



## RESEARCH ARTICLE

# To be continued: family planning continuation among the urban poor in Senegal, a prospective, longitudinal descriptive study. [version 1; peer review: 2 approved]

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## Abstract

**Background:** Given the role that continued use of family planning (FP) by current users plays in increasing contraceptive prevalence rates (CPR), this research aims to measure method-specific continuation rates for fixed-site and community-based program interventions and to document reasons for discontinuation.



**Methods:** This research compared discontinuation rates for clients initiating family planning through two types of strategies—services provided at existing health centers that provided regular, ongoing services, and “one-off” outreach services in communities. Data collectors surveyed consenting clients who were initiating a modern method, or reinitiating after a break of at least six months, and conducted a follow up survey after seven months.



**Results:** Long acting reversible contraception (LARC) was more commonly initiated through outreach strategies than through fixed sites. LARC made up 65% of methods initiated through the outreach setting and 47% of those initiated through a fixed-site strategy. Continuation rates varied from 99% for intrauterine devices (IUDs) to 77% for injectables and were very similar between outreach and fixed-site strategies, with the exception of oral contraceptive pills (OCPs). Only 65% of outreach initiators continued using OCPs, compared to 84% of fixed-site initiators. Top reported reasons for discontinuation were side effects and little or no sexual relations.

**Conclusions:** Project interventions allowed most women to continue with their chosen method of FP for the seven-month duration of the study whether initiated through fixed site or outreach strategies, showing promise in helping Senegal to increase its CPR. It is feasible to offer both LARC and short acting methods through outreach strategies. Further research into the sensitivity of demand to the price

## Open Peer Review

### Approval Status

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2. **Laura Raney** , UN Foundation (seconded from PHI/Sustaining Technical and Analytical Resources (STAR) project), Washington, USA  
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Any reports and responses or comments on the article can be found at the end of the article.

charged is needed.

## Keywords

family planning, continuation, Senegal, urban, FHI 360

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## Introduction

Current modern family planning (FP) use among married women in Senegal increased from 10% in 2005 to 23% in 2015<sup>1</sup>. This doubling in prevalence could be attributed to several factors, including greater policy and program support for FP by the public sector, fewer stock-outs of contraceptive commodities, strides in community-based provision of oral and injectable contraceptives, and outreach to increase demand for and provision of long-term methods. Despite this encouraging increase in contraceptive prevalence rate (CPR), however, current use remains outpaced by unmet need for FP, which stands at 25% among currently married women<sup>1</sup>. Furthermore, while urban women are more likely to use modern contraceptive methods than their rural counterparts (33% vs. 17%)<sup>1</sup>, only 17% of the urban poor (the lowest wealth quintile) use modern methods, compared to 29% in the highest quintile<sup>2</sup>.

Senegal's National Family Planning Action Plan (2012–2015)<sup>3</sup> noted several challenges to FP use, including potential users' fear of side effects and of negative health impacts, as well as strong social taboos against FP. The plan also noted challenges to effective FP service delivery, including poor service quality and too few service delivery points. These barriers can affect not only initiation of a method of FP, but also continued use over time—both of which are key components in increasing the CPR. Past research has shown that discontinuation of a method for reasons other than a desire to become pregnant plays a role in unwanted fertility, demonstrating that programs should pay close attention to *current* users of FP as a way to decrease unwanted pregnancies<sup>4</sup>. Although first-year contraceptive discontinuation rates are improving in Senegal, 2014 Demographic and Health Survey (DHS)<sup>5</sup> estimates remain high at 38% for oral contraceptive pills (OCPs) and 41% for injectables. Alternatively, long acting reversible contraception (LARC), including intrauterine devices (IUDs) and implants, has a very low rate of first year discontinuation—less than 7% for implants. Though not included in the DHS, discontinuation rates for IUDs are comparable, or even lower, than those of implants<sup>6</sup>.

