

# 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

PATH/Patrick McKern



## Subcutaneous DMPA (Sayana<sup>®</sup> 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<sup>®</sup> 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.

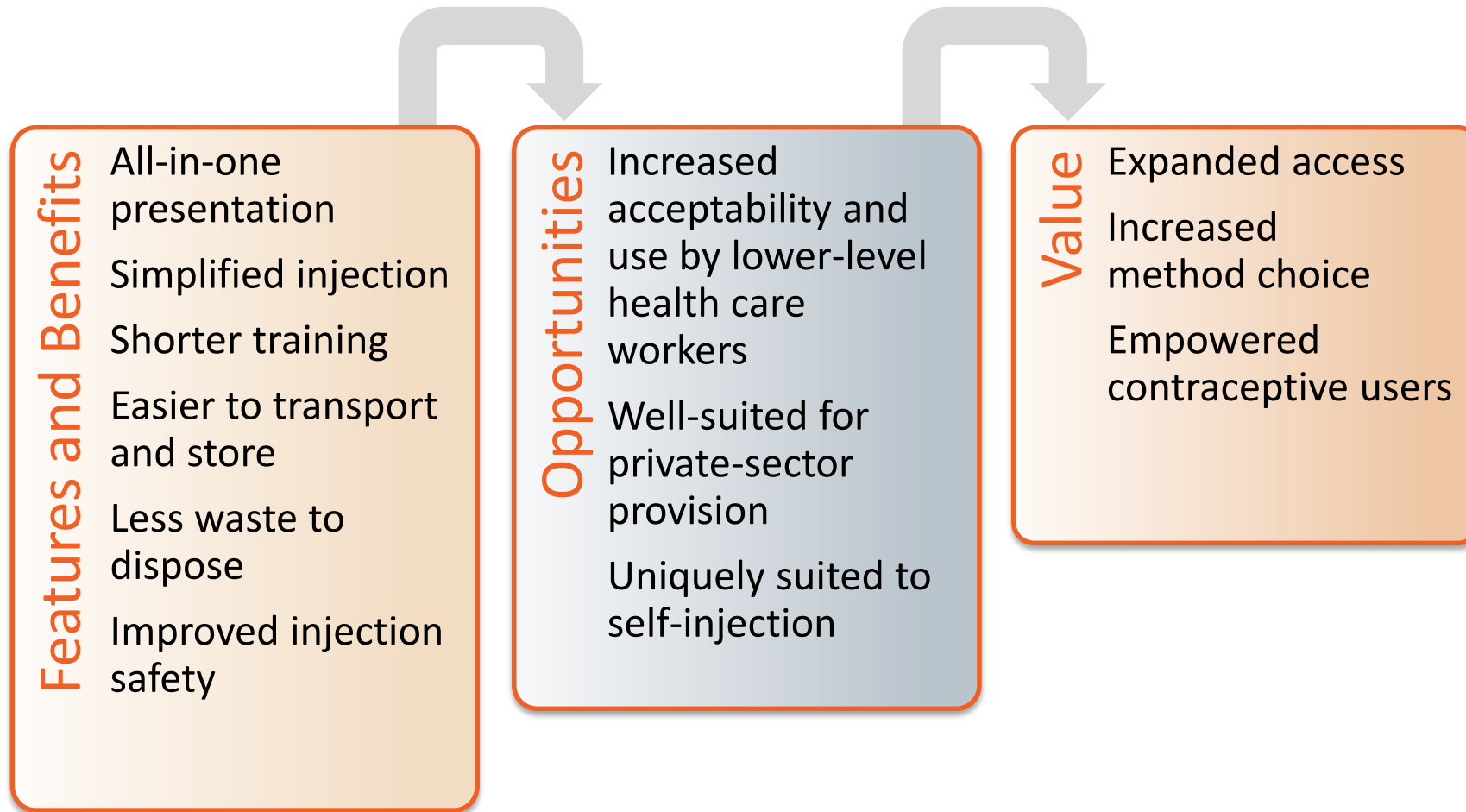
## Both products

- 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.

