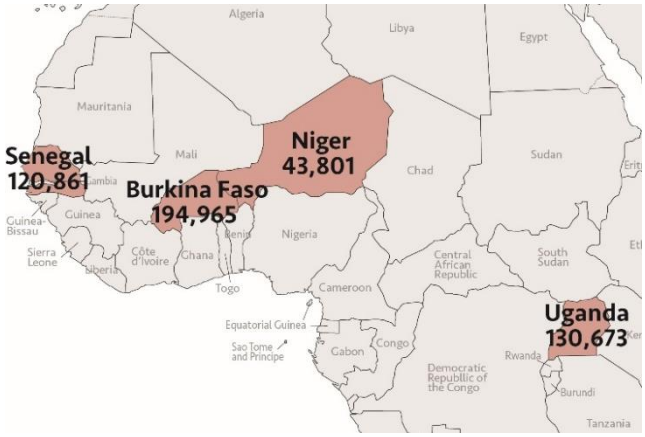
Monitoring the introduction of subcutaneous DMPA (DMPA-SC)

Final pilot project results

From July 2014 through June 2016, PATH and key partners, including the United Nations Population Fund (UNFPA) and ministries of health, coordinated pilot introduction of the injectable contraceptive subcutaneous DMPA (DMPA-SC, brand name Sayana® Press) in Burkina Faso, Niger, Senegal, and Uganda.

DMPA-SC is small, light, easy to use, and requires minimal training—making it especially suitable for community-based distribution. The four country-led pilot introductions have helped to make injectable contraception available in remote locations, closer to where women live.

Figure 1. 490,300 doses of DMPA-SC administered across four pilot countries, July 2014-June 2016.



PATH and partners closely monitored the first four DMPA-SC introductions in sub-Saharan Africa. The results and lessons learned have supported decisions to scale up DMPA-SC nationwide in these initial four countries. They can also help stakeholders in other countries make informed decisions on whether and how to include this contraceptive option in family planning programs in the future.

Results July 2014 through June 2016

- **Total doses administered:** Nearly half a million units in Burkina Faso, Niger, Senegal, and Uganda (Figure 1). Cumulative consumption increased ~57% across the four countries from the end of Q4 2015 to the end of Q2 2016.
- **Young family planning users:** Cumulatively, ~44% of doses administered across Niger, Senegal, and Uganda went to women younger than age 25 (Figure 2; no data available for Burkina Faso).
- **New users of family planning:** DMPA-SC was administered to approximately 135,000 women using modern contraception for the first time. Proportions of doses administered to new users started out between 30% and 70% across the four countries and declined gradually over time as women returned for reinjections (increasing the denominator). Health workers administered the highest cumulative proportion of doses to new users in Niger (42%), where injectables were offered at remote health huts for the first time (Figure 3; Table 1).
- **DMPA-SC vs. DMPA-IM:** Proportions of DMPA-SC relative to intramuscular depot medroxyprogesterone acetate (DMPA-IM) increased over time and are higher (~75%) in remote and community-based delivery settings (Table 1).

Program implications and lessons learned from monitoring two years of pilot introduction

- **Results are linked to the introduction strategy (Table 1):** To reach maximum new users: prioritize community-level delivery and/or offer injectables where previously unavailable. To reach maximum volumes: introduce DMPA-SC at all levels of the health system, train providers rapidly using a cascade approach, and invest in the commodity distribution system to minimize the impact of stockouts on consumption and new users. Relatively high volumes can still be achieved through community-level delivery alone, where injectables were not previously widely available and/or there is high unmet need.
- **Stockouts undermine impact:** Burkina Faso and Niger relied on national distribution systems and experienced stockouts beginning Q2 2015, affecting consumption (Figure 4) and the ability to enroll new users. Steady increases in consumption volumes were seen in Uganda and Senegal, where privately funded parallel distribution systems resulted in very limited stockouts, underscoring the importance of commodity security and strengthening distribution systems to ensure access.
- **Opportunities for task sharing:** DMPA-SC offers opportunities to shift injectable administration to the community level, as community health workers administered higher proportions relative to DMPA-IM when both were available (Table 1).
- **Switching was not widespread:** Cumulative proportions of doses administered to women switching from DMPA-IM to DMPA-SC were not higher than 16% (Table 1), allaying early concerns about wholesale replacement of DMPA-IM.

