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# Implementing and evaluating HIV self-testing in West Africa

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## Implementing and evaluating HIV self-testing in West Africa

Sophie Calmettes (Solthis)  
Joseph Larmarange (IRD)

EPH preconference | Marseille | 20 November 2019



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# Context

# HIV self-tests (HIVST)

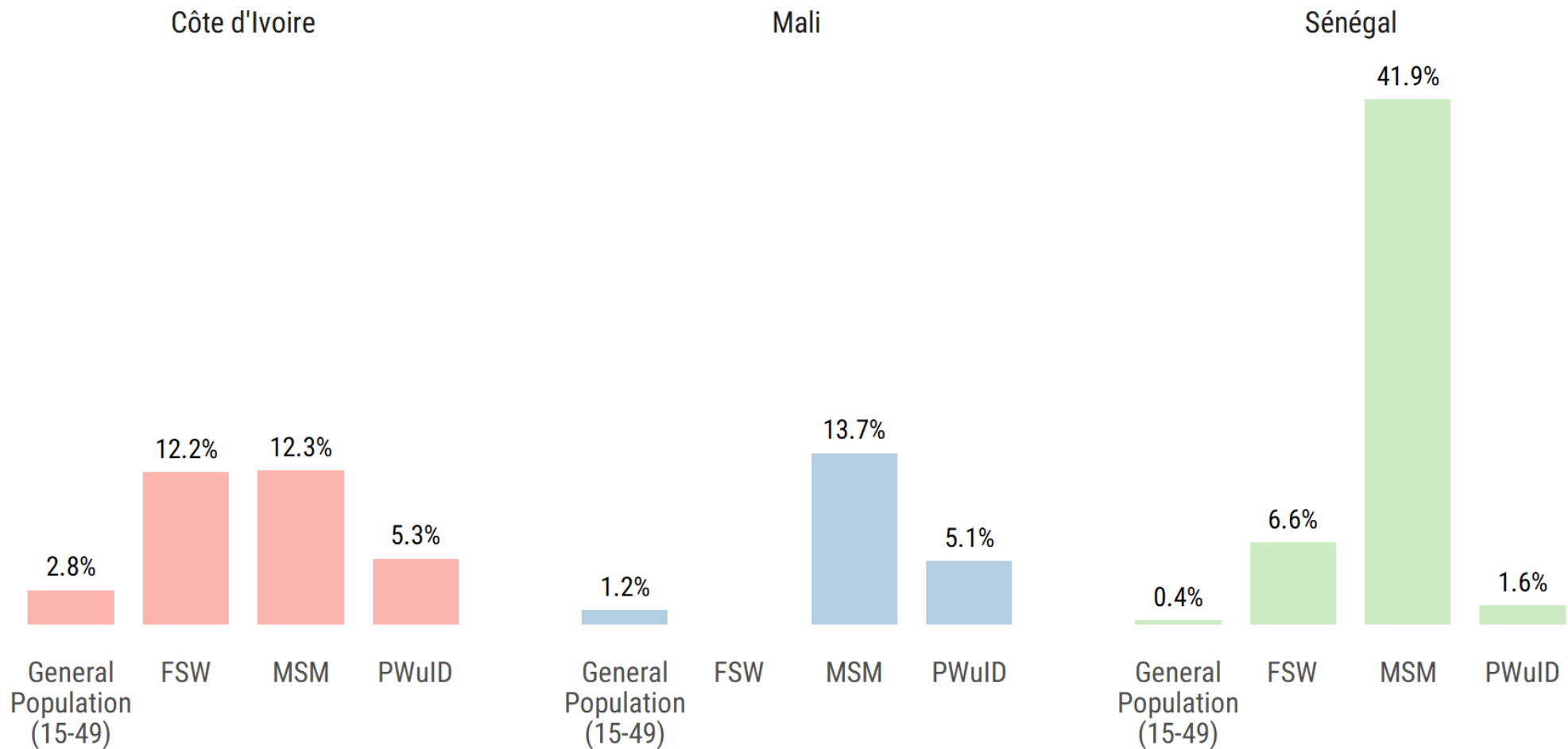
- › New diagnosis tool
- › Recommended by WHO since 2016 as an additional testing strategy
  
- › STAR
  - » Funded by Unitaid
  - » Phase 1 (2015-2017) in Malawi, Zimbabwe, Zambia
  - » Diagnostic accuracy, user preferences, social harms, linkage to care
  - » Market creation & Price reduction
  - » Mainly primary distribution
  - » Call for proposals launched by Unitaid for a project in Western Africa: an operational project with embedded evaluation/research component



