default2.aspx

16 The OpenEpi website offers free online statistical tools, available at http://www.openepi.com/Menu/OE_Menu.htm

Adequacy Evaluation Findings and Discussion

In order to evaluate the impact of (C)FPC on LARC uptake, two separate questions must be asked. First, do ADS invitees and (C)FPC participants show higher-than-expected percentages of LARC uptake? Second, does the ADS promotion program / (C)FPC programming reach enough participants to have a significant impact on overall rates of LARC provision in the target areas? The first question evaluates the impact of (C)FPC on the individual level, whereas the second question evaluates the impact of (C)FPC on the community level. Both questions are important, as a successful intervention must be both effective for those participating in it and have adequate levels of participation to have a significant impact on public health.

LARC Uptake among (C)FPC participants

Looking at the nine-month period from 12 August 2015 to 11 May 2016, I examined the outcomes of all ADS-invited (C)FPC clients at the 8 participating Kigali HCs. All visits resulted from invitations issued by the 190 ADS collaborating with those HCs. Among (C)FPC clients, LARC uptake was high at 93.3% (of 3339 ADS-referred (C)FPC visits, 3118 resulted in insertion of a LARC method). Implants were more commonly selected than IUDs: 77.5% of visits resulted in insertion of Jadelle or Implanon contraceptive implants, and 15.8% of visits resulted in IUD insertion. Baseline rates of LARC uptake among Kigali FP service users had increased from <2% to 46% (37% implant and 9% IUD) after PSF's LARC-insertion training programs for clinic nurses.[17] However, among groups at risk for unplanned pregnancy, including women in infant vaccination clinics and HIV-discordant couples in quarterly follow-up, LARC use was <20% among those not wishing to conceive. This was the target audience for (C)FPC promotion and linkage to LARC services.[18]

Just over 33% of (C)FPC invitations were issued by ADS directly to couples rather than to women alone. While a goal of (C)FPC programming is for ADS to engage couples at the community level, this may not always be possible. If her male partner is not available to participate in ADS (C)FPC promotion, LARC education and HC invitations may then be offered to a woman alone.

For the 93.3% of (C)FPC clients receiving a LARC method, the interim period between the initial (C)FPC invitation and the date of LARC insertion ranged from 0-63 days. The vast majority of clients chose to visit the HC at a later date for LARC insertion: only 4% had a LARC method inserted on the day of the (C)FPC invitation. The average timespan between initial (C)FPC invitation and LARC insertion was 3.6 days.

For the remaining 6.7% of (C)FPC clients who did not receive a LARC method at their

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17 Ingabire, R., Karita, E., Ahmed, N., Bayingana, R., Nyombayire, J. M., Sinabamenye, R., ... & Allen, S. (2014). Capacity Strengthening and Training of Government Nurses on Long-acting Reversible Contraceptive (LARC) Methods in Kigali, Rwanda. *AIDS research and human retroviruses*, *30*(S1), A101-A101.

18 Ibid.

initial visit, a variety of reasons were noted. After excluding missing data points (one quarter of (C)FPC clients who did not receive a LARC method had no reason for this outcome recorded), 57.8% of non-LARC outcomes were due to clients declining LARC. 10.9% of non-LARC outcomes were due to a positive pregnancy test on the date of the (C)FPC visit, and 30.1% were due to postponement of LARC insertion. Reasons cited for postponed insertion included the need for a physical exam at a later date (suggesting unavailability of LARC providers on the date of the (C)FPC visit) and current pregnancy with client intentions to initiate LARC use following childbirth. Only 1.2% of non-LARC outcomes were due to LARC methods or equipment being out of stock in the HC on the day of the initial visit.

It is possible that ADS may have targeted women and couples that were most likely to be accepting of LARC methods, especially in the early stages of ADS promotion. The high LARC uptake among (C)FPC clients might diminish over time as this pool of clients is exhausted and as LARC prevalence in target areas increases. However, the success of (C)FPC in achieving high LARC uptake during its first year of implementation confirm that (C)FPC is achieving its intended goal of scaling up LARC provision capacity along with community awareness and acceptance of LARC methods. Table 2.1 displays a comparison between the total number of LARC insertions per month and the total number of ADS-issued invitations per month, across all participating HCs.

TABLE 2.1:
AGGREGATED COMPARISON OF MONTHLY NUMBER OF LARC INSERTIONS AND MONTHLY NUMBER OF ADS-ISSUED (C)FPC INVITATIONS

ALL HEALTH CENTERS COMBINED			
MONTH	**LARC INSERTIONS**	**ADS INVITATIONS ISSUED**	**PROPORTION OF INVITATIONS RESULTING IN LARC**
Aug 2015	32	155	20.6%
Sep 2015	150	320	46.9%
Oct 2015	260	756	34.4%
Nov 2015	387	460	84.1%
Dec 2015	454	522	87.0%
Jan 2016	435	505	86.1%
Feb 2016	459	813	56.5%
Mar 2016	390	241	161.8%
Apr 2016	487	828	58.8%
May 2016	519	1044	49.7%
Jun 2016	478	818	58.4%
Jul 2016	564	606	93.1%
Aug 2016	335	416	80.5%
Sep 2016	189	228	82.9%
Total	**5139**	**7712**	**66.6%**

LARC: Long-acting reversible contraceptive. (C)FPC: (Couples) Family Planning Counseling. ADS: Animateur de Sante (Community Health Worker).

Because HC visit dates ranged from 0-63 days after invitations were issued, some ADS invitations had LARC outcomes that are reflected in a later month's LARC insertion tally. Overall, when looking across the 14-month period of early (C)FPC programming, ADS-issued invitations had a 66.6% success rate in leading to LARC insertion; for every two clients who received a LARC method, ADS issued one additional invitation.

Changes to LARC Provision at Participating HCs

The overall impact of (C)FPC hinges not only on LARC uptake among (C)FPC participants, but also on the degree of community participation in the program. In order to evaluate the broader impact of (C)FPC implementation in the catchment areas served by participating HCs, a pre- / post-implementation comparison of monthly LARC insertions was used. In the absence of other local programs focused on LARC promotion and capacity building for LARC provision, changes to LARC insertion rates can be reasonably assumed to indicate an effect of (C)FPC programming. While not all ADS-issued invitations resulted in LARC insertion, it is also possible that the tallies of LARC insertions at these HCs may include clients who did not receive an ADS invitation or participate in (C)FPC; while not directly measured here, a spillover effect of (C)FPC programming on HC provision capacity and on community awareness and acceptance of LARC methods can be expected.

One HC (Kicukiro) was excluded from analysis due to the unavailability of comparable baseline data. Taken in aggregate, the 7 remaining HCs showed a meaningful and statistically significant increase in LARC provision following (C)FPC implementation. The monthly average for implants increased by 176 insertions on average (with a range of +91 to +274 per month) and the monthly average for IUDs increased by 31 insertions on average (with a range of -18 to +74 per month). Table 2.2 contains details of the aggregated analysis: average monthly change and T-values are highlighted.

As discussed in the methods section, T-scores are based on matched comparison periods of 10 months duration (October 2014 – July 2015 and October 2015 – July 2016), as those comparison periods represent months that all HCs included in the analysis fell into the same pre- and post-implementation categories. This strategy is used in order to avoid misclassification due to discrepant (C)FPC start dates across participating HCs.

TABLE 2.2:
AGGREGATED PRE / POST COMPARISON OF MONTHLY NUMBER OF LARC INSERTIONS

ALL HEALTH CENTERS COMBINED										
Pre-(C)FPC Implementation**				**Post-(C)FPC Implementation****				**Difference**		
MONTH	**IMP**	**IUD**	**LARC TOTAL**	**MONTH**	**IMP**	**IUD**	**LARC TOTAL**	**IMP**	**IUD**	**LARC TOTAL**
Aug 2014	49	5	54	Aug 2015	30	2	32	-19	-3	-22
Sep 2014	64	21	85	Sep 2015	131	19	150	67	-2	65
Oct 2014	123	42	165	Oct 2015	214	24	238	91	-18	73
Nov 2014	119	38	157	Nov 2015	297	48	345	178	10	188
Dec 2014	132	20	152	Dec 2015	336	76	412	204	56	260
Jan 2015	100	31	131	Jan 2016	331	60	391	231	29	260
Feb 2015	76	31	107	Feb 2016	338	84	422	262	53	315
Mar 2015	117	42	159	Mar 2016	267	98	365	150	56	206
Apr 2015	113	42	155	Apr 2016	364	86	450	251	44	295
May 2015	98	19	117	May 2016	372	93	465	274	74	348
Jun 2015	162	35	197	Jun 2016	349	54	403	187	19	206
Jul 2015	159	27	186	Jul 2016	391	78	469	232	51	283
Aug 2015	100	22	122	Aug 2016	259	76	335	159	54	213
Sep 2015	31	4	35	Sep 2016	164	25	189	133	21	154
Average	**109**	**29**	**139**	**Average**	**285**	**60**	**345**	**176**	**31**	**206**
								T=11.6*	**T=4.3***	**T=9.8***

**Statistical significance at the level of p < 0.05*

***Note that pre-implementation insertion counts include only those HCs that were categorized as pre-implementation during the months noted, and post-implementation insertion counts likewise include only those HCs that were categorized as post-implementation during the months noted; during the months of August and September 2015, some HCs were in the pre-implementation period and some were in the post-implementation period. LARC averages are rounded to the nearest whole number and T-values are rounded to the nearest tenth. LARC: Long-acting reversible contraceptive. (C)FPC: (Couples) Family Planning Counseling. IMP: Contraceptive implant. IUD: Intra-uterine device.*

When considered individually, 6 of the 7 HCs showed meaningful and statistically significant increases in implant and in combined LARC provision following implementation of (C)FPC. Bethsaida HC showed a slight decrease in the monthly average number of LARC insertions (-2 insertions per month) that was not statistically significant. Changes to IUD provision were more variable, with only two HCs (Kabuye and Gatenga) showing statistically significant increases. Table 2.3 displays the average monthly change in number of LARC insertions for each HC, comparing pre- and post-implementation periods of one year that are based on (C)FPC start date for the HC in question. Statistically significant increases in LARC insertions are highlighted. See Annex A for a full set of evaluation data tables presenting pre- and post-(C)FPC insertion rates for each HC.

TABLE 2.3:
AVERAGE MONTHLY CHANGE IN NUMBER OF LARC INSERTIONS FOLLOWING (C)FPC IMPLEMENTATION, BY HEALTH CENTER

	Nyarugunga	Kabuye	Gahanga	Butamwa	Gatenga	Busanza	Bethsaida
IMP	37 T=6.9*	50 T=4.5*	28 T=45.2*	38 T=8.0*	22 T=4.2*	33 T=5.0*	-2 T=-0.5
IUD	9 T=1.8	27 T=5.4*	-2 T=-1.1	2 T=1.0	2 T=4.3*	0 T=-0.3	0 T=0.1
LARC	46 T=6.3*	76 T=5.0*	27 T=4.3*	40 T=6.2*	23 T=4.5*	32 T=4.8*	-2 T=-0.4

** Statistical significance at the level of p < 0.05*
LARC averages rounded to the nearest whole number, T-values rounded to the nearest tenth. LARC: Long-acting reversible contraceptive. (C)FPC: (Couples) Family Planning Counseling. IMP: Contraceptive implant. IUD: Intra-uterine device.

The two 2014 pilot sites, Kabuye and Butamwa, showed the greatest increases in implant insertion during the evaluation period, suggesting that the benefit of (C)FPC programming continues to grow at these HCs as it becomes more institutionalized. Bethsaida showed a small decrease in implant insertions and no change to its baseline of 0 IUD insertions (neither measurement was statistically significant). Follow-up with Bethsaida HC could be beneficial to determine why (C)FPC was not successful in this case. Kabuye HC significantly out-performed all other HCs in terms of increases to both implant and IUD provision; follow-up with Kabuye HC might illuminate reasons for its marked success.

All HCs had baseline monthly rates of implant insertion prior to (C)FPC implementation, due to prior LARC insertion trainings and material support. Baseline average implant insertions ranged from 3 per month (Gatenga) to 25 per month (Gahanga and Kabuye), with an average of 17.3, prior to program start dates. Monthly average implant insertions increased at all HCs except for Bethsaida following (C)FPC initiation, with a range of 20 (Bethsaida) to 75 (Kabuye) and an average of 46.4. Demand creation by ADS-driven (C)FPC services, along with further training and material support, helped to propel implant insertion rates forward in each case.

Baseline and follow-up rates of IUD provision were significantly lower than those for implants. Average monthly IUD insertion rates ranged initially from 0 (Gatenga) to 9 (Nyarungunga) with an average of 4.6 insertions per month. On follow up, average IUD insertions ranged from 2 per month (Busanza and Gatenga) to 33 per month (Kabuye) with an average of 9.7. The continued discrepancy in implant and IUD provision is to be expected, given that IUD insertion has significant cultural, material, and human resource barriers that exceed those of implant insertion.

Demographic Factors Associated with LARC Uptake

An awareness of the associations between demographic features and LARC outcomes can guide evidence-informed decision making regarding program implementation. It can

illuminate which populations are more and less receptive to LARC promotion, and can identify areas for future research and targeted promotion. Among all (C)FPC clients seen during the evaluation period, trends were noted regarding demographic features that corresponded to different LARC uptake outcomes. The relative risk (RR) of (C)FPC clients not receiving a LARC method was calculated for each variable of interest. In the same manner, the relative likelihood of LARC users choosing IUD over implant was determined. See Tables 2.4 and 2.5 below for a summary of findings. All reported findings are statistically significant at a level of $p < 0.05$, unless noted otherwise. .

Clients with no living children were 2.5 times less likely to receive LARC when compared to clients who had one or more children (this finding was not statistically significant). Number of living children showed no association with the choice of IUD versus implant. These findings may reflect the informed selection of appropriate FP methods based on client fertility goals. However, there may be a need for ongoing promotion of LARC methods within these groups, as LARC is ideal for safely spacing births to improve maternal and infant health outcomes.