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





## 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.

# UGANDA

## UGANDA PILOT INTRODUCTION BY THE NUMBERS: OCTOBER 2014–JUNE 2016

**2,284**

Number of providers trained in pilot

**130,673**

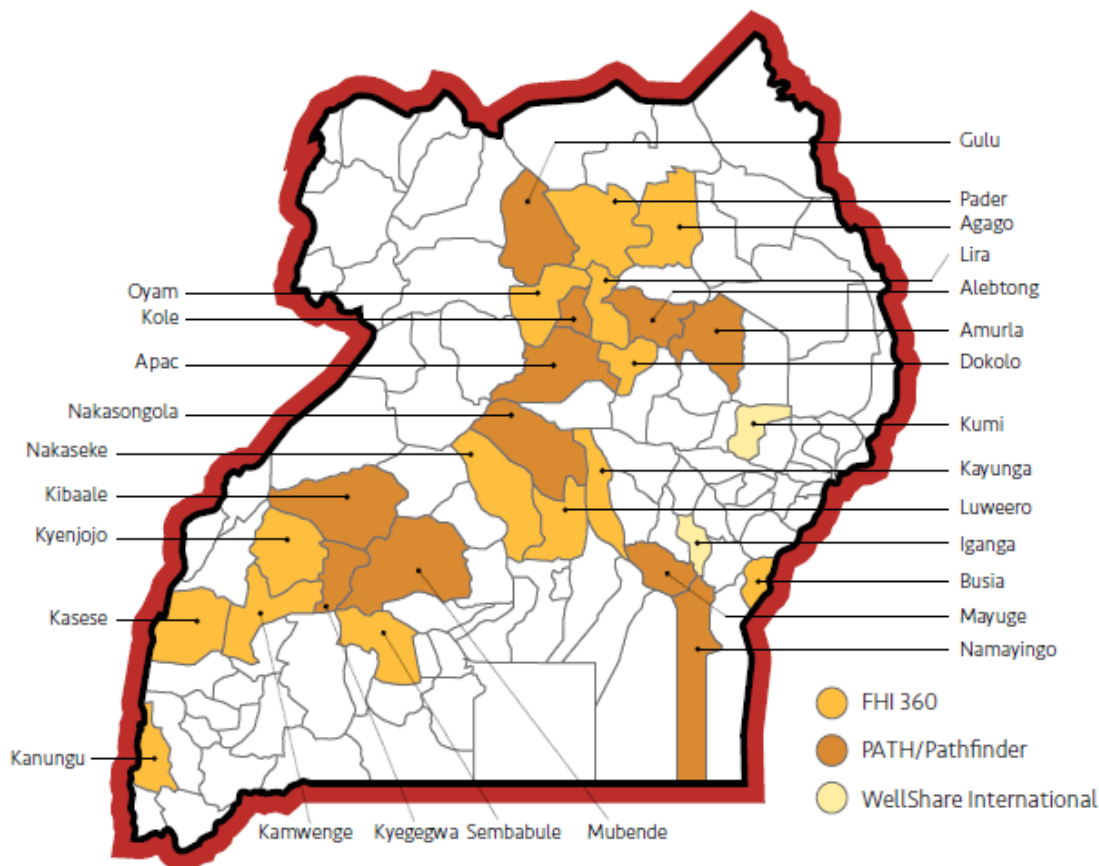
Doses administered during pilot

**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

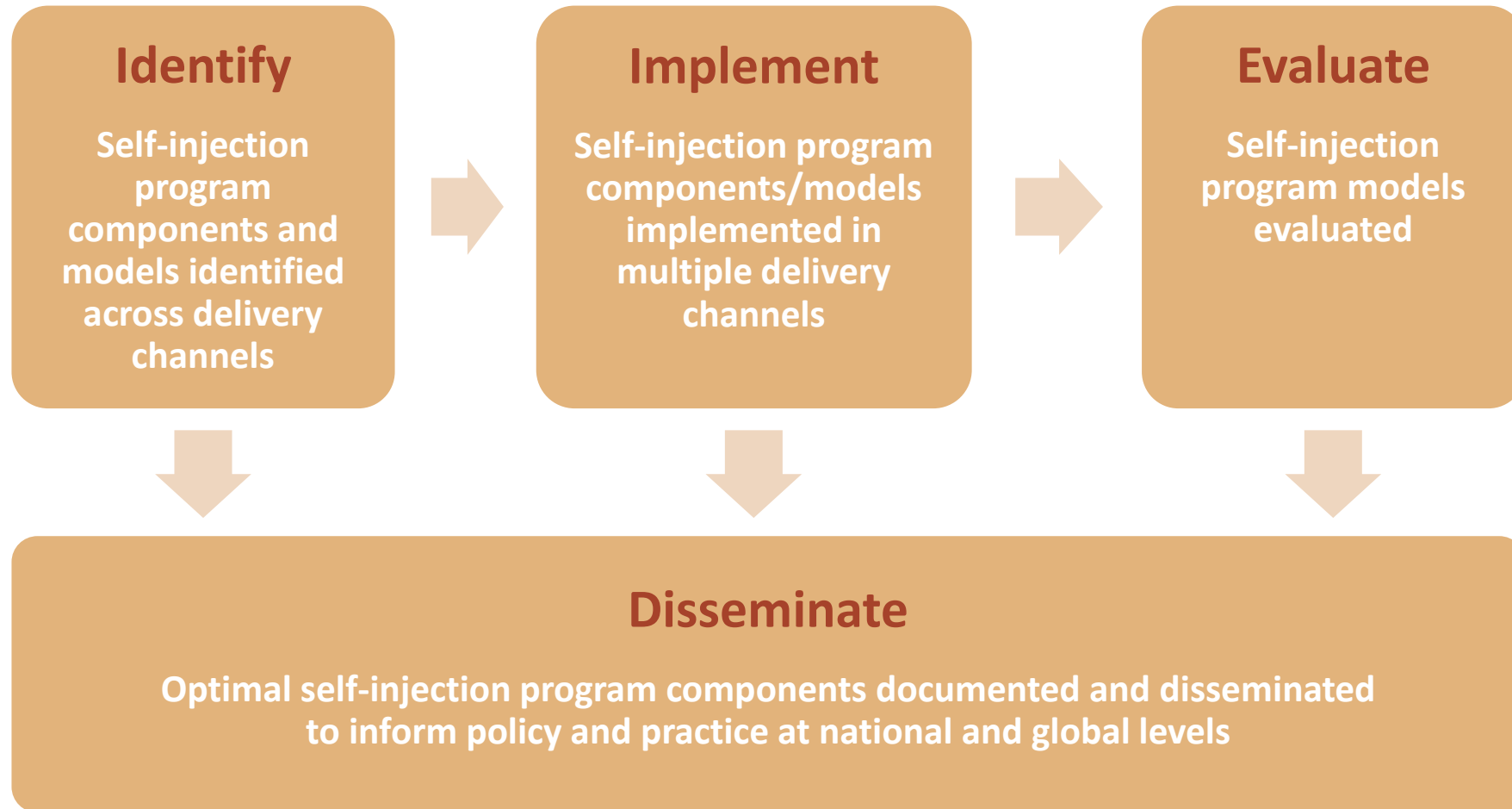


