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Designing a global monitoring system for pilot introduction of a new contraceptive technology, subcutaneous DMPA (DMPA-SC)

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ABSTRACT

In collaboration with ministries of health, PATH and key partners launched the first pilot introductions of subcutaneous depot medroxyprogesterone acetate (DMPA-SC, brand name Sayana® Press) in Burkina Faso, Niger, Senegal, and Uganda from July 2014 through June 2016. While each country implemented a unique introduction strategy, all agreed to track a set of uniform indicators to chart the effect of introducing this new method across settings. Existing national health information systems (HIS) were unable to track new methods or delivery channels introduced for a pilot, thus were not a feasible source for project data. We successfully monitored the four-country pilot introductions by implementing a four-phase approach: 1) developing and defining global indicators, 2) integrating indicators into existing country data collection tools, 3) facilitating consistent reporting and data management, and 4) analyzing and interpreting data and sharing results. Project partners leveraged existing family planning registers to the extent possible, and introduced new or modified data collection and reporting tools to generate project-specific data where necessary. We routinely shared monitoring results with global and national stakeholders, informing decisions about future investments in the product and scale up of DMPA-SC nationwide. Our process and lessons learned may provide insights for countries planning to introduce DMPA-SC or other new contraceptive methods in settings where stakeholder expectations for measureable results for decision-making are high.

1. Introduction

Contraceptive use in sub-Saharan Africa continues to be low, where only 26% of married or in-union women aged 15 to 49 are using some form of modern contraception (Population Reference Bureau, 2018). This region has the highest level of unmet need—24% of women of reproductive age wish to delay or stop childbearing, but do not use a modern method of contraception (United Nations, 2015). A new injectable contraceptive, subcutaneous depot medroxyprogesterone acetate (subcutaneous DMPA or DMPA-SC), offers potential to improve contraceptive access and uptake, especially in remote locations, by expanding the range of methods available to women outside of clinic settings (Fig. 1). DMPA-SC is easy to use and requires minimal training, making it especially suitable for administration by lay health workers in peripheral facilities, through community-based distribution (CBD), and even by women themselves through self-injection. Evidence suggests that adding a new contraceptive method to the mix or expanding geographic access to existing methods attracts new contraceptive users and increases contraceptive prevalence (Jain, 1989; Ross & Stover, 2013).

DMPA-SC is a three-month, progestin-only injectable contraceptive administered below the skin into the fat. The most widely available DMPA-SC product, Sayana® Press, is manufactured by Pfizer Inc. A lower-dose formulation and presentation of the intramuscular contraceptive Depo-Provera®, Sayana Press contains 104 mg per 0.65 mL dose of DMPA and combines the drug and needle in the prefilled BD Uniject™ injection system. (Sayana Press and Depo-Provera are registered trademarks of Pfizer Inc. and Uniject is a trademark of BD.)

At the 2012 London Summit on family planning, more than 70 governments and organizations made unprecedented political and financial commitments to support the right of women and girls to decide—freely and autonomously—whether, when, and how many children

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Fig. 1. DMPA-SC unit. (Photo: PATH/Will Boase).

they have. The governments of Burkina Faso, Niger, Senegal, and Uganda—among others—set ambitious objectives to reach additional users of modern contraception and increase contraceptive prevalence rates (CPR) by 2020. To help reach their objectives, these countries made specific commitments related to scaling up community-based distribution—including CBD of injectables—and to support innovation in family planning service delivery by introducing DMPA-SC into their national family planning programs (Family Planning, 2018).

Following these commitments, PATH and key partners collaborated with ministries of health (MOHs) in Burkina Faso, Niger, Senegal, and Uganda to launch the first pilot introductions of DMPA-SC in sub-Saharan Africa. The specific DMPA-SC product introduced and monitored in these four countries was Sayana® Press. This method was introduced through existing family planning delivery channels in the public, nongovernmental organization (NGO), and commercial sectors in both urban and rural areas from July 2014 through June 2016. In each country, the method was also offered in new delivery channels to increase access outside of clinics, such as through outreach from peripheral facilities, and provision by community health workers (CHWs) at health huts, or through CBD. The MOHs of Burkina Faso and Senegal elected to offer DMPA-SC at all levels of the health system in the countries' four most populous regions. Uganda's MOH introduced DMPA-SC in 28 districts through CBD by trained CHWs. The MOH of Niger introduced the product via CHWs in remote districts—at peripheral health huts in two districts and through private NGO-sector CBD agents in two additional districts (four districts total) (Stout et al., 2018).

