

Evidence at-a-glance: What we know about subcutaneous DMPA, a novel injectable contraceptive

Evidence and experience with subcutaneous DMPA, or DMPA-SC,⁺ continue to grow. DMPA-SC is an innovative, easy-to-use injectable contraceptive that is administered under the skin rather than into the muscle. Data from pilot introductions, self-injection research, and other studies in many countries show incredible potential for DMPA-SC to expand contraceptive access, use, and choice for women and adolescent girls as part of a broad method mix.

All data in this brief refer to Sayana[®] Press—a DMPA-SC product that combines the drug and needle in a single device. Sayana Press is manufactured by Pfizer Inc. and is prefilled in the BD Uniject[™] injection system.

DMPA-SC is a highly effective and safe contraceptive option.

- DMPA-SC is 99 percent effective at preventing unintended pregnancy, when given correctly and on time every three months.
- DMPA-SC is safe to use for most women and adolescent girls, including women on antiretroviral therapy.

Family planning providers and clients like DMPA-SC.

Data from multiple countries, including Burkina Faso, Democratic Republic of Congo, Malawi, Nigeria, Niger, Senegal, and Uganda, suggest that DMPA-SC is highly acceptable to women (Tulane University; University of California, San Francisco [UCSF]; FHI360; PATH; United Nations Population Fund [UNFPA]).



- 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.
- 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.
- Available in more than 30 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.

DMPA-SC expands access for women and adolescent girls through channels

closer to where they live: community, self-injection, and private sector.

COMMUNITY

- Pilot introductions in Madagascar, Uganda, and Senegal, and research in Democratic Republic of the Congo and Malawi, found that DMPA-SC can be administered successfully by community health workers (PSI, PATH, Tulane University, FHI 360).
- Evidence from a range of countries, including Burkina Faso, Niger, Senegal, Uganda, Mozambique, and Nigeria, show that DMPA-SC can reach new users of family planning (PATH/UNFPA, Population Services International, DKT/UCSF).



SELF-INJECTION

- Self-injection studies from the Democratic Republic of the Congo, Ghana, Malawi, Senegal, and Uganda confirm that women can self-inject DMPA-SC with training and support and consider self-injection acceptable (Tulane University, Population Council, FHI 360, PATH).
- In Uganda, 33 percent of self-injectors reached through routine delivery in a pilot were first-time users of family planning, demonstrating the potential for self-injection to reach women who have never used contraception before. Self-injection also has the potential to reach young women and remote women; 56% of self-injectors were under the age of 25 and 41% lived far from health services (PATH).



PRIVATE SECTOR

Several countries, such as Bangladesh, Nigeria, Senegal, Uganda, and Zambia have introduced or piloted DMPA-SC in the private sector including clinics, pharmacies, drug shops, or social marketing efforts.

DMPA-SC can help improve contraceptive continuation, cost-effectiveness, and cost savings.

- Recent studies from Uganda, Senegal, Malawi, and the United States countries found that, over a 12-month period, women who self-injected DMPA-SC continued using injectable contraception longer than those who received injections from providers (PATH, FHI 360, Planned Parenthood).
- Self-injection of DMPA-SC—when compared with clinic administration of traditional injectables—is not just cost-effective but cost saving. Self-injected DMPA-SC was shown to save up to \$1.1 million per year in Uganda, and \$350,000 per year in Senegal, when accounting for total costs to society, which include costs to both women and health systems (PATH).

From evidence to action

The expanding body of evidence and experience with DMPA-SC can accelerate efforts to introduce and scale up this innovative contraceptive method globally. Evidence suggests that DMPA-SC is safe, effective, and highly acceptable, and that it can increase access and/or continuation for women and adolescent girls in their

communities and homes, including through self-injection. Policymakers can collaborate with researchers, implementers, and advocates in their own and other countries to ensure that evidence informs decision-making on a variety of areas, including:

- Policy development and implementation related to family planning, including DMPA-SC.
- ▶ National and subnational scale-up of DMPA-SC.
- Expansion of DMPA-SC through additional delivery channels.

For more information on subtopics that may be of interest to specific audiences, see additional evidence spotlight briefs on acceptability, community-level distribution, self-injection, private sector, and research on the future of injectable contraception.

"It was easy to use. I like the size, and also it has a good needle."

—Adolescent girl, Uganda

Evidence at-a-glance:

Spotlight on acceptability of subcutaneous DMPA

Family planning providers and clients, including young women and older adolescent girls, like DMPA-SC.

- In the Democratic Republic of Congo, a study of community-based distribution found that more than 90 percent of those who accepted DMPA-SC and were followed up three months later chose to receive a second injection (Tulane University).
- In Nigeria, more than 70 percent of users sampled have either continued to use DMPA-SC or say they plan to continue (University of California, San Francisco [UCSF]).
- In Senegal and Uganda, acceptability studies in 2012 found that 80 percent of women in Senegal and 84 percent in Uganda who received DMPA-SC said they would select it over intramuscular DMPA if both products were available (FHI 360).
- In Niger, Senegal, and Uganda, 44 percent of DMPA-SC doses administered during introduction were to women younger than age 25 years and 12 percent were to adolescent girls younger than 20 years (PATH/United Nations Population Fund [UNFPA]).