## Background

This research examines continuation of family planning use for clients initiating a FP method through Senegal's Urban Reproductive Health Initiative, funded by the Bill & Melinda Gates Foundation. Aligned with the Ministry of Health's efforts to achieve Millennium Development Goals 4 and 5 to improve maternal and child health<sup>7</sup>, the ISSU (*Initiative Sénégalaise de Santé Urbaine*) project aimed to both increase the CPR and improve FP service quality specifically for the underserved or urban poor in seven cities: Dakar and its environs, Guédiawaye, Pikine, Mbao, Keur Massar, Mbour, and Kaolack. IntraHealth International coordinated the six-year (2010–2015) ISSU project, working with a consortium of public and private sector partners that implemented demand creation activities and provision of FP through a variety of project strategies.

The present study was designed by FHI 360, the operations research partner under ISSU, and implemented by the *Centre de Recherche pour le Développement Humain* (CRDH). The main objectives were to measure method-specific continuation

rates and to document reasons for discontinuation. For scale-up purposes researchers wanted to determine if continuation rates varied depending on the specific service delivery strategy under which the method was first received, and whether clients who initiated a method through an outreach strategy were able to find a permanent source for resupply. [Table 1](#) shows the six ISSU FP delivery strategies included in the study, including two fixed-site and four outreach strategies. Methods and the consultation were free when offered through outreach strategies, whereas through fixed-site strategies, clients paid for their methods and the consultation.

## Methods

This was a prospective, longitudinal descriptive study in 10 urban districts of Senegal. Data were collected through a survey of women initiating their method through one of the ISSU FP delivery strategies with a follow-up phone survey conducted with the same women after seven months (See Extended data<sup>8</sup>). During a one-month period, providers screened clients for eligibility—all consenting women aged 18–49 who initiated OCPs, injectables, implants, or IUDs or re-initiated any of these methods after a break of at least six months through one of the six FP delivery strategies, and who were reachable by phone. Providers referred eligible clients to data collectors for an exit interview. We estimated one month of screening would give us a sufficient number of respondents to calculate disaggregated rates by method and strategy. At baseline, interviewers made up to five attempts to contact women at varying days and times at the number provided at the time of the initial interview.

Baseline data were collected in March 2015, and endline data in October of that year; both surveys were conducted by trained female interviewers in French or the local language if preferred by the client. Written consent was obtained at baseline for both surveys, with confirmation via oral consent for the phone survey. No compensation was provided. The study was approved by Senegal's *Comité National d'Ethique pour la Recherche en Santé* (SEN 14/62) and FHI 360's Protection of Human Subjects Committee (641346-1).

## Data analysis

Descriptive analyses were conducted in [SPSS](#) version 17.0. Baseline and endline data were linked through unique identifiers. Analyses were stratified by fixed-site versus outreach strategy, as appropriate. To examine possible bias that may result from differential attrition, we used descriptive analysis to compare the proportion of those initially enrolled through outreach with those initially enrolled through fixed-site strategies between baseline and endline, as well as the mix of methods initiated at baseline, to ensure the method mix was proportionally similar at endline.

The method-specific continuation rate was defined as the proportion of clients who were still using the same modern method obtained at baseline after seven months. When calculating overall continuation rates, we included women who 1) were still using the same modern method, 2) had switched to another one of the four modern methods without a lapse in coverage of more than 28 days, or 3) had interrupted and subsequently

