Designing a contraceptive self-injection program: Experience from Uganda

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Today’s speakers

Jennifer Drake
• Subcutaneous DMPA (Sayana Press)
• PATH’s new self-injection best practices project in Uganda

Allen Namagembe
• Self-injection program design process
• Initial results from a rapid pilot

Ellen MacLachlan
• Implications for self-injection program design
• Next steps
If you have questions...

- If you have questions for today’s presenters, please send them using the chat feature on your computer.
- We will be collecting questions and plan to address them during a Question and Answer session after the presentations.
Subcutaneous DMPA (DMPA-SC; brand name Sayana® Press) is a new injectable that is administered under the skin.

DMPA-SC is:

- Safe and highly effective at preventing pregnancy.
- Delivered every 3 months.
- Prefilled and ready to inject.
- Simple to use.
- Small and light, with a short needle.
Subcutaneous DMPA compared with intramuscular DMPA

Subcutaneous DMPA (Sayana® Press)
- Comes in a prefilled, “all-in-one” injection system.
- Is injected underneath the skin.
- Has lower dose of DMPA (104 mg).
- Has 2.5-centimeter needle.

Intramuscular DMPA (Depo-Provera® and generic options)
- Comes in a vial with a separate syringe.
- Is injected into the muscle.
- Has higher dose of DMPA (150 mg).
- Has 3.8-centimeter needle.

Both products
- Safe and highly effective at preventing unintended pregnancy.
- Delivered every 3 months.
- Do not protect against HIV or other sexually transmitted infections.
- Comparable in regards to side effects.
- Stable at room temperature.

PATH/Patrick McKern

DMPA: depot medroxyprogesterone acetate.
Depo-Provera and Sayana Press are registered trademarks of Pfizer Inc. Uniject is a trademark of BD.
The transformative power of subcutaneous DMPA

**Features and Benefits**
- All-in-one presentation
- Simplified injection
- Shorter training
- Easier to transport and store
- Less waste to dispose
- Improved injection safety

**Opportunities**
- Increased acceptability and use by lower-level health care workers
- Well-suited for private-sector provision
- Uniquely suited to self-injection

**Value**
- Expanded access
- Increased method choice
- Empowered contraceptive users
The current subcutaneous DMPA product: Sayana Press regulatory approval*

• Approved by regulatory authorities in the European Union and more than 25 countries worldwide.
• Registered for self-injection in the United Kingdom, several European countries, and an increasing number of FP2020 countries including Ghana, Myanmar, Niger, Nigeria, Uganda, and Zambia.

Availability*
• Available in more than 15 FP2020 countries.

Pricing*
• Product can be procured by qualified, public-sector purchasers at US$0.85 per dose.

*Information current as of May 2017.

2,284
Number of providers trained in pilot

130,673
Doses administered during pilot

29%
Proportion of doses administered to new users

44%
Proportion of doses administered to users under 25

COUNTRY OVERVIEW
• Total population: 36 million
• Contraceptive prevalence rate (CPR), modern methods, all women: 21%
• Injectables as proportion of the method mix, married women: 56%
Status of self-injection in Uganda

- PATH-MOH feasibility study found that nearly 90% of participants could self-inject three months after one-on-one training; nearly all wanted to continue self-injection

- Based on these findings, self-injection was rolled out in late 2016 in public facilities through a “soft launch” in one district

- Self-injection was approved by the Uganda National Drug Authority (NDA) in early 2017

- Self-injection will roll out in additional districts later this year
New PATH project 2017–2018

Contraceptive self-injection in Uganda: Evaluating best practices for introduction and scale-up

As PATH and the Uganda MOH prepare to translate evidence from self-injection studies to practice and begin piloting self-injection outside of research settings, there is a need to learn how self-injection delivery can be designed and implemented at scale under real-world conditions, through different channels and for adolescents.
Uganda self-injection best practices: Project framework

**Identify**
Self-injection program components and models identified across delivery channels

**Implement**
Self-injection program components/models implemented in multiple delivery channels

**Evaluate**
Self-injection program models evaluated

**Disseminate**
Optimal self-injection program components documented and disseminated to inform policy and practice at national and global levels
Uganda self-injection best practices: Applying principles of user centered design to programs

- User centered design (UCD) focuses on the USERS—not what the designers, researchers, or their bosses want or think users need.
- Both of these aspects are crucial to UCD:
  - Observing what users DO (behaviors)
  - Listening to what users SAY
- The design process is iterative.