# West Africa: mixed HIV epidemics

## HIV prevalence by country and sub-population

Source: Unaids data 2018



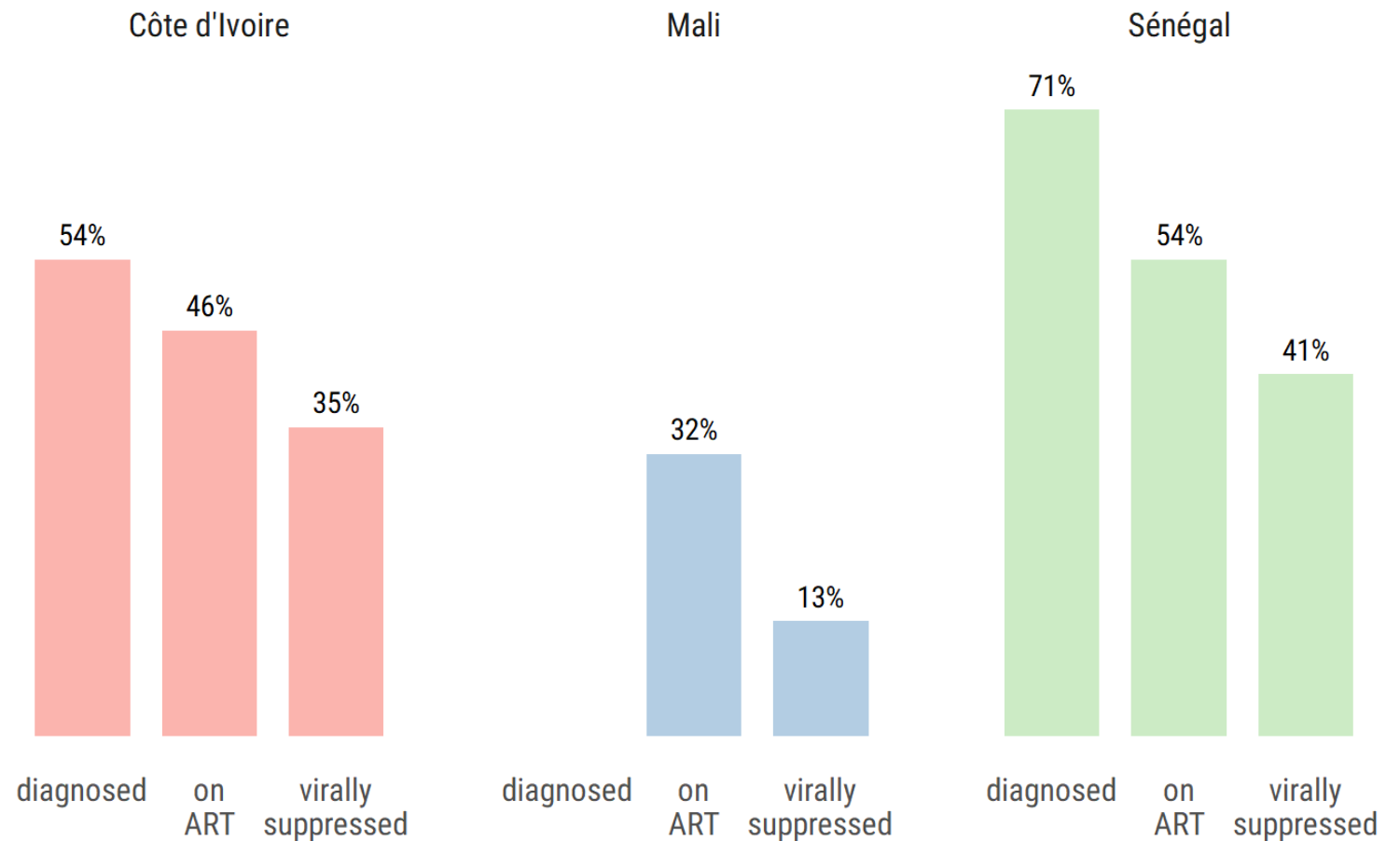
# HIV Care cascade

**Testing** constitutes the **main gap** in the cascade

- › Testing is relatively high among those reached by NGOs (e.g. 70% of FSWs recently tested in PrEP-CI Study in Côte d'Ivoire)