## New PATH project 2017–2018 Contraceptive self-injection in Uganda: Evaluating best practices for introduction and scale-up

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



# 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

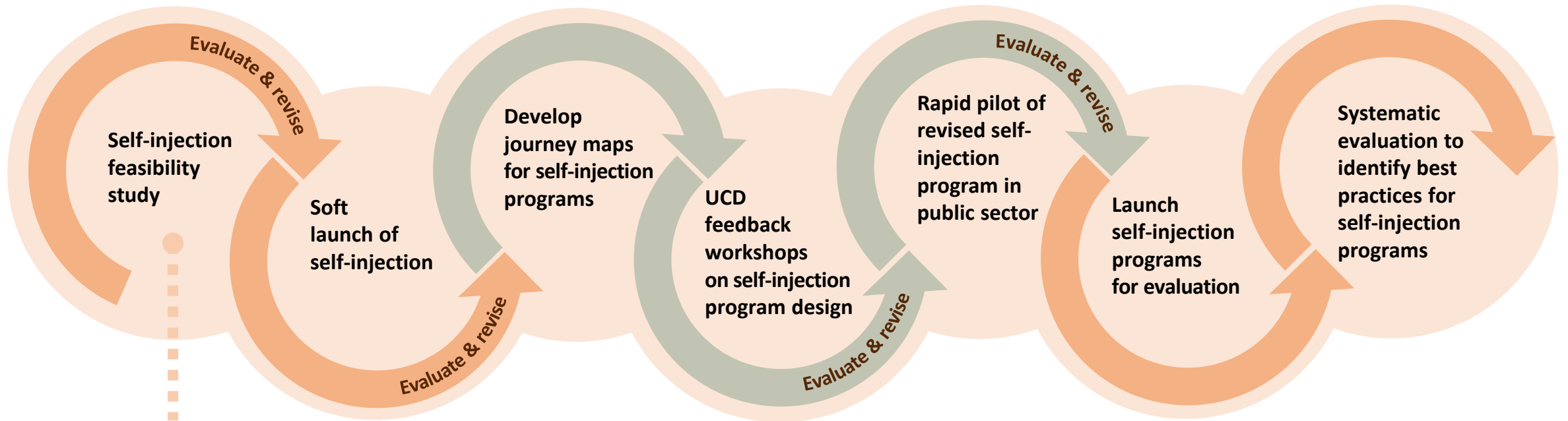
*A **multi-stage problem-solving** process that optimizes solutions based on **users' needs, behaviors, constraints, and operating contexts**. Solutions are **repeatedly tested and refined** throughout the design and development process before implementation.*