Figure 2. Similar proportions of doses administered to young women in Niger and Uganda.

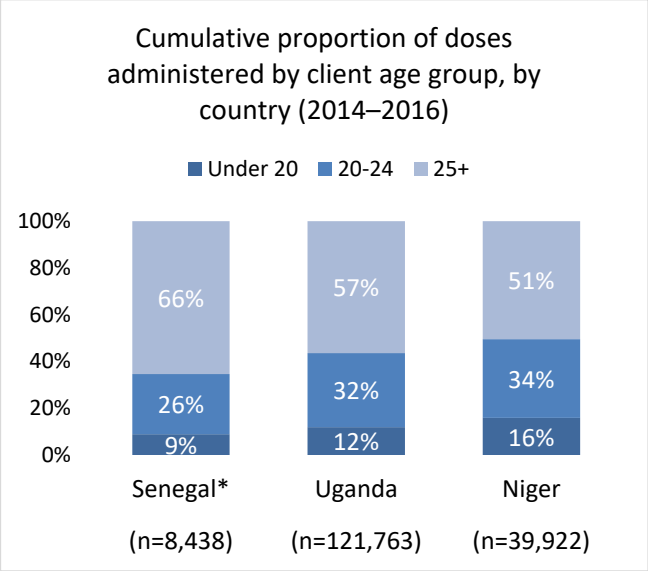
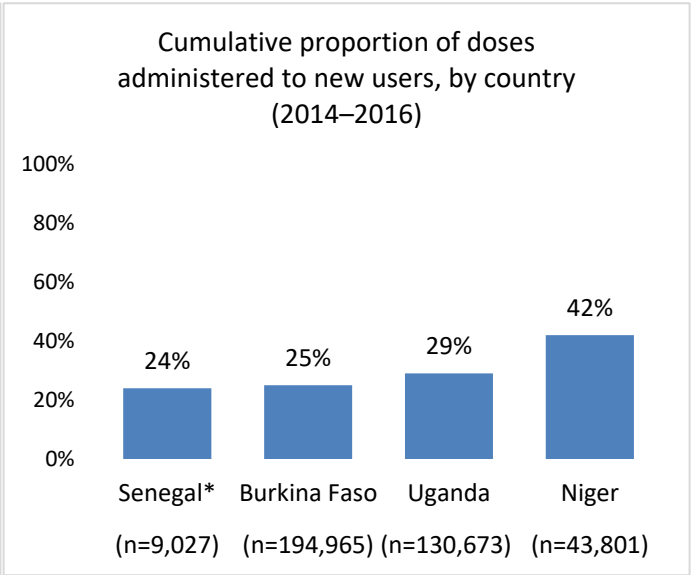


Figure 3. Highest proportion of new users reached in Niger, where DMPA-SC constituted the first offer of injectables at community-level health huts.



*Note: The small samples in Senegal in Figures 2 and 3 are due to the sentinel site system established to gather data for certain indicators from a sample of health facilities. Burkina Faso does not report data on DMPA-SC doses administered by client age group. For more information on monitoring approaches in each country, see Box: Background.

Figure 4. Quarterly consumption increased steadily in Senegal and Uganda during pilot introduction; quarterly consumption decreased in Burkina Faso and Niger due to stockouts from mid to late 2015.

