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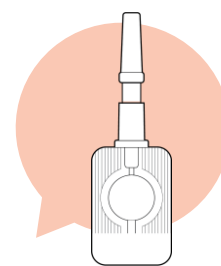
Costs and cost-effectiveness of DMPA-SC through different delivery channels: What the evidence tells us

Family planning is one of the smartest investments a government can make. Ensuring access to contraception not only advances women's health and rights but also saves lives and money. When offered as part of a broad method mix, subcutaneous DMPA (DMPA-SC or Sayana® Press*) can make it easier for women to access contraception through a variety of delivery channels, including self-injection.

Evidence indicates that DMPA-SC may help reduce service delivery costs by enabling community-based provision of injectable contraception. Moreover, self-injection of DMPA-SC—when compared with clinic administration of traditional injectables—is not just cost-effective but cost saving when accounting for costs to both women and health systems.

Advancing contraceptive choice, access, and use with DMPA-SC

DMPA-SC is an innovative product that expands women's access to contraception when provided as part of a country's family planning program. The DMPA-SC product available today (Sayana Press) combines the contraceptive drug and needle in a single unit that is small and easy to use. When compared with traditional intramuscular DMPA (DMPA-IM), DMPA-SC has a lower dose and shorter needle and is easier to administer. DMPA-SC is suitable for inclusion in all service delivery channels in both the public and private sectors, and enables women to self-inject with training.



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. Sayana Press is a registered trademark of Pfizer Inc.

Evidence shows that women who self-inject DMPA-SC continue using injectable contraception longer than those who receive injections from providers, which translates to fewer unintended pregnancies.¹⁻⁶

DMPA-SC is approved for both provider administration and self-injection in more than 55 countries.[†] Qualified buyers can purchase Sayana Press at US\$0.85 per dose—a price similar to DMPA-IM. The following pages highlight findings from studies that examined the costs and cost-effectiveness of DMPA-SC when delivered through different channels, including self-injection.

Understanding costs and cost-effectiveness of DMPA-SC[‡]

Key finding: DMPA-SC may help reduce service delivery costs by catalyzing expansion of service delivery options that are closer to women.

What the research assessed

PATH conducted costing studies in Burkina Faso, Senegal, and Uganda to estimate the costs of delivering DMPA-SC and DMPA-IM across different delivery approaches and channels. Costs included both direct medical/health systems costs, such as commodity costs and provider time, and nonmedical costs, such as costs women incur when traveling to, waiting for, and receiving services. The assumed costs were the US\$0.85 commodity cost for DMPA-SC and the estimated US\$0.83 cost for DMPA-IM at the time of research, inclusive of the required syringe. The studies were not designed to compare estimated costs across countries.

What the research found⁷

- Total delivery costs were lowest for channels closer to women. Specifically, they were lowest for community-based distribution, followed closely by self-injection. Costs were highest for facility-based administration.
- Costs for women, in terms of their time and travel to seek services, were lowest for self-injection.
- There was minimal difference in total costs between DMPA-SC and DMPA-IM when administered by the same type of health worker in the same setting.

The business case for family planning

Investing in family planning is widely viewed as a “best buy” in global health and development.

- **Contraception saves lives:** If full provision of modern contraception to women who want to avoid pregnancy were combined with full care for all pregnant women and newborns, maternal deaths would drop 62%, from 299,000 to 113,000 per year, and newborn deaths would drop 69%, from 2.5 million to 800,000 per year.

- **Contraception saves money:** For every dollar invested in contraceptive services, US\$3 is saved in the cost of maternal, newborn, and abortion care.

Sully EA, Biddlecom A, Darroch JE, et al. *Adding It Up: Investing in Sexual and Reproductive Health 2019*. Guttmacher Institute; 2020.
<https://www.guttmacher.org/report/adding-it-up-investing-in-sexual-reproductive-health-2019>

[†] Access Collaborative analysis. Data drawn from nonconfidential Pfizer and Consensus Planning Group documents; 2023.

[‡] 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.

