Quick facts about DMPA-SC

- 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 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.

Costs and cost-effectiveness of subcutaneous DMPA 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, a novel injectable called subcutaneous DMPA (DMPA-SC or Sayana® Press*) is making it easier for women to access contraception through a variety of delivery channels, including self-injection.

Recent evidence from African countries indicates that DMPA-SC may help reduce service delivery costs by catalyzing community-based distribution and remote 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 is expanding women’s access to contraception when provided as part of a country’s family planning (FP) program. The DMPA-SC product available today (Sayana Press) combines the contraceptive drug and needle into 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 even enables women to self-inject with training.

*DMPA stands for depot medroxyprogesterone acetate. Sayana Press is a registered trademark of Pfizer Inc.
New 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.\textsuperscript{1,2,3,4} DMPA-SC is currently being piloted, introduced, or scaled up in more than 30 FP2020 countries. As of May 2017, it can be purchased at US$0.85 per dose for qualified buyers—a price similar to DMPA-IM. Recent studies have 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 through new research

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

What the study looked at: 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. It assumed the US$0.85 commodity cost for DMPA-SC. The studies were not designed to compare estimated costs across countries.

What the study found:

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

Total direct costs of DMPA-SC over four injections (in 2016 US dollars)

<table>
<thead>
<tr>
<th>Country</th>
<th>Service Model</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UGANDA</strong></td>
<td>DMPA-SC (community-based distribution)</td>
<td>$7.69</td>
</tr>
<tr>
<td></td>
<td>DMPA-IM (community-based distribution)</td>
<td>$7.71</td>
</tr>
<tr>
<td></td>
<td>Self-injection (DMPA-SC)</td>
<td>$7.83</td>
</tr>
<tr>
<td></td>
<td>DMPA-IM (facility-based delivery)</td>
<td>$10.12</td>
</tr>
<tr>
<td><strong>SENEGAL</strong></td>
<td>Self-injection (DMPA-SC)</td>
<td>$8.38</td>
</tr>
<tr>
<td></td>
<td>DMPA-IM (facility-based delivery)</td>
<td>$9.46</td>
</tr>
<tr>
<td><strong>BURKINA FASO</strong></td>
<td>DMPA-SC (facility-based delivery)</td>
<td>$12.14</td>
</tr>
<tr>
<td></td>
<td>DMPA-IM (facility-based delivery)</td>
<td>$11.60</td>
</tr>
</tbody>
</table>

* This pricing reflects a six-year agreement. During the six years (2017–2022), the price is guaranteed at US$0.85. After the agreement, Pfizer Inc. is committed to ensuring the product continues to be available at an affordable price.

** 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.
What this means for policy and programming:

- Bringing injectable contraceptive service delivery closer to women may cost less than facility delivery of injectables and reduce barriers to access.
- The option to self-inject with DMPA-SC may further 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 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.

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

What the study looked at:

PATH performed an evaluation to explore whether self-injected DMPA-SC is cost-effective when compared with DMPA-IM administered by health workers in Senegal and Uganda. Based on the experiences of women participating 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 (DAL Y) 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. Like the previous study, it assumed the US$0.85 commodity cost for DMPA-SC and US$0.83 for DMPA-IM.

What the study found:

- Self-injected DMPA-SC yields greater health impact. In Uganda, self-injected DMPA-SC could prevent 11,101 additional unintended pregnancies and avert 1,683 DALYs compared with facility-administered DMPA-IM. In Senegal, self-injection could prevent 1,402 additional unintended pregnancies and avert 204 maternal DALYs.
- 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 $1.1 million per year in Uganda, and $350,000 in Senegal, when accounting for total costs to society, which include costs to both women and health systems.
- 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 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. New evidence shows little benefit from practice injections.
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, PATH has generated new evidence and recommendations through the Self-Injection Best Practices Project in Uganda (2016–2019).

Applying new evidence to DMPA-SC introduction and scale-up

A variety of factors must be evaluated when determining whether to introduce and scale up a next-generation contraceptive like DMPA-SC. Data on the costs and cost-effectiveness of DMPA-SC through different delivery channels provide decision-makers with compelling reasons to consider updating policies and programs to include DMPA-SC at all levels of care, including self-injection.

References


To realize the full potential and benefits of DMPA-SC, a critical mass of countries must integrate the product through all levels of the health system. Technical support and tools are available now to support FP2020 countries in scaling up DMPA-SC.

For more information, contact FPoptions@path.org.