

# **DMPA use and patterns of continuation among rural women in Tigrai region, Ethiopia**

**Ndola Prata**  
University of California, Berkeley

**Amanuel Guessessew**  
Tigrai Health Bureau

**Alice Cartwright**  
University of California, Berkeley

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## **Abstract**

This paper identifies first time and continuing users, as well as reasons for switching to or continuing use of an injectable contraceptive (DMPA). Participants are from a sample of women of reproductive age who are participating in a study of Safety, Acceptability, Feasibility and Program effectiveness of administering DMPA through formal health facilities using health extension workers (HEWs) versus community-based reproductive health agents (CBRHAs). Data from enrolment and 3-month follow-up survey is compared. Reasons for use, continuation and discontinuation are compared using student T test for comparison of two proportions. Multiple Logistic regression models are run to test for associations between socio-demographic factors and choice of DMPA; patterns of continuations and discontinuation. The main reason for DMPA usage appears to be its convenience, as well as the length of protection. So far, only 4% of the enrolled participants have discontinued use, most of them wanted to get pregnant again.

*Background and Objectives:*

Most of the Ethiopian population lives in rural areas (85%), and the population continues to grow at 2.5% a year. While knowledge of family planning is high in rural areas, actual use of a modern contraceptive method is approximately 11%. Some of the reasons behind this low modern contraceptive prevalence are issues related to access and availability of modern methods that rural women prefer. In Tigray, a northern rural region, unmet need stands at 24%. The introduction of injectable contraceptives, Depo Medroxy Progesterone Acetate (DMPA), also known as Depo, has greatly increased contraceptive usage both regionally and nationally. According to the Demographic and Health Surveys, from 2000 to 2005, the percent of married women in Tigray using a modern contraceptive method increased from 9% to 16%, with more than three-fourths of those women using injectables. Injectables are an appealing method due to their long-term effectiveness (3 months), female control, and non-coital dependence. In addition, the current fertility rate in Tigray is 5.1 children per woman, with a reported ideal number of 4.7. Since 29% of Tigray women of childbearing age want no more children, reducing the unmet need for contraceptives is essential in improving the quality of life of both the women and their children. Understanding reasons for and rates of injectable contraceptive use is important to filling gaps in service delivery.

In January 2006 a project aimed at looking at the Safety, Feasibility, Acceptability and Program Effectiveness of a community based distribution program of DMPA was started in Tigray, Ethiopia. The Tigray Regional Health Bureau, Ethiopia and the University of California Berkeley Bixby Program on Population Family Planning and Maternal Health

will collaboratively explore the possibility of training Community-Based Reproductive Health Agents (CBRHAs) to deliver DMPA along side pills and condoms.

Funds for this project are provided by Venture Strategies for Health and Development (VSHD), a California based non-profit organization. The main goals of this Operations Research are to: provide the necessary evidence that CBRHAs can safely and effectively distribute DMPA and facilitate the supply of DMPA to Ethiopian rural women; show that health extension workers (HEWs) and CBRHAs within a village can deliver DMPA with the same safety effectiveness and acceptability outcomes; increase access to DMPA by using CBRHAs; increase contraceptive prevalence and reduce the current high unmet need for family planning in rural areas.

The sub-objectives, based on a comparison of clients of community based reproductive health agents (CBRHA) and health extension workers are to: compare three month-reacceptance rates, i.e., acceptance of 2nd DMPA injection (key outcome); compare user satisfaction; compare client knowledge of key information about DMPA (a proxy for the quality of counseling received); and compare reported incidence of injection site morbidities;

This paper used data from the above mentioned study and assesses first time and continuing users, as well as reasons for switching to or continuing use of an injectable contraceptive (DMPA). Participants are from a sample of women of reproductive age who are participating in a study of Safety, Acceptability, Feasibility and Program effectiveness of administering DMPA through formal health facilities using health extension workers (HEWs) versus community-based reproductive health agents

(CBRHAs). The study objectives include identifying first and continuing users of injectables, as well as reasons for switching to or continuing use of an injectable contraceptive (DMPA).

*Methods:*

Data from enrolment and 3-month follow-up survey is compared. Reasons for use, continuation and discontinuation are compared using student T test for comparison of two proportions. Multiple Logistic regression models are run to test for associations between socio-demographic factors and choice of DMPA; patterns of continuations and discontinuation.

*Results:*

The study is still ongoing and plan to enroll a total of 1000 women and follow them by administering a 3-month and 6-month follow up questionnaires. Current enrollment data is available for 749 women, and the study is in the three-month stage of follow-up. Approximately 300 women have already answered their 3-month follow-up questionnaire, but this is not a representative sample of the total enrolled population.

**Table 1.**

Enrollment sample (n=749)

	% (N)	Total sample
Used some form of contraception in the past	64.7% (746)	
-Condoms	2.1% (10)	1.3%
-Contraceptive Pills	35.4% (168)	22.4%
-DMPA	81.2% (385)	52.4%

\*First column does not total to 0 because women could provide multiple answers

In the enrollment sample, of the women interviewed, about two-thirds had used some form of modern contraception before, and about half had used DMPA previously. For about half the sample (47.9%), this was their first time receiving DMPA.

**Table 2.**

Women who want to use DMPA as their current family planning method (n=733)

Reasons for preferring Depo:	Total: % (N)	First-time users: % (N)	Repeat users: % (N)
More convenient	65.8 (461)	70.8% (228)	60.9% (223)
Long-acting method	21.0 (147)	15.8% (51)	25.4% (93)
Husband allows this method	19.4 (136)	20.8% (67)	18.3% (67)
Privacy	14.7 (103)	14.6% (47)	14.8% (54)

\*First column does not total 100% as women could answer yes to multiple questions

\*First-time users are both women who have used another form of family planning and now want to use DMPA, as well as first-time users of contraception who now want to use DMPA

As can be seen from table 2, two-thirds of women prefer DMPA use for its convenience. First-time users who had used another contraceptive method before that was not DMPA more significantly more likely to have a CBRHA as their provider.

After three months, the main reason for discontinuing use was “wanting to become pregnant” or moving away. Currently, 39% of the enrollment population has had

3 month follow-up interviews, and 2.4% cannot be found, 0.3% are afraid of side effects, living alone, or forgot, and 0.6% are now trying to become pregnant. In addition, 99.3% report being “satisfied” or “very satisfied” with DMPA as their family planning method.

*Conclusions:*

Preliminary results show that the main reason for DMPA usage appears to be its convenience, as well as the length of protection. So far, 4.1% of the enrollment population have discontinued use. Women are currently satisfied with DMPA as their method of contraception. By establishing the safety and efficacy of this model of distribution, more women in rural areas of Ethiopia will have access to DMPA on demand.