Total direct costs of DMPA-SC over four injections (in 2016 US dollars), arranged in ascending order of cost per country

Uganda	DMPA-SC (community-based distribution)	\$7.69
	DMPA-IM (community-based distribution)	\$7.71
	Self-injection (DMPA-SC)	\$7.83
	DMPA-IM (facility-based delivery)	\$10.12
Senegal	Self-injection (DMPA-SC)	\$8.38
	DMPA-IM (facility-based delivery)	\$9.46
Burkina Faso	DMPA-IM (facility-based delivery)	\$11.60
	DMPA-SC (facility-based delivery)	\$12.14

What this means for policy and programming

- Bringing injectable contraceptive service delivery closer to women—including through self-injection—may cost less than facility delivery of injectables, and reduce barriers to access.
- The option to self-inject with DMPA-SC may reduce financial and logistical barriers for women.
- When making decisions about injectable contraceptive programming, the benefits of DMPA-SC—such as ease of use, women’s and provider’s preferences, and improved rates of contraceptive continuation with self-injection—can be emphasized, given that delivery costs between DMPA-SC and DMPA-IM are similar for the same type of health worker in the same setting.
- Offering DMPA-SC through nonmedical service delivery channels—such as community health workers or pharmacies and drug shops—may cost less to the health system overall. The cost savings of task-sharing may be accelerated when those lay providers train women to self-inject, though that was not assessed in the research.

Key finding: Self-injection of DMPA-SC is cost saving when costs to women and health systems are considered.

What the research assessed

In Uganda and Senegal, PATH evaluated whether self-injected DMPA-SC was cost-effective when compared with DMPA-IM administered by health workers. Based on the experiences of women who participated in self-injection research studies, modeling was applied to a hypothetical group of 1 million Ugandan and 100,000 Senegalese injectable contraception users to estimate the incremental costs per pregnancy averted and per disability-adjusted life year (DALY) averted over a one-year period. The number of modeled injectable users was based on the estimated number of injectable users in each country in 2017. These studies also assumed the US\$0.85 commodity cost for DMPA-SC and US\$0.83 for DMPA-IM.

What the research found

- Self-injected DMPA-SC could yield greater health impact. In Uganda, self-injected DMPA-SC could prevent 10,827 additional unintended pregnancies and avert 1,620 DALYs compared with facility-administered DMPA-IM. In Senegal, self-injection could prevent 1,402

The Injectables Access

Collaborative offers [technical support and extensive tools](#) to support countries interested in mainstreaming DMPA-SC and self-injection.

For more information, contact: FPoptions@path.org.

additional unintended pregnancies and avert 204 additional maternal DALYs.^{8,9}

- Self-injected DMPA-SC was cost saving when considering costs to both women and health systems. Self-injected DMPA-SC was shown to save up to 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.^{10,11}
- Self-injected DMPA-SC could also be cost-effective when considering costs to health systems only. As noted previously, the health impact of self-injected DMPA-SC was greater due to the increased continuation rates. While costs to health systems alone were found to be higher for self-injected DMPA-SC than for DMPA-IM—largely due to the costs of self-injection training during the first visit—simplifying the client training approach could reduce the cost of self-injected DMPA-SC to the point where it is cost-effective from a health systems perspective. For example, self-injection was 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. New evidence shows little benefit from practice injections.¹²

What this means for policy and programming

- Self-injection has benefits for women and for health systems. When including health system and women’s time and travel costs, self-injected DMPA-SC costs less and leads to better health outcomes than facility-administered DMPA-IM.
- It is important to design a client training approach that is feasible, affordable, and effective. To assist program implementers with this endeavor, the Injectables Access Collaborative developed the [Contraceptive Self-Injection Program Design Guide](#), which provides a comprehensive approach to preparing for and implementing a self-injection program, including client training.

Applying the evidence to DMPA-SC introduction and mainstreaming

A variety of factors must be evaluated when determining whether to institutionalize a next-generation contraceptive like DMPA-SC, including self-injection, in a country’s contraceptive method mix. Data on the costs and cost-effectiveness of providing DMPA-SC through different delivery channels offer decision-makers compelling reasons to mainstream DMPA-SC and self-injection at all levels of care, including emerging self-care initiatives.

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