**Table 1. Program strategy descriptions.**

Strategy	Description of activities	District
<b>Fixed-Site Strategy</b>		
Midwife approach ( <i>Approche Sages-femmes</i> )	Increased the midwives available at health facilities to provide FP and MCH services. 20 midwives recruited.	Guédiawaye, Pikine
MSI Social Franchise	Recruited and trained private service delivery providers at “Blue Star” branded clinics to provide full FP/RH services to women seeking services through the private sector.	Keur Massar, Mbao, Pikine
<b>Outreach Strategy</b>		
ANSFES ( <i>Association Nationale des Sages-Femmes d'Etat du Sénégal</i> ) Outreach Strategy	Implemented reproductive health service delivery by sending mid-wife members of ANSFES into communities to refer women seeking FP to local service delivery points.	Dakar Sud, Dakar Centre, Dakar Ouest, Dakar Nord, Guédiawaye, Kaolack, Keur Massar, Mbao, Mbour, Pikine
Enda Santé Mobile Clinic	Deployed a mobile clinic into underserved areas to offer FP and other services to women of reproductive age.	Keur Massar, Mbao, Mbour
Free municipal community fairs ( <i>Consultations Foraines Municipales Gratuites</i> ) (CFMG)	Organized gatherings of 100–300 community members to learn more about FP options. Same-day provision of methods available for interested women.	Dakar Sud, Dakar Centre, Dakar Ouest, Dakar Nord, Guédiawaye, Kaolack, Keur Massar, Mbao, Mbour, Pikine
Outreach by MSI (Marie Stopes International)	Deployed teams of service delivery staff, including midwives, to provide FP services to women of reproductive age with FP services in underserved areas. Services provided through health posts or huts, or under tents when other options were not available.	Dakar Sud, Dakar Centre, Dakar Ouest, Dakar Nord, Guédiawaye, Keur Massar, Mbao

restarted use of the same modern method without a lapse of coverage of 28 days or more. Overall discontinuation was defined as ceasing the use of the modern FP method initiated at the time of recruitment for more than 28 days, including stopping FP use altogether or switching to a method other than the four study methods. Additionally, we compared descriptive statistics at baseline for continuers/discontinuers to identify possible differences including characteristics of service delivery, reported reasons for discontinuation, and differences between continuing and discontinuing clients.

## Results

### Client profile

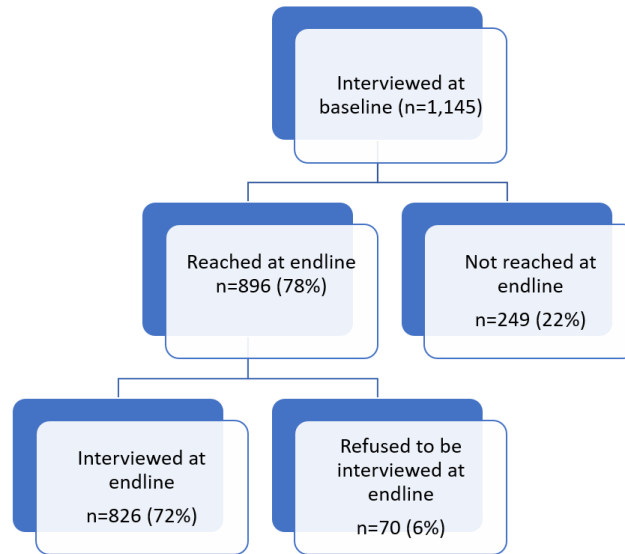
At baseline, 1,145 clients were enrolled through the six strategies. Of those, 72% (826) were reached at endline and agreed to be interviewed; another 6% (70) refused to be re-interviewed. Attrition rates were somewhat higher for outreach strategies as compared with fixed-site, at (25% and 17% respectively). (Figure 1) We did not observe nonresponse bias based on the method initiated at baseline, nor on the proportion of respondents initiating at fixed-sites versus outreach strategies. The method mix was virtually the same at baseline and at endline; similarly,

the proportion of clients who had initiated their method through a fixed-site strategy was nearly the same at 64% in the baseline sample and 66% in the endline sample.

Baseline survey results show that the client populations for the fixed-site and outreach models were very similar with regards to age, marriage structure, and religion (Table 2). One notable difference was that 32% of outreach clients had no formal education, as compared to 23% among fixed-site clients. In addition, outreach clients averaged 3.3 children compared to 2.7 children for fixed-site clients, and 55% of outreach clients had participated in paid work in the past 12 months, as compared to 44% of fixed-site clients. LARC made up a greater proportion of the method mix through outreach strategies than through fixed sites. It made up 65% of methods initiated through the outreach setting and 47% of those initiated through a fixed-site strategy (Figure 2).