*–Reboot.org*

# Uganda self-injection best practices: program design process



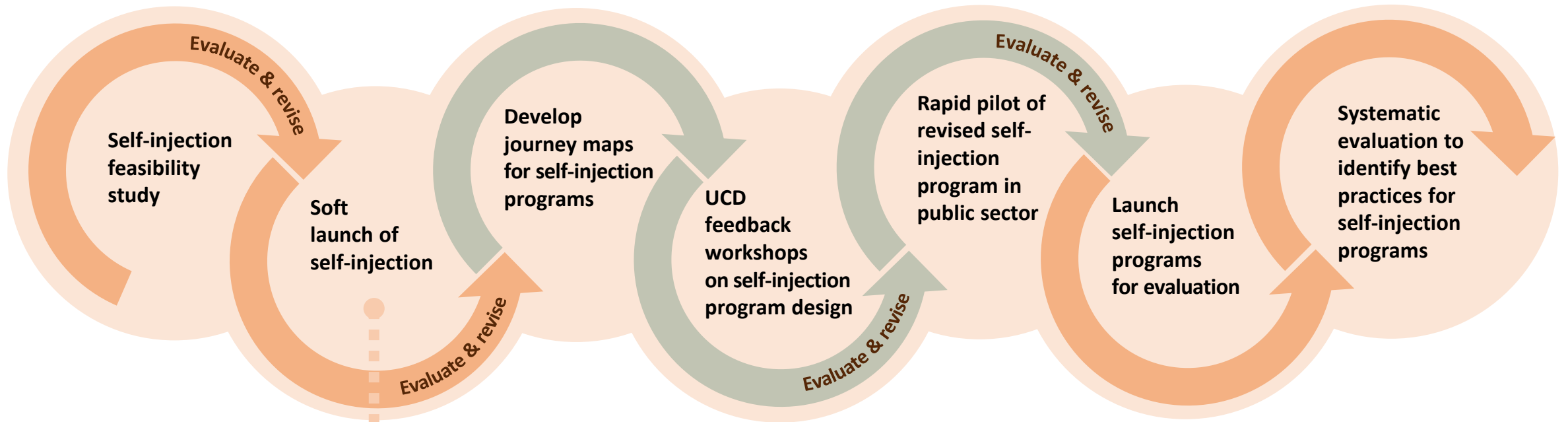
# Self-injection program iteration process: Feasibility study



## 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

# Self-injection program iteration process: Soft launch



## 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

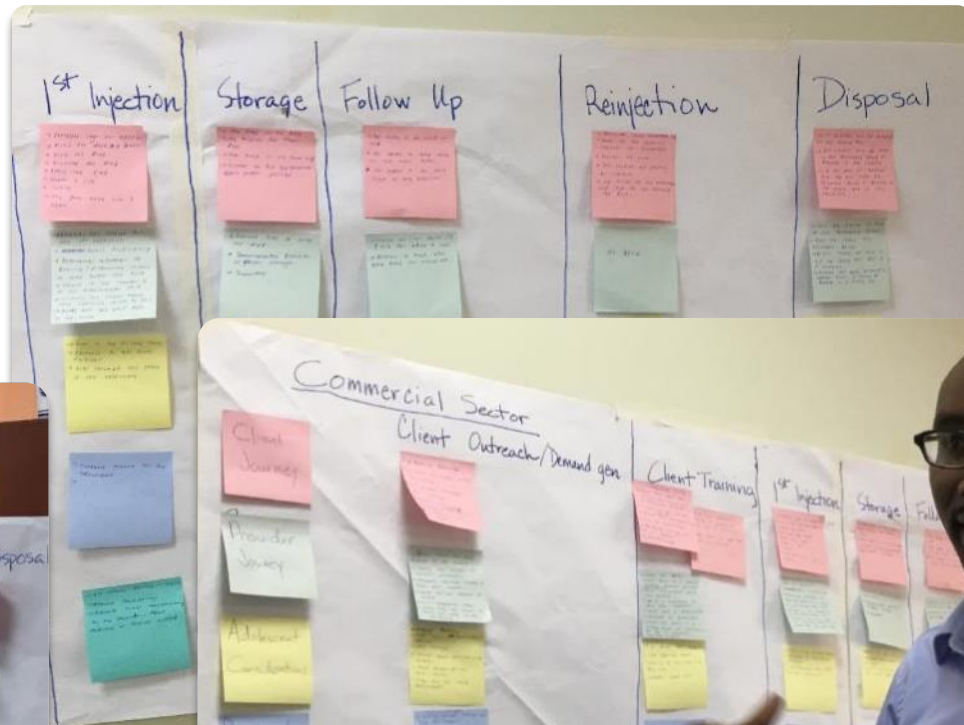
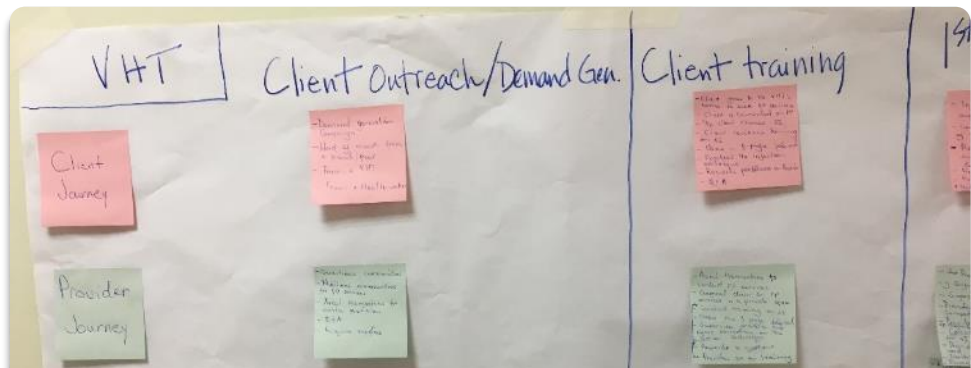
# Develop journey maps for self-injection programs