Clients who were married or in cohabitating relationships were 30% less likely to receive LARC when compared to their single, widowed, and separated counterparts, though this result was not statistically significant. However, among those married and cohabiting clients that did choose LARC, the relative likelihood of choosing IUD over implant was 3.4 times higher than for others; marriage / cohabitation was the variable with the greatest relationship to IUD uptake among LARC users. Women who were issued (C)FPC invitations alone were 44% less likely to receive LARC methods, and when they did receive LARC they were 15% less likely to chose IUD than those invited as a couple.

All (C)FPC clients who had previously used LARC methods continued to use them, although data is not available regarding the proportion of them who previously used implants versus IUDs. This group was half as likely as other clients to choose IUD over implant for their next method; it is likely that most prior LARC users had received implants and had no incentive to change methods. Prior use of oral or injectable methods was associated with a 70% lower likelihood of receiving LARC, but was not associated with any preference between IUD and implant. Clients who had previously been using condoms only were twice as likely as their peers to opt for IUD over implant.

Catholic clients shared the same likelihood of receiving LARC and the same likelihood of choosing IUD versus implant when compared to other (C)FPC clients. Clients identifying as Muslim, Protestant, and Adventist similarly showed only slight differences in LARC outcomes when compared to others. Clients who chose the "Other Religion" category stood out as 2.2 times less likely than other clients to receive LARC; however, those of them who did receive a LARC method were 70% more likely than their counterparts to select IUD.

The relationship between education and LARC uptake among (C)FPC clients was unexpected, although not statistically significant: the relative likelihood of receiving LARC decreased as educational level increased. Among those who did choose a LARC

method, increasing educational level is associated with a relatively greater likelihood of selecting IUD over implant: those with no education were less than half as likely as all others to receive IUD, whereas those with a higher degree were 2.6 times as likely to receive IUD. Having a higher degree is the variable with the second greatest relationship to IUD uptake among LARC users, following marital status.

TABLE 2.4:
RELATIVE RISK OF NON-LARC OUTCOME AMONG (C)FPC CLIENTS BY DEMOGRAPHIC

Demographic Category*	RR**	95% CI**	Significant at p < 0.05?
Educational Level			
None	0.700	0.316, 1.554	No
Primary	0.769	0.577, 1.025	No
Secondary	1.335	0.988, 1.804	No
Higher Degree	1.456	0.765, 2.770	No
"Other" religion	2.198	1.403, 3.444	Yes
Prior method injectable / oral	1.699	1.306, 2.210	Yes
Married / Cohabiting	1.270	0.745, 2.164	No
(C)FPC invitation issued to woman, not couple	1.444	1.077, 1.935	Yes
No living children	2.506	0.867, 7.244	No

* *Each specified demographic category is compared to all other (C)FPC clients*
** *Relative Risk and Confidence Intervals are rounded to three decimal places*

TABLE 2.5
RELATIVE RISK OF IUD UPTAKE AMONG (C)FPC LARC USERS BY DEMOGRAPHIC

Demographic Category*	RR**	95% CI**	Significant at p < 0.05?
Educational Level			
None	0.392	0.214, 0.717	Yes
Primary	0.587	0.503, 0.686	Yes
Secondary	1.649	1.408, 1.933	Yes
Higher Degree	2.565	2.012, 3.271	Yes
"Other" religion	1.703	1.297, 2.237	Yes
Prior method was condoms only	2.063	1.269, 3.351	Yes
Prior method was LARC	0.484	0.266, 0.881	Yes
Married / Cohabiting	3.43	2.116, 5.562	Yes
(C)FPC invitation issued to woman, not couple	0.845	0.720, 0.991	Yes

* *Each specified demographic category is compared to all other (C)FPC clients*
** *Relative Risk and Confidence Intervals are rounded to three decimal places*

Consideration of these findings may help to guide follow-up research designed to inform better understandings of high- and low-uptake groups. Similarly, knowledge of the relationship between various demographic factors and LARC uptake may help guide future LARC promotion efforts. Unfortunately, a lack of data about the reasons for non-uptake of LARC methods makes it difficult to know what proportion of non-LARC

outcomes should be attributed to provision capacity gaps, medical contraindications, or client preference.

Framework for Future Evaluation

Future monitoring and evaluation strategies for expanded (C)FPC programming might consider using non-randomized control groups consisting of non-participating HCs in order to conduct ongoing plausibility evaluations of (C)FPC's impact on LARC uptake and other related outcomes. This could be achieved by identifying non-participating HCs or by using a step-wise approach to (C)FPC implementation within a growing group of participating HCs. A difference-in-difference approach could then be used to assess the variation in change to LARC uptake over time between participating and non-participating HCs.

Future efforts will also rely on the availability of quality data. Efforts to improve data completion and quality at the HC level will be needed in order to answer questions about why some visits do not result in LARC uptake and about the proportion of ADS-provided (C)FPC invitations that result in visits. Additional funding for human resource data training, along with technical support, may be areas worth investigating as part of ongoing collaboration with selected rural HCs that may participate in future (C)FPC expansion efforts.

Ongoing operational evaluation efforts may also wish to examine additional outcome indicators that are likely to be impacted by changes to LARC uptake. Population data collected at the HC, district and/or national level over multiple years could examine rates of unintended pregnancy, mother-to-child transmission of HIV, and fertility rates.

CHAPTER 3
RURAL CLINICAL NEEDS ASSESSMENTS

The Need for Rural Clinical Needs Assessments

After seeing promising results from the 2014 (C)FPC pilot program, and with further encouragement from the evaluation discussed in Chapter 2, PSF is considering further expansion of (C)FPC to areas beyond Kigali. Expanding (C)FPC to rural HCs will require addressing the specific needs and barriers present in that context, and will benefit from leveraging the capacities and strengths that already exist. To inform decision-making around future expansion of (C)FPC to rural Rwandan HCs with current information about these needs and capacities, I conducted rural clinical needs assessments in target areas.

Needs Assessment Methods and Limitations

Over the course of June 2016, mixed-methods needs assessments were conducted in 30 rural government health centers (HCs) that had been previously selected by PSF for potential expansion of the ADS-driven (C)FPC program. (See Annex B: Needs Assessment Map and Itinerary for a listing of participating HCs.) The health centers were distributed across 16 districts in all 4 non-Kigali provinces, with 11 in Eastern Province, 7 in Northern Province, 6 in Southern Province, and 6 in Western Province. Two health centers receive support from the Anglican Church; both reported that their religious affiliation does not impact the types of family planning services provided.

The focus of the needs assessments was on the infrastructure, materials, and human resources needed for LARC demand creation and service provision within the framework of increasingly integrated HIV and family planning services. More specifically, data collection was designed to support a better understanding of existing (C)VCT/FP service provision, unmet FP need, current capacity for LARC insertion and promotion, and resources needed for scale-up of (C)FPC and LARC provision. All needs assessments were follow-up assessments to an initial one conducted in 2013, with the exception of Mwogo HC, which was added as a new participant. The goal of follow-up was to determine how service provision has shifted over the past three years, as (C)VCT has been more broadly implemented and as initial attempts to expand access to LARC have been made.

I improved and re-administered the assessment tool that was used during the 2013 needs assessments. The updated needs assessment tool included additional questions to assess current ADS involvement, competencies, and availability. (See Annex C: Needs Assessment Tool.) The assessment approach included both qualitative and quantitative

data collection, and relied on survey questions, discussion questions, acquisition of HC log data, and structured observations. Meetings were arranged at each HC with available staff (Titular, Vice-Titular, Nurse in charge of FP, Head of ADS, data manager, etc.) A questionnaire was administered to the group. Any in-group disagreements about responses were recorded and further discussed. Open-ended questions were explored in a focus group format while training log information and service provision data were copied directly from HC records. Inventories were tallied during the visit by HC staff. The needs assessments were conducted by a team of two: one visiting student researcher (myself) and one Rwandan nurse researcher. Discussions were held in a mix of Kinyarwanda, English, and French as needed according to the preferences of the assessment participants, with pauses for translation and note taking as needed. No recordings were made.

With regards to the selection of rural HCs for needs assessment, it is important to note that purposive sampling was used in order to assess HCs which have a previous relationship with PSF through the 2013 needs assessments (and in some cases through training support partnerships). The pool of participating HCs, while rural, was comprised of HCs located fairly close to major national roads. The pool was not intended to be statistically representative of all rural HCs in Rwanda, and in fact may have significant differences in needs and capacities from other, more remote HCs and smaller health posts. Additionally, participating HCs are all government-run, and thus are likely to have significant differences from NGO-run and Catholic HCs, which also operate across Rwanda.

The selection of these HCs was made strategically, not to create a statistically representative and generalizable sample, but rather as a census approach to thoroughly investigate the needs and capacities of HCs selected for potential future expansion of (C)FPC. Should PSF's (C)FPC programming expand to rural areas, it will start with this pool of 30 HCs and will continue to be tracked through ongoing monitoring and evaluation activities, likely paired with additional needs assessments of other sites, to determine the desirability and feasibility of ongoing scale-up beyond the 30 HCs considered here.

Limitations of the needs assessment approach include several possible areas of bias. Social desirability bias and courtesy bias cannot be ruled out, and may have caused an understatement of needs and an overstatement of capacity. Alternately, a desire to maximize the likelihood of future material support and staff incentives for training participation could have had the opposite effect of causing an overstatement of needs and an understatement of capacity. With these possible sources of bias in mind, HC staff comments regarding HC capacity for LARC insertion were triangulated with monthly LARC provision data from HC logbooks as a way to validate qualitative data on capacity gaps and in order to provide context for quantitative data on service provision. These data were mutually validating overall. Similarly, comments about available materials, equipment, and infrastructure were paired with structured observations in each facility in order to confirm staff accounts whenever possible.

Needs Assessments Findings

A comparison of needs assessment findings from 2013 and 2016 found no significant changes in rural LARC provision over the three-year period. While direct comparisons regarding capacity for LARC services were difficult to make due to an absence of complete and clear baseline data on material supplies and on staff training and confidence, HC staff generally shared a sentiment that LARC provision capacity had not meaningfully increased since 2013. The need for more robust FP services across Rwanda, including LARC promotion and provision, has persisted despite significant gains within Kigali.

Participating HCs recognized a need for FP and LARC service provision strengthening, and enthusiastically welcomed the possibility of additional training and material support to build capacity in this area. HC staff members were highly confident in the applicability of the (C)FPC model for the rural context, as well as in the competencies of their partnering ADS to effectively promote LARC methods. Primary areas identified for targeted support include a lack of durable medical equipment and related electrical supply (such as gynecological exam tables and backup solar / generator systems to power sterilization equipment) as well as a need for enhanced LARC insertion trainings for nurses that incorporate hands-on skills building and ongoing supervision.

<u>The Current State of Rural LARC Provision</u>

Catchment area population sizes for participating HCs ranged from 8,623-73,563 with an average of 31,062. Populations have grown across districts; the average catchment area population in 2013 was 28,602. While most HCs serve populations that are roughly the same as their catchment area, the health center with the smallest catchment population (Kigeme HC, pop. 8,623) in fact serves an additional 12,772 people who are living in Kigeme refugee camp.[19] HCs included in the assessment served between 8-59 villages, with an average of 34.

Average monthly provision of each type of LARC service, per HC, is presented in Table 3.1 below. Though slight differences exist when compared to 2013 data, the differences are neither meaningful nor statistically significant.

[19] Kigeme HC thus serves, and reports to MOH on, a total of 21,395 individuals. Although Kigeme HC serves camp residents and includes this population in their MOH reporting, they do not coordinate medical services within the camp nor do they collaborate with ADS working within the camp; these duties are carried out by Save the Children and American Refugee Committee. Kigeme HC staff report that family planning services within the camp are minimal and that unmet need for family planning education and provision of contraceptives is great.

TABLE 3.1:
RURAL LARC SERVICE PROVISION OVER 3 MONTHS (FEB/MAR/APR) IN 2016 AND 2013

	2016 monthly average (SD) per HC	2013 monthly average (SD) per HC	2-sided T-test (alpha=0.05)
IUD insertions	2.4 (6.1)	3.5 (6.0) *1 missing	Not significant
IUD removals	0.3 (0.7) *1 missing	0.6 (1.2) *1 missing	Not significant
Implant insertions	33.9 (44.2)	23.6 (15.6) *1 missing	Not significant
Implant removals	7.6 (9.8) *1 missing	5.8 (5.7) *3 missing	Not significant

Averages and standard deviations rounded to the nearest tenth. LARC: Long-acting reversible contraceptive. IUD: Intra-uterine device. HC: Health center.

Using a standard estimate of 25% to calculate the number of women of reproductive age (WRA) in each participating HC's catchment area suggests that each HC serves a population of WRA ranging from 2,933 – 18,390 (average 7,766). Subtracting a standard estimate of 15% of WRA who are currently pregnant (1,165) leaves 6,601 WRA per HC potentially in need of FP services. If these WRA were to attend family planning appointments divided evenly throughout the year, an average of 550 FP visits could be expected monthly at each HC on average. Comparing the monthly average for each type of LARC service provision with the above estimates of WRA in need of FP services illuminates the low levels of LARC uptake in rural Rwanda: 0.4% of eligible WRA are receiving IUDs and 6.2% are receiving implants.

Rural LARC Provision Capacity

Capacity for LARC provision is broken into six key categories: insertion materials, power supply, sterilization capacity, staff training, staff confidence, and partners / funders. Each capacity area is addressed individually below.

Insertion Materials:

All HCs reported that on the day of the assessment they had the following on-site: materials and antiseptics to clean the cervix for IUD insertion, sterile gloves, local anesthetic and syringes/needles for implant insertion, materials and antiseptics to clean the arm for implant insertion, and bandages for the arm. All HCs also reported that they can procure IUDs and implants from their local district pharmacy as needed (although some reported occasional stock-outs, and those in Gatsibo district reported IUD stock-outs for the 4 months leading up to the assessment. Table 3.2 provides inventory counts for LARC service provision equipment.