### Continuation rates

Overall, 88% of the women re-interviewed at endline, approximately seven months after baseline, were still using a modern method of contraception, including 82% who had consistently used the same method, 5% who had switched to one of the other

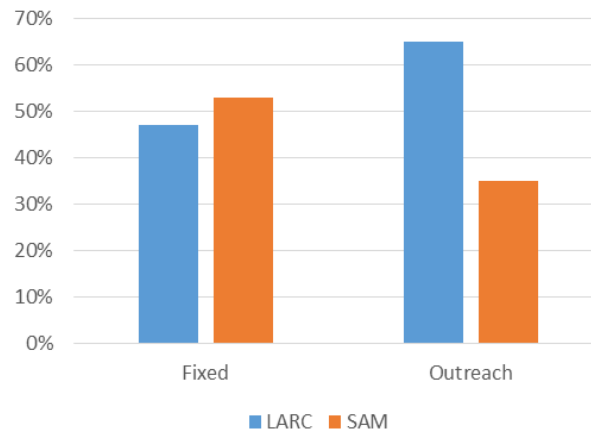


**Figure 1.** Flowchart of client interviews.

**Table 2.** Demographic information of respondents by strategy.

Demographic Information	Fixed-Site (n=734)	Outreach (n=411)
Average Age	28.2	28.6
% Unmarried	5%	7%
% Partner aware of use of FP	82%	77%
% Muslim	95%	94%
% Used a method prior	49%	49%
% With no education	23%	32%
Average Number of Children	2.7	3.3
% Participated in paid work in last 12 months	44%	55%

FP – Family planning



**Figure 2.** Percent of long acting reversible contraception (LARC) versus short acting methods (SAM) initiated at baseline by type of strategy

four modern methods, and 2% who had interrupted but re-started the same modern method. Method-specific continuation rates varied from 99% for IUDs to 77% for injectables and were very similar between outreach and fixed-site strategies, with the exception of OCPs. Only 65% of outreach initiators continued using OCPs, compared to 84% of fixed-site initiators. (Figure 3) One respondent, an implant user who had gotten her method through one of the outreach approaches, reported she had sought to have her device removed, but was denied the service due to lack of access to someone trained on removals.

### Self-reported reasons for discontinuation

Clients who had discontinued or who had switched to a different method were asked to identify the principal reason why; the main responses were experiencing side effects (29%), little or no sexual relations (16%), wanting to get pregnant or had gotten pregnant (14%), and fear of side effects (13%).

### Differences between continuers and discontinuers

The average age of continuing and discontinuing users was similar (28.8 and 28.7 years), but continuing clients had, on average, 3.0 children whereas discontinuers had 2.5 children. Partner awareness of FP use was higher among continuing users (83%) compared to discontinuers (75%). More women were continuing users among those who indicated at baseline that they planned to use their method for more than two years (89%) than among those who indicated at baseline they planned to use for two years or less (70%).

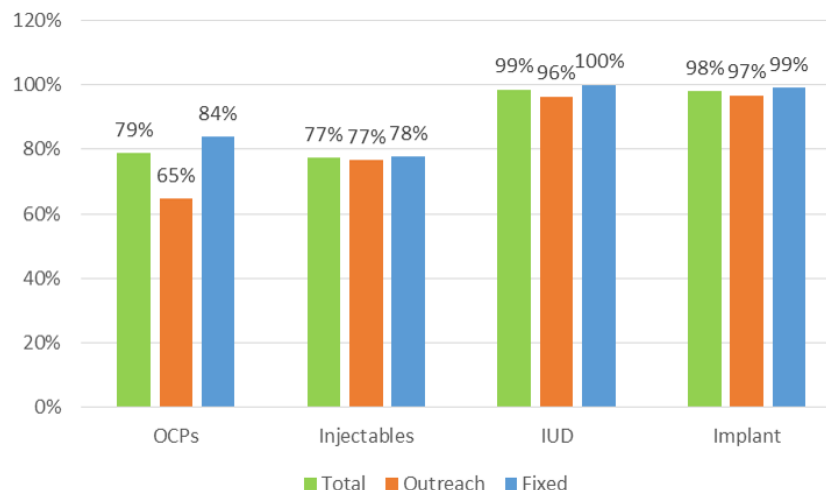
Across methods, an equal or greater percentage of women who had reported discussing counseling topics with their provider at baseline were continuing users at endline, compared to those who had not discussed previously with their provider. The biggest differences were seen among OCP users and discussions of side effects and injectable users' discussions of their other concerns with FP (See Table 3). Overall, the proportion of women reporting these counseling topics being covered was smaller at outreach settings than at fixed sites (Figure 4).