- 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



PATH/Jane Cover





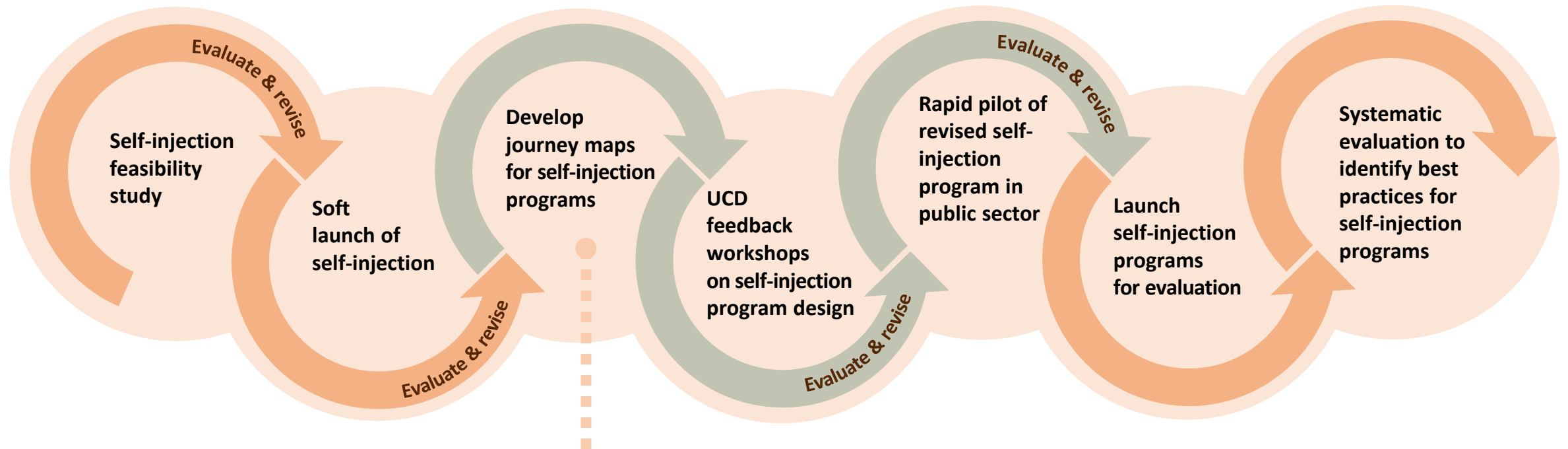
Photos: PATH/Jane Cover

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

	Client outreach/ demand generation	Client training	1 <sup>st</sup> injection	Storage	Follow-up	Reinjection	Disposal
Client	<p>Learns about self-injection (before or while seeking services)</p> <p>Travels to facility, drug shop, or VHT</p>	<p>Seeks services when group counseling is available</p> <p>Participates in FP group counseling on all methods, asks questions</p> <p>Chooses or expresses interest in SI</p> <p>Participates in group training</p> <p>Observes health worker demonstrate injection, walking through 1-page job aid and reinjection as group</p> <p>Confirms intention to self-inject</p>	<p>Injects privately with supervision, coaching from health worker and following 1-page job aid</p> <p>Assessed as competent or not</p> <p>If not competent, needs to return in 3 months</p> <p>If competent, given envelope with units, job aid, tip top disposal container, condoms, appointment card with reinjection date</p>	<p>Carries envelope home</p> <p>Finds place to safely store it for 3-9 months, away from partner/children, at room temperature</p>	<p>Reaches out to VHT, health worker with questions or concerns (e.g., visit, phone call)</p>	<p>Remembers date (help from peer or someone else?)</p> <p>Finds private space to reinject, carries envelope with all supplies</p> <p>Reviews job aid, reinjects</p> <p>Marks on appointment card that she has reinjected</p> <p>Places unit pointing down into disposal container after injection</p>	<p>Disposes of sachets in household garbage for burning</p> <p>Stores container with used unit safely until disposal is possible</p> <p>Takes container with unit to facility, VHT, drug shop and places in safety box when convenient</p>
Provider	<p>Schedules FP group training days, communicates FP days to clients</p> <p>Communicates availability of self-injection to clients</p> <p>Procures funds for outreach</p>	<p>Prepares for counseling on all methods, self-injection training</p> <p>Gathers supplies</p> <p>Conducts FP group counseling, answers questions</p> <p>Identifies clients who are interested in trying self-injection</p> <p>Conducts self-injection training following job aid, demonstrates injection and calculates reinjection date</p> <p>Directs clients ready to self-inject to private space</p>	<p>Ensures supplies are ready for self-injection</p> <p>Observes each client injection, provides coaching</p> <p>Assesses competence</p> <p>Avails self-injectors of supplies</p> <p>Encourages those not competent to return in 3 months for reinjection/retraining</p> <p>Completes all data collection per local protocols</p>	<p>Discusses proper