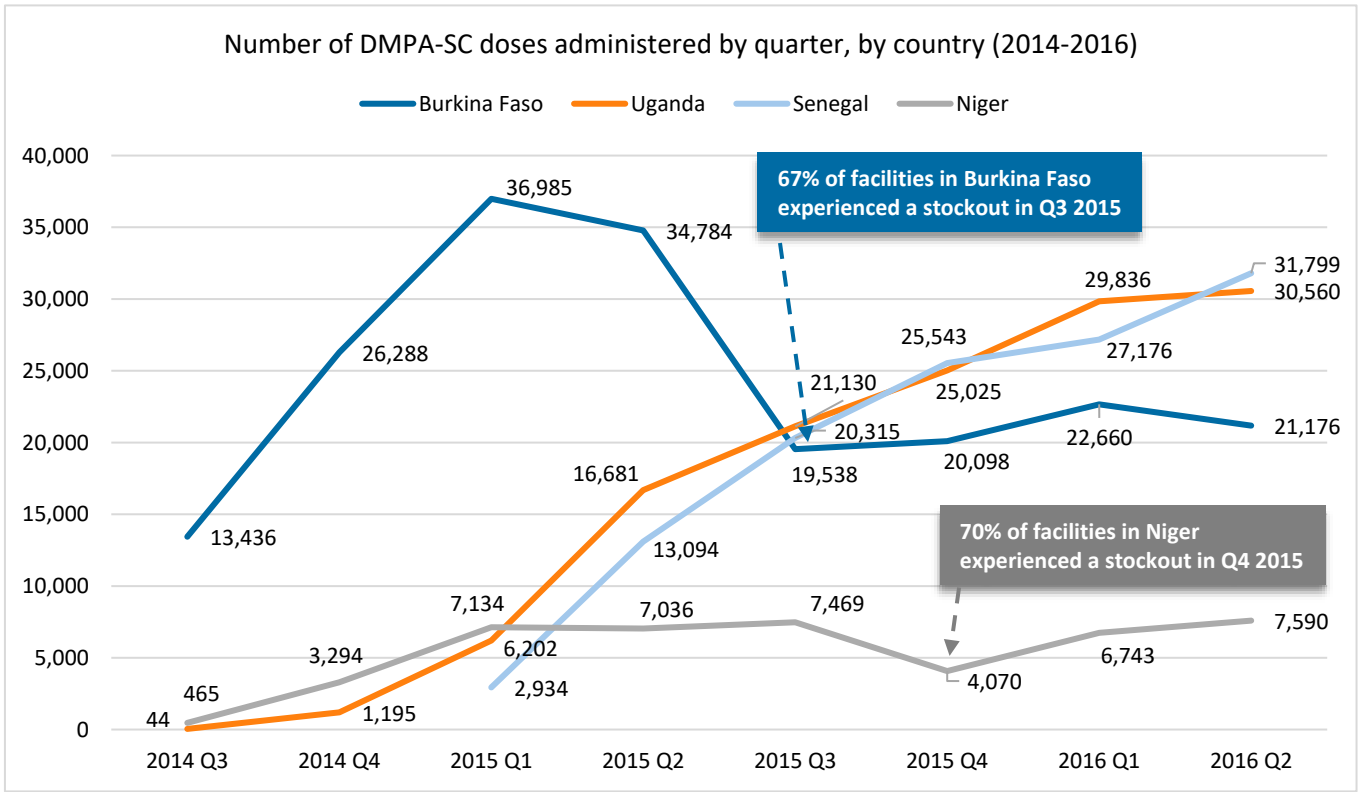


Table 1. DMPA-SC results and trends by country, from July 2014 through June 2016.

	Burkina Faso	Niger	Senegal	Uganda
Through which channels is DMPA-SC available?	All levels of the health system. DMPA-SC and DMPA-IM offered side by side.	Health huts and community-based distribution ONLY. DMPA-SC ONLY (no DMPA-IM).	All levels of the health system. DMPA-SC and DMPA-IM offered side by side.	Community health workers (CHWs) ONLY. DMPA-SC and DMPA-IM offered side by side.
When was DMPA-SC first available?	July 2014	September 2014	January 2015	September 2014
How many providers trained to administer DMPA-SC under pilot introduction?	~1,900	~300	~2,000	~2,100
How many doses have been administered?	~194,965	~43,801	~120,861	~130,673
What are some trends in DMPA-SC consumption and stockouts (Figure 4)?	Largest volumes, due to fast training and wide availability. Stockouts beginning in 2015 led to drops in consumption. At maximum, 66% of facilities were stocked out of DMPA-SC in September 2015.	Smallest volumes due to limited scope, yet highest volumes per provider trained. Stockouts in 2015 led to drops in consumption. At maximum, 70% of health huts were stocked out of DMPA-SC in November 2015.	Consumption continues to increase steadily. Limited stockouts due to private distribution system (1.9% of facilities or less at any point).	Consumption continues to increase steadily. Limited stockouts due to private distribution system (9% of facilities or less at any point).
What proportion of DMPA-SC doses were administered to new users of family planning (Figure 3)?	First quarter of introduction: 33% of doses Cumulatively: 25% of doses	First quarter of introduction: 70% of doses Cumulatively: 42% of doses	First quarter of introduction: 30% of doses Cumulatively: 24% of doses	First quarter of introduction: 43% of doses Cumulatively: 29% of doses
What proportion of doses were administered to women younger than 25 (Figure 2)?	No data available.	50% of doses	35% of doses	44% of doses
What proportion of DMPA-SC doses were administered to women switching from DMPA-IM?	7% of doses	No data available (switching from DMPA-IM likely low; DMPA-IM is not offered alongside DMPA-SC).	13% of doses	16% of doses
What proportion of injectables administered to women in pilot delivery channels were DMPA-SC doses (vs. DMPA-IM doses)?	29% in the public sector (all levels) 46% in the NGO sector (static clinics and mobile outreach)	No data available. DMPA-IM was not offered alongside DMPA-SC in Niger.	14% (facility level) 72% (community level)	75% (community level)