Among the 331 women who had used a method requiring a resupply during the study period (OCPs and injectables), all but one sought these services. Of those, 88% of fixed-site clients sought the refill/reinjection at the same site as their original provision, as compared with 49% of outreach clients. The most common reason clients sought the service at a different location was distance (34%), followed by the source not being available (23%), as would be the case with most of the outreach activities. The most common new source for the refill/reinjection was at a public health post (65%), followed by private sector health facilities (8%) or private sector pharmacies (8%). Of the clients who went to a new source, 92% obtained their method the same day.

### Discussion

Our results indicate that ISSU project strategies allowed most women to continue with their chosen method of FP for the seven-month duration of the study. While not an ideal comparison, seven-month continuation rates achieved through the ISSU project's FP strategies exceeded 12 month rates reported in Senegal's 2012–2014 DHS. This was true across all three methods for which DHS data is available. With the exception of OCPs, method specific continuation rates were almost identical between the project's outreach and fixed-site delivery strategies.

For discontinuing participants, the top two reasons for discontinuation were, respectively, experiencing side effects and little or no sexual relations. These results are consistent with the findings of other studies<sup>9,10</sup>. Our analysis showed that in our study population, clients who discussed side effects and how to manage them with the provider, were slightly more likely to continue their use of FP. This suggests that improved counseling could help clients to be better prepared for potential side effects and to manage them better, and thus, continue their use of FP. As noted above, OCP-initiators through outreach strategies had a higher rate of discontinuation as compared to OCP users initiating through a fixed site. Their reasons for discontinuing were varied,