TABLE 3.2:
MATERIAL CAPACITY FOR LARC SERVICE PROVISION IN RURAL HCS, 2016

	# Range	Average (SD)	Notes
IUD method	1-152	16.4 (27.0)	
Uterine sound / hysterometer	1-162	8.5 (28.7)	
Lamp for viewing cervix	0-2	0.8 (0.7)	12/30 had none
Forceps for IUD removal	0-58	4.2 (13.3)	24/30 had none
Tenaculum	1-162	9.1 (28.6)	
Speculum	1-162	11.8 (28.5)	
Gynecological table	1-7	2.3 (1.2)	Many shared with maternity department and/or in poor condition
Implant method	0-229	56.1 (54.9)	
Disposable implant kit	0-229	51.7 (50.8)	
Reusable implant kit	0-20	3.6 (6.4)	
Halogen lamp	0-1	0.07 (0.2)	28/30 had none
Scalpel	0-312	92.5 (80.8)	

Averages and standard deviations rounded to the nearest tenth. LARC: Long-acting reversible contraceptive. IUD: Intra-uterine device. HC: Health center.

HCs generally had limited amounts of insertion equipment for IUDs, with few exceptions. Materials for implant insertion were generally in greater supply, although HCs did not always have matching numbers of implants and implant insertion kits due to disorganized donors and/or occasional use of insertion kits as removal devices. The most notable issues with availability of materials and equipment were those affecting IUD provision more so than implant provision, and included a lack of functional gynecological exam tables and lamps for viewing the cervix. Many HCs reported sharing tables and other equipment with other departments and improvising by using cell phones or a security guard's flashlight to illuminate the cervix for IUD insertion. In general HCs did not own or use medical exam lamps for implant insertion, relying instead on natural or overhead lighting in the exam room. Each inventory category shows a slight increase in average number of materials available when compared to 2013 data.

Power Supply:
100% of HCs reported having a reliable supply of electricity (compared to 83% in 2013). 20 of 30 have a generator, although in 4 cases it did not function. In addition, 18 out of 30 had some form of functional backup power: 16 had a working generator, and 3 had solar backup power (1 HC has both). Some HCs reported that despite having a functional generator, they were unable to power all departments simultaneously in case of power outages. Others reported that their generators are in poor condition. The number of HCs with a generator had not changed since 2013, although ownership of a generator has varied over time for individual health centers: 5 HCs were without a generator in both 2013 and 2016, 4 HCs gained a generator between 2013 and 2016, 5 lost a generator between 2013 and 2016, and 14 had maintained ownership of a generator. Data on functionality of generators from 2013 is unclear, but it is probably safe to assume that not all generators reported by HCs were functional.

Sterilization Capacity:
100% of HCs reported having an autoclave, a poupinel (dry sterilization oven), or both. 22 of 30 had an autoclave and 18 of 30 had a poupinel. However, only 26 of 30 (86.7%) were currently using one or both of these devices within the HC to sterilize LARC insertion equipment. This discrepancy is due to the fact that not all sterilization devices are functional, not all devices are sized to accommodate insertion kits, and/or some sterilization devices may require more power than is available through the HC's power supply. Those HCs that did not use their own sterilization devices had arrangements with local hospitals that allow them to sterilize their equipment; HC staff traveled anywhere from next door to 7km away to access sterilization equipment. When asked how many insertion kits could be sterilized in a day, HC responses ranged from 0-10 (average 3.8); however, many limited their response to the number of reusable insertion kits owned by the HC, preferring to give a literal rather than hypothetical answer.

2013 needs assessment data on sterilization equipment is unreliable; the data indicates that while only 23/29 HCs had an autoclave, 26/29 were using their own autoclaves to sterilize their insertion equipment. There is no explanation for this discrepancy; it is unclear if the additional 3 HCs were using autoclaves at other locations or if the data contains errors. There is no 2013 data on poupinel ownership or use. It is thus unclear if access to and use of sterilization devices has changed over the past three years.

Staff Training:
Participating HCs reported having between 8-26 nurses and 0-4 social workers on staff (average 13.8 and 1.4, respectively), with low coverage of (C)VCT, FP, and LARC training among both groups, as detailed in Table 3.3.

TABLE 3.3:
HUMAN RESOURCE CAPACITY FOR LARC SERVICE PROVISION IN RURAL HCS, 2016

	Average (SD)		**Average (SD)**
Nurses	13.8 (3.9)	**Social Workers**	1.4 (1.0)
Trained in:			
(C)VCT provision	3.3 (3.9)	**(C)VCT promotion**	0.3 (0.7)
FP provision	7.8 (5.9)	**FP promotion**	0.08 (0.4)
IUD insertion	3.8 (3.7)	**IUD promotion**	0.08 (0.2)
Implant insertion	5.7 (4.5)	**Implant promotion**	0.08 (0.2)

Averages and standard deviations rounded to the nearest tenth. LARC: Long-acting reversible contraceptive. HC: Health center. (C)VCT: (Couples) Voluntary Counseling and Testing. FP: Family planning. IUD: Intra-uterine device.

On average, just over half of all nurses in each participating HC had received formal training specific to provision of family planning services; even fewer had received training specific to LARC insertion (roughly 42% had been trained in implant insertion and roughly 28% had been trained in IUD insertion at each HC on average). On average, only one quarter of nurses in each HC had been trained in (C)VCT. Social workers had higher coverage of (C)VCT promotion training (57%) but lower coverage of FP and LARC promotion training (17% and 6%, respectively).

HCs reported that the low training coverage is largely due to high staff turnover. It is not clear why HCs have a difficult time retaining trained staff. Some reported that partnering organizations offering FP/LARC trainings tend to target only those staff who already have experience in FP; this reinforces the low training coverage among staff by concentrating the trainings among a select few. Participating HC staff agreed that new and/or refresher trainings were needed both for social workers and for nurses. Requested trainings for social workers included (C)VCT promotion, data collection / entry, IUD and implant promotion, FP planning education and service promotion. Requested trainings for nurses included (C)VCT service provision, data collection / entry, IUD and implant insertion, and FP service provision.

It is difficult to get a clear picture of training coverage in 2013 due to missing data. However, the available data, presented in Table 3.4, suggest that training coverage for (C)VCT, FP, and LARC among nurses and social workers has not changed significantly in the past 3 years. No data is available from 2013 regarding the perceived need for new / refresher trainings.

TABLE 3.4:
HUMAN RESOURCE CAPACITY FOR LARC SERVICE PROVISION IN RURAL HCS, 2013

	Average (SD)		Average (SD)
Nurses	13.5 (4.3) *1 missing	**Social Workers**	1.6 (1.1)
Trained in:			
(C)VCT provision	4.1 (3.7)	**(C)VCT promotion**	0.6 (0.8) *3 missing
FP provision	5.7 (4.5)	**FP promotion**	0.2 (0.4) *7 missing
IUD insertion	5.7 (1.7)	**IUD promotion**	0 (0) *7 missing
Implant insertion	2.6 (2.1)	**Implant promotion**	0 (0) *7 missing

Averages and standard deviations rounded to the nearest tenth. LARC: Long-acting reversible contraceptive. HC: Health center. (C)VCT: (Couples) Voluntary Counseling and Testing. FP: Family planning. IUD: Intra-uterine device.

Staff Confidence:
The percentage of nurses at each HC who were formally trained in LARC insertion is not equal to the percentage of nurses at each HC who actively insert LARC. Generally, more nurses were actively inserting implants than had been formally trained in implant insertion, and fewer nurses were actively inserting IUDs than had been formally trained in IUD insertion. This is due to the fact that nurses often informally train each other on implant insertion and tend to quickly feel confident at providing this service alone, whereas nurses often feel uncomfortable and unqualified to insert IUDs even after attending formal training. Table 3.5 gives detail of these discrepancies.

TABLE 3.5:
NURSE CONFIDENCE IN LARC SERVICE PROVISION IN RURAL HCS, 2016

	Average percent of nurses in each HC trained in insertion (SD)	Average percent of nurses in each HC actively inserting (SD)	Average number of nurses in each HC actively inserting (SD)
IUD	28.3 (25.2) Range: 5-100	18.6 (14.1) Range: 0-63.6	2.4 (1.6) Range: 0-7
Implant	42.5 (31.1) Range: 5-100	47.2 (29.1) Range: 10-100	6.2 (4.0) Range: 2-18

Averages and standard deviations rounded to the nearest tenth. LARC: Long-acting reversible contraceptive. HC: Health center. IUD: Intra-uterine device.

There is limited data available from 2013 on numbers of staff actually inserting LARC, and the data does not distinguish between IUD and implant insertion. Participating HCs in 2013 reported that between 1-21 nurses (average 5.4) were inserting LARC. After adjusting for missing data, between 7.7-100% (average 47.4%) of nurses at each HC were inserting LARC methods. This seems consistent with our 2016 data, assuming that the category "LARC insertion" is primarily reflecting implant insertions. It may also reflect the expected pattern of higher rates of implant insertion than implant training and lower rates of IUD insertion than IUD training.

Partners / Funders:
17 of 30 (56.7%) participating HCs reported that they have no partner / funder for FP activities. Of those 13 who did have a partner, most reported that they received significant training support but limited material support from Maternal Child Survivor Program (MCSP). Two HCs receive limited material support from Partners in Health (PIH) or Global Fund. In each case, material support is given to the maternity department and/or the ADS program, and the FP department may benefit indirectly. HC staff consistently emphasized the need for partners / funders, both to provide training to HC staff and ADS and to provide materials for FP provision. Most HCs reported relying on funding partners to purchase expensive clinic equipment such as gynecological tables and lamps, and many reported being financially strained by providing FP methods to patients who cannot always pay for them. Information on partnering / funding agencies from 2013 is unclear, with much missing data.

Rural LARC Promotion Capacity
Capacity for LARC promotion is broken into four key categories: ADS collaboration, in-clinic promotional materials, (C)FPC recruitment, and audio-visual equipment. Each capacity area is addressed individually below.

ADS Collaboration:
All 30 participating HCs reported working with Animateurs de Sante (ADS). HCs reported working with a range of 23-177 ADS each. The number of ADS depended on the number of villages within the HC's catchment area. Each HC reported having 3 ADS per village: typically one focuses on maternal and child health while the other two (titled "Binome") attend to all other areas including FP. 29 of 30 HCs reported that every village they serve has at least one ADS who is generally trained and active; one HC

(Mukarange HC) was currently training new ADS to serve 5 villages that are not currently receiving ADS services. When focusing on ADS trained in FP specifically, 22 of 30 HCs reported that every village they serve has at least one ADS who is trained and active in FP service provision; 8 HCs were in the process of training ADS in FP to ensure that each village in their area has at least one FP-trained ADS. At the time of the assessment, 64 villages in 8 catchment areas (of 1019 villages in 30 catchment areas) were without an FP-trained ADS.

All HCs reported that the ADS whom they work with are not trained in LARC promotion. However, ADS have long been involved in other family planning activities as well as HIV services and other areas of community health. HC staff and ADS agreed that training ADS on LARC education and promotion is a key step to enhancing LARC uptake; misconceptions and myths about LARC methods are pervasive among rural communities and are a significant barrier to enhancing LARC provision. Circulating rumors include ideas that the implant can travel through your body, that the IUD causes cancer, that the nurse who inserted an implant must be the one to remove it, and that it takes as many years to regain fertility as a woman has used a LARC method.

ADS working with the 30 participating HCs play an essential role in engaging community members and supporting FP and HIV service access. ADS FP activities reported by HC staff include general FP education, promotion, and referral for services; distributing condoms and fertility awareness beads; dispensing oral contraceptive pills (OCP) and administering Depo-Provera injections; tracking FP users and pregnant patients for referral for routine health screenings; assisting HCs with finding lost to follow up FP users; and following up with new FP users. ADS HIV activities reported by staff include general HIV education; promotion of testing and ART services, and referral for services; accompanying clients to (C)VCT; assisting HCs with finding lost to follow up ART users; and delivering ART to HIV+ patients in poor health.

ADS are also currently involved in a large range of community health activities outside of FP/HIV services. They identify and refer suspected TB cases; distribute TB treatment; deliver educational demonstrations on hygiene and nutrition; conduct rapid malaria testing and distribution of malaria treatment; screen and refer children for malnutrition and deliver therapeutic foods to target households; participate in vector control campaigns; and promote and track childhood vaccinations. As part of their responsibilities, they use a rapid SMS system to report pregnancies, deliveries, and emergencies to MOH officials. Many ADS also dispense commonly-needed medications and supplements including amoxicillin, ORS, zinc, misoprostol, albendazole, mebendazole, vitamin A, iron, praziquantel, micronutrient powders, and honey-based home cough remedies; these are dispensed according to criteria defined in ADS training and are often paired with other health services and referrals.

Most HC staff generally agreed that as skilled volunteers, ADS are capable of taking on additional duties, including LARC promotion and pregnancy testing in the community, if provided with the necessary training. HC staff members were divided on whether ADS could effectively provide community-based HIV testing (24 of 30 in favor), child

vaccination (13 of 30 in favor), or implant insertion (4 of 30 in favor). However, HC staff consistently emphasized the fact that ADS were overworked and undercompensated; in some cases, ADS were incurring expenses from their volunteer activities as they are not being compensated for their transportation, use of home space for health activities, and personal materials. No data exists on ADS activities from 2013.

In-Clinic Promotional Materials:
None of the 30 participating HCs had or used promotional materials specific to LARC methods, although 26 of 30 reported that they did use promotional materials for LARC in the FP department. Most reported that they promote LARC alongside other FP methods by using promotional materials that compare all methods side-by-side, such as fliers, posters, and flip-books. These materials generally include natural methods (withdrawal, fertility awareness) alongside short-acting, long-acting, and permanent contraceptive methods. 13 of 30 HCs showed actual LARC methods to the patient as a demo, and one HC (Tare HC) used plastic anatomy models of a uterus and an arm to demonstrate insertion. HC staff reported that patient education about LARC methods is very much needed due to persisting myths and rumors about LARC methods as unsafe.

In 2013, 23 of 30 HCs reported using LARC promotional materials. Descriptive data is limited but in general it seems that promotional materials in 2013 were similar to those used today and included all FP methods side-by-side without particular emphasis on LARC. As these materials generally contain labeled pictures of each method without further description, the utility of such tools is highly dependent on the expertise of the healthcare provider using them.