A multi-stage problem-solving process that optimizes solutions based on users’ needs, behaviors, constraints, and operating contexts. Solutions are repeatedly tested and refined throughout the design and development process before implementation.  

—Reboot.org
Uganda self-injection best practices: program design process
Self-injection program iteration process: Feasibility study

Illustrative learnings
- One-on-one self-injection training took over 1 hour
- Practice units add costs to program > US$1/client
- Clients relied on the booklet but adds US$2/client cost to program
- Latrine disposal is unappealing to stakeholders
- Just 38% of self-injection clients in Uganda have cell phones
Illustrative learnings

- Some providers are too busy to train clients to self-inject
- Providing a disposal container to each client may improve safety
- Instruction booklets may not be sustainable; shorten instructions
Develop journey maps for self-injection programs

- Based on research studies and soft launch: designed “best guess” models
- Identified program components likely to impact client success
- Developed “journey maps” that walk through the client and provider experiences in a self-injection program, as well as considerations specific to clients aged 15 and older
The Uganda team developed journey maps, which are UCD frameworks that help designers understand client and provider experiences, perspectives, and needs by walking through every step of a program.
### Sample journey map: Group training at facility, observed injection with coaching (no practice), 1-page job aid, return used units to health worker for disposal

<table>
<thead>
<tr>
<th>Client outreach/demand generation</th>
<th>Client training</th>
<th>1st injection</th>
<th>Storage</th>
<th>Follow-up</th>
<th>Reinjection</th>
<th>Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learns about self-injection (before or while seeking services)</td>
<td>Seeks services when group counseling is available</td>
<td>Injects privately with supervision, accounting from health worker and following 1-page job aid</td>
<td>Carries envelope home</td>
<td>Reaches out to VHT, health worker with questions or concerns (e.g., visit, phone call)</td>
<td>Remembers date (help from peer or someone else?)</td>
<td>Disposes of sachets in household garbage for burning</td>
</tr>
<tr>
<td>Travels to facility, drug shop, or VHT</td>
<td>Participates in FP group counseling on all methods, asks questions</td>
<td>Assessed as competent or not if not competent, needs to return in 3 months</td>
<td>Finds place to safely store it for 3-9 months, away from partner/children, at room temperature</td>
<td>Reviews job aid, reinjects</td>
<td>Finds private space to reinject, carries envelope with all supplies</td>
<td>Stores container with used unit safely until disposal is possible</td>
</tr>
<tr>
<td></td>
<td>Infers interest in SI participation in group training</td>
<td>If competent, given envelope with units, job aid, tip top disposal container, condoms, appointment card with reinjection date</td>
<td></td>
<td>Marks on appointment card that she has reinjected</td>
<td>Takes container with unit to facility, VHT, drug shop and places in safety box when convenient</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Observes health worker demonstrate injection, walking through 1-page job aid and reinjection as group</td>
<td>Confirms intention to self-inject</td>
<td></td>
<td>Places unit pointing down into disposal container after injection</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Directs injection and calculates reinjection following job aid, demonstrates injection training to clients</td>
<td>Communicates FP days to clients</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Prepares for self-injection:**
- Understands self-injection process
- Demonstrates self-injection technique
- Uses all necessary materials

**Ensures supplies are ready for self-injection:**
- Checks supplies for completeness
- Ensures all necessary materials are available

**Discusses proper storage with each client:**
- Provides guidance on proper storage
- Assists with storage options

**Agrees with each client upon plan for follow-up in case of questions or concerns:**
- Addresses client concerns
- Provides follow-up plan

**Is available to provide re-training or give injection if clients return for services:**
- Provides additional training
- Offers to perform injection

**Discusses proper waste disposal with each client:**
- Provides guidance on proper waste disposal
- Assists with waste disposal options

**Adolescent-friendly contraceptive services (AFCS) will be critical to success:**
- Enhances adolescent engagement
- Supports family planning

**Safe and secure storage may be a particular challenge for adolescents with limited privacy at home/school:**
- Assists with storage options
- Ensures secure storage