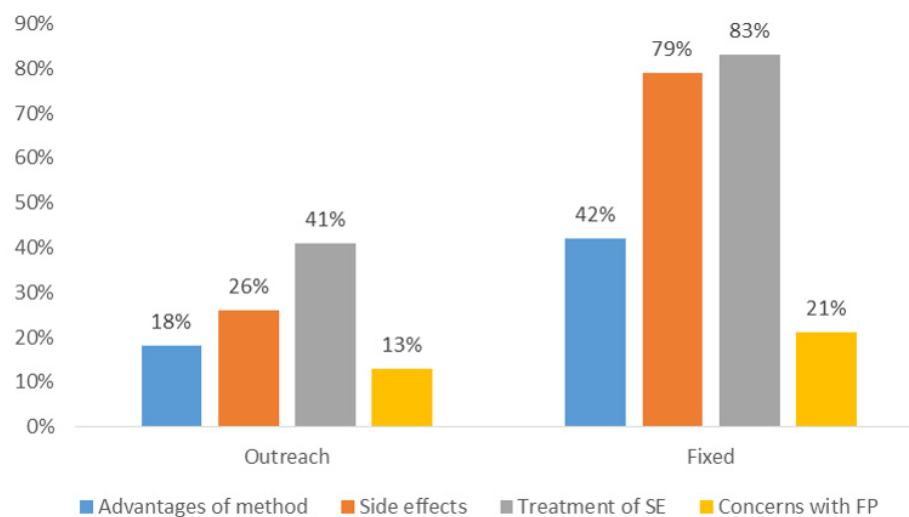


**Figure 3.** Continuation rates by method initiated and service delivery strategy.

**Table 3.** Continuation rates of respondents who discussed certain topics with their provider.

	Discussed with provider (%)	Did not discuss with provider (%)	Difference (%)
<b>Advantages of chosen method, other than pregnancy prevention</b>			
Implants	98.5	97.9	0.6
Injectables	81.5	75.7	5.8
OCPs	81.1	77.4	3.7
<b>Side effects</b>			
Implants	98.7	97.1	1.6
Injectables	78.2	75.8	2.4
OCPs	83.1	73.2	9.9
<b>Treatment/management of side effects</b>			
Implants	98.1	98.1	0
Injectables	79.8	70.8	9.0
OCPs	83.8	70.2	13.6
<b>Other concerns with FP</b>			
Implants	100.0	97.7	2.3
Injectables	85.7	75.9	9.8
OCPs	83.3	77.7	5.6

FP- Family planning, OCP - oral contraceptive pill  
IUDs not included due to small n's.

**Figure 4.** Percent of clients discussing counseling topics with provider.

however, and most clients in need of resupply found a source, generally through a public facility.

Based on client reports of their discussions with providers on the day of method initiation, the quality of counseling appeared to be higher at fixed sites than through outreach strategies. However, when comparing continuation rates by method between the two

types of strategies, they were very similar. Midwives working with the program anecdotally reported that clients who decided to initiate a method through an appointment at a fixed site may have waited to actually obtain and initiate the method until an outreach activity took place nearby, when the method was provided for free, or nearly free. In this case, the client would have already received counseling at the fixed site and may not have repeated it



the day she actually initiated the method. When clients were asked in our survey about the counseling they received “that day,” they would not have reported on previous conversations with providers, thus skewing the results for those initiating through an outreach initiative.

As noted above, 90% of clients who intended to use the method for more than two years, including 84% of OCP and injectable users, were still using FP at the time of the endline survey. These results indicate that after seven months, method initiation through the ISSU project interventions is helping most clients to meet their FP needs.

Our study faced a few limitations. It was not within our scope and budget to collect information on catchment areas and draw a random sample of family planning initiators. Thus, we relied on descriptive data which are not generalizable. Due to our study design of follow up survey by telephone, women without a telephone were excluded. It is possible that this excluded the poorest women from the study sample. However, anecdotal information from service providers suggested that most clients have a phone or access to one, and in the end, we only encountered one eligible client without access to a phone. Another limitation was the Senegalese ethics committee disallowance of asking clients the reason for refusing to participate. We ran the risk of non-response bias, but in the end, 98% of eligible women referred to the data collectors were interviewed with success. Lastly, our period of measuring continuation—seven months—was short due to the impending end of the project. The seven-month period, however, did give us enough time that women using OCPs or injectables would need to have found a resupply twice within that timeframe.

## Conclusions

Using both fixed-site and outreach strategies to reach clients with a complete mix of contraceptive methods shows great promise in helping Senegal to increase its CPR. In particular, when offered for free through an outreach setting, a high proportion of clients initiated LARC, and nearly all LARC clients continued that

method for at least seven months. Further research into the sensitivity of demand to the price charged is needed, however. For short acting methods, the primary reasons for discontinuation were method specific reasons and not related to finding a source for resupply, demonstrating that outreach efforts are an effective way to reach women selecting short acting methods as well. OCPs were the only method for which there was some difference in continuation rates between outreach and fixed site delivery; better counseling in the outreach setting, where there is limited or no opportunity for follow up, may improve OCP continuation rates.

## Data availability

The data underlying this study is available from Harvard Dataverse.

Dataset 1: Replication Data for: Family planning continuation among the urban poor in Senegal. <https://doi.org/10.7910/DVN/UUUZMA><sup>8</sup>

Data is available under a [CC0 1.0 Universal](#)

## Extended data

Base and Endline Surveys used in this study are available from Harvard Dataverse.

Harvard Dataverse: Extended data. Replication Data for: Family planning continuation among the urban poor in Senegal. <https://doi.org/10.7910/DVN/UUUZMA><sup>8</sup>

Data is available under a [CC0 1.0 Universal](#)

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This research article examines FP continuation rates among the urban poor in Senegal by service delivery mode and method. In this comparison of fixed-site service delivery and community-based outreach service delivery, the findings with regard to discontinuation rates among clients illustrate the importance of the place of outreach for FP. This seven-month study provides evidence that counseling and offer of LARC are feasible in an outreach setting, in addition to the more common offer of counseling and provision of OCPs and injectables.