(Couples) Family Planning Counseling Recruitment:
The 30 participating HCs were not currently offering (C)FPC, although all but one were familiar with the concept of couples-based services from prior trainings on (C)VCT. All 30 HCs reported that they would allow PSF to recruit couples for (C)FPC from their infant vaccination clinic, and several suggested that the antenatal care clinic could also be an effective recruitment location. HC staff members anticipated major obstacles to implementing (C)FPC programming: most notably, participants reported that it will be difficult to engage men in couples-based services. The reported reasons for this anticipated difficulty were complex and varied, and included cultural norms (family planning is generally seen as a woman's responsibility), gendered behavior (men are not willing to wait in line at the HC as women are), and poverty (attending as a couple doubles the transportation cost and means that the male partner will be missing opportunities for earned income). Some HCs reported that an additional barrier to (C)FPC is the fact that many couples live in separate towns due to work obligations. HCs with successful (C)VCT and/or couples-based antenatal care programs were more optimistic about the potential for (C)FPC, but still emphasized the need for ongoing community mobilization in order to familiarize the populations they serve with the idea of couples-based family planning.

2013 data is less detailed, but largely consistent with the 2016 findings. After adjusting for missing data, all participating HCs in 2013 agreed that PSF could recruit couples from their infant vaccination clinic, and most identified similar barriers to (C)FPC.

Audio-Visual Equipment:
19 of 30 (63.3%) HCs had a functional TV and 23 of 30 (76.7%) had one or more functional media players (9 have a functional VCR, 17 have a functional DVD player). Only 16 of 30 (53.3%) HCs had both a functional TV and a functional media player of some kind. A number of HCs reported not using their media equipment due to space considerations, lack of motivation, lack of TV reception, and lack of materials (tapes/DVDs) to use.

27 of 29 (93.1%) HCs reported having a TV and 19 of 29 (65.5%) had one or more media players (15 had a VCR, 18 had a DVD player). Data on functionality was largely missing or unclear and there is no information on use of this equipment, so it is difficult to assess if access to and use of A-V equipment has changed over the past three years.

Needs Assessment Key Lessons and Discussion

With successful LARC promotion efforts, requests for LARC will increase and HCs will need to be prepared to meet this demand by having good stocks of insertion materials. The choice of disposable vs. non-disposable kits should be matched to the HC's capacity for reliable and timely equipment sterilization. Implant provision requires less equipment when compared to IUD provision and thus has fewer material barriers. A general lack of usable gynecological exam tables and lamps for viewing the cervix is a major and common barrier to scaling up of IUD provision. HC acquisition of gynecological exam tables and lamps for viewing the cervix, designated for FP department use only, are a necessary step to enhancing IUD provision. Stock-outs of implants in some districts may need to be addressed. Stocks of LARC methods and related insertion equipment should anticipate increasing demand for LARC methods as LARC promotion efforts increase.

Maintaining adequate stocks of LARC methods and related insertion supplies is necessary for increased LARC provision, but is not sufficient without the presence of functional sterilization equipment and a reliable power supply. Disposable insertion kits can be used for implants, but ultimately are expensive and wasteful when compared with reusable insertion equipment. Additionally, many HCs already have stocks of reusable specula and scalpels that can be utilized with the proper sterilization equipment on-site.

While all participating HCs report having an autoclave and/or poupinel, only 86.7% have functional and appropriate equipment that they are currently using to sterilize LARC insertion kits. In-center access to adequately sized and functional sterilization devices, along with a sufficient power supply to run them, are an essential component in building HC capacity for LARC provision. At least one functional autoclave or poupinel is needed in each HC, with adequate capacity for regular sterilization of multiple LARC insertion kits daily, and sufficient power to use it. While all participating HCs report having regular electricity, only 60% have functional backup power supplies. A reliable

backup power supply is an essential component in building HC capacity for LARC provision, due to the need for bright exam lighting and equipment sterilization. A functional generator or solar backup system is needed in each HC, sufficient to power all departments simultaneously.

Nurses are responsible for FP services and LARC insertion in government clinics across Rwanda. On average, nurses in participating HCs have low training coverage pertaining to family planning (56%), LARC insertion (28-42%), and (C)VCT (25%). Just over half of each HC's social workers, on average, have training on (C)VCT promotion, and relatively few have training on FP and LARC promotion (17% and 6%). Low training coverage significantly limits the capacity of HCs to promote and to provide (C)VCT and LARC methods. In order to enhance capacity for (C)VCT and LARC provision, all nurses should be trained in (C)VCT and in FP service provision including IUD and implant insertion. All social workers should be trained in education / promotion for each of these services in order to enhance demand among patients. Strategies should be developed for retaining trained staff and /or for training new staff quickly.

The proportion of nurses in each HC who insert LARC methods is currently low (average 18% IUD, 48% implant); this is a significant barrier to enhancing LARC provision. The current training model for IUD insertion has not been sufficient to increase the number of nurses providing IUDs.

Strategies to enhance nurses' confidence and skill at inserting IUDs are needed as a supplement to existing didactic trainings, as existing IUD insertion trainings are not sufficient to create skilled IUD providers. Nurses need additional hands-on training with long-term supervision and follow up in order to build their skill and confidence with IUD insertion technique. Trainings should be adapted with the goal of having all participating HC nurses be fully capable and confident in inserting IUDs. This point was emphasized repeatedly across participating HCs, as trained nurses commonly do not have the confidence to offer IUD insertion even after completing recent training.

Participating HCs are eager for training and material support to enhance family planning services including LARC provision; they recognize a need for FP and LARC service provision strengthening. However, FP departments in the 30 participating HCs have limited support and few partnerships; those partnerships that do exist tend to benefit FP departments indirectly through provision of materials to maternity departments. FP departments are struggling with a lack of material resources including basic clinic equipment and funding for FP/LARC provision. Partnerships are needed to provide both FP/LARC training and to provide much-needed material support to struggling FP departments.

Promotion and provision of LARC must scale up together; HCs must be prepared for increased demand for LARC methods as promotion efforts increase. This will require effective partnerships for staff training, funding for much needed equipment, and strategies to offset the cost of providing FP methods to uninsured patients. Initial funding investments should focus on lasting resources such as gynecological tables and

sterilization equipment. Another key area for funders to address is the cost of FP methods, especially LARC, to patients; this cost may be passed on to HCs when patients cannot pay. Although many rural patients have low-cost public health insurance that partially subsidizes the cost of FP methods, the remaining expense can still be a barrier. Patients who cannot afford health insurance are even less likely to be able to pay for a LARC method.

Despite a lack of material resources in many cases, the participating health centers have great assets both in their systems of informal nurse-to-nurse training on implant insertion and in their networks of collaborating ADS. Existing collaborative networks between HCs and ADS are strong and proven systems for improving community health. ADS are able to reach those in the community who may not be attending other services at the HC, especially non-FP users and long-term users of OCP and Depo-Provera, which are administered by ADS in the community.

Community education is a necessary first step to building public trust in LARC methods: lack of knowledge and misconceptions are a significant barrier to LARC uptake in rural areas. As ADS are often trusted individuals who are close to the community and hold some influence, they are well positioned to lead educational and promotional efforts. Training ADS on (C)FPC and LARC methods so they can educate the community and issue invitations to (C)FPC/LARC services is likely to be a highly effective strategy in enhancing demand for (C)FPC and LARC methods. However, ADS are currently overburdened with many responsibilities and little to no compensation. ADS networks are relied on heavily and should be strengthened and supported with additional training and with some compensation for each contributor's time and transportation.

(C)FPC and LARC promotion can take place in the HC as well as through ADS in the community; opportunities for promotion exist at a variety of HC services including infant vaccination clinics, (C)VCT appointments, and general primary care visits. LARC-specific promotional materials are lacking; however, HC providers do use available resources such as comprehensive FP method posters and even opened LARC methods themselves as demonstrations to educate FP patients. Roughly half of participating HCs have access to a functional TV and a functional media player of some kind; of those, many are unable to take full advantage of these resources due to a lack of educational films and other barriers. Use of educational tapes/DVDs in HC waiting rooms may be an effective way to promote family planning services including LARC methods. LARC-specific promotional materials could assist in effective patient education about the safety and efficacy of LARC methods, although well-trained staff can effectively educate patients about LARC methods even without LARC-specific promotional materials. There are fewer cultural and material barriers to implant provision than there are to IUD provision; efforts to enhance LARC uptake may be more effective if they focus on implant promotion.

There are multiple cultural and logistical barriers to implementing (C)FPC, but existing couples-based service models suggest that with adequate community education and promotion, it may be possible. Strategies for promotion of (C)FPC in rural communities

are the first step to implementing (C)FPC programming. Several of the HCs have implemented effective strategies to engage men in couples-based services (e.g. (C)VCT and antenatal care), and may be able to provide helpful insight and guidance regarding ways to successfully promote (C)FPC. Suggestions from HC staff include special day-long or week-long campaigns, training ADS to promote (C)FPC and issue invitations, and building on existing (C)VCT models.

See Annex D: Action Areas for a list of concrete recommendations based on key lessons from the 2016 needs assessments.

CHAPTER 4
RESEARCH IMPLICATIONS WITH RECOMMENDATIONS FOR (C)FPC EXPANSION

Translating Research into Practice

This section will review and synthesize key findings from the program evaluation and needs assessments in order to assess the compatibility of PSF's existing (C)FPC program with the rural Rwandan context. Strengths and weaknesses of the ADS-driven (C)FPC model for LARC promotion are considered in light of the current needs and capacities of rural HCs, allowing for an informed discussion of the desirability and feasibility of (C)FPC expansion. Guided by these considerations, I propose a set of recommendations for next steps to program expansion.

This report provides additional value to existing formative research by looking both more deeply at (C)FPC results and more broadly at the existing barriers to (C)FPC implementation on a larger scale and in a rural context. The following synthesis is intended to be used as foundational evidence to inform appeals for rural (C)FPC funding and as a preliminary framework for implementation of (C)FPC in rural HCs. Research findings and implications have been translated into discrete actionable items, presented in Annex D.

Review and Interpretation of Key Research Findings

1: (C)FPC Participants Have High LARC Uptake

Evaluation of LARC outcomes among (C)FPC participants in Kigali found that (C)FPC participants had dramatically higher uptake of LARC than would be expected in the general population. 99.3% of (C)FPC participants selected a LARC method: 77.5% chose implant while 15.8% chose IUD. This is more than double the highest previously observed rates of LARC uptake among FP users in Rwanda (46% LARC uptake, including 37% implant and 9% IUD).

2: HC Implementation of (C)FPC is Associated with Increased LARC Provision

An operational adequacy evaluation of (C)FPC programming in Kigali HCs found that implementation of (C)FPC has a meaningful and statistically significant association with increased LARC provision. As a group, HCs offering (C)FPC experienced significant increases in monthly averages of both implant and IUD insertions following program initiation: implant insertions increased by an average of 176 per month and IUD insertions increased by an average of 31 per month. Taken individually, all but one HC showed statistically significant average monthly increases in implant provision ranging from 22 to 50 additional insertions. The remaining HC showed a non-statistically

significant average decrease of 2 implant insertions per month. Only two HCs showed statistically significant increases in average monthly IUD provision: one experienced an increase of 2 insertions per month and the other experienced an increase of 27 per month. All other HCs showed non-statistically significant changes to IUD provision.

3: LARC Outcomes are Associated with Demographic Features

Only 6.7% of (C)FPC clients did not select a LARC method. Among (C)FPC clients, certain features were associated with an increased likelihood of declining LARC methods. Though not statistically significant, the feature most strongly associated with declining LARC was not having any living children (2.51, 95% CI [0.87, 7.24]). Religion and educational level also played a role. Clients who identified themselves as "Other Religion" (aside from Catholic, Muslim, Protestant, Adventist, or none) were much more likely to decline LARC than were all other religious categories (RR=2.19, 95% CI [1.40, 3.44]). The relative likelihood of declining LARC methods increased gradually with educational level: those with no education were the least likely of all educational groups to decline LARC (RR=0.70, 95% CI [0.32, 1.55]) whereas those with advanced degrees were the most likely (RR=1.46, 95% CI [0.77, 2.77]). Additional risk factors for declining LARC included: ADS invitation of a woman alone rather than with a partner (RR=1.44, 95% CI [1.08, 1.94]); marriage/cohabitation (RR=1.30, 95% CI [0.75, 2.16]); and prior use of oral or injectable contraceptives (RR=1.70, 95% CI [1.31, 2.21]). Within the pool of (C)FPC clients, all prior LARC users continued to select LARC methods going forward.

Among the 93.3% of (C)FPC clients who did select a LARC method, some variation between groups regarding the choice of IUD versus implant was also noted. Implant was more popular than IUD among all groups, but those who were relatively more likely to choose IUD included married/cohabiting clients (RR=3.43, 95% CI [2.21, 5.56]), clients invited as a couple (RR for women invited alone = 0.84, 95% CI [0.72, 0.99]), those who noted prior use of condoms as the primary FP method (RR=2.06, 95% CI [1.27, 3.35]), and those in the "Other Religion" category (RR=1.70, 95% CI [1.30, 2.24]). Additionally, increasing educational level was associated with a relatively higher preference for IUD over implant; having a higher degree was the variable with the second greatest relationship to IUD uptake among LARC users (RR=2.6, 95% CI [2.01, 3.27]).

4: LARC Uptake, Provision Capacity, and Promotion in Rural Areas is Minimal

LARC provision has remained low at the 30 rural HCs included in the 2016 needs assessments, despite an increasing national availability of LARC methods and numerous LARC insertion trainings for rural providers. Populations surrounding the target HCs have continued to grow, and now average 31,062 people per catchment area, including an estimated average of 7,766 women of reproductive age in each. 2016 needs assessment data shows that target HCs inserted, on average, 2.4 IUDs per month and 33.9 implants per month. After adjusting for those who are currently pregnant, this most recent rural LARC provision data indicates that only 6.2% of eligible women of reproductive age are receiving implants, and only 0.4% are receiving IUDs.

Material capacity for LARC provision at target HCs is restricted, particularly as relates to

IUD provision. HCs lack adequate supplies of functional FP equipment such as gynecological exam tables and lamps, and have insufficient sterilization capacity to support increased provision of IUDs and implants. Human resource capacity for LARC provision is also limited, due to high staff turnover and due to the inadequacy of current staff training models for creating capable and confident LARC providers. FP departments in target HCs have struggled to scale up LARC provision capacity, as they do not currently have funding partners to support LARC initiatives.