**Adolescent access to phones inconsistent:**
- Assists with phone availability
- Supports communication

**Identifying a private place to reinject may be a particular challenge for adolescents with limited privacy/mobility:**
- Assists with reinjection options
- Supports privacy

**What if clients show up at a time when group training is not offered?**
- Schedules FP group training days, communicates FP days to clients
- Communicates availability of self-injection to clients
- Procsures funds for outreach

**Drug shops: Before there is wide awareness, women may not come with enough money to purchase supplies/units to take home**
- Ensures supplies are ready for self-injection
- Determines if supplies are available
- Provides additional supplies if needed

**For injections outside facilities (e.g., in VHT homes, drug shops):**
- Some women may not be comfortable self-injecting in front of a male health worker
- Drug shops: All supplies will need to be purchased; clients will need to bring enough $$ for services, including additional units, impermeable container

**Ensuring women have the support they need without compromising their discretion/autonomy**
- Ensures support is available
- Supports autonomy

**Lack of phones among clients, limited air time for health workers challenge to phone follow-up**
- Assists with phone availability
- Supports communication

**Health workers may not be willing to share their number, drug shops/pharmacies may be more open to this (profit motive)**
- Encourages health workers to share number
- Supports communication

**Adolescent considerations**
- Male health workers may not be willing to share their number
- Supports communication

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Self-injection program iteration process: Journey maps

Illustrative learnings—journey maps helped clarify key processes:

• Stages of client training, from orienting clients on contraceptive options to first self-injection
• How group training could work in a facility (e.g., client flow, human resource requirements)
• Supplies needed for client training and for client to take home
• Safely transferring used devices from a puncture-proof container to medical waste receptacle
• Additional systems requirements—e.g., orienting other providers on what to do if self-injectors return for support or to dispose of used devices
UCD feedback workshops on self-injection program design

- Organized UCD feedback workshops to solicit input from (in the following order):
  - Clients, including those with and without self-injection experience
  - Facility-based family planning providers, including those with and without experience offering self-injection
  - Community health workers (called Village Health Teams, or VHTs)
  - Stakeholders, including district and Ministry of Health leadership, as well as implementing partners
- Used role plays to illustrate the self-injection journey map, making it a “real” tangible experience for clients and providers
- Involved clients and providers as actors in the role plays
- Adapted client booklet into one-page job aid to share and vet during feedback meetings
- After the role plays, solicited feedback from both actors and observers using semi-structured feedback guides
Illustrative learnings

- Group training may be more feasible than one-on-one training
- Self-injection without practice may be possible and acceptable; clients more nervous about this idea
- Observed injections with coaching could be an alternative to practice
- Participants said VHTs conducting training would ease health workers’ workload
- Important to dedicate a health worker as self-injection trainer
- Follow-up should be client-driven
- Peer follow-up may be feasible
- Number of take-home devices: DHTs proposed 1 at start and 3 thereafter; clients suggested 3 right away
- Health facilities often have poor waste disposal practices—not just a challenge for home injections
Rapid pilot of revised self-injection program

- **Objective:** Assess what works best with local staff, making adjustments to the programs during a 2 to 3 month period of intensive monitoring and engagement
- Opportunity to iterate program procedures and learn before full implementation and evaluation of programs begins in late Q3
- Rapid pilot launched in three public-sector health facilities in Mubende district in May
- Trained 7 providers (3 community health workers/nursing assistants, 4 nurses/midwives); 3 of them had never been trained on subcutaneous DMPA
- Sites monitored every two weeks and iteration of components as often as feasible based on input from providers and clients
Contraceptive Self-Injection Program Rapid Pilot—PHASE 1

**Client training**
- VHT/nursing asst. leads initial group training
- Clients practice injections during training
- VHT/nursing asst. give clients instructions and calendars
- VHT/nursing asst. track daily number of trainings and how many clients in each training

**1st injection**
- VHT/nursing asst. leads initial group training
- Clients practice injections during training
- VHT/nursing asst. give clients instructions and calendars
- VHT/nursing asst. track daily number of trainings and how many clients in each training