This research article is clearly presented. However, more recent literature is available:

- 2017 DHS<sup>1</sup>. Note the current DHS that shows a slight increase in the mCPR for married women in 2017 to 26%. Please consider updating the figures in paragraph one and elsewhere in the text.
- National FP Action Plan 2016 – 2020<sup>2</sup>. While the 2012-2015 national plan is what was current at the time of the research, we encourage the authors to include reference to the more recent National Action Plan which was finalized in 2016. Note however, not all the challenges referred to from the previous plan remain challenges in the new plan, i.e., fear of side effects, negative health impacts, and strong social taboos against FP.

In addition, the few articles cited, while seminal and comprehensive, do not cover the full spectrum of the issues. For example,

- There are more recent articles on discontinuation that may be appropriate to consider, e.g. Alkema et al. (2013)<sup>3</sup>, Sedgh and Hussain (2014)<sup>4</sup>.
- The study could be strengthened with a further addition on the quality of FP counseling, drawing from the rich literature dating back to Bruce-Jain<sup>5</sup> and others (e.g. Harbison (2005)<sup>6</sup>, and specifically in Senegal: Assaf et al. (2017)<sup>7</sup>).

The project interventions are presented in a clear manner in Table 1. However, details are missing to further understand, enable replication, and apply lessons learned. (Further details are not available in the questionnaire). While the paper aggregates Fixed-Site and Outreach strategies, the table shows the program strategies are quite different. For example,

- What methods are midwives allowed to provide? What training do they have? How were the private providers trained? The level of training is important for quality of counsel which can explain differences in continuation rates.
- In the ANSFES Outreach Strategy (Referral by Midwife), the authors might explain how successful the referrals were, which would have an important impact of contraceptive uptake. What percentage of women who were referred to FP services went on to obtain a method at the local service delivery point? Referral is an added step which is where we could lose women. Were referrals a problem?
- It would be useful here to outline task-sharing in Senegal as it pertains to different cadres of providers (i.e., midwives and community health workers) and what methods they are authorized to administer, since it varies so much country to country in Francophone West Africa. In the Enda Santé Mobile Clinic, what level of health worker staffed the mobile clinic and were they authorized to administer all methods themselves without referring?

Figure 2 illustrates the findings that more women chose LARC in outreach strategies (65%) compared to fixed-site strategies (47%). Despite stating that both methods and consultation were offered free of charge in outreach strategies, while clients in fixed-site strategies paid for method and consultation, there is no mention of potential causality.

Also, from Figure 2, the authors may consider addressing why they think women who received services from fixed sites chose short-acting methods more than women who received services from outreach services. Is quality of counseling received an important factor that may have contributed to this difference in method choice? If so, it might be helpful to take a closer look at the content of counseling. Did the counseling that women received from outreach services include where and when they could access refill/resupply of their chosen method, or other methods if they eventually were to decide to switch? This study seems to underline the importance of quality counseling, and the difference that it can make in continuation rates, however this is one aspect that could be strengthened by adding detail. Perhaps beyond the study scope, but what was the relationship if any between level of health worker, quality of counseling a client received, and rate of continuation? Whether the outreach strategies were conducted primarily by midwives or also by community health workers and other staff has important implications for replicability.

There is mention (p. 6) but no discussion of the overall issue of accessibility to trained providers for implant and IUD removal, especially in areas where outreach was offered. Do we know if referral was provided for removal when counseling was given, and method was offered/provided?

The paper concludes that it is feasible to offer LARC and short acting methods through outreach. However, this conclusion is based on the URHI/ISSU project that offered free LARC at outreach. For scale up and longer-term sustainability, the issue of financing looms. The paper does identify the need for further research on willingness to pay and demand. There is a rich history of literature in this field as well as methodology, e.g. Bratt et al.(2005)<sup>8</sup>, Foreit and Foreit (2003)<sup>9</sup>, Foreit and Foreit (2005)<sup>10</sup>.