**How to reach those unreached by current strategies?**

Source: Unaid data 2018

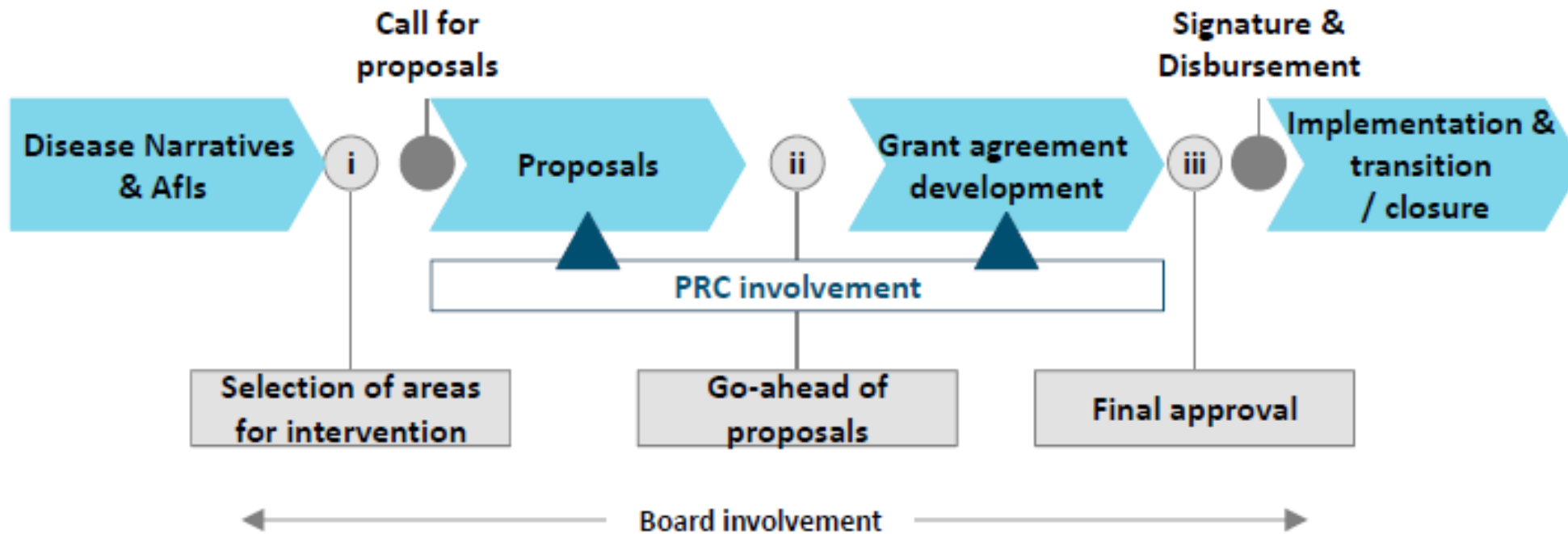


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# Building a consortium

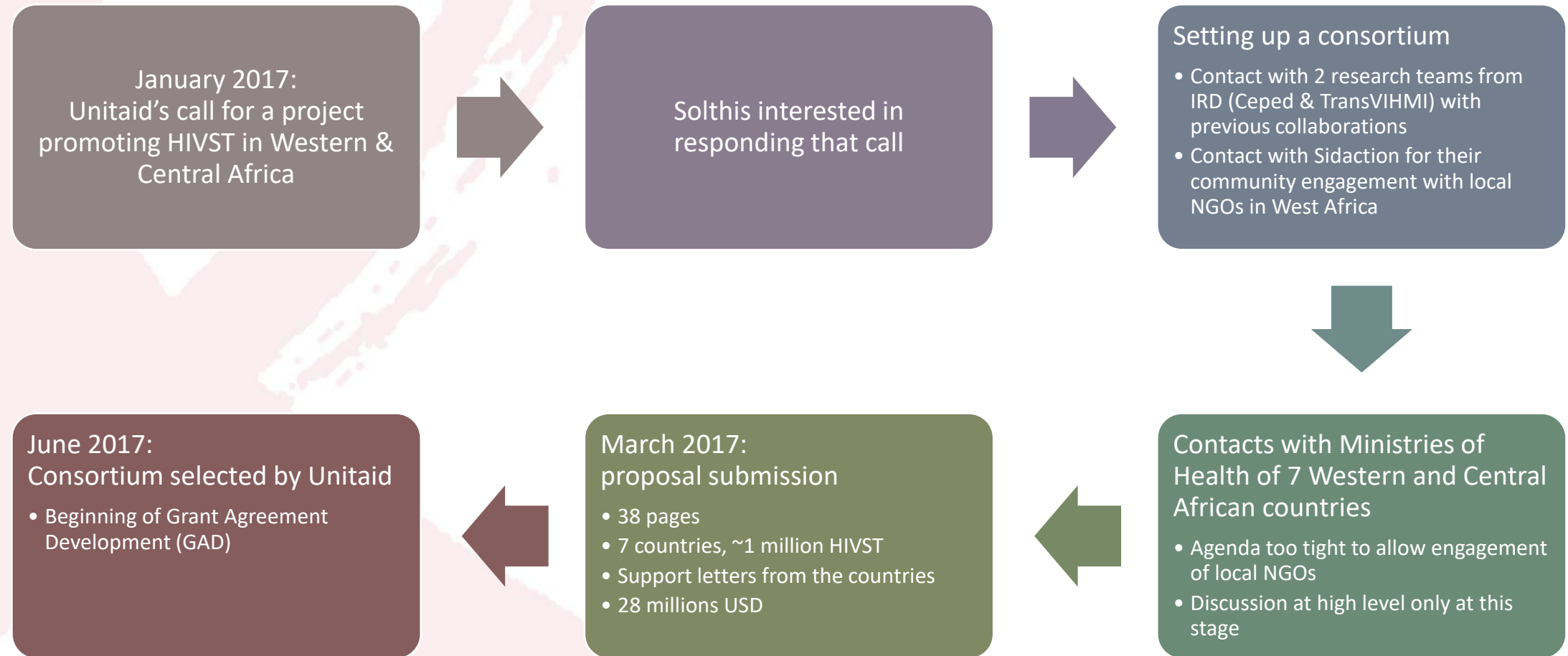
(January – June 2017)