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Community health workers are a proven source of family planning products and information, including injectable contraception (The High Impact Practices in Family Planning Initiative).

Evidence at-a-glance:

Spotlight on community-level distribution of subcutaneous DMPA

DMPA-SC can be administered successfully by community health workers (CHWs), a critical source of family planning products and information.

- In Uganda, around 2,000 trained CHWs (called Village Health Teams in Uganda) administered all 130,000 doses of DMPA-SC during the pilot introduction between late 2014 and mid-2016 (PATH).
- Two studies in Burkina Faso and Uganda evaluating continuation of DMPA-IM and DMPA-SC found that continuation for both methods was longer among women served by community health workers in Uganda. Differences may also be driven by country contexts (PATH).
- In the Democratic Republic of Congo, 96% of women felt very comfortable with a community health worker performing the injection rather than a physician or a nurse (Tulane University).

DMPA-SC can expand the options available to women who have never used contraception before—because it makes it easier to deliver injectable contraception through more remote channels.

- In Burkina Faso, Niger, Senegal, and Uganda, a two-year pilot introduction reached 135,000 women who had never used family planning before (PATH/UNFPA).
- In Niger, where DMPA-SC was the first injectable contraception offered at remote health posts, 70 percent of doses administered were to new users of family planning at the outset of introduction (PATH/UNFPA).
- In clinics in Mozambique (Population Services International) and private outlets in Nigeria (DKT/UCSF), nearly one-third of DMPA-SC users were new contraceptive users.

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The World Health Organization (WHO)

has made a strong recommendation for self-injection, stating that it should be made available as an additional approach to deliver injectable contraception and for self-care.

"I don't need to travel long distance. It is easy, safe, and gives me the freedom to manage it myself."

-Self-injection research participant, Uganda

Evidence at-a-glance: Spotlight on self-injection with subcutaneous DMPA

Women can self-inject DMPA-SC with training and support and consider self-injection acceptable.

- In Uganda and Senegal, studies found that nearly 90 percent of women could self-inject competently and on time three months after being trained, and 98 percent of women who tried self-injecting expressed the desire to continue self-injecting (PATH).
- In Uganda, a qualitative study found that many adolescents interviewed could envision trying self-injection themselves. However, some still preferred having providers administer injections due to factors like fear of needles or provider expertise (PATH).
- Also in Uganda, new approaches to integrating self-injection in family planning programs have been implemented and evaluated to help clarify best practices for Uganda and similar settings. The program yielded good self-injection competence, including among adolescents, and was highly acceptable to most clients and health workers (PATH).
- In Ethiopia, women who participated in a qualitative study valued the time and expense that could be saved through self-injection. Most women who had initial concerns about their ability to self-inject changed their minds after they saw a product demonstration (PATH).

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Self-injection can help improve contraceptive continuation

In Uganda, Senegal, Malawi, and the United States, four studies 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 (PATH, FHI 360, Planned Parenthood).

Data on self-injection from high-income countries

In Pfizer Inc.'s original clinical trials of Sayana® (DMPA-SC in a pre-filled glass syringe) and self-injection research in the United States and Scotland, there were no pregnancies among women practicing self-injection, and nearly all reported it to be convenient and easy (Pfizer Inc.; Baylor College of Medicine and Columbia University; Planned Parenthood; Chalmers Sexual and Reproductive Health Service). As noted above, a recent US study comparing one-year continuation of DMPA-SC between women randomized to self-injection versus clinic administration, found that continuous use was 69% in the self-injection group and 54% in the clinic group (p=.005) (Planned Parenthood).

For more information, see the advocacy handout "Self-injected subcutaneous DMPA: A new frontier in advancing contraceptive access and use for women".

Drug shops and pharmacies are a promising source of family planning products and information, including injectable contraception (The High Impact Practices in Family Planning Initiative, WHO).

Evidence at-a-glance:

Spotlight on private-sector provision of subcutaneous DMPA

DMPA-SC may be an appropriate option for pharmacies and drug shops, as well as social marketing initiatives.

- In Nigeria, DKT International led private-sector introduction of DMPA-SC in 2014: the first commercial offer in Africa, including through pharmacies (DKT Nigeria). The MOH has also allowed patent and proprietary medicine vendors to stock DMPA-SC and is exploring potential for them to administer DMPA-SC and initiate self-injection clients.
- In Bangladesh, since 2015, the Social Marketing Company has introduced DMPA-SC in 6,000 pharmacies and conducted marketing campaigns to generate demand (SMC).
- Kenya is poised to roll out administration of injectable contraceptives by pharmacists, following the update of national family planning guidelines and a training curriculum for pharmacists.
- In Senegal, the social marketing organization ADEMAS has begun to offer the product through pharmacies (ADEMAS).
- Uganda is moving toward officially authorizing administration of DMPA-SC and DMPA-IM in pharmacies and accredited drug shops. DMPA-SC is being offered in select pharmacies, drug shops, and clinics on a pilot basis (FHI 360, PATH).
- In Zambia, self-injection was introduced through a pilot study with private health providers in 2018-2019. This demonstrated that a shorter training was effective for private providers and clients, and that most pilot participants are willing to pay a price similar to or higher than the negotiated donor unit price of \$.85 (John Snow, Inc.).

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