Minor:

The paper refers to modern methods yet cites CPR and not modern CPR (mCPR).

Table 1 has a typo in last row, middle column – Outreach by MSI where FP services mentioned twice in same sentence.

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**Is the work clearly and accurately presented and does it cite the current literature?**

Partly

**Is the study design appropriate and is the work technically sound?**

Yes

**Are sufficient details of methods and analysis provided to allow replication by others?**

Partly

**If applicable, is the statistical analysis and its interpretation appropriate?**

Yes

**Are all the source data underlying the results available to ensure full reproducibility?**

Yes

**Are the conclusions drawn adequately supported by the results?**

Yes

**Competing Interests:** No competing interests were disclosed.

**Reviewer Expertise:** Family planning, reproductive health

**We confirm that we have read this submission and believe that we have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.**

Reviewer Report 20 December 2018

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**Julie Solo** 

Independent consultant, Durham, NC, USA

This well-written article provides useful information about the important topic of continuation of FP use. In particular, with the significant proportion of women receiving FP services from mobile outreach in many countries, it is important to understand what impact this might have on continuation rates of various FP methods. The study design and results are presented clearly and many of the questions that I had while reading the paper were answered by the end. There are a few additional pieces of information that would clarify and strengthen the paper to be more helpful in assisting programs.

Early in the paper, it would be good to add a citation about outreach services to highlight the importance of this mode of service delivery (e.g. High-Impact Practices in Family Planning (HIPs). Mobile outreach services: expanding access to a full range of modern contraceptives. Washington, DC: USAID; 2014 May. Available from: <http://www.fphighimpactpractices.org/briefs/mobile-outreach-services>).

There were multiple program strategies- two categorized as fixed-site and four as outreach. The paper compares outreach and fixed-site, but were there any notable differences among the different strategies under each category?

Do you have any data that helps to explain the higher proportion of LARC users among clients reached through outreach? It would be good to try to explain this, for example by addressing questions around whether there was a difference in the range of methods offered to women at static vs. outreach services or differences in counseling, or whether it is because of the services being free through outreach, etc. This has been found in other settings (for example see Jarvis et al which found that "clients of mobile outreach and special family planning days preferred LARCs

and permanent methods, particularly implants, compared with clients at static services.” The authors speculate that this is mostly due to pre-existing preferences among clients seeking these services as well as the attraction of obtaining usually costly services for free. Jarvis L, Wickstrom J, Shannon C. Client perceptions of quality and choice at static, mobile outreach, and special family planning day services in 3 African countries. Glob Health Sci Pract. 2018;6(3):439-455\_

Page 6 mentions that one implant user was denied removal due to lack of a trained provider- can you explain how this was addressed by the project?

Later on page 6, the paragraph that begins “Across methods” covers important issues around differences in counseling between continuers and discontinuers- the language could be clarified a bit (for example saying ‘had not discussed previously’ sounds like it could include previous counseling before the counseling session you are asking about).

It is encouraging to see that women obtaining methods through outreach were able to get resupply from other sources. Do you have data on whether they were given this information during counseling? It would be useful for programs to know how to help ensure that this happens.

The paper addresses the reason for the seven month follow-up- it would be good to provide a little more detail- do most other studies of continuation look at one-year follow-up? Are there other studies that have also had shorter follow-up periods?

**Is the work clearly and accurately presented and does it cite the current literature?**

Partly

**Is the study design appropriate and is the work technically sound?**

Yes

**Are sufficient details of methods and analysis provided to allow replication by others?**

Yes

**If applicable, is the statistical analysis and its interpretation appropriate?**

I cannot comment. A qualified statistician is required.

**Are all the source data underlying the results available to ensure full reproducibility?**

Yes

**Are the conclusions drawn adequately supported by the results?**

Yes

**Competing Interests:** No competing interests were disclosed.

**Reviewer Expertise:** Reproductive health

**I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.**