Background: The global indicators and approach for monitoring DMPA-SC introduction

At the outset of the pilot introductions, PATH coordinated consensus on global indicators for DMPA-SC* introduction in the four countries. Building on these indicators and working with each national system, PATH developed a multi-country monitoring approach, including a centralized database for data management. The global indicators are:

- Number of doses of DMPA-SC distributed to health facilities.
- Number of doses of DMPA-SC administered.
- Percentage of DMPA-SC doses administered to new users of modern contraception.
- Percentage of facilities with a stockout of DMPA-SC.
- Percentage of DMPA-SC doses administered to users under age 20 and ages 20 to 24.
- Percentage of DMPA-SC doses administered to users who switched from DMPA-IM.

The global indicators were selected based on key areas of interest to national stakeholders and donors—for example, the potential for DMPA-SC to expand family planning access for women who had never used family planning before, to reach young women, and the extent to which current users of other modern contraceptive methods chose DMPA-SC instead.

Feasibility of data collection also informed selection of key indicators. For example, it is not possible to track continuation of contraceptive methods through existing health information systems—which do not follow and report on individual clients over time. Due to differences in each system, data are not consistently available on every indicator for every country.

During pilot introduction in these four countries, DMPA-SC was offered through family planning delivery channels in the public, nongovernmental, and/or commercial sectors that were prioritized by country stakeholders. Similarly, monitoring data on the key indicators were collected from providers and consolidated as they moved through each country's monitoring system. During the pilot introduction, DMPA-SC coordinators in each of the four countries directly entered data into PATH's centralized database. Each system was designed to best align with the country's established service statistics and data flow mechanisms.

- In Burkina Faso and Niger, existing monitoring systems were leveraged to collect data on DMPA-SC. Once monitoring data in those two countries were collected and reported through the established channels, DMPA-SC coordinators in each country collected data at the district level and entered them into the centralized database.
- In Senegal, PATH leveraged existing data collection systems to gather data for some indicators and implemented a sentinel site approach to fill data gaps for three of the global indicators. Routine health system data were shared with PATH in Senegal for entry into the global database, and the PATH team and partners also collected data directly from sentinel sites.
- In Uganda, PATH and the Ministry of Health extended the monitoring system to the community level and trained CHWs in data collection. Previously, it was not feasible to measure CHWs' contributions to the family planning program because CHW data were rolled into health facility data. The CHWs involved in DMPA-SC introduction submitted their data to a nearby health facility, and PATH and partners in Uganda gathered monitoring data directly from providers based at those facilities.

PATH, UNFPA, ministries of health, and other implementing partners collected data for pilot introductions through June 2016. Cumulative and quarterly trends for the two-year pilot introduction will be featured in the final pilot project monitoring report (available on path.org in 2017). While the monitoring data are resource intensive to collect and analyze across settings, they provide unique insights for new product introduction. Cumulative data from the final monitoring report may inform market dynamics, such as trends over time on the proportion of doses administered to new users, youth, and women switching from DMPA-IM in different introduction scenarios. In 2016, PATH and partners supported the transition of data collection on DMPA-SC consumption volumes to national health information systems as the initial four pilot countries scaled up DMPA-SC nationwide.

*The DMPA-SC product introduced in all four countries was Sayana Press.