



Self-injected subcutaneous DMPA: A new frontier in advancing contraceptive access and use for women

A new practice in family planning (FP) provision is revolutionizing contraceptive access and use for women and adolescent girls. Self-injected contraception is now an option with an innovative, easy-to-use injectable called subcutaneous DMPA (DMPA-SC or Sayana® Press¹). By putting the power of protection directly in women's hands, self-injection with DMPA-SC has the potential to reduce access-related barriers for women, increase contraceptive continuation rates, and enhance women's autonomy. Based on growing evidence and experience, an increasing number of countries worldwide are adding DMPA-SC to their contraceptive method mix and scaling up self-injection alongside other delivery channels.

“We want many girls and women to know how to self-inject, because once we are injecting ourselves, development can easily come into our village.”

—Study participant, Malawi¹

Expanding contraceptive choices and access with a new injectable

When women and adolescent girls have access to a variety of contraceptives, they are more likely to find and use a method that meets their needs and preferences. Injectable contraceptives are popular among many women, especially in FP2020 countries, because they are highly effective, safe, and private.

¹DMPA stands for depot medroxyprogesterone acetate. Sayana Press is a registered trademark of Pfizer Inc.



Quick facts about DMPA-SC (Sayana® Press)

- **99 percent effective at preventing unintended pregnancy** when given correctly and on time every three months. Does not protect from HIV and other sexually transmitted infections.
- **Lower dose of contraceptive hormone** than intramuscular DMPA.
- **Small and light, with a short needle.**
- **Easy to use**, including by community health workers and women themselves (self-injection).
- **Stable at room temperature** (15°C–30°C).
- **Three-year shelf life.**
- **Available in at least 20 FP2020 countries.***
- **Can be purchased at US\$0.85 per dose** by qualified buyers (including ministries of health in FP2020 countries).

*FP2020 aims to expand access to family planning information, services, and supplies to an additional 120 million women and girls in 69 of the world's poorest countries.

Traditionally, injectables are delivered with a needle and syringe and injected into a muscle using a product known as intramuscular DMPA (DMPA-IM). DMPA-SC is a new, easy-to-use injectable, and studies show that it is preferred by most women and providers.^{2,3} It combines a lower dose of DMPA and a shorter needle into a single device that is injected into the fat underneath the skin. Because it is simple to use, DMPA-SC can be administered by any trained person, including community health workers, pharmacists, and women themselves.

Self-injection: An accepted and approved practice

Self-injection of DMPA-SC is an evidence-based practice that is endorsed globally and approved in a growing number of countries. There are strong data that women—including women in low-resource settings—can self-administer DMPA-SC safely and effectively, and that they like doing so. Countries such as Senegal and Uganda are already moving forward with scaling up self-injection. Several other countries are in the early stages of piloting or offering self-injection, including the Democratic Republic of the Congo, Ghana, Malawi, and Nigeria.

- **Global approvals:** The World Health Organization (WHO) **supports self-injection** where women have access to training and support.⁴ The 2018 update to WHO's evidence-based FP **guidance** for health providers endorses self-injection of DMPA-SC as an option where appropriate information and training are made available, referral links to a health care provider are strong, and women who self-inject are monitored and followed. WHO's 2018 guidance includes training materials for providers.⁵
- **Country registrations:** Stringent regulatory approval for DMPA-SC (Sayana Press) in the United Kingdom was updated in 2015 to include self-injection. Self-injection of DMPA-SC has already been approved by regulatory authorities in several other European countries and in more than 10 FP2020 countries.
- **Research findings:** Multiple studies around the world show that self-injection with DMPA-SC is feasible, safe, and acceptable. For example, nearly 90 percent of women participating in studies in Senegal and Uganda could self-inject competently three months after being trained. The vast majority of women in these studies wanted to continue self-injecting.^{6,7}



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The Uganda Self-Injection Best Practices Project

As self-injection of DMPA-SC moves beyond research settings, ministries of health, implementing partners, and other stakeholders need to learn how self-injection programs can be designed and implemented at scale under routine FP service delivery conditions. The **Self-Injection Best Practices Project in Uganda** (2016–2018), led by PATH, was launched to address this need. The project has applied user-centered design techniques to develop, implement, and evaluate self-injection program models across a variety of channels: public-sector facilities, community-based distribution, private-sector outlets, and safe spaces for young women and adolescent girls. The project will identify and disseminate self-injection program approaches that work well to inform policy and practice in Uganda and beyond.

A few early program insights include:

- **Client training:** As the option of self-injection is offered in more places, the client training program has been revised to make scale-up more affordable. For example, a lower-cost one-page (double-sided) instruction sheet is now being used for client training instead of a higher-cost booklet.
- **Client training:** Community health workers are capable of training women to self-inject safely and effectively, as well as skilled nurses or midwives—a finding also supported by the recent study in Malawi by FHI 360.¹ This has the potential to further accelerate uptake of self-injection among women in the communities where they live, as well as to reduce training costs.
- **Storage:** Women are able to store the unused devices at home relatively easily, often in a handbag or suitcase.
- **Disposal:** Providing an inexpensive, locally available, impermeable, and inconspicuous device (like a petroleum jelly container or a wide-mouth water bottle) can support women to store used devices safely prior to disposal with a health worker at their convenience.

Implementers rolling out new self-injection program initiatives in additional countries could help build out the evidence base for this practice by trying out and rigorously evaluating similar and new operational approaches that will make self-injection successful, feasible, acceptable, and accessible.

Self-injection: A driver of improved contraceptive continuation

Recent evidence indicates that self-injection of DMPA-SC can make a significant impact in addressing contraceptive discontinuation—a major challenge across countries. Sometimes women stop using contraception due to access challenges or concerns about a method (for example, living far from a health clinic or having side effects) even though they want to avoid pregnancy or space their births.