storage with each client</p>	<p>Agrees with each client upon plan for follow-up in case of questions or concerns</p> <p>Is available for follow-up visits (and/or phone calls, if feasible)</p> <p>Knowledgeable about side effects management, full range of methods in case of switching</p>	<p>Is available to provide re-training or give injection if clients return for services</p> <p>Creates awareness among other staff in that location re: appropriate referrals for clients who return for support, waste disposal, or resupply visits</p>	<p>Discusses proper waste disposal with each client</p> <p>Provides client with supplies (i.e., impermeable containers) for waste disposal</p> <p>Maintains safety box, makes available to self-injectors returning used units</p>
Adolescent considerations		<p>Adolescent-friendly contraceptive services (AFCS) will be critical to success</p> <p>Group training may not be desirable to adolescents, may of them value confidentiality/discretion highly</p>	<p>See note below re: male health workers</p>	<p>Safe and secure storage may be a particular challenge for adolescents with limited privacy at home/school</p>	<p>Adolescent access to phones inconsistent</p>	<p>Identifying a private place to reinject may be a particular challenge for adolescents with limited privacy at home/school</p>	<p>Taking units for disposal may be a particular challenge for adolescents with limited privacy/mobility</p>
Questions/ challenges	<p>What if clients show up at a time when group training is not offered?</p> <p>Drug shops: Before there is wide awareness, women may not come with enough money to purchase supplies/units to take home</p>	<p>How will clients be triaged who participate in group counseling on all methods but do not choose self-injection?</p> <p>Note VHTs, drug shops: Independent training may be more feasible and appropriate due to the way clients report for services, capacity</p>	<p>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</p> <p>Drug shops: All supplies will need to be purchased; clients will need to bring enough \$\$ for services, including additional units, impermeable container</p>		<p>Ensuring women have the support they need without compromising their discretion/autonomy</p> <p>Lack of phones among clients, limited air time for health workers challenge to phone follow-up</p> <p>Health workers may not be willing to share their number, drug shops/pharmacies may be more open to this (profit motive)</p>		<p>If disposal strategies are not convenient, clients may elect to use latrines for disposal</p> <p>Consider child-proof containers for home storage</p>

# Self-injection program iteration process: Journey maps



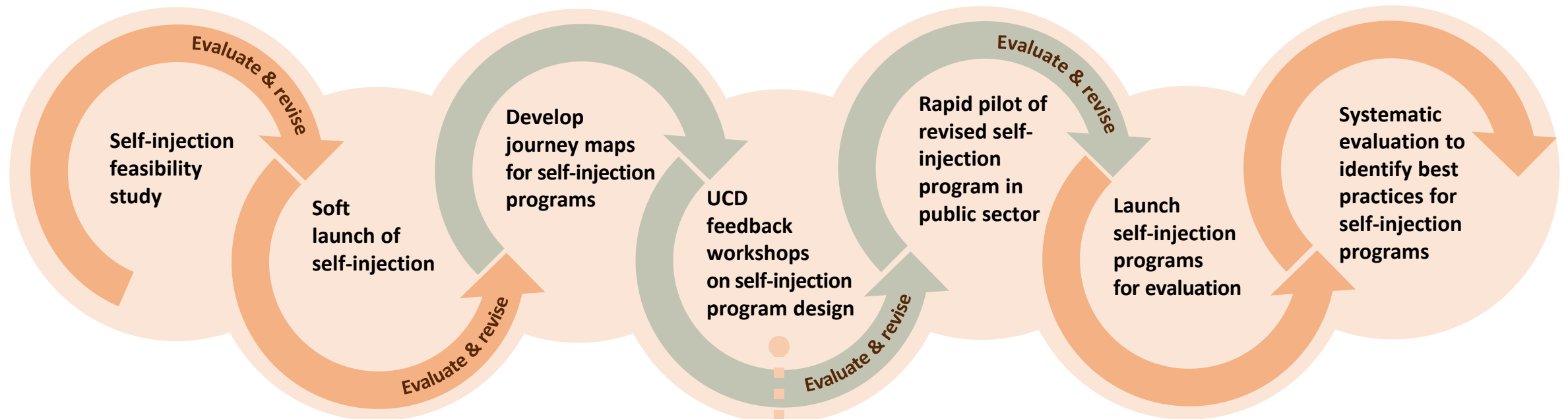
## Illustrative learnings—journey maps helped clarify key processes:

- 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

# Self-injection program iteration process: Feedback workshops



## 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

## 1<sup>st</sup> injection

Nurse/midwife reviews key training points with client

Nurse/midwife supervises client's first injection with coaching/correction

Nurse/midwife uses observation checklist to assess client competence

Nurse/midwife asks client for her preferred follow-up: provider calls client, provider gives number client can call, client visits facility

## 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

## Reinjection

Client uses instructions and calendar for guidance

## Disposal

Client returns device to clinic or local VHT for disposal

# 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

## 1<sup>st</sup> injection

VHT/nursing asst. supervises client's first injection with coaching and correction

VHT/nursing asst. uses observation checklist to assess client competence

VHT/nursing asst. asks client for her preferred follow-up method: provider calls client, provider gives number client can call, client visits facility

## 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

## Reinjection

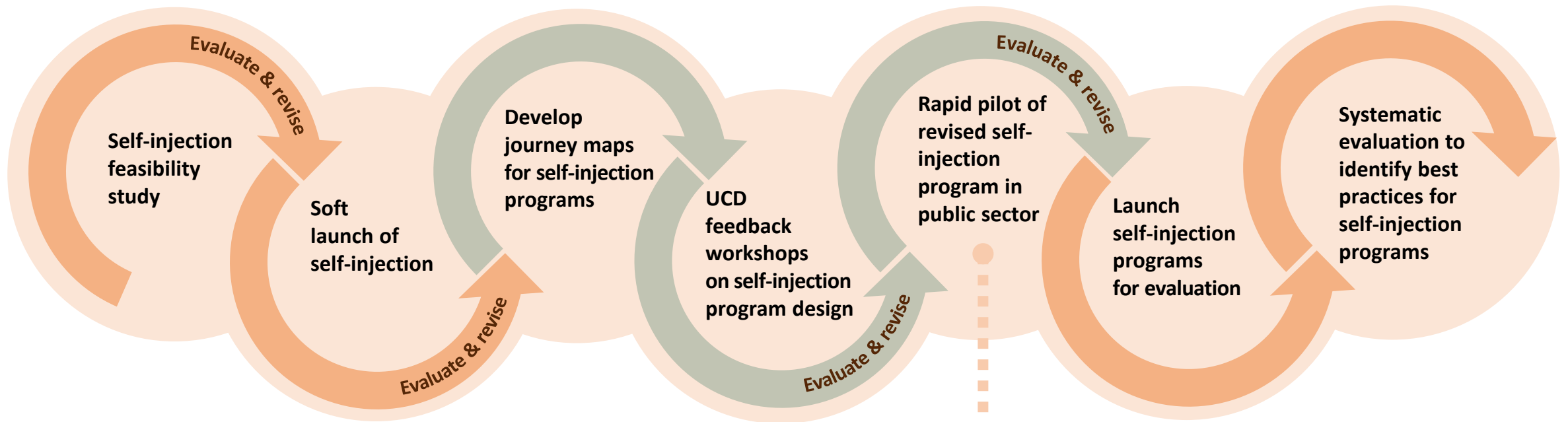
Client uses instructions and calendar for guidance

## 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

**Sayana® Press Self-injection Instructions**

**STEP 1: Wash hands**

- Use soap and water.
- Shake hands in air to dry.

**STEP 2: Open pouch**

- Open pouch and remove device.
- Do not bend device.

**STEP 3: Mix solution and check device**

- Hold device by the port and shake until mixed (about 30 seconds).
- Check to ensure no damage or leaking.
- If you do not inject right away, shake and mix again.

**STEP 4: Activate device by closing the gap**

- Hold device by port.
- Point needle upward to prevent dripping.
- Push cap firmly into port.
- If gap is not fully closed, you will not be able to press reservoir for injection.

**STEP 5: Remove the needle cap**

- Remove needle cap.
- Do not put needle cap back on.
- Throw cap in trash.

**STEP 6: Gently pinch skin and insert needle**

- Pinch skin to create a "tent".
- Hold device by the port and insert needle straight into skin at a downward angle. The port should touch skin completely to ensure needle is inserted at correct depth.

**STEP 7: Press the reservoir slowly**

- Press reservoir slowly for 5 to 7 seconds.
- It is OK if there is some liquid left in the reservoir.

**STEP 8: Remove the needle**

- Remove the needle, then "let go of the skin" tent.
- Do not rub injection site.

**STEP 9: Discard the device**

- Immediately discard device in puncture-proof container.
- Put on the container lid.
- Give it to VHT or health worker to be discarded.

