



Photo: PATH/Gabe Biencycki

Evidence at-a-glance: What we know about DMPA-SC, 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% 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, the Democratic Republic of the Congo (DRC), India, Malawi, Nepal, Niger, Nigeria, Senegal, and Uganda, suggest that DMPA-SC is highly acceptable to women.



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.

* DMPA stands for depot medroxyprogesterone acetate.

DMPA-SC reaches new users of family planning.

- ▶ During a two-year pilot introduction in Burkina Faso, Niger, Senegal, and Uganda, DMPA-SC was selected by an estimated 135,000 women who had never used family planning before.¹ Of all doses administered across the four countries, 29% went to new users.
- ▶ In Uganda, 29% 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.²
- ▶ Data from Burkina Faso, the DRC, and Uganda show that DMPA-SC reaches new populations of women, with 58% of study participants in Burkina Faso being new users of family planning, compared to 52% in Uganda and 41% in the DRC. The authors concluded that DMPA-SC is an appealing contraceptive option for new users of family planning, rather than inspiring current users to switch to DMPA-SC from other methods of contraception, and it could therefore contribute to increased modern contraceptive prevalence with expanded access.³

DMPA-SC expands access for women and adolescent girls through service delivery options that go beyond medical facilities, including community-based distribution, administration in pharmacies and drug shops, and self-injection.

Community-based distribution

- ▶ Research studies and pilot introductions in the DRC, Madagascar, Malawi, Senegal, and Uganda found that DMPA-SC can be administered successfully by community health workers (CHWs), and both clients and CHWs reported high rates of satisfaction with community-based provision of DMPA-SC.
- ▶ Service provision through CHWs was reported to be feasible and acceptable among clients in Benin: nearly 4,000 women (almost 80% of whom were first-time users of modern contraception) chose to receive DMPA-SC at the community level.⁴

Self-injection

- ▶ A 2023 systematic review of recent evidence found little or no difference in satisfaction between self-injectors and those who received injections at a facility.⁵
- ▶ In Uganda, the proficiency rate for self-injection clients was 73%. When limiting the analysis to those who continued self-injecting after their training (e.g., reinjected at home), 75% were evaluated as proficient.²
- ▶ Meta-analysis of a systematic review of the literature suggests that self-injectors are no more likely to become pregnant than those receiving contraceptive injections at a facility.⁶

Private sector

- ▶ More than a dozen countries, including Bangladesh, Nigeria, Senegal, Uganda, and Zambia, have introduced or piloted DMPA-SC availability through the private sector, including private clinics, pharmacies, drug shops, and via social marketing.
- ▶ Many governments have policies in place authorizing pharmacies and/or drug shops to both administer DMPA-SC and initiate women on self-injection, including the DRC, Kenya, Madagascar, Nigeria, Uganda, and Zambia.⁷

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

- ▶ Two systematic reviews (2019 and 2023) determined that continuation of contraceptive use is higher among women choosing self-injection over facility-based administration.^{5,6}
- ▶ Studies from Malawi, Senegal, Uganda, and the United States 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. Furthermore, no significant difference in self-injection proficiency or continuation has been found between adolescents and adult women.^{8–9,10,11,12}
- ▶ Self-injection of DMPA-SC—when compared with clinic administration of traditional intramuscular injectables—is not just cost-effective but cost saving. Self-injected DMPA-SC was shown to save up to US\$1.1 million per year in Uganda, and US\$350,000 per year in Senegal, when accounting for total costs to society, which include costs to both women and health systems.^{13–15}

From evidence to action

The robust body of evidence and experience with DMPA-SC can be leveraged to accelerate efforts to introduce and scale up this innovative contraceptive method globally. Evidence indicates that DMPA-SC is safe, effective, and highly acceptable and that it can increase both contraceptive access and continuation for women and adolescent girls, 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 in 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.
- Inclusion of self-injection in self-care policies and programming.