# UNITAID's process for proposal selection and grant making





# Writing a proposal



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# Developing the project

(June 2017 – May 2018)

# Grant Agreement Developement

- › Unitaïd's initial requests:
  - › Reducing the number of countries
  - › Reduction of budget and human resources accordingly
  - › Activities to be implemented through local NGOs already receiving funding from Pefpar or Global Fund
  
- › From June 2017 to May 2018
  - › Continuous negotiation with Unitaïd
  - › 5 versions of all documents submitted and reviewed by Unitaïd

# Countries selection

- › From 7 to 4, then to 3 countries
  - » Discussion regarding Cameroun (issues in terms of feasibility)
  - » Political will expressed by countries taken into account
  - » Diversity of epidemiological contexts
  - » Discussions mainly between Unitaïd and the consortium
    - low involvement of countries in the final choice
- › August 2017
  - » Final selection: Côte d'Ivoire, Mali & Sénégal

# Budget for Grant Development

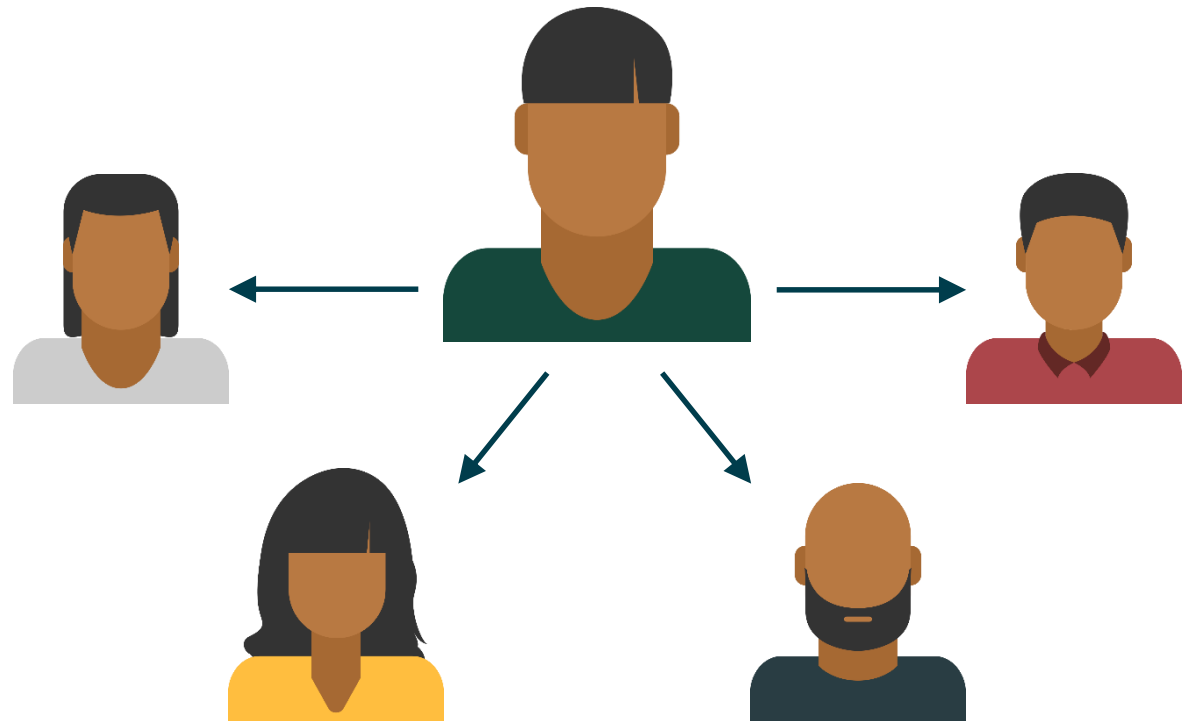
- › Unitaid provides a small budget for GAD phase
- › Country visits
  - › We asked for two per country to meet national authorities and local actors
  - › Only one visit per country was granted
  - › Country visits used to discuss and define population targets and HIVST distribution strategies
  - › Strategies have been renegotiated with Unitaid after country visits
- › Very short timeline
  - › Initially, project plan was supposed to be finalised for February 2018