**Storage**
- Client stores devices safely and at room temperature

**Follow-up**
- Client receives phone call from provider, calls provider, or visits facility according to her initial stated preference
- Nurse/midwife asks client for her preferred follow-up: provider calls client, provider gives number client can call, client visits facility

**Reinjection**
- Client uses instructions and calendar for guidance

**Disposal**
- Client returns device to clinic or local VHT for disposal

**Self-injection instructions**
1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10.
Contraceptive Self-Injection Program Rapid Pilot—PHASE 3

**Client training**
- VHT/nursing asst. leads complete group training
- VHT/nursing asst. does injection demonstration only—no practice for clients
- VHT/nursing asst. gives clients job aids and calendars
- VHT/nursing asst. track daily number of trainings and how many clients in each training

**1st injection**
- VHT/nursing asst. supervises client’s first injection with coaching and correction
- VHT/nursing asst. uses observation checklist to assess client competence

**Storage**
- Client stores devices safely and at room temperature

**Follow-up**
- Client receives phone call from provider, calls provider, or visits facility according to her initial stated preference
- VHT/nursing asst. asks client for her preferred follow-up method: provider calls client, provider gives number client can call, client visits facility

**Reinjection**
- Client uses instructions and calendar for guidance

**Disposal**
- Client burns device with household waste
Self-injection program iteration process: Rapid pilot

**Illustrative learnings**

- Variations in staffing levels and staff shifts impacted facilities’ adherence to program
- Twice-a-week family planning days resulted in large groups of women for self-injection trainings; on other days group trainings could be small
- One facility moved to new phase: women successfully self-injected after following a demonstration but not practicing themselves
- Many women participate in group training but decide not to self-inject until later; main reason for not self-injecting is fear
Implications for self-injection program design and next steps
Self-injection program design: Insights to date

What do we know about training clients to self-inject, and what are we learning?

- One-on-one training by highly trained providers works well—does group training by community health workers (or other cadres) work just as well?
- Careful review of the injection steps seems to help women self-inject independently
- A simplified one-page instruction sheet given to women to follow helps with correct use
- It may be possible for women to learn the injection steps without actually practicing
Self-injection program design: Insights to date

What do we know about follow-up and support, and what are we learning?

• Women appreciate having a visual aid for independent self-injection
• We will learn more about women’s preferences for follow-up and support (e.g., whether they generally prefer planned visits/calls from health workers or prefer to initiate the process of seeking support themselves; would they use a hotline?)
• SMS or mobile platforms could work well in settings where more women have access to phones (e.g., more urban environments)
Self-injection program design: Insights to date

How should disposal be managed?

• Latrine disposal removes the device from contact and is preferred by clients, but is not perceived by stakeholders to be sustainable
• Extra focus during training needed to encourage women to secure device in a puncture-proof container prior to disposal—providing the container increases likelihood of safe disposal
• Women may be open to returning the used device, in the container, to a community health worker or local drug shop with a medical waste receptacle
• Burning with household garbage, a common practice, may also be an option
What’s next? Implement self-injection programs in multiple delivery channels

- **Public-sector facilities**
  - Analyze results from the rapid pilot to finalize a program design; components of that program will vary systematically across sites
  - Train 60 to 100 providers across three districts to implement the program variations

- **Private-sector facilities**
  - Finalize a program design for private clinics, potentially pharmacies and drug shops, using a socially marketed product
  - Train 15 to 20 providers across 15 sites in the private sector

- **Community-based distribution (CBD)**
  - Finalize a program design for CBD in the public sector
  - Train 30 community health workers

- **Adolescent-focused platforms**
  - Finalize a program design for adolescent safe spaces
  - Train 30 to 50 providers who work with those groups
What’s next? Evaluate the programs across all four channels

- The following aspects of self-injection delivery approaches for each channel will be evaluated:
  - Client self-injection proficiency → Critical
  - Cost-efficiency
  - Accessibility
  - User satisfaction and adequacy of support
  - Provider practice
  - Provider perspectives and perceived feasibility
  - Implementation process evaluation

- Insights from these experiences will be shared as rapidly as possible to inform self-injection program design in Uganda and beyond
Question and answer session
For more information on subcutaneous DMPA (Sayana Press) or self-injection:

sites.path.org/rh/?p=292

sayanapress@path.org
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