Although target HCs have a strong network of ADS, these ADS are not currently trained to educate on and promote LARC methods; there is no community-based promotion of LARC methods in these areas. Onsite promotion of LARC methods to FP clients is minimal due both to a lack of LARC-specific promotional materials and to the hesitancy of HC staff to promote beyond provision capacity. While (C)VCT programming has been largely successful in recruiting couples to attend HC services together, no efforts have yet been made in the target HCs to involve male partners in discussions about fertility goals, to educate men about LARC options, or to link couples-based HIV prevention strategies to FP decision-making.

Compatibility of (C)FPC with Rural Settings

There is a clear need for more robust, LARC-inclusive FP services in rural settings; staff at target HCs recognized a need for FP service strengthening with a focus on LARC methods. Implementation of (C)FPC programming has been demonstrated to significantly increase LARC uptake. If paired with adequate training and material support, the (C)FPC model has the potential in rural areas to meaningfully increase community awareness and acceptance of LARC methods, to scale up LARC provision, and to create links between HIV prevention strategies and FP choices.

Participating HC staff members communicated a desire for training and material support to scale up their LARC provision and promotion capacities, and were generally enthusiastic about the desirability and feasibility of (C)FPC programming. Rural HCs use the same healthcare model as all government HCs in Rwanda, including those currently offering (C)FPC in Kigali: services are generally divided by department (maternity, FP, HIV, etc.), HIV prevention services focus on couples as well as individuals, and HCs extensively utilize volunteer ADS to engage, educate, and follow up with patients/clients in the community. (C)FPC and LARC insertion trainings can therefore be implemented in rural HCs using the same approach as has been successfully used in Kigali HCs. The ADS-driven education and promotion component of (C)FPC is a significant strength in the rural environment, where potential clients can be harder to reach and where awareness of LARC methods is likely to be lower than in the capital city. Additionally, existing familiarity with couples-based services such as (C)VCT facilitates rural HC staff members' understanding of and openness to implementing (C)FPC.

The main challenges to (C)FPC implementation in rural HCs are cultural resistance to male participation in FP services and limited current capacity for LARC provision and

promotion. Significant capacity strengthening, conducted in both areas simultaneously in order to scale up provision and demand together, will be needed for (C)FPC to be successful. Resistance to male participation in FP services has been somewhat overcome through (C)FPC promotion efforts in Kigali, as evidenced by the 1/3rd of (C)FPC visits that were attended by couples together; rural HC staff were optimistic that engagement of male partners in FP services will be possible with community mobilization efforts.

Recommendations on Next Steps for (C)FPC expansion

To be successful, (C)FPC implementation efforts must carefully balance the scaling-up of LARC provision capacity with the scaling-up of LARC promotion in the community (by ADS) and in the HC (by HC staff). If provision capacity exceeds effective promotion, human and material resources will go unused, inventory will expire, and newly gained skills will be forgotten due to underuse. If effective promotion exceeds provision capacity, HCs will be overwhelmed with patients requesting services that are not sufficiently available or that are not of adequate quality. Either scenario could result in a general loss of confidence in (C)FPC programming, and must be avoided by ensuring that provision and promotion are scaled up simultaneously.

Capacity strengthening requires dedicated material and human resources. The first step in (C)FPC expansion must be securing funding for provision capacity strengthening. Use of this funding should prioritize the purchase of functional, durable FP equipment; the installation of reliable backup power sources adequate to provide electricity for sterilization machines as needed; and the development and implementation of interactive, skills-based LARC insertion trainings for HC nurses.

Current LARC trainings for nurses have not been sufficient to create skilled and confident IUD providers. Enhanced LARC trainings should include a significant hands-on component, including practicing IUD insertion and removal technique on live models and/or consenting patients. At the very least, trainings must include the use of plastic models by all participants in order to build familiarity with IUD insertion equipment. Trainees will need ongoing follow-up clinical supervision in order to build their skill and confidence in IUD insertion, and should not be expected to begin acting as IUD providers on their own until they have successfully inserted and removed a number of IUDs under the guidance of a more experienced provider.

Existing ADS networks should be utilized to promote (C)FPC and LARC methods in the community, using the same strategies that are currently used to promote (C)VCT. Appropriate training and promotional materials should be provided to all participating ADS. It will also be essential to address the issue of ADS overwork; though unpaid volunteers, ADS have increasing responsibilities and in some cases are conducting their volunteer activities at their own personal expense. Qualitative research, such as focus groups or key informant interviews, is appropriate as a first step in problem-solving the issue of ADS overwork. Possible solutions may include expanding FP responsibilities from "Binome" ADS alone to the other 1/3rd of ADS designated for maternal and child

health; adding additional ADS to each HC's team; or using a "Happy Clients" model to encourage peer-to-peer promotion.

HCs will need to provide onsite promotion of (C)FPC and LARC services. Promotional materials including visual aids should be provided to HC staff for this purpose. All HC staff should be aware of (C)FPC programming and prepared to promote and refer as appropriate: antenatal and maternity services, infant vaccination clinics, PCME (under 5) clinics, HIV services, voluntary male circumcision clinics, and general outpatient care appointments are all opportunities to educate, promote, and refer. HCs may also be able to leverage the presence of male partners at (C)VCT services by offering add-on (C)FPC in the same session.

The variability in LARC provision changes following (C)FPC implementation in Kigali HCs suggests a role for future research in assessing the variable performance of (C)FPC at each HC. Kabuye HC significantly outperformed all others, and their staff and collaborating ADS may be able to provide useful insight into effective promotion and provision strategies. On the other end of the spectrum, Bethsaida was the only HC that did not show an increase in LARC provision following (C)FPC implementation. Follow-up with Bethsaida staff may reveal unanticipated barriers to be addressed and avoided in the future.

Follow-up research is also recommended to explore demographic differences in LARC uptake and, in particular, to learn more about low-uptake groups. Focus groups are ideal for such studies, as they can explore norms, expectations, perceptions, and attitudes in an exploratory and flexible way. Researchers and focus group facilitators should keep in mind the fact that (C)FPC's overarching goal not simply to scale up LARC provision: rather, it is for participants to gain a knowledge of the range of FP options that exist, to be empowered to make informed FP choices based on self-identified fertility goals, and ultimately to have safe and timely access to whatever contraceptive option they deem to be preferable. Follow-up research on demographic associations with LARC uptake should therefore seek to distinguish between low uptake due to demographic differences in fertility goals versus low uptake due to unforeseen barriers.

Ongoing monitoring and evaluation efforts should expand in tandem with (C)FPC programming. Monitoring and evaluation of the expansion should be instituted immediately, in order to assess (C)FPC impact at each site, to identify problem areas and course-correct as needed, and to inform possible future expansion to additional rural HCs not included in the 2016 needs assessments. Providing data training to key HC staff may help to improve data quality moving forward. Possible strategies for future impact evaluation include the use of non-participating comparison HCs and the use of step-wise roll-out of (C)FPC programming to the 30 target HCs; either approach would allow for a difference-in-difference plausibility evaluation, and would therefore allow for increasingly certain attribution of increased LARC uptake to (C)FPC programming.

The (C)FPC program model is an effective intervention to scale up LARC uptake in Rwanda. In order to successfully implement (C)FPC in rural HCs, material and human

resource capacity for LARC provision will need to be greatly strengthened through funding, equipment donation, and training. Simultaneously, community awareness and acceptance of LARC methods will need to be increased through community-based and clinic-based education and promotion in order to ensure that available FP services are accessed. Establishing effective (C)FPC programming in rural HCs will require addressing each of these needs. This can be achieved through continued collaboration with the 30 participating HCs and through NIH operational research funding to support (C)FPC implementation in each. See Annexes E and F for participating HC contact information and for a template HC contact letter.

Annex A:
Evaluation Data Tables

NYARUGUNGA HEALTH CENTER
PRE / POST COMPARISON OF MONTHLY NUMBER OF LARC INSERTIONS

Pre-(C)FPC Implementation				Post-(C)FPC Implementation				Difference		
MONTH	**IMP**	**IUD**	**LARC TOTAL**	**MONTH**	**IMP**	**IUD**	**LARC TOTAL**	**IMP**	**IUD**	**LARC TOTAL**
Sep 2014	8	13	21	Sep 2015	41	11	52	33	-2	31
Oct 2014	17	19	36	Oct 2015	40	5	45	23	-14	9
Nov 2014	11	12	23	Nov 2015	59	8	67	48	-4	44
Dec 2014	25	5	30	Dec 2015	85	21	106	60	16	76
Jan 2015	16	12	28	Jan 2016	76	12	88	60	0	60
Feb 2015	16	15	31	Feb 2016	66	14	80	50	-1	49
Mar 2015	18	5	23	Mar 2016	40	44	84	22	39	61
Apr 2015	13	6	19	Apr 2016	60	23	83	47	17	64
May 2015	14	1	15	May 2016	57	39	96	43	38	81
Jun 2015	19	9	28	Jun 2016	26	9	35	7	0	7
Jul 2015	26	2	28	Jul 2016	32	11	43	6	9	15
Aug 2015	3	5	8	Aug 2016	49	11	60	46	6	52
Average	**16**	**9**	**24**	**Average**	**53**	**17**	**70**	**37**	**9**	**46**
								T=6.9*	**T=1.8**	**T=6.3***

** Statistical significance at the level of p < 0.05.*
Averages rounded to the nearest whole number, T-values rounded to the nearest tenth. LARC: Long-acting reversible contraceptive. (C)FPC: (Couples) Family Planning Counseling. IMP: Contraceptive implant. IUD: Intra-uterine device.

KABUYE HEALTH CENTER
PRE / POST COMPARISON OF MONTHLY NUMBER OF LARC INSERTIONS

Pre-(C)FPC Implementation				Post-(C)FPC Implementation				Difference		
MONTH	**IMP**	**IUD**	**LARC TOTAL**	**MONTH**	**IMP**	**IUD**	**LARC TOTAL**	**IMP**	**IUD**	**LARC TOTAL**
Oct 2014	42	5	47	Oct 2015	21	4	25	-21	-1	-22
Nov 2014	23	3	26	Nov 2015	64	22	86	41	19	60
Dec 2014	31	2	33	Dec 2015	42	31	73	11	29	40
Jan 2015	35	7	42	Jan 2016	43	19	62	8	12	20
Feb 2015	13	4	17	Feb 2016	91	44	135	78	40	118
Mar 2015	37	21	58	Mar 2016	101	33	134	64	12	76
Apr 2015	32	9	41	Apr 2016	98	44	142	66	35	101
May 2015	22	8	30	May 2016	91	32	123	69	24	93
Jun 2015	21	5	26	Jun 2016	60	31	91	39	26	65
Jul 2015	17	1	18	Jul 2016	121	59	180	104	58	162
Aug 2015	18	4	22	Aug 2016	119	55	174	101	51	152
Sep 2015	9	1	10	Sep 2016	45	16	61	36	15	51
Average	**25**	**6**	**31**	**Average**	**75**	**33**	**107**	**50**	**27**	**76**
								T=4.5*	**T=5.4***	**T=5.0***

** Statistical significance at the level of p < 0.05.*
Averages rounded to the nearest whole number, T-values rounded to the nearest tenth. LARC: Long-acting reversible contraceptive. (C)FPC: (Couples) Family Planning Counseling. IMP: Contraceptive implant. IUD: Intra-uterine device.

GAHANGA HEALTH CENTER
PRE / POST COMPARISON OF MONTHLY NUMBER OF LARC INSERTIONS

Pre-(C)FPC Implementation				Post-(C)FPC Implementation				Difference		
MONTH	**IMP**	**IUD**	**LARC TOTAL**	**MONTH**	**IMP**	**IUD**	**LARC TOTAL**	**IMP**	**IUD**	**LARC TOTAL**
Aug 2014	26	2	28	Aug 2015	30	2	32	4	0	4
Sep 2014	41	5	46	Sep 2015	75	6	81	34	1	35
Oct 2014	12	5	17	Oct 2015	77	7	84	65	2	67
Nov 2014	38	15	53	Nov 2015	71	9	80	33	-6	27
Dec 2014	9	3	12	Dec 2015	60	10	70	51	7	58
Jan 2015	19	10	29	Jan 2016	53	4	57	34	-6	28
Feb 2015	4	3	7	Feb 2016	37	4	41	33	1	34
Mar 2015	4	3	7	Mar 2016	21	4	25	17	1	18
Apr 2015	24	14	38	Apr 2016	41	4	45	17	-10	7
May 2015	19	7	26	May 2016	58	8	66	39	1	40
Jun 2015	50	7	57	Jun 2016	57	1	58	7	-6	1
Jul 2015	59	5	64	Jul 2016	65	1	66	6	-4	2
Average	**25**	**7**	**32**	**Average**	**54**	**5**	**59**	**28**	**-2**	**27**
								T=45.2*	**T=-1.1**	**T=4.3***

** Statistical significance at the level of p < 0.05.*
Averages rounded to the nearest whole number, T-values rounded to the nearest tenth. LARC: Long-acting reversible contraceptive. (C)FPC: (Couples) Family Planning Counseling. IMP: Contraceptive implant. IUD: Intra-uterine device.

BUTAMWA HEALTH CENTER
PRE / POST COMPARISON OF MONTHLY NUMBER OF LARC INSERTIONS

Pre-(C)FPC Implementation				Post-(C)FPC Implementation				Difference		
MONTH	**IMP**	**IUD**	**LARC TOTAL**	**MONTH**	**IMP**	**IUD**	**LARC TOTAL**	**IMP**	**IUD**	**LARC TOTAL**
Oct 2014	8	2	10	Oct 2015	34	1	35	26	-1	25
Nov 2014	5	2	7	Nov 2015	37	2	39	32	0	32
Dec 2014	10	4	14	Dec 2015	67	8	75	57	4	61
Jan 2015	0	0	0	Jan 2016	58	20	78	58	20	78
Feb 2015	5	2	7	Feb 2016	67	9	76	62	7	69
Mar 2015	16	10	26	Mar 2016	42	4	46	26	-6	20
Apr 2015	10	3	13	Apr 2016	50	7	57	40	4	44
May 2015	10	2	12	May 2016	45	3	48	35	1	36
Jun 2015	10	1	11	Jun 2016	63	5	68	53	4	57
Jul 2015	6	8	14	Jul 2016	26	0	26	20	-8	12
Aug 2015	27	7	34	Aug 2016	40	5	45	13	-2	11
Sep 2015	11	0	11	Sep 2016	40	1	41	29	1	30
Average	**10**	**3**	**13**	**Average**	**47**	**5**	**53**	**38**	**2**	**40**
								T=8.0*	**T=1.0**	**T=6.2***

** Statistical significance at the level of p < 0.05.*
Averages rounded to the nearest whole number, T-values rounded to the nearest tenth. LARC: Long-acting reversible contraceptive. (C)FPC: (Couples) Family Planning Counseling. IMP: Contraceptive implant. IUD: Intra-uterine device.