# HIV self-tests

**Primary distribution**  
for personal use

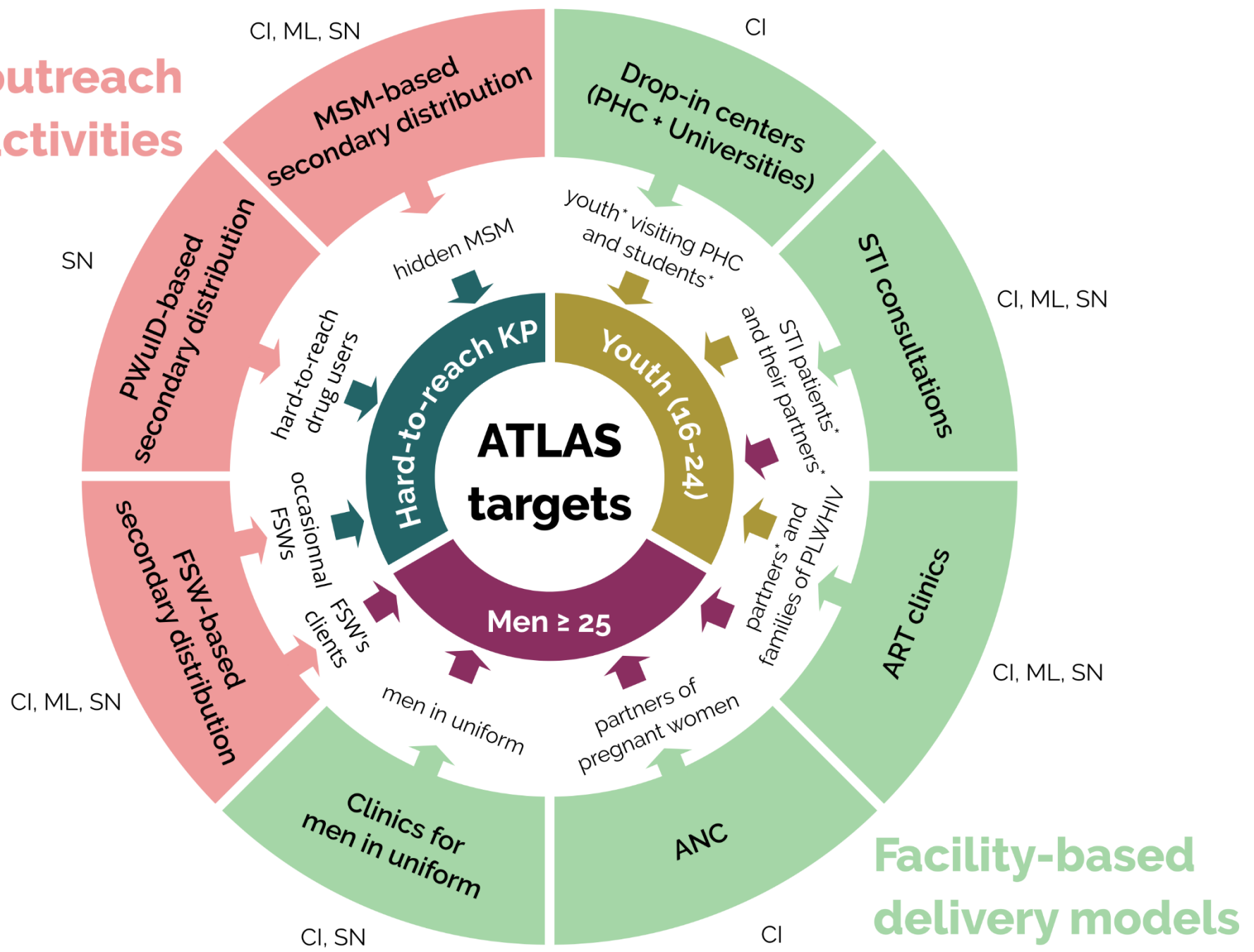


**Secondary distribution**  
to be redistributed to  
partners and relatives



# ATLAS Strategy (January 2018)

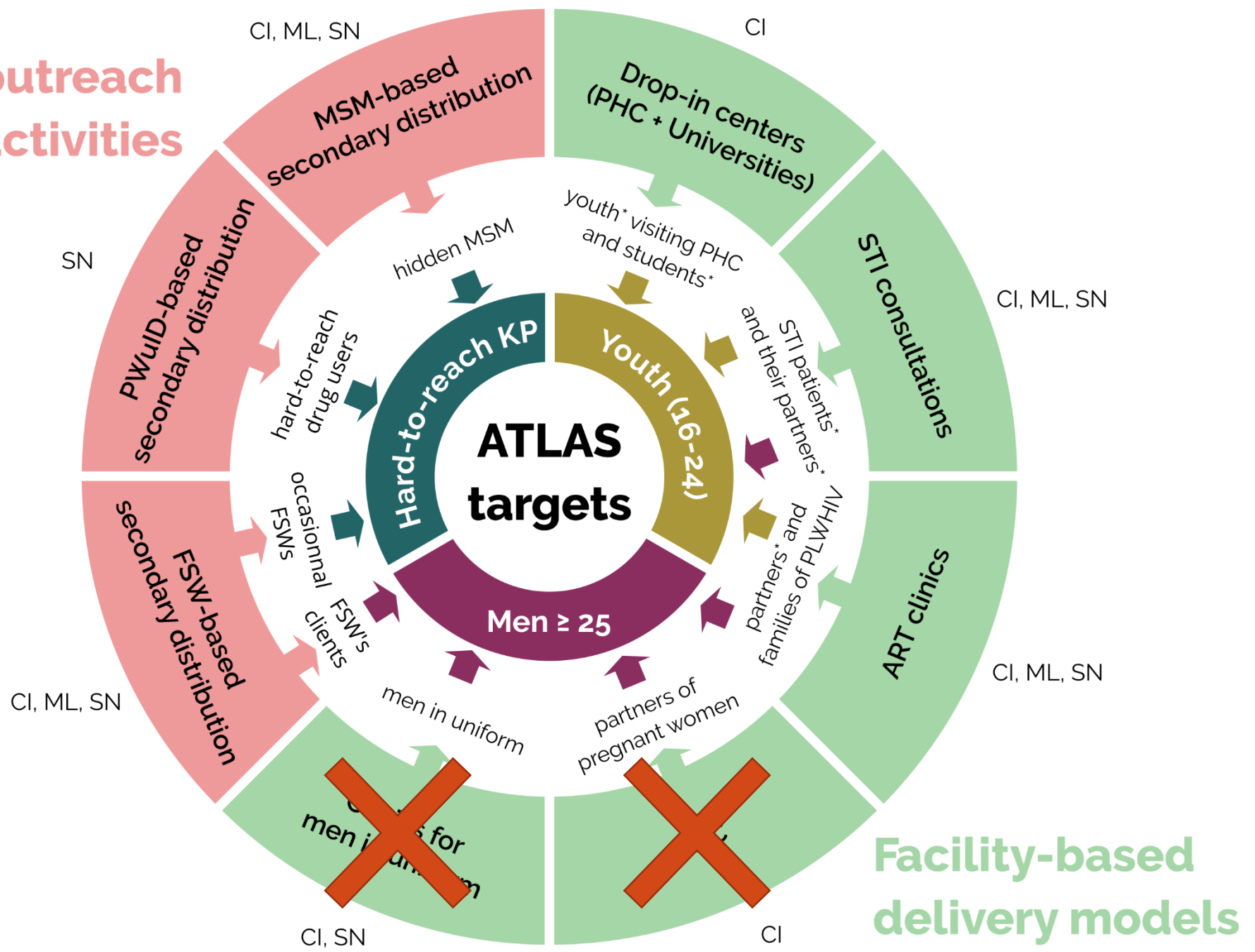
## KP outreach activities



\* some of them could also be part of key populations

# ATLAS Strategy (March 2018)

## KP outreach activities



\* some of them could also be part of key populations



# Integration of HIVST in preexisting activities

- › Identification of local implementers with Ministries of Health
  - » Based on current programmes funded by Pefpar or Global fund
- › Sidaction decided to leave the consortium
  - » Their historical partners were not were not necessarily sub-recipients of Pefpar/GF grants
  - » Not having local teams, low added value of their participation in the consortium

# Embedding research

- › HIVST distribution strategies has been designed regardless of the ease with which they can be evaluated
  - » In particular, secondary distribution without any tracking
- › Research plan was developed based on the operational strategy
  - » Research activities had to evolve during GAD to adapt to strategy changes
- › Strong request from Unitaid to collaborate with other Unitaid-funded projects
  - » STAR project in Eastern & Southern Africa