Global and national stakeholders had key questions about these pilot introductions to inform future investments in the product and decisions about scaling up product availability and service-delivery innovations nationally. These questions included the number of DMPA-SC doses that would be administered; the extent to which DMPA-SC would appeal to first-time users of modern contraception, as well as adolescent girls and young women; whether DMPA-SC would add value to family planning programs or simply replace intramuscular DMPA (DMPA-IM) or other modern methods; and the effect of introducing an injectable at the community level for the first time. To answer stakeholders' key questions, assess the reach of these pilot introductions, and inform mid-project course corrections, PATH and partners decided to generate evidence through the collection of monitoring data across the four pilot countries.

One method for assessing the pilot introductions would be to use data from existing country monitoring systems—national health information systems (HIS)—which send family planning service statistics to the central level. However, these systems often are not a reliable source for project-specific data for several reasons. First, there is generally a significant delay in the availability of data produced by these systems (Bertrand, Magnani, & Rutenberg, 1996), with service statistics reaching the central level only twice a year or even less often. National HIS also are not able to capture specific data for new methods introduced on a pilot basis. Rather than collect data on individual products (e.g., DMPA-SC, DMPA-IM), these systems often aggregate data across method types (e.g., pills, injectables, implants). Finally, national HIS are not able to disaggregate data for new delivery channels under a pilot project (e.g., CBD vs facility-level data), instead aggregating data from across service-delivery channels. Thus, relying on national HIS cannot provide disaggregated data specific to the introduction of a new method or from new delivery channels, such as CBD.

A range of tools and resources exist for monitoring and evaluation (M&E) of family planning programs (Adamou et al., 2013; Barden O'Fallon & Bisgrove, 2016; MEASURE Evaluation, 2018). Research studies evaluating pilot introductions of new contraceptive methods—including review of service statistics in some cases—are also well documented in the literature (Garza-Flores et al., 1998; Gribble, Lundgren, Velasquez, & Anastasi, 2008; Hubacher, Akora, Masaba, Chen, & Veena, 2014; Lundgren et al., 2012; Zenger, Shuhua, & Huimin, 1995). However, there is a lack of published material to guide the specific process for using monitoring systems to generate data on pilot introductions of new contraceptive technologies in national family planning programs. An assessment of family planning M&E strengths, weaknesses, and gaps, published by MEASURE Evaluation highlighted the need for mechanisms for timely and rapid data collection in this field and recommended making better use of existing in-country data, service statistics, and HIS (Barden O'Fallon & Bisgrove, 2016). The authors further called attention to the need to balance the burden of data collection experienced by local program personnel with the needs of in-country HIS, donors, and other stakeholders (Barden O'Fallon & Bisgrove, 2016).

In view of the inability to use country HIS to collect project-specific data and the limited guidance for using monitoring systems to evaluate pilot projects, we consulted with local and global stakeholders to design and implement a multicountry ("global") monitoring system across four countries. While each country opted for a different product introduction strategy, all agreed to measure a common set of indicators for the pilot project in order to produce timely, disaggregated data for decision-making and allow analysis of data in relation to different training and introduction strategies. In order to collect the data we needed, we made minimal revisions to existing family planning registers and developed project-specific reporting forms to disaggregate DMPA-SC from other injectables. Facility supervisors and/or district personnel completed our project-specific data summary reporting forms and also continued to report aggregated data on injectables using HIS forms per standard procedures, ensuring data on the new method would also be included in the countries' aggregated service statistics. Depending on the country, we picked up the disaggregated data from the health facility or district during routine supervision and entered them into a project database. This approach resulted in two distinct data reporting flows: one that was project-specific and disaggregated DMPA-SC, and another that aggregated DMPA-SC with other injectables for routine HIS reporting. While creating parallel monitoring systems is resource intensive and not sustainable long-term, PATH and partners leveraged existing family planning registers and private-sector data collection systems to the extent possible to capture data specific to the new method and delivery channels while minimizing the burden of additional data collection on health workers.

This manuscript describes how the monitoring system for pilot introduction of DMPA-SC was designed and implemented, with an emphasis on sharing insights for program planners and implementers who are considering introduction of DMPA-SC or other new contraceptive methods.