Four new studies from four different countries found that, over a 12-month period, women—including young women—who self-injected DMPA-SC in their own homes or communities continued using injectable contraception longer than those who received injections from providers.

“It can be difficult to visit the hospital to get family planning, so when it is your reinjection day and you have Sayana in the house, you just take it and self-inject.”

—Study participant, Malawi¹

- In Malawi, the contraceptive continuation rate was 73 percent in the DMPA-SC self-injection group compared with 45 percent in the provider-administered group.¹
- In Uganda, women who self-injected DMPA-SC had an 81 percent contraceptive continuation rate compared with 65 percent for women who received DMPA-IM injections from providers at facilities.⁸
- In the United States, DMPA-SC continuous use was 69 percent in the self-injection group versus 54 percent in the clinic-administration group.⁹
- In Senegal, new findings also show that contraceptive continuation was significantly higher among women who self-inject relative to those who received DMPA-IM from providers at facilities.¹⁰

Self-injection: A promising strategy for adolescent girls who want to use contraception longer

Self-injection is a game-changer for contraceptive continuation because it addresses some of the reasons why women discontinue use, such as challenges with paying for travel to the clinic and lengthy travel times and long lines at the clinic. For young women and adolescents, who often have higher rates of contraceptive discontinuation than older women and highly value privacy, self-injection gives them an opportunity to use contraception independently and discreetly over a longer period of time.

New research suggests that self-injection may indeed increase continuous contraceptive use for young women. PATH's study on contraceptive continuation of self-injected DMPA-SC versus DMPA-IM administered by facility-based providers in Uganda found that contraceptive continuation was most improved among young women. Self-injection reduced the risk of discontinuing injectable contraception by 40 percent for women aged 18–24 years compared with 25 percent for women 25 years and older.⁸

Self-injection: A cost-effective approach for both women and health systems

Not only can self-injection of DMPA-SC make injectable contraception more accessible to women and adolescent girls, it can also save more money than facility-based administration of DMPA-IM when considering costs to both women and health systems.

A recent cost-effectiveness study based on data from Uganda,^{*} applied to a hypothetical group of 1 million injectable contraception users, examined whether self-injected DMPA-SC is cost-effective when compared with DMPA-IM administered by health workers. Specifically, it estimated the incremental costs per pregnancy averted and per disability-adjusted life year (DALY) averted over a one-year period. It assumed a US\$0.85 commodity cost for DMPA-SC—the price available to FP2020 countries—which is very similar to DMPA-IM (estimated at US\$0.83, accounting for the cost of the injection syringe). The study found that:¹¹

^{*} Data presented reflect a lower-cost training approach to self-injection that was being used at the time of data analysis, namely, the replacement of a client instruction booklet with a less expensive one-page client instruction sheet.

- **Self-injected DMPA-SC yields greater health impact.** Owing to increased continuation rates, self-injected DMPA-SC could prevent 10,827 additional unintended pregnancies and avert 1,620 DALYs compared with facility-administered DMPA-IM.
- **Self-injected DMPA-SC is cost saving when considering costs to both women and health systems.** Self-injected DMPA-SC was shown to save up to approximately US\$1 million per year when accounting for total costs to society, which include costs to both women and health systems. Self-injection had clear economic benefits for women through savings in time and travel costs.
- **Self-injected DMPA-SC can be cost-effective when considering costs to health systems only.** As noted above, the health impact of self-injected DMPA-SC is greater due to the increased continuation rates. While costs to health systems alone were found to be higher for self-injected DMPA-SC than costs for DMPA-IM—largely due to the costs of self-injection training during the first visit—simplifying the client training approach can reduce the costs of self-injected DMPA-SC to the point where it is cost-effective from a health systems perspective. For example, self-injection is cost-effective when using a lower-cost one-page visual aid for clients in place of a booklet and limiting the number of practice injections.

The Self-Injection Best Practices Project in Uganda (see page 3) is exploring ways to revise the self-injection training program to make scale-up more affordable and an even better value for money for the health system over the long term, including simplifying training materials, replacing client practice injections with health worker demonstrations, and offering self-injection training from community health workers and in groups rather than just one-on-one with facility-based health workers.

Moving forward with self-injected contraception

Self-injected contraception is no longer a promise on the horizon—it is an evidence-based practice that an increasing number of countries have approved and are scaling up today. Self-injected DMPA-SC has the potential to increase contraceptive access for women and adolescent girls at the last mile and to empower women to be more active participants in managing their reproductive health. Research shows that self-injection with DMPA-SC promotes higher rates of continued contraceptive use than provider-administered injections. It also indicates that self-injection is not only cost-effective but cost saving relative to DMPA-IM from facility-based providers when accounting for costs to both women and health systems.

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As the practice takes greater hold, women can still benefit from strong linkages with health facilities and providers. For example, providers have a role to play in training women to self-inject with DMPA-SC, supporting women who are self-injecting including addressing side effects, and assisting women who want to switch to a different contraceptive method of their choice.

As countries move forward with broadening contraceptive options and including new products such as DMPA-SC, they should strongly consider incorporating self-injection of DMPA-SC in their distribution strategies, alongside other public- and private-sector channels. To do so, decision-makers will need to advance supportive policies for self-injection, which may include ensuring DMPA-SC is registered for self-injection, securing any formal authorization needed to introduce or scale up self-injection, and incorporating self-injection into guidelines, training materials, and job aids—including guidelines on task shifting. With an enabling environment in place, self-injection can be within reach for women and adolescent girls who want to take greater control of their reproductive health.

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