  - » MTV Shuga Babi project
- › Challenges for implicating local researchers in a tight agenda
  - » Use of preexisting partnerships (PAC-CI, CRCF)
  - » Most of recruited post-doc and PhD students are African
  - » Involvement of national co-investigators, representatives of MoH, during protocol development (i.e. after GAD)

# 6 Research Work Packages

## Social contexts

### **KP qualitative survey**

*led by  
A Desclaux (IRD)  
partnership with  
CRCF Dakar*

### **Partners of PLWHIV anthropological survey**

*led by  
D Pourette (IRD)*

## Evaluation of ATLAS impacts

### **Coupons survey**

*led by  
J Larmarange (IRD)  
partnership with  
PACCI Abidjan*

### **Population-based survey (Bas-Sassandra, CI)**

*led by  
I Birdthistle (LSHTM)  
in partnership with  
MTV Shuga project*

### **Costing**

*led by  
F Terris-Prestholt (LSHTM)*

### **Modelling**

*led by  
MC Boily  
(Imperial College)*



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# Lessons learned

# Research/Implementation articulation

- › A co-construction between implementers (Solthis) and researchers (IRD)
  - » Mobilization of the state of scientific knowledge to design the operational strategies
  - » Research questions defined to address the field actors' concerns in terms of scale-up
  - » Research must feed implementation / Implementation must guide research
  