**Common Sayana Press side effects**

Common side effects can include the following and are not usually cause for concern:

- Lack of monthly bleeding.
- Heavy or irregular monthly bleeding.
- Headaches.
- Changes in mood or sex drive.
- Weight gain.
- Abdominal pain.

**Other important information**

Sayana Press does not protect against sexually transmitted infections such as HIV. Please use condoms in addition to Sayana Press to prevent against sexually transmitted infections.

Store Sayana Press in a safe place away from children or animals and extreme heat or cold.

*If you experience pain or hardening at the injection site, or if you have questions about self-injection, your health, or side effects, contact a health worker.*

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# 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)



PATH/Gabe Bienczycki

# 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



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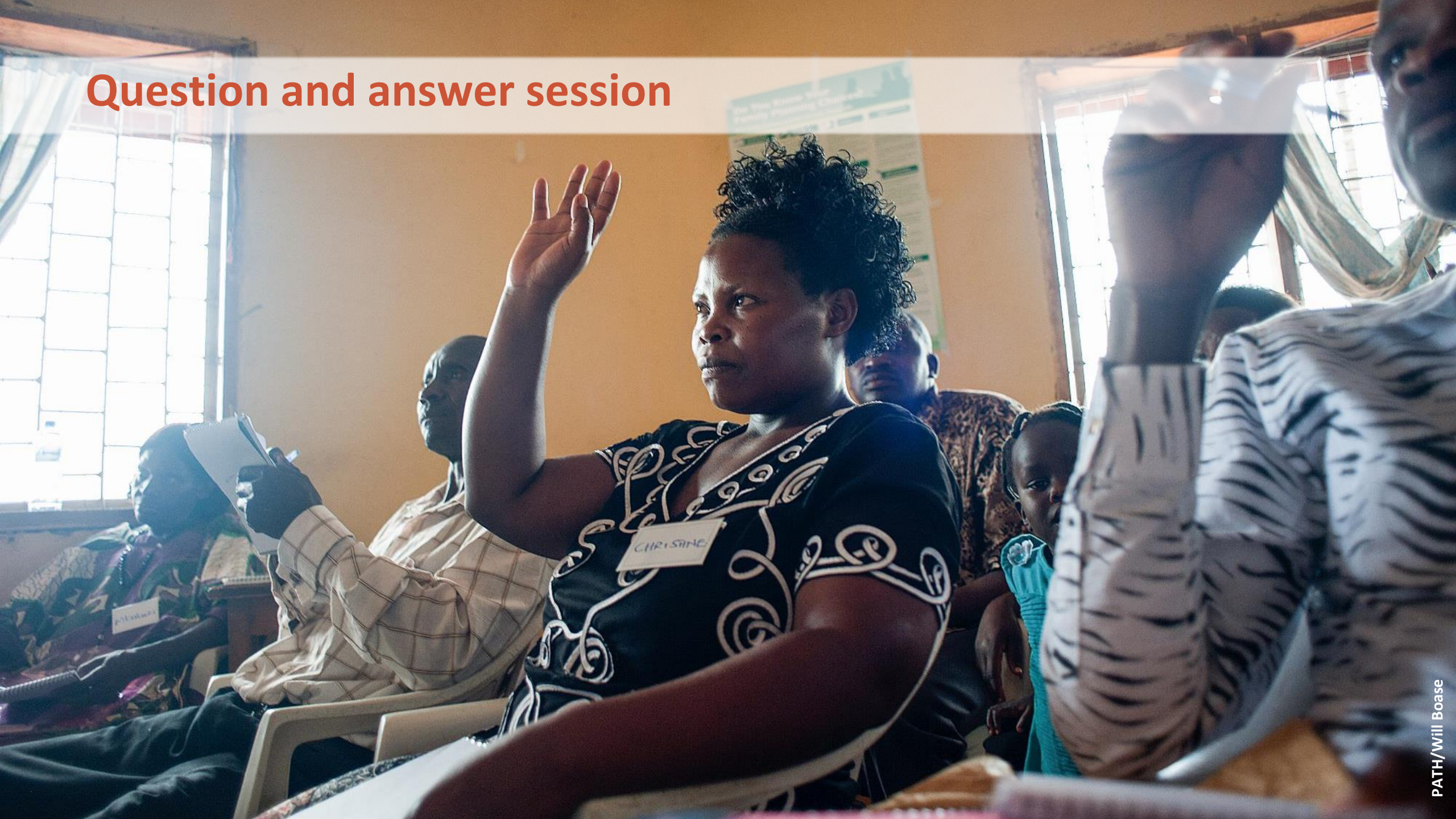
# What's next? Implement self-injection programs in multiple delivery channels

- 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](https://sites.path.org/rh/?p=292)**

**[sayanapress@path.org](mailto:sayanapress@path.org)**



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