

# DMPA-SC self-injection supports women to use injectable contraception longer

Injectables are a popular contraceptive method in Family Planning 2020 countries, but are associated with high rates of discontinuation. Subcutaneous depot medroxyprogesterone acetate (DMPA-SC) is a novel formulation and presentation of the commonly used injectable, intramuscular DMPA (DMPA-IM). DMPA-SC is designed to allow for easier administration by less specialized health workers and for women to self-inject, thereby potentially reducing barriers to contraceptive continuation. Recent studies indicate that self-injection of DMPA-SC is highly [feasible and acceptable](#) among women who try it. New research demonstrates that self-injection leads to significantly [longer continuation](#) compared to health worker-administered injections.

## Study methods

Women seeking an injectable contraceptive at 14 health facilities in Uganda were offered the choice of self-injecting DMPA-SC (specifically Pfizer's Sayana® Press) or receiving DMPA-IM from a health worker. Those who chose self-injection were trained and self-injected under the supervision of a health worker. They were then given three units to take home along with a client instruction guide and a reinjection calendar. Those opting for DMPA-IM received their injection and an appointment card for their next facility visit in three months. Participants were interviewed to assess continuation after the second, third, and fourth injections. Women who were late for their injection or were lost to follow-up were considered to have discontinued.



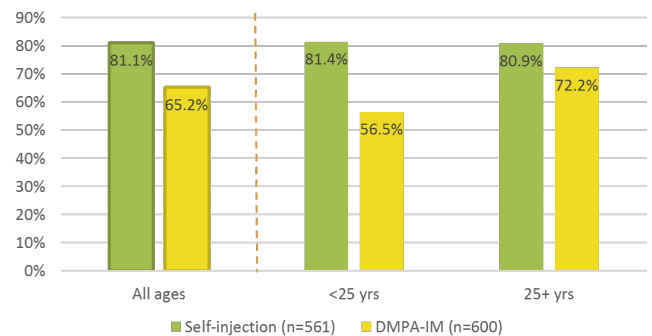
PATH/Will Boase

## Continuation

**Continuation was significantly higher for women in the self-injection group (81%) compared with women in the DMPA-IM group (65%,  $p < 0.00$ ) at 12 months.**

Three self-injectors and two DMPA-IM users became pregnant during the study, well within the normal range for injectable contraceptive effectiveness. The difference in pregnancy between groups was not significant.

**Figure 1. 12-month continuation for women who self-injected DMPA-SC and for those who received DMPA-IM from a facility-based health worker.**



## Drivers of discontinuation

Statistical analysis was used to identify predictors of discontinuation. Despite sociodemographic differences between women who chose self-injection and those who selected DMPA-IM, **self-injection was associated with a significantly reduced risk of discontinuation when controlling for a range of confounding variables.** Husband support, and having more children and more education were other factors that reduced the risk of discontinuation.

In particular, young women in Uganda may benefit from self-injection. The chart above shows that women aged 18-24 years in the self-injection group had similar rates of continuation when compared to women aged 25-45 who self-injected (green bars). In contrast, younger women in the DMPA-IM group who received their injection from a provider had significantly and substantially lower continuation compared with older women in the DMPA-IM group (yellow bars) and self-injectors of all ages (green bars).

## Reasons for discontinuation

Women who discontinued were asked their reasons why. The top reported reasons differed between the groups.

### DMPA-SC self-injectors:

1. Husband disapproval (25%).
2. Challenges with self-injection (23%).
3. Forgot/late for injection (22%).

### Health worker–administered DMPA-IM clients:

1. Forgot/late for injection (37%).
2. Difficulty reaching the health facility or product stockout (26%).
3. No sexual relations (19%).

Common challenges with self-injection included forgetting how to give the injection, trying but failing, and being fearful of making a mistake. Most women (12 women) who cited challenges discontinued at the second injection but a few (3 women) still faced challenges at the third injection.

## Side effects

Though fewer women in the self-injection group reported side effects, the difference between groups did not reach significance. More self-injectors reported injection site reactions than did women who received DMPA-IM; however, the reactions were not severe (commonly dimpling for DMPA-SC users and itching for DMPA-IM users).

## Next steps

In light of robust feasibility, acceptability, and continuation findings across multiple countries (see box), the priority for self-injection will be implementation research to understand barriers and facilitators to successful self-injection programs across country settings and delivery channels. PATH is currently exploring these questions through the [Self-injection best practices project](#) in Uganda.

## Key resources

- [PATH subcutaneous DMPA website](#)
- [Self-injection training curriculum.](#)

## Additional continuation research

### Self-injection

Two additional studies published in 2018 confirm that self-injection significantly increases 12-month continuation, compared to injections given by health workers. The continuation rates are listed below, as the percentage of women who continued injectable contraception for 12 months.

#### United States

Women in New Jersey and Texas were randomized to either self-inject or receive health worker–administered injections of DMPA-SC.

- Self-injection (157 women): 69%.
- Health worker administered (159 women): 54%.

#### Malawi

A randomized controlled trial in rural Malawi explored continuation rates of DMPA-SC (Sayana Press) self-injectors compared to women who received DMPA-SC from a health worker.

- Self-injection (364 women): 73%.
- Health worker administered (367 women): 45%.

### Health worker–administered DMPA

A new PATH study (to be published in 2018) explored whether women in Burkina Faso and Uganda continued to use DMPA-SC or DMPA-IM longer, when both methods were administered by the same type of health worker. Results showed there were no significant differences in continuation between the groups.

#### **Burkina Faso**

Injections given by facility-based health workers.

- DMPA-SC group (492 women): 50%.
- DMPA-IM group (498 women): 47%.

#### **Uganda**

Injections given by community-based health workers.

- DMPA-SC group (609 women): 78%.
- DMPA-IM group (615 women): 77%.