GATENGA HEALTH CENTER
PRE / POST COMPARISON OF MONTHLY NUMBER OF LARC INSERTIONS

Pre-(C)FPC Implementation				Post-(C)FPC Implementation				Difference		
MONTH	**IMP**	**IUD**	**LARC TOTAL**	**MONTH**	**IMP**	**IUD**	**LARC TOTAL**	**IMP**	**IUD**	**LARC TOTAL**
Oct 2014	3	0	3	Oct 2015	1	0	1	-2	0	-2
Nov 2014	3	0	3	Nov 2015	8	2	10	5	2	7
Dec 2014	5	0	5	Dec 2015	10	2	12	5	2	7
Jan 2015	5	0	5	Jan 2016	24	2	26	19	2	21
Feb 2015	4	0	4	Feb 2016	21	2	23	17	2	19
Mar 2015	3	0	3	Mar 2016	18	4	22	15	4	19
Apr 2015	6	0	6	Apr 2016	26	4	30	20	4	24
May 2015	1	0	1	May 2016	30	0	30	29	0	29
Jun 2015	4	0	4	Jun 2016	18	1	19	14	1	15
Jul 2015	0	0	0	Jul 2016	38	0	38	38	0	38
Aug 2015	2	0	2	Aug 2016	36	3	39	34	3	37
Sep 2015	0	0	0	Sep 2016	64	1	65	64	1	65
Average	**3**	**0**	**3**	**Average**	**25**	**2**	**26**	**22**	**2**	**23**
								T=4.2*	**T=4.3***	**T=4.5***

** Statistical significance at the level of p < 0.05.*
Averages rounded to the nearest whole number, T-values rounded to the nearest tenth. LARC: Long-acting reversible contraceptive. (C)FPC: (Couples) Family Planning Counseling. IMP: Contraceptive implant. IUD: Intra-uterine device.

BUSANZA HEALTH CENTER
PRE / POST COMPARISON OF MONTHLY NUMBER OF LARC INSERTIONS

Pre-(C)FPC Implementation				Post-(C)FPC Implementation				Difference		
MONTH	**IMP**	**IUD**	**LARC TOTAL**	**MONTH**	**IMP**	**IUD**	**LARC TOTAL**	**IMP**	**IUD**	**LARC TOTAL**
Aug 2014	23	3	26	Aug 2015	.	.	.	.	.	.
Sep 2014	15	3	18	Sep 2015	15	2	17	0	-1	-1
Oct 2014	11	5	16	Oct 2015	23	3	26	12	-2	10
Nov 2014	18	1	19	Nov 2015	26	2	28	8	1	9
Dec 2014	4	1	5	Dec 2015	49	0	49	45	-1	44
Jan 2015	10	1	11	Jan 2016	55	1	56	45	0	45
Feb 2015	14	3	17	Feb 2016	46	7	53	32	4	36
Mar 2015	22	1	23	Mar 2016	33	2	35	11	1	12
Apr 2015	11	1	12	Apr 2016	70	2	72	59	1	60
May 2015	16	0	16	May 2016	78	5	83	62	5	67
Jun 2015	41	8	49	Jun 2016	91	0	91	50	-8	42
Jul 2015	42	6	48	Jul 2016	79	2	81	37	-4	33
Average	**19**	**3**	**22**	**Average**	**51**	**2**	**54**	**33**	**0**	**32**
								T=5.0*	**T=-0.3**	**T=4.8***

** Statistical significance at the level of p < 0.05.*
Averages rounded to the nearest whole number, T-values rounded to the nearest tenth. LARC: Long-acting reversible contraceptive. (C)FPC: (Couples) Family Planning Counseling. IMP: Contraceptive implant. IUD: Intra-uterine device.

BETHSAIDA HEALTH CENTER
PRE / POST COMPARISON OF MONTHLY NUMBER OF LARC INSERTIONS

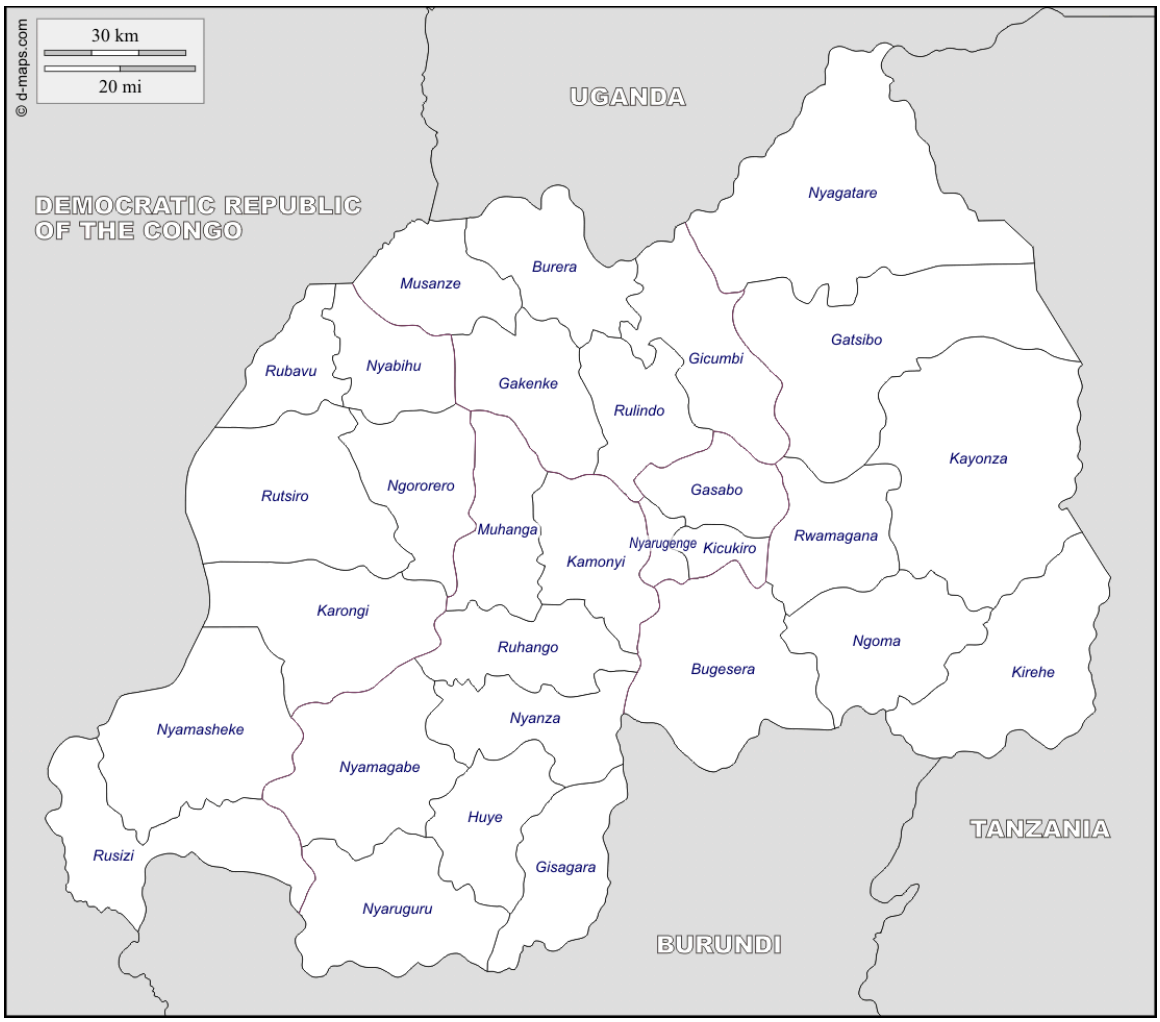
Pre-(C)FPC Implementation				Post-(C)FPC Implementation				Difference		
MONTH	**IMP**	**IUD**	**LARC TOTAL**	**MONTH**	**IMP**	**IUD**	**LARC TOTAL**	**IMP**	**IUD**	**LARC TOTAL**
Oct 2014	30	6	36	Oct 2015	18	4	22	-12	-2	-14
Nov 2014	21	5	26	Nov 2015	32	3	35	11	-2	9
Dec 2014	48	5	53	Dec 2015	23	4	27	-25	-1	-26
Jan 2015	15	1	16	Jan 2016	22	2	24	7	1	8
Feb 2015	20	4	24	Feb 2016	10	4	14	-10	0	-10
Mar 2015	17	2	19	Mar 2016	12	7	19	-5	5	0
Apr 2015	17	9	26	Apr 2016	19	2	21	2	-7	-5
May 2015	16	1	17	May 2016	13	6	19	-3	5	2
Jun 2015	17	5	22	Jun 2016	34	7	41	17	2	19
Jul 2015	9	5	14	Jul 2016	30	5	35	21	0	21
Aug 2015	50	6	56	Aug 2016	15	2	17	-35	-4	-39
Sep 2015	11	3	14	Sep 2016	15	7	22	4	4	8
Average	**23**	**4**	**27**	**Average**	**20**	**4**	**25**	**-2**	**0**	**-2**
								T=-0.5	**T=0.1**	**T=-0.4**

** Statistical significance at the level of $p < 0.05$.*

Averages rounded to the nearest whole number, T-values rounded to the nearest tenth. LARC: Long-acting reversible contraceptive. (C)FPC: (Couples) Family Planning Counseling. IMP: Contraceptive implant. IUD: Intra-uterine device.

Annex B:
Needs Assessment Map and Itinerary

Map of Rwanda with District Borders



Source: www.d-maps.com

Needs Assessment Itinerary

Date (2016)	Province	District	Health Center Name
31 May	East	Bugesera	Nyamata HC Mayange HC Mwogo HC
7 June		Rwamagana	Nyagasambu HC Rwamagana HC
		Kayonza	Mukarange HC Gahini HC
8 June		Gatsibo	Rugarama HC Kabarore HC
		Ngoma	Remera HC
9 June		Ngoma	Kibungo HC
14 June	North	Rulindo	Tare HC
		Gakenke	Bushoka HC Cyabingo HC
15 June		Musanze	Karwasa HC
		Bureera	Gahunga HC Gitare HC
16 June		Musanze	Muhoza / Ruhengeri HC
	West	Nyabihu	Bigogwe Surgical Medical Center Kora HC
21 June	South	Kamonyi	Kamonyi HC Musambira HC
		Ruhango	Kigoma HC
22 June		Nyanza	Nyanza HC
		Nyamagabe	Kigeme HC Nyamagabe HC
23 June	West	Rusizi	Giheke HC Gihundwe HC
24 June		Nyamasheke	Kibogora HC Nyamasheke HC

Annex C:
Needs Assessment Tool

START TIME _____ END TIME _____

PSF FAMILY PLANNING CLINIC NEEDS ASSESSMENT 2016

Province (PROVINCE)
_____
District (DISTRICT)
_____
Health Center (CLINIC)
_____
PSF Data Collector(s) Initials (Dataint)
_____
Date (Day/Month/Year): __ __ /__ __ __ /__ __
Interviewee Name, First/Last (CNAee)
_____
Position
(CNAeePos)_____

Contact Number
(CNAeeNum) _____

---

1. Name and contact number of the Titular of your health center (*if NOT the interviewee*):
   Nom et contact de Titulaire du centre de santé :

   Name
   Nom (Titularname):_____

   Contact Number
   Numero de téléphone Contact (CICNum)_____

2. Please estimate the catchment population of your health center :
   Population dans le zone rayonnement de votre centre de santé : (CatchP)_____

3. How many villages are in your catchment area? (Vill)
   Votre zone de rayonnement combine combien de village? _____

4. -----

5. Is clinic Catholic? (Catholic)
   Le centre de santé tenu par l'Eglise catholique ?
   - € Yes / **Oui**(1)
   - € No / **Non** (2)

6. Please identify clinic activities that occur during the weekdays (clinicschedule)
   Veuillez identifier les activités du centre qui se produisent au cours de la semaine :

	Monday **Lundi**	Tuesday **Mardi**	Wednesday **Mercredi**	Thursday **Jeudi**	Friday **Vendredi**
AM	☐ FP clinic ☐ LARC offering ☐ ANC first ☐ ANC subsequent ☐ Under5/PCMI ☐ ART ☐ VCT ☐ CVCT ☐ PMTCT ☐ OPD ☐ Nutrition ☐ PIT ☐ Maternity ☐ Other ______ ☐ Other ______	☐ FP clinic ☐ LARC offering ☐ ANC first ☐ ANC subsequent ☐ Under5/PCMI ☐ ART ☐ VCT ☐ CVCT ☐ PMTCT ☐ OPD ☐ Nutrition ☐ PIT ☐ Maternity ☐ Other ______ ☐ Other ______	☐ FP clinic ☐ LARC offering ☐ ANC first ☐ ANC subsequent ☐ Under5/PCMI ☐ ART ☐ VCT ☐ CVCT ☐ PMTCT ☐ OPD ☐ Nutrition ☐ PIT ☐ Maternity ☐ Other ______ ☐ Other ______	☐ FP clinic ☐ LARC offering ☐ ANC first ☐ ANC subsequent ☐ Under5/PCMI ☐ ART ☐ VCT ☐ CVCT ☐ PMTCT ☐ OPD ☐ Nutrition ☐ PIT ☐ Maternity ☐ Other ______ ☐ Other ______	☐ FP clinic ☐ LARC offering ☐ ANC first ☐ ANC subsequent ☐ Under5/PCMI ☐ ART ☐ VCT ☐ CVCT ☐ PMTCT ☐ OPD ☐ Nutrition ☐ PIT ☐ Maternity ☐ Other ______ ☐ Other ______
PM	☐ FP clinic ☐ LARC offering ☐ ANC first ☐ ANC subsequent ☐ Under5/PCMI ☐ ART ☐ VCT ☐ CVCT ☐ PMTCT ☐ OPD ☐ Nutrition ☐ PIT ☐ Maternity ☐ Other ______ ☐ Other ______	☐ FP clinic ☐ LARC offering ☐ ANC first ☐ ANC subsequent ☐ Under5/PCMI ☐ ART ☐ VCT ☐ CVCT ☐ PMTCT ☐ OPD ☐ Nutrition ☐ PIT ☐ Maternity ☐ Other ______ ☐ Other ______	☐ FP clinic ☐ LARC offering ☐ ANC first ☐ ANC subsequent ☐ Under5/PCMI ☐ ART ☐ VCT ☐ CVCT ☐ PMTCT ☐ OPD ☐ Nutrition ☐ PIT ☐ Maternity ☐ Other ______ ☐ Other ______	☐ FP clinic ☐ LARC offering ☐ ANC first ☐ ANC subsequent ☐ Under5/PCMI ☐ ART ☐ VCT ☐ CVCT ☐ PMTCT ☐ OPD ☐ Nutrition ☐ PIT ☐ Maternity ☐ Other ______ ☐ Other ______	☐ FP clinic ☐ LARC offering ☐ ANC first ☐ ANC subsequent ☐ Under5/PCMI ☐ ART ☐ VCT ☐ CVCT ☐ PMTCT ☐ OPD ☐ Nutrition ☐ PIT ☐ Maternity ☐ Other ______ ☐ Other ______

7. We are interested in finding out which services are integrated at this clinic. For each of the services listed above, please identify if they are integrated with the activities in another department, and if so, how they are integrated. (Integrated)
   Nous sommes intéressés de savoir les services qui sont intégrés au centre de santé. Pour chacun des services énumérés ci-dessus, veuillez identifier ceux qui sont intégrés aux activités dans un autre département et comment ils sont intégrés.

