



COMMUNITY-BASED DISTRIBUTION OF DMPA IN MONTEPUEZ AND CHIURE DISTRICTS OF MOZAMBIQUE

PROGRAM BRIEF

BACKGROUND

Despite notable progress since the implementation of family planning interventions in 1980, Mozambique maintains a high total fertility rate (5.9 in 2011) with the highest levels of fertility found in rural areas and among the poorest and least educated women.¹ Injectable contraceptives, including depot-medroxyprogesterone acetate (DMPA), are the leading method of family planning in sub-Saharan Africa and have played a major role in recent increases of contraceptive prevalence in the region.² Additionally, community-based distribution (CBD) models of DMPA in developing country contexts have demonstrated that with sufficient training community health workers are able to provide DMPA injections to women with comparable safety, acceptability, and continuation rates as women who received DMPA from clinic-based providers.³⁻⁶

In July 2010, the Mozambique Ministry of Health (MISAU) approved the revitalization of the *Agente Polivalente Elementar* (APE) Program, as well as the use of traditional birth attendants (TBAs) to mobilize the community for increased utilization of family planning methods. With this opportunity, the Mozambican Society of Obstetricians and Gynecologists (AMOG), in conjunction with the Bixby Center at the University of California, Berkeley and Pathfinder International, implemented a pilot study for the distribution of DMPA by both APEs and TBAs, the first-ever project to test a model for CBD of DMPA in Mozambique.

IMPLEMENTATION

From February 2014 through April 2015, the pilot study was conducted in the Montepuez and Chiure districts of northern Mozambique (Figure 1). A total of 25 APEs and 34 TBAs from the pilot districts were selected to receive training on CBD of DMPA. In February 2014, enrolled providers participated in a five-day training on family planning methods, the study protocol, client screening, injection administration, and reporting procedures. APEs and TBAs who successfully completed the training progressed to clinic-

based practical training emphasizing safe injection techniques and participated in a one-week internship in a health facility of their district.

ENROLLMENT AND FOLLOW-UP OF CLIENTS

Between February and November 2014, 1,432 eligible women were enrolled in the study and given the first injection of DMPA. Data collection occurred at three different points of service: 1) at enrollment, via an enrollment questionnaire; 2) after 13 weeks, via a follow-up questionnaire; and 3) after 26 total weeks and three DMPA

Figure 1: Project sites

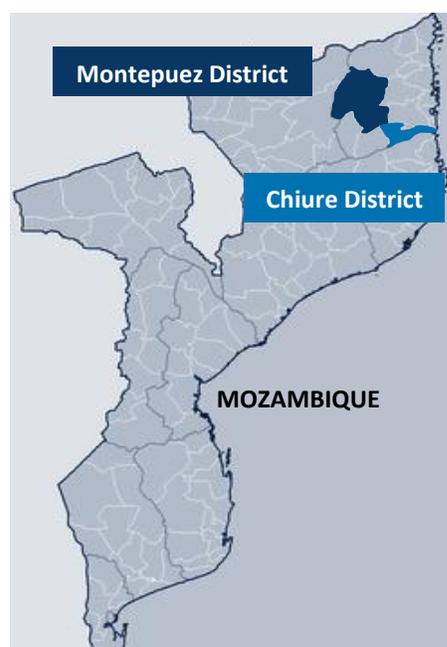
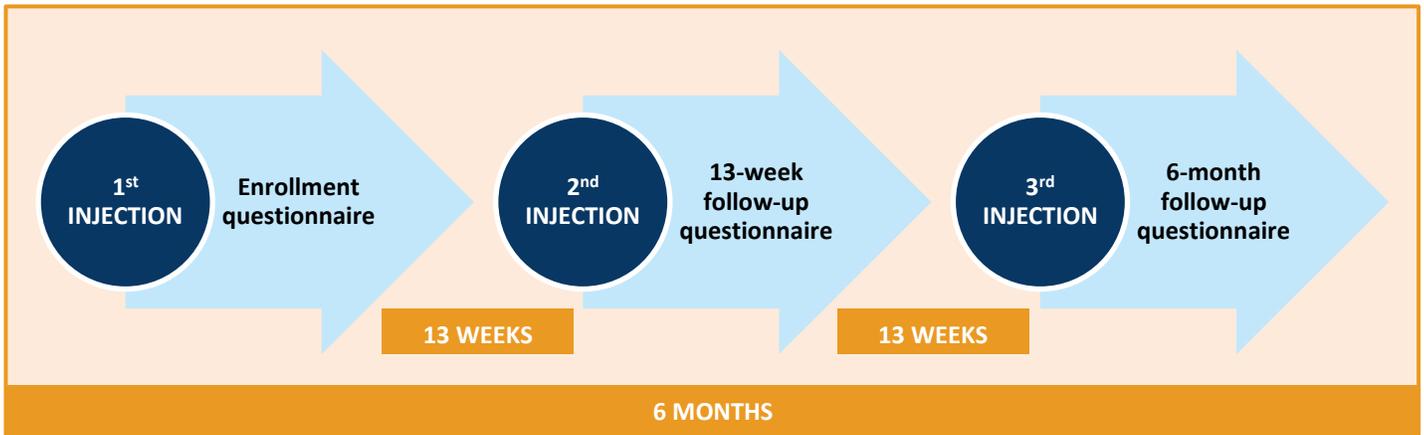


Figure 2: Data collection and injection timeline



shots, via the final follow-up questionnaire (Figure 2).

