Photo: PATH/Gabe Bienczycki

DMPA-SC self-injection: Advancing contraceptive access and use for women and girls

Contraceptive self-injection is revolutionizing contraceptive access and use for women and adolescent girls. This mode of administration is now an option through the innovative, easy-to-use injectable called subcutaneous DMPA (DMPA-SC or Sayana® Press*). By putting the power of protection directly in women's hands, self-injection with DMPA-SC has the potential to reduce access-related barriers, increase contraceptive continuation rates, and enhance women's autonomy. Based on evidence and practical experience, an increasing number of countries worldwide are institutionalizing DMPA-SC within their contraceptive method mix and mainstreaming self-injection in tandem with diversifying other family planning delivery channels.

"I was able to inject myself…. One gets confident after being trained on how to self-inject. I have the love for it."

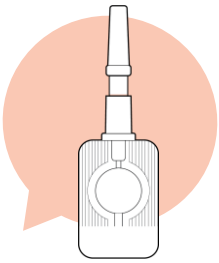
—A young Ugandan woman

Expanding contraceptive choices and access with injectables

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 because they are highly effective, safe, and private.

DMPA-SC is an easy-to-use injectable, and studies show it is preferred over intramuscular DMPA (DMPA-IM) by most women, as well as their providers.[1–3] It combines a lower dose of DMPA with a shorter needle into a single, prefilled device that is used to inject the contraceptive into the fat underneath the skin, rather than into the muscle. Because it is simple to

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



Quick facts about DMPA-SC

- ✓ **99% effective** at preventing unintended pregnancy when given correctly and on time every three months. Does not protect from HIV and other sexually transmitted infections.
- ✓ **Prefilled and ready to inject.**
- ✓ **Easy to use**, including by community health workers and women themselves (self-injection).
- ✓ **Small and light**, with a **short needle**.
- ✓ **Stable at room temperature** (15°C–30°C).
- ✓ **Three-year shelf life.**
- ✓ **Registered in more than 80 countries, with approval for self-injection in more than 55 countries**, including countries across sub-Saharan Africa, Asia, and Latin America, several European countries, the United Kingdom, and the United States.
- ✓ **Can be purchased at US$0.85 per dose** in the standard 200-pack presentation by qualified buyers* (including ministries of health in low-income countries).

* For more information on qualified buyers and eligible countries, please contact FPoptions@path.org.

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 authorized in many countries. Evidence demonstrates that women—including women in low-resource settings—can self-administer DMPA-SC safely and effectively, and that they like doing so.[4–6] As of 2023, more than 34 countries have mainstreamed self-injection within their national family planning programs, including countries in Africa, Asia, and Latin America.

- **Global approvals:** The World Health Organization endorses self-injection where women have access to training and support.[7] Their evidence-based family planning guidance for health providers[8] endorses self-injection of DMPA-SC, and their normative guidance on self-care interventions for health[9] strongly recommends self-injection as an additional approach for delivering injectable contraception.
- **Country registrations:** In 2015, the United Kingdom's stringent regulatory authority authorized self-injection of DMPA-SC.[10] Self-injection of DMPA-SC has been approved by the regulatory authorities of more than 55 countries, including 43 low- and middle-income countries.[11]
- **Research findings:** Multiple studies around the world show that self-injection with DMPA-SC is feasible, safe, and acceptable.[1,12–14] For example, more than 80% of women who participated in studies in Senegal and Uganda could self-inject competently three months after being trained (87% and 88%, respectively). The vast majority of women in these studies wanted to continue self-injecting.[15]

Self-injection: A promising strategy for young women and adolescent girls who want to use contraception

Self-injection is an effective family planning option for young women. For example, when self-injection was rolled out in the public sector in the first few districts in Uganda, more than half (56%) of self-injection clients were under the age of 25.[12]

Self-injection is also a game-changer for contraceptive continuation because it addresses some of the reasons 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 provides the opportunity to use contraception independently and discreetly, and this contributes to improved continuation rates.

A study on contraceptive continuation of self-injected DMPA-SC versus provider-administered DMPA-IM in Uganda found that continuation was most improved among young women. Self-injection reduced the risk of discontinuing injectable contraception by 40% for women aged 18 to 24 years compared with 25% for women 25 years and older.[9]

The Uganda Self-Injection Best Practices project

As self-injection of DMPA-SC becomes more mainstreamed into national family planning programs, ministries of health, implementing partners, and other stakeholders are learning how to optimally design and implement self-injection programs at scale under routine family planning service delivery conditions. PATH's Self-Injection Best Practices project in Uganda (2016 to 2019) 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. Evidence generated by the project facilitated self-injection policy approval in Uganda, and was incorporated into the national self-injection program. Notable findings are highlighted below.[6,16,17]

Client training: To maximize women's and adolescent's ability to master self-injection, programs should:

- **Confirm client proficiency, focusing on mastery of the four critical steps**, before clients are given units to take home; in particular, emphasizing how to activate the device.
- **Train clients using a job aid**, guide them in how to interpret it, and give them a copy to take home.
- **Demonstrate how to inject in lieu of having clients practice**, as demonstration was as beneficial as injection practice for most women, as well as simpler and less costly.
- **Consider group training approaches**, but ensure there is a chance for one-on-one interaction.
- **Ensure that every health worker who counsels women and adolescent girls for self-injection receives high-quality training and supportive supervision** that reinforces informed choice counseling.

Storage: Women and adolescents 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 and adolescents to store used devices safely prior to disposal with a health worker at their convenience. Most self-injectors with whom PATH followed up brought their units back to a health worker, often during their resupply visits.

Implementers working to systematize self-injection programs in additional countries could help build out the evidence base by trying out and evaluating similar and additive 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 (e.g., living far from

a health clinic or having side effects) even though they want to avoid pregnancy or space their births.

Independent studies from four different countries found that over a 12-month period, women—including young women—who self-injected DMPA-SC continued using injectable contraception longer than those who received injections from providers.

- In Malawi, the contraceptive continuation rate was 73% in the DMPA-SC self-injection group, compared with 45% in the provider-administered group.[18]
- In Senegal, the continuation rate for women who self-injected DMPA-SC was 80%, compared with 70% for women who received DMPA-IM injections from providers at facilities.[11]
- In Uganda, women who self-injected DMPA-SC had an 81% contraceptive continuation rate, compared with 65% for women who received DMPA-IM injections from facility-based providers.[9]
- In the United States, DMPA-SC continuous use was 69% in the self-injection group versus 54% in the clinic administration group.[10]

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 save more money than facility-based administration of DMPA-IM when considering costs to both women and health systems.

Cost-effectiveness research based on data from Uganda and Senegal 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.[19,20] Specifically, the study 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 eligible countries—which is very similar to DMPA-IM (estimated at US$0.83 at the time of research, which included the cost of the injection syringe). The studies found that:

- **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 in Uganda, and prevent 1,402 additional unintended pregnancies and avert 204 maternal DALYs in Senegal, 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$1.1 million per year in Uganda and US$350,000 in Senegal when accounting for total costs to society, which include costs to both women and health systems.[21] 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) explored 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 mainstreaming today. Self-injected DMPA-SC has the potential to increase contraceptive access for women and adolescent girls at the "last mile" and to empower them 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 administered by facility-based providers when accounting for costs to both women and health systems.

As the practice continues to grow, 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, they should strongly consider incorporating self-injection of DMPA-SC into their distribution strategies, alongside other public- and private-sector channels. To do so, decision-makers will need to advance supportive policies and programs 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, job aids, and logistics and health management information systems. 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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