   _____

   _____

   _____

8. If Catholic clinic, is there a health post nearby that provides family planning services? (HealthPost)
   Si le centre de santé est tenu par l'Eglise catholique, ya-t-il un poste de santé tout près qui fournit les services de la planification familiale ?
   - € Yes / **Oui** (1)
   - € No / **Non**(2)
   - € Not applicable - clinic not Catholic / **Non applicable- le centre de santé n'est pas tenu par l'Eglise catholique**.(3) ***(If '3', skip to Question 12 / Si '3', passez à la question 12)***

9. What is the name of the nearest health post? (NameHP)
   Quel est le nom du poste de santé tout près?
   _____

10. How many minutes does it take to walk from the clinic to the nearest health post? (MinutesHP)
    Combien des minutes prend-t-il pour marcher du centre de santé catholique au poste de santé le plus proche? _____

11. If a Catholic health center, do you refer to the nearest health post? (RefHP)
    Si votre centre de santé est catholique, est-ce que vous referez les clients au poste de santé pour les services que vous ne fournissez pas (c'est-à-dire la PF etc.)?
    - € Yes / **Oui** (1)
    - € No / **Non** (2)

THIS IS THE LAST QUESTION FOR ALL CATHOLIC CLINICS.

12. How many social workers and nurses are there in your health center? How many are formally trained in the following services?
Dans votre centre de santé Combien d' assistants sociaux et d'infirmiers avez-vous? Combien sont formés dans les services suivants ?

Social Workers **Assistants sociaux**	Total Employees **Nombre total d'employés**	Trained in CVCT promotion **Formés dans la promotion de CVCT**	Trained in DATA **Formés dans données**	Trained in FPeducation **Formés en éducation de PF**	Trained in IUD promotion **Formés dans la promotion du DIU**	Trained in implant promotion **Formés dansla promotion de l'implant**
	(swttl)	(swcvct)	(swdata)	(swfl)	(swiud)	(swimp)

Nurses **Infirmiers**	Total Employees **Nombres total d'employés**	Trained in CVCT provision **Formés dans l'administration du CVCT**	Trained in DATA **Formés dans données**	Trained in FPprovision **Formés pour fournir la planification familiale**	Trained in LARC: IUD insertion **Formés dans l'insertion du DIU.**	Trained in LARC: Implant insertion **Formés dans l'insertion de l'Implant**
	(nursttl)	(nurscvct)	(nursdata)	(nursfp)	(nursiud)	(nursimp)

13. Are initial or refresher trainings needed for the following services? Mark yes or no.
Y-a-t-il un besoin de formation de base ou une formation de rappel pour les services suivants? Oui ou non.

	CVCT	DATA	FP	LARC: IUD	LARC: Implant
Social Workers **Assistants sociaux**	(refswcvct)	(refswdata)	(refswfp)	(refswiud)	(refswimp)
Nurses **Infirmiers**	(refnurscvct)	(refnursdata)	(refnursfp)	(refnursiud)	(refnursimp)

14. Does your clinic work with community health workers / Animateurs de Sante? (ADS)
Est-ce que Votre centre de santé travaille avec les animateurs de Santé ?
    - € Yes / **Oui** (1)
    - € No / **Non** (2) ***(If no, skip to question 24 / si Non, passez à la question 24)***

15. How many ADS work with your clinic? (ADSnum)
Combien d' Animateurs de sante travaillent avec votre Centre de Sante? _____

16. How many villages in your catchment area have a trained and qualified ADS? (VillADS)
Dans votre zone de rayonnement combien de villages qui ont des animateurs de santé formés et qualifiés? _____

17. How many villages in your catchment area DO NOT have a trained and qualified ADS? (VillNoADS)
Combien de villages dans votre zone de rayonnement qui n'ont pas des animateurs de sante formés et qualifiés ? _____

18. How many villages have ADS trained in FP? (ADSvillFP)
Dans votre zone de rayonnement combien de villages qui ont des animateurs de santé formés en Planification Familiale? _____

How many villages DO NOT have ADS trained in FP? (ADSvillnoFP)
Dans votre zone de rayonnement combien de villages qui n'ont pas des animateurs de sante formés en Planification Familiale? _____

19. Are the ADS who work with your clinic trained in LARC (IUD and Implant) promotion? (ADSLARC)
Est-ce que les Animateurs de santé ont été formés en promotion de LARC (IUD / Implant)?
    - € Yes / **Oui** (1)
    - € No / **Non** (2)

20. How else are ADS involved with family planning / HIV services at your clinic? (ADSFPHIV)
Comment les ADS sont-ils impliqués dans les services de VIH et/ou PF au centre sante ?
_____
_____
_____
_____
_____
_____

21. Do you think any of the following duties could be transferred from nurses to ADS, with additional training as needed, in order to improve community health in your catchment area? **Pensez-vous que les tâches suivantes, faites par les infirmiers peuvent être confiées aux animateurs de Santé après une formation additionelle requise, en vue d'améliorer la santé de la communauté dans votre zone de rayonnement ?**

DUTY	Yes, this could be done by ADS **/ Oui ceci peut être fait par les ADS** (1)	No**,** this could not be done by ADS **/ Non ceci ne peut pas être fait par les ADS** (2)	ADS currently does this **/Actuellement ADS le fait** (3)
Dispensing oral contraceptive pills (ADStransOCP) **Distribuer les contraceptifs oraux**			
Administering depo-provera injections (ADStransDEPO) **Administrer le Depo Provera**			
Providing LARC education and promotion (ADStransLARC) **Fournir l'éducation et la promotion du LARC**			
Inserting contraceptive implants (ADStransIMP) **Insertion de l'Implant**			
Conducting pregnancy testing (ADStransPREG) **Faire le test de grossesse**			
Conducting HIV testing (ADStransHIV) **Faire le test du VIH**			
Administering injectable immunizations (ADStransVACC) **Administrer les vaccins injectables**			
Dispensing malaria medications (ADStransMAL) **Administrer les traitements du paludisme**			
Dispensing TB medications (ADStransTB) **Administrer les traitements de la tuberculose**			
Dispensing other medications (ADStransMEDS) **Administrer les traitements des autres maladies**			
Specify which medications and if current or proposed (ADSmeds) **Préciser quelles sont les medicament, si existant ou proposé**			
Other duties: specify duty and if current or proposed (ADStransOTH) **Autres fonctions : spécifier et si existant ou proposer**			

22. Please provide the name and position of the person in charge of ordering the following supplies through the district pharmacy (FP methods, lab supplies, pharmacy supplies, HIV test kits, supplies for IUD/implant): **Veuillez fournir le nom et poste de la personne chargée de commander les équipements et fournitures suivants à travers la pharmacie de district (méthodes PF, fournitures de laboratoire, fournitures de pharmacie, kits des tests VIH, fournitures cliniques pour DIU / implants)**:

    Name **Nom**(LARCmethname):_____
    Position **Poste**(LARCmethpos): _____

    a) Family Planning Methods **Méthodes PF** – IUD/Implant
    How often **A quelle fréquence?** (monthly, yearly etc)?
    (LARCmethFreq)_____

    b) Laboratory supplies **Fournitures de laboratoire**
    How often? **A quelle fréquence** ?(monthly, yearly etc) (SupLabFreq)
    _____

    c) Pharmacy supplies **Fourniture de pharmacie**
    How often? **A quelle fréquence** (monthly, yearly etc) (SupPharmFreq) _____

    d) HIV Test Kits **Kits des tests VIH**
    How often? **A quelle fréquence** (monthly, yearly etc) (HIVKitFreq)
    _____

    e) Clinic supplies for IUD/Implant such as speculum, tenaculum, gynaecological tables, etc.
    Les fournitures cliniques pour DIU / implants y compris spéculum, tenaculum, tables gynécologiques, etc
    How often? **A quelle fréquence** (monthly, yearly etc) (SupLARCFreq)
    _____

23. Can you procure IUDs and Implants through the district pharmacy if we provide LARC training (Procpharm)?
    Pouvez-vous obtenir les DIU et les implants à travers la pharmacie de district et/ou CAMERWA si nous offrons une formation sur les méthodes de longues durées ?
    - € Yes / **Oui** (1)
    - € No / **Non** (2)

24. Does your clinic have a reliable supply of electricity? (ClinicElec)
    Votre centre de santé a-t-il un approvisionnement fiable en électricité ?
    - € Yes / **Oui** (1)
    - € No / **Non** (2)

25. Does your clinic have a generator? (Clinicgen)
    Votre centre de santé a-t-il un générateur ?
    - € Yes / **Oui** (1)
    - € No / **Non** (2)

26. If Yes, does it function (Genfunc)?
Si oui, fonctionne-t-il ?
    - € Yes / **Oui** (1)
    - € No / **Non** (2)
    - € Not Applicable / **Non applicable** (3)

27. Does your clinic have the following audio visual equipment?
Votre centre de santé a-t-il les équipements audio-visuels suivants ?

a) TV (ClinicTV) € Yes / **Oui** (1) € No / **Non** (2)	TV: If yes, does it function ? (TVfunc) **Si oui, fonctionne-t-il ?** € Yes / **Oui** (1) € No / **Non** (2) € Not Applicable / **Non applicable** (3)
b) VCR (ClinicVCR) € Yes / **Oui** (1) € No / **Non** (2)	VCR: If yes, does it function ? (VCRfunc) **Si oui, fonctionne-t-il ?** € Yes / **Oui** (1) € No / **Non** (2) € Not Applicable / **Non applicable** (3)
c) DVD player (ClinicDVD) € Yes / **Oui** (1) € No / **Non** (2)	DVD: If yes, does it function ? (DVDfunc) **Si oui, fonctionne-t-il ?** € Yes / **Oui** (1) € No / **Non** (2) € Not Applicable / **Non applicable** (3)

28. How many nurses/other staff in your health center actually insert IUDs? (IUDStaff)
Dans votre centre de santé, combien d' infirmières / autre personnel réellement donner DIU ?_____

    How many nurses/other staff in your health center actually insert implants? (ImpStaff)
    Dans votre centre de santé, combien d' infirmières / autre personnel réellement donner implants?_____

29. How many nurses/other staff in your health center can be trained to insert LARC (implant or IUDs)? (nurstrn)
Combien des infirmières au centre de santé peuvent être formées pour insérer les méthodes de longues durées (DIU/Jadelle) _____

30. How many IUD insertions were performed in your clinic in the last three months (Feb-Mar-Apr)? (IUDnum)
Combien des DIUs étaient inséré au centre de santé pendant les dernières 3 mois (Fev-Mar-Avr)?_____

31. How many IUD removals were performed in your clinic in the last three months (Feb-Mar-Apr)? (IUDrem)
Combien des DIU étaient enlevé au centre de santé pendant les dernières 3 mois (Fev-Mar-Avr)? _____

32. How many implant insertions were performed here in the last three months (Feb-Mar-Apr)? (IMPNum)
Combien des implants étaient inséré au centre de santé pendant les dernières 3 mois (Fev-Mar-Avr)? _____

33. How many implant removals were performed here in the last three months (Feb-Mar-Apr)? (IMPrem)
Combien des implants étaient enlevé au centre de santé pendant les dernières 3 mois (Fev-Mar-Avr)? _____

34. How many of the following items for insertion of IUD do you have in your clinic?
Parmi le materiel d'insertion de DIU suivant combien avez-vous dans votre centre de santé?

Number of IUDs? **Nombre de DIU?** (IUDmeth) _____
Number of forceps? **Nombre de pinces?** (IUDFor) _____
Number of speculums **Nombre de speculums** (IUDSpec) _____
Number of hysterometers **Nombre d'hystéromètres** (IUDUtso) _____
Number of tenaculums **Nombre de pinces de pozzi**?(IUDTen) _____
Number of gynecologic tables **Nombre de tables gynécologiques** (IUDGyn) _____
Number of lamps for viewing the cervix (lampcervix) **Nombres des lampes visualiser le col de l'utérus _____**

35. Do you have an autoclave? (IUDAuto) **Avez vous une autoclave?**
    - ∈ Yes / **Oui** (1)
    - ∈ No / **Non** (2)

36. Do you have a dry heat sterilization oven? (IUDPou) **Avez vous une Poupinel?**
    - ∈ Yes/ **Oui** (1)
    - ∈ No / **Non** (2)

37. Are you using the autoclave or poupinel to sterilize LARC equipment?
Est-ce que vous utilisez l'autoclave ou poupinel pour stériliser l'équipement des méthodes de longues durées (autoLARC)
    - ∈ Yes / **Non** (1)
    - ∈ No / **Non** (2)
    - ∈ Not Applicable / **Non applicable** (3)

38. How many LARC insertion kits (IUD/Implant) can be sterilized in a day (autoKitnum)?
Combien des kits d'insertion des méthodes de longues durées peuvent être stérilisés au cours d'une journée? _____

39. Today does this clinic have materials and antiseptics for IUD insertion (IUDantisept)?
Aujourd'hui le centre de santé a-t-il les matériaux et l'antiseptique pour l'insertion des DIUs ?
    - ∈ Yes / **Non** (1)
    - ∈ No / **Non** (2)

40. Today does this clinic have sterile gloves (IUDglov)?
Aujourd'hui le centre de santé a-t-il les gants stériles ?
    - € Yes / **Non** (1)
    - € No / **Non** (2)

41. How many of the following items for insertion of implant (Jadelle) do you have in your clinic?
Parmi le materiel d'insertion d' implant suivant combien avez-vous dans votre centre de santé?