- › A limited place for local actors during the development phase
  - » Continuous negotiation with Unitaïd (strong constraint)
  - » Solthis maintained ongoing discussion with national authorities (MoH, HIV programmes)
    - but the latest were poorly involved in decision making
    - no joint meeting between Unitaïd, Solthis/IRD and countries
  - » Limited involvement of local implementing NGOs and public sites (>30) at that stage

# How to compensate during implementation phase ?

## › At operational level

- › Establishment of national technical groups
- › At project start, 6 months dedicated with local actors on the operationalization
- › Meetings once or twice a year bringing together stakeholders from the three countries (consortium meeting)
- › Adaptation of budget envelopes to each field actor according to his reality

## › At the research level

- › Identification of co-investigators from ministries of health
- › Focus groups conducted at regular intervals among the 700 dispensing agents
- › Results presented and discussed during consortium meetings & country workshops
- › Development of a knowledge transfer plan: summary reports...

# LES PARTENAIRES

## Coordination



## Bailleurs



## Partenaires de mise en œuvre

Côte d'Ivoire  
Ministère de la Santé et de l'Hygiène Publique  
PNLS



Ariel Glaser  
Espace Confiance  
Heartland et ses partenaires  
Ruban Rouge

Mali  
Ministère de la Santé et des Affaires sociales  
HCNLS



AKS  
Amprode Sahel  
ARCAD Sida  
Danayaso  
PSI  
Soutoura

Sénégal  
Ministère de la Santé et de l'Action Sociale  
CNLS



CTA  
CEPIAD  
Enda et ses partenaires

## Partenaire technique



## Partenaires de recherche



## Projets partenaires





Extra slides

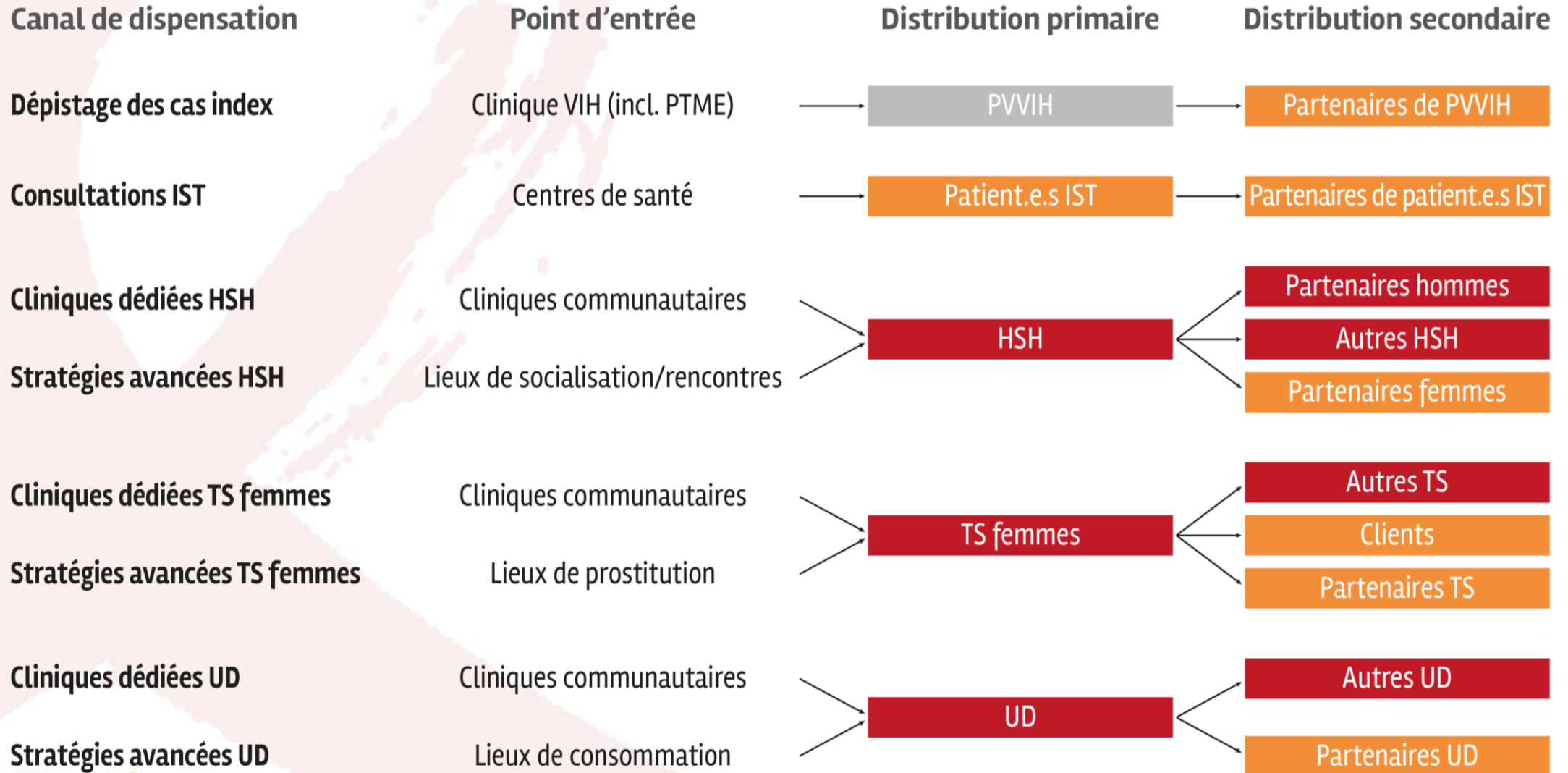




## ATLAS IMPLEMENTATION



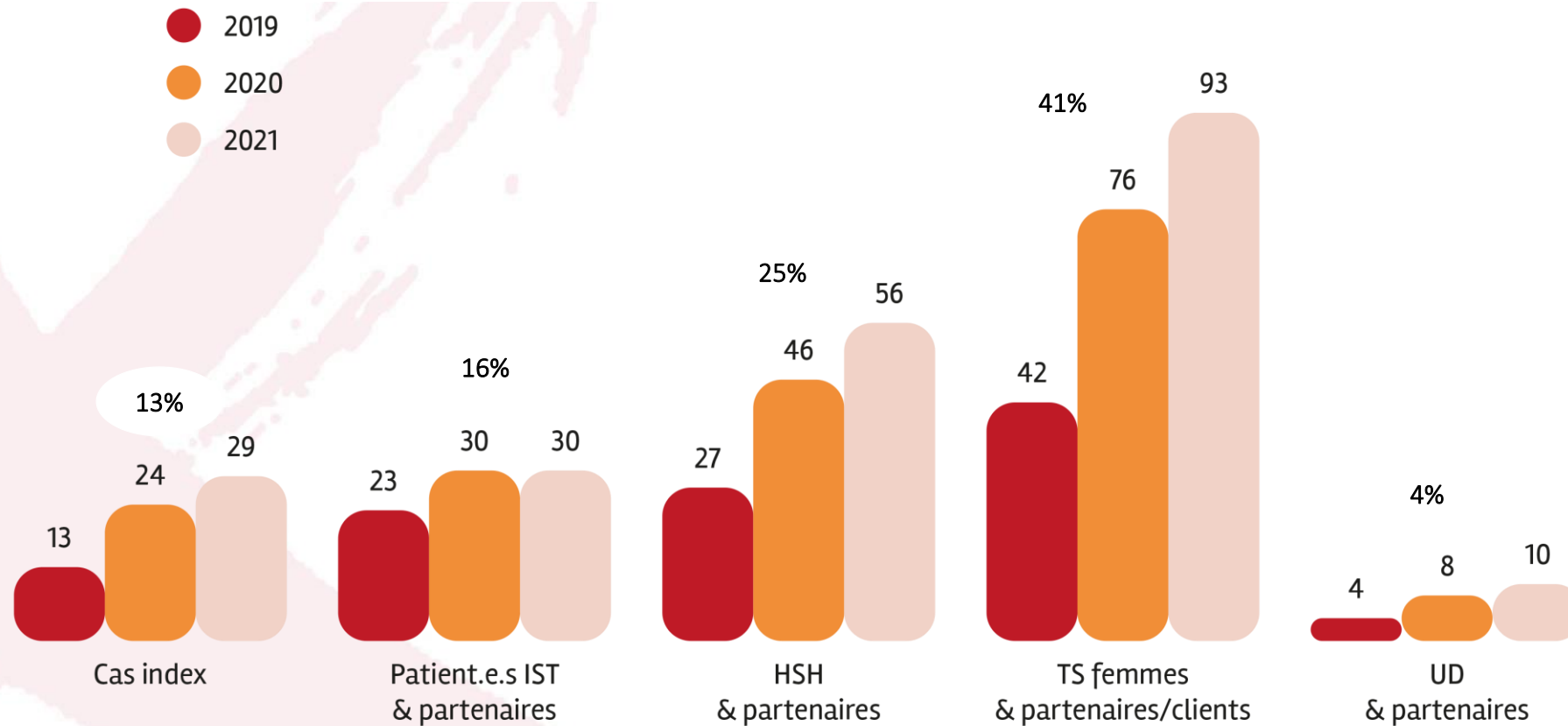
# ATLAS delivery channels



# Estimated HIVST distribution 2019-2021

## HIVST estimated distribution per year and target population