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

1. Stout A, Wood S, Barigye G, Kaboré A, Siddo D, Ndione I. Expanding access to injectable contraception: results from pilot introduction of subcutaneous depot medroxyprogesterone acetate (DMPA-SC) in 4 African countries. *Global Health: Science and Practice*. 2018;6(1):55–72. <https://doi.org/10.9745/GHSP-D-17-00250>
2. Cover J, Namagembe A, Morozoff C, Tumusiime J, Nsangi D, Kidwell Drake J. Contraceptive self-injection through routine service delivery: experiences of Ugandan women in the public health system. *Frontiers in Global Women's Health*. 2022;3:911107. <https://doi.org/10.3389/fgwh.2022.911107>
3. Anglewicz P, Larson E, Akilimali P, Guiella G, Kayembe P, Kibira SPS, Makumbi F, Radloff S. Characteristics associated with use of subcutaneous depot medroxyprogesterone acetate (DMPA-SC) in Burkina Faso, Democratic Republic of Congo, and Uganda. *Contraception X*. 2021;3:100055. <https://doi.org/10.1016/j.conx.2021.100055>
4. Okegbe T, Affo J, Djihoun F, Zannou A, Hounyo O, Ahounou G, Adegnika Bangbola K, Harris N. Introduction of community-based provision of subcutaneous depot medroxyprogesterone acetate (DMPA-SC) in Benin: programmatic results. *Global Health: Science and Practice*. 2019;7(2):228–239. <https://doi.org/10.9745/GHSP-D-19-00002>
5. Millogo T, Chomi E, Kouanda S, Ali M. Getting up to date with what works: a systematic review on the effectiveness and safety of task sharing of modern methods in family planning services. *BioMed Research International*. 2023;8735563. <https://doi.org/10.1155/2023/8735563>
6. Kennedy CE, Ping TY, Gaffield ML, Brady M, Narasimhan M. Self-administration of injectable contraception: a systematic review and meta-analysis. *BMJ Global Health*. 2019;4:e001350. <http://dx.doi.org/10.1136/bmjgh-2018-001350>
7. PATH unpublished data; 2023.
8. Lerma K, Goldthwaite LM. Injectable contraception: emerging evidence on subcutaneous self-administration. *Current Opinion in Obstetrics and Gynecology*. 2019;31(6):464–470. doi:10.1097/GCO.0000000000000574.
9. Burke HM, Chen M, Buluzi M, Fuchs R, Wevill S, Venkatasubramanian L, Dal Santo L, Ngwira B. Effect of self-administration versus provider-administered injection of subcutaneous depot medroxyprogesterone acetate on continuation rates in Malawi: a randomised controlled trial. *The Lancet Global Health*. 2018;6(5):e568–e578. [https://doi.org/10.1016/S2214-109X\(18\)30061-5](https://doi.org/10.1016/S2214-109X(18)30061-5)
10. Cover J, Ba M, Kidwell Drake J, Ndiaye MD. Continuation of self-injected versus provider-administered contraception in Senegal: a nonrandomized, prospective cohort study. *Contraception*. 2019;99(2):137–141. <https://doi.org/10.1016/j.contraception.2018.11.001>
11. Cover J, Namagembe A, Tumusiime J, Nsangi D, Lim J, Nakiganda-Busiku D. Continuation of injectable contraception when self-injected vs. administered by a facility-based health worker: a nonrandomized, prospective cohort study in Uganda. *Contraception*. 2018;98(5):383–388. <https://doi.org/10.1016/j.contraception.2018.03.032>
12. Kohn JE, Simons HR, Della Badia L, Draper E, Morfesis J, Talmont J, Talmont E, Beasley A, McDonald M, Westhoff CL. Increased 1-year continuation of DMPA among women randomized to self-administration: results from a randomized controlled trial at Planned Parenthood. *Contraception*. 2018;97(3):198–204. <https://doi.org/10.1016/j.contraception.2017.11.009>
13. PATH unpublished data; 2018.
14. Di Giorgio L, Mvundura M, Tumusiime J, Morozoff C, Cover J, Kidwell Drake J. Is contraceptive self-injection cost-effective compared to contraceptive injections from facility-based health workers? Evidence from Uganda. *Contraception*. 2018;98(5):396–404. <https://doi.org/10.1016/j.contraception.2018.07.137>
15. Mvundura M, Di Giorgio L, Morozoff C, Cover J, Ndour M. Cost-effectiveness of self-injected DMPA-SC compared with health-worker injected DMPA-IM in Senegal. *Contraception X*. 2019;1:100012. <https://doi.org/10.1016/j.conx.2019.100012>