    Number of Implants **Nombre d'implants** (IMPmeth) _____
    Number of DISPOSABLE implant insertion kits **Nombre de kits d'insertion à usage unique?** (IMPKitDisp) _____
    Number of NON-DISPOSABLE implant insertion kits **Nombre de kits d'insertion qui ne sont pas à usage unique?** (IMPKitNonDisp) _____
    Number of Halogen Lamps **Nombre de lampes halogènes**? (Halolight) _____
    Number of Scalpel/blade **Nombre de bistouri** (IMPscalp) _____

42. Does the clinic have local anesthetic (needle, syringe, lidocaine/ligNOcaine) (IMPAna)
Le centre de santé a-t-il l'anesthésique local ?
    - € Yes / **Non** (1)
    - € No / **Non** (2)

43. Today does this clinic have materials and antiseptic to clean the arm (gauze, betadine) ? (IMPantisept)
Aujourd'hui le centre de santé a-t-il les matériaux et l'antiseptique pour nettoyer le bras ?
    - € Yes / **Non** (1)
    - € No / **Non** (2)

44. Today does this clinic have bandages for the arm ? (IMPband)
Aujourd'hui le centre de santé a-t-il le pansement pour le bras?
    - € Yes / **Non** (1)
    - € No / **Non** (2)

45. Do you currently use any promotional materials for the IUD or implant? (LARCProm)
Le centre de santé utilise-il actuellement du matériel promotionnel pour le DIU ou Implant ?
    - € Yes / **Non** (1)
    - € No / **Non** (2)

    If 'yes', please specify : (LARCpromspec)
    Si 'oui', veuillez spécifier:
    _____
    _____
    _____
    _____

46. What are the barriers that need to be addressed to introduce or expand the number of LARC clients at your clinic? Please specify: (LARCLOGBAR)
Quels sont les obstacles qui doivent être levés pour commencer les méthodes de planification familiale de longue durée ou augmenter le nombre de clients qui les utilisent dans votre centre de santé? Veuillez préciser :

_____

_____

_____

_____

47. PSF is developing a couples' family planning program with a focus on IUD/Implant. Would it be possible to recruit couples from your infant vaccination and family planning services for this program? (CFPCINFVAC)
PSF est entrain d'élaborer un programme de planification familiale pour les couples qui se focalise sur les DIU / implants. Serait-il possible de recruter des couples dans les services de vaccination infantile et planification familiale pour ce programme?
    - € Yes / **Oui** (1)
    - € No / **Non** (2)

48. What would be some obstacles that you may face in implementing this couples family planning program (CFPCBAR)? Please specify:
Quels seraient les obstacles que vous pourriez rencontrer dans la mise en œuvre de ce programme de planification familiale pour les couples? Veuillez spécifier :

_____

_____

_____

_____

49. Do you have any partners/funders that help you provide family planning services? Please specify. For example: MOH, FHI 360, JHPIEGO, etc. (FPPartner)? **Avez-vous des partenaires ou bailleurs de fonds qui vous aident à fournir les services de PF? Par exemple: MOH, FHI 360, JHPIEGO, etc. Veuillez specifier**:

_____

_____

_____

_____

50. Names and phone numbers for people involved in CVCT or family planning program at your clinic? (e.g. nurses, titulaires, FP in-charges)
Veuillez fournir les noms et numéros de téléphone du personnel qui s'occupe des services de CVCT ou de plamification Familialedans votre centre de santé (infirmiera, titulaires, en charge du PF) ?

Name: (N1Name)	Position: (N1Position)	Contact: (N1Contact)
Name: (N2Name)	Position: (N2Position)	Contact: (N2Contact)
Name: (N3 Name)	Position: (N3Position)	Contact: (N3Contact)
Name: (N4 Name)	Position: (N4Position)	Contact: (N4Contact)
Name: (N5Name)	Position: (N5Position)	Contact: (N5Contact)
Name: (N6Name)	Position: (N6Position)	Contact: (N6Contact)
Name: (N7Name)	Position: (N7Position)	Contact: (N7Contact)
Name: (N8Name)	Position: (N8Position)	Contact: (N8Contact)
Name: (N9Name)	Position: (N9Position)	Contact: (N9Contact)
Name: (N10Name)	Position: (N10Position)	Contact: (N10Contact)
Name: (N11Name)	Position: (N11Position)	Contact: (N11Contact)
Name: (N12Name)	Position: (N12Position)	Contact: (N12Contact)

51. Do you have any questions about what we have discussed or any suggestions for us? Please specify: (IIQs)
Avez-vous des questions ou des suggestions sur ce dont nous avons discuté ? Veuillez spécifier:

_____

_____

_____

_____

****

Interviewer notes / general impressions
Commentaires de l 'enquêteur/Impressions générales:

_____

_____

_____

_____

_____

_____

_____

_____

Data entry completed by _____ (initials) on _____ (date)

Supply inventory Tool (Q38 & Q45)/ **Inventaire des fournitures :**

Number of IUDs / **Nombre de DIU** _____

Number of forceps / **Nombre de forceps** _____

Number of speculums / **Nombre de speculums** _____

Number of hysterometers **/ Nombre d'hystéromètres** _____

Number of tenaculums / **Nombre de pinces de pozzi** _____

Number of gynecologic tables / **Nombre de tables gynécologiques** _____

Number of lamps for viewing the cervix
Nombres des lampes visualiser le col de l'utérus _____

Number of Implants / **Nombre d'implants** _____

Number of DISPOSABLE implant insertion kits
Nombre de kits d'insertion à usage unique? _____

Number of NON-DISPOSABLE implant insertion kits
Nombre de kits d'insertion qui ne sont pas à usage unique? _____

Number of Halogen Lamps / **Nombre de lampes halogènes**_____

Number of scalpels / blades / **Nombre de bistouri** _____

LARC provision (Q34-37)/ **Disposition LARC :**

	FEB **/ FEV**	MAR / **MAR**	APR / **AVR**	TOTAL / **TOTAL**
Number of IUD insertions / **Nombre de DIU insérés**				
IUD removals / **Nombre de DIU retirés**				
Implant insertions / **Nombre de implants insérés**				
Implant removals / **Nombre de implant retirés**				

Annex D:
Action Areas

Defining Action Areas

Action areas are identified based on needs assessment data, and reflect considerations and concrete steps that must be taken in order for (C)FPC programming to be effective in the target HCs in rural Rwanda. To be successful, (C)FPC implementation efforts must carefully balance the scaling-up of LARC provision capacity with the scaling-up of LARC promotion. Action areas are thus categorized into provision (supply) and promotion (demand) realms, with the understanding that choices about prioritization of various action areas must be made strategically with this balance in mind.

Action Areas for Scaling Up LARC Provision

Insertion Materials

- The choice of disposable versus non-disposable implant insertion kits should be matched to the HC's capacity for reliable and timely equipment sterilization.
- Implementers may wish to prioritize implant insertion capacity over IUD insertion capacity: implant provision requires less equipment when compared to IUD provision and thus has fewer material barriers, and demand for implants greatly exceeds demand for IUDs even after LARC promotion campaigns.
- HC acquisition of functional gynecological exam tables and lamps for viewing the cervix, designated for FP department use only, are necessary for IUD provision.
- Stock-outs of implants in some districts may need to be addressed.

Power Supply

- A functional generator and/or solar backup system is needed in each HC, sufficient to power all departments simultaneously.

Sterilization Capacity

- Each HC needs at least one functional autoclave / poupinel with sufficient power supply, with capacity for daily sterilization of multiple LARC insertion kits.

Staff Training

- All nurses should be trained / re-trained in (C)VCT and in FP service provision including IUD and implant insertion and removal.
- All social workers should be trained in education / promotion for each of these services in order to enhance demand among patients.
- Strategies must be developed for retaining trained staff.

Staff Confidence

- Strategies to enhance nurses' confidence and skill at inserting IUDs are needed as a supplement to existing formal trainings; longer trainings with more hands-on experience, as well as new systems for ongoing supervision and feedback regarding LARC insertion, have been suggested by various HC staff.

Partners / Funders

- Partnerships are needed to provide both staff training and to provide much-needed material support to struggling FP departments.
- A key area for funders to address is the cost of FP methods, especially LARC, to patients; this cost may be passed on to HCs when patients cannot pay.

Action Areas for Scaling Up LARC Promotion

ADS Collaboration

- All associated ADS should be trained in promotion of (C)FPC and LARC.
- ADS are overburdened and need compensation for their time and transportation.
- Ongoing community education is needed to dispel myths about LARC.

In-Clinic Promotional Materials

- LARC-specific promotional materials can assist in effective patient education about the safety and efficacy of LARC methods.

(Couples) Family Planning Counseling Recruitment

- Suggested recruitment strategies include day-long or week-long mobilization campaigns at the village level, recruiting from infant vaccination clinics, and training ADS to promote (C)FPC at a household level via existing (C)VCT models.

Audio-Visual Equipment

- A functional TV and VCR or DVD player should be present in each HC, along with educational films containing FP messages and an explicit strategy for how / where these materials may be used to educate patients in the HC.

Action Areas for HIV / FP Integration

Cross-referral and merging of services

- At the HC level, all healthcare providers should be trained to offer (C)VCT to every FP patient and vice versa. Where merging of services is not possible, timely cross-referral should be facilitated to avoid patient loss to follow up.
- Future operational evaluation of (C)FPC should include data on client HIV status in order to assess (C)FPC impact on HIV+ clients specifically

Monitoring and evaluation

- HC documentation of services provided should allow for cross-indexing of FP visits and (C)VCT visits for each patient and couple.
- Training in data collection and entry should be offered to HC staff as requested
- Ongoing monitoring should be conducted every 6 months, starting with baseline data collected at the initiation of (C)FPC programming, in order to track program activities and to track resulting FP service utilization including LARC uptake.
- Future M&E may wish to examine additional outcome indicators beyond LARC uptake, such as rates of unintended pregnancy and incidence of mother-to-child HIV transmission.

Annex E:
Health Center Contact List

Contact list for Titulars of Participating Health Centers

To be used for sharing results of needs assessments and for inviting HCs to participate in future programming, pending available funding.

Health Center	Clinic In-charge	Contact number
Bigogwe Surgical Medical Center	AMANI Claude	078 776 1088
Bushoka HC	HABIYAREMYE Fidele	078 847 1791
Cyabingo HC	MUKESHIMANA Jeanne d'arc	078 849 8477
Gahini HC	GASHUMBA Wilson	078 128 3201
Gahunga CS	URIMUBENSHI Francois Xavier	078 844 6633
Giheke HC	NIYONSENGA Innocent	078 874 2738
Gihundwe HC	IYAKAREMYE Daphrose	078 848 8642
Gitare HC	NKURUNZIZA Francois	078 952 6667
Kabarore HC	BIGIRIMANA Antony	078 845 5353
Kamonyi HC	MUTUYIMANA Chantal	078 875 0550
Karwasa HC	MUVUNYI Athanase	078 848 8503
Kibogora HC	ISHIMWE Fiade	078 840 4439
Kibungo HC	GASHANANA Rafiki Ephrem	078 847 5779
Kigeme HC	NZIGIYIMANA Eliyezel	078 612 8086
Kigoma HC	UWIMANA Marie Josee	078 331 6726
Kora HC	HIGIRO Jean	078 888 0163
Mayange HC	Gaspard Harerimana	078 848 1077
Muhoza (Ruhengeri) HC	NIRERE Leopard	078 856 8999
Mukarange HC	UWANYIRIGIRA Chantal	078 875 1829
Musambira HC	AYINKAMIYE Vestine	078 331 6726
Mwogo HC	Dede Leonard Nkeragutabara	078 857 0755
Nyagasambu HC	UMURUNGI Marie Josette	078 849 0475
Nyamagabe HC	UWABYAWE Miriyeh	078 854 7148
Nyamasheke HC	BASABOSE Eustache	078 849 7866
Nyamata HC	Gilbert Musine	078 952 6420
Nyanza HC	TUYISHIME Paul	078 843 8311
Remera HC	Peace Venuste	078 544 0274
Rugarama (Gatsibo) HC	KARASIRA Paul	078 849 8713
Rwamagana HC	MUBURANTURO Gaspard	078 846 0805
Tare HC	MUGENGA Augustin	078 885 9279

Annex F:
Health Center Contact Letter

Dear _____,

We are contacting you because your health center, _____, was one of 30 health centers that participated in Projet San Francisco's needs assessment project this past June. We are extremely grateful to you for your time and efforts, and we are happy to provide you with a copy of our preliminary needs assessment report for your own records.

The needs assessment was conducted at 30 government health centers in 16 districts across Rwanda, all outside of Kigali. The focus of our needs assessment was long-acting reversible contraceptive (LARC) methods. Our goal was to learn more about LARC provision and promotion at Rwandan health centers in order to inform future program development to support family planning efforts across Rwanda. The results of the needs assessment will provide important supporting information as we seek funding for expanded family planning programs.

PSF has been working with 8 government HCs in Kigali over the past year to support an ADS-driven LARC promotion program. We have seen successful scaling up of LARC promotion and provision in these clinics, and we hope to expand this program to your areas over the coming years.

Thank you again for your participation. Should PSF receive funding to expand our current programs, your HC will be contacted with an offer to collaborate. Please feel free to contact us at _____ (name and number) with any questions in the meantime.

Sincerely,
Amelia Mazzei
Projet San Francisco
KK 19 No. 57
Kicukiro Kigali, Rwanda