Of the total 1,432 women who enrolled in the study and received the first injection, 1,242 responded to the 13-week questionnaire, resulting in a response rate of 96%.

At six months, 1,264 women responded to the 26-week questionnaire, including 22 women assumed lost to follow-up after the initial 13 weeks, resulting in a higher response rate of 98.6%.

FINDINGS

CHARACTERISTICS OF ENROLLED WOMEN

The average age of enrolled women in the study was 29.5 years and the average number of living children per woman was 4.5. Additionally, 83.1% of APE clients and 83.8% of TBA clients were married or cohabiting and the majority of clients reported no education.

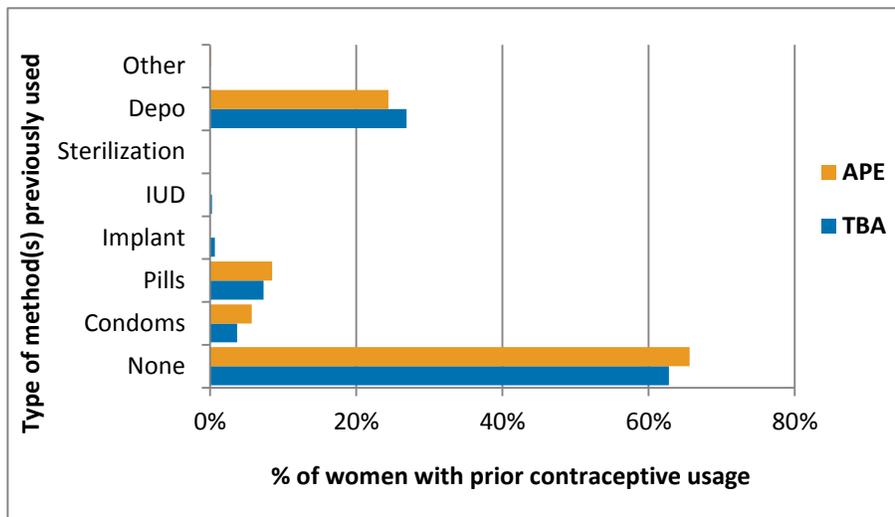
For the majority of women, this pilot study was the first time they had used a contraceptive method.

Almost 63% of TBA clients and 65.6% of APE clients reported “none” when asked what types of methods they had used previously to prevent pregnancy (Figure 3). Approximately 30% of women reported previous use of DMPA, and less than 10% reported using pills or condoms to prevent pregnancy.

MAJORITY OF WOMEN RECEIVED THE THIRD CONSECUTIVE INJECTION

Overall, the pilot study demonstrated a high continuation rate (81.1%) after three injections and a low discontinuation rate of 5.2%.⁺

Figure 3: Previous use of contraception, by provider (N=1,432)



⁺To accurately estimate continuation and discontinuation rates the study would have to gather information on second and third injections from all women. In this study 197 women (14%) were lost to follow-up and it cannot be confirmed that these women discontinued the use of DMPA. Additionally, many women who refused to be interviewed were not captured in the continuation and discontinuation rates. Lost to follow-up rates between 15-20% are common in similar studies, especially those in rural areas where health providers act as supervisors and data collectors. Regardless, these results provide insight and important lessons learned into the feasibility of organizing a CBD program of DMPA.

Table 1: Discontinuation and loss to follow-up, by provider

	Second injection		Third injection		Total after 3 injections
	TBA clients	APE clients	TBA clients	APE clients	All clients
Received injection	627 (80.2%)	442 (68.1%)*	716 (91.6%)	445 (68.6%)*	1,161 (81.1%)
Discontinuation (did not receive injection)	11 (1.4%)	89 (13.7%)*	5 (0.6%)	69 (10.6%)*	74 (5.2%)
Lost to follow-up (includes missing data)	144 (18.4%)	118 (18.2%)	61 (7.8%)	135 (20.8%)*	197 (13.8%)
Total clients at enrollment	782	649	782	649	1,432**

*Comparison TBA vs APE p<0.05; one client was missing provider information

When compared to APE clients, TBA clients had significantly higher continuation rates both at three months and at six months. Between enrollment and the second injection (three months), APEs had a discontinuation rate of 13.7%, while the TBA discontinuation rate was 1.4%. Between enrollment and six months, the entire study period, the loss to follow-up rate was overall 13.8% (Table 1). Throughout the entire study period, 174 women discontinued DMPA, however most women reported that they were planning to continue with DMPA, but had not yet received her shot.

Among clients the most commonly reported reason for using DMPA was that “it is a method that lasts longer.” More than 60% of both APE and TBA clients reported longer duration of effectiveness as the reason why they preferred DMPA.

COMMUNITY-BASED DISTRIBUTION OF DMPA IS SAFE

The majority of women reported no problems at the injection site after the first and second injections. In total, less than 0.5% of women reported any issue, including induration or abscess at the injection site. Additionally,

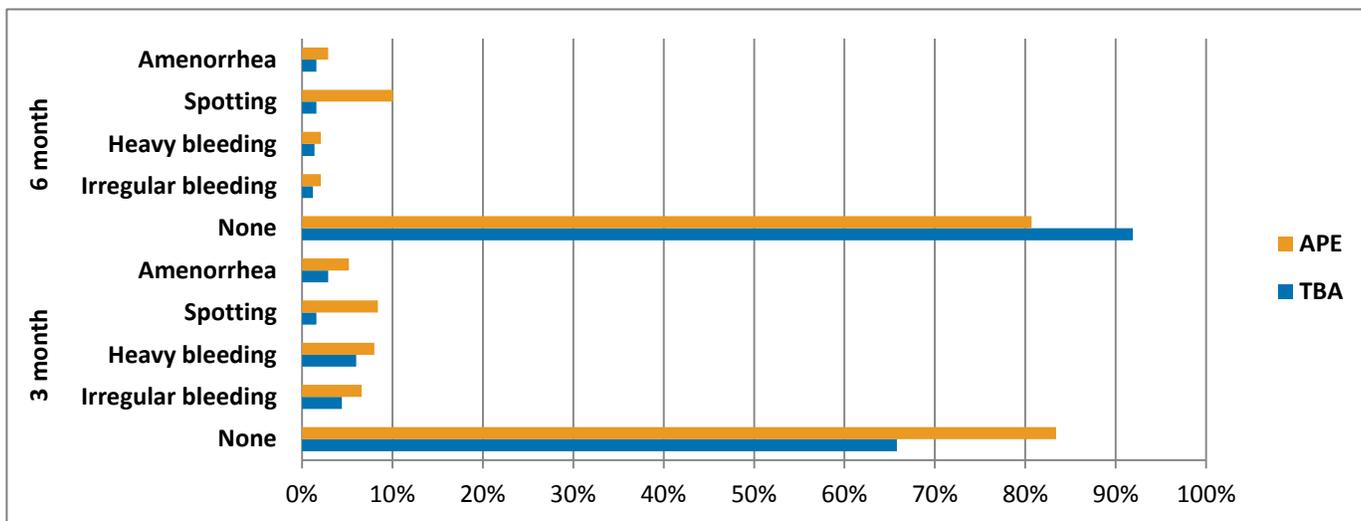
most clients reported no side effects of the DMPA at 3-month and at 6-month follow-up. Figure 4 outlines the most prevalent side effects that were reported. At three months, less than 10% of women reported experiencing amenorrhea, spotting, heavy bleeding, or irregular bleeding. At six months, most of these side effects were reported less than at the 3-month time point.

CLIENT SATISFACTION AND PERSPECTIVES

At three and six months, clients were asked to report on their level of satisfaction with DMPA and with their provider. Most women were satisfied with their provider; overall, at six months, dissatisfaction with the provider was low (9% among TBA clients and 4% among APE clients).

Furthermore, almost 90% of enrolled women were satisfied with DMPA as a method of contraception and the proportion increased from the 3-month follow-up period to the 6-month follow-up period.

Figure 4: Side effects experienced after second and third injections among participants, by provider (N=1432*)



CONCLUSIONS

The findings from this pilot study support that community-based distribution of DMPA by AFEs and TBAs is safe, feasible, effective and acceptable to women.

The majority of women in the study started using contraception for the first time during the study period, and very few experienced side effects or morbidities at the injection site. Satisfaction with community-based providers was high and improved over the entire study period and overall, continuation rates for DMPA were high for 3-month and 6-month injections.

These study findings underscore the demand for contraceptive services and the need to improve access to injectable contraceptives among rural women in northern Mozambique.

The study demonstrated that both APEs and TBAs had the ability to successfully recruit women and provide the first contraceptive visit and subsequent follow-up visits. In fact, APEs and TBAs can be used to create awareness in the community about the need to visit a health facility among all women of reproductive age to increase screening for other reproductive health issues.

IMPLICATIONS FOR POLICY AND PRACTICE

In order to meet the contraceptive needs of the most vulnerable populations in Mozambique, policymakers and program planners should note several key insights when developing programs to increase access to contraceptives through community-based distribution:

-Integrate APEs and TBAs in family planning service provision with emphasis on demand generation and provision of DMPA in the community.

-Ensure quality counseling on all family planning methods, including dual protection, with focus on informed choice.

-Reinforce APE and TBA counseling of women on the importance of visiting health facilities for other reproductive health services (i.e. screening for other diseases and long-acting reversible contraceptives).

-Increase supportive supervision to ensure that community health workers provide quality services in the provision of DMPA at the community level.

-Adapt data collection tools to improve commodity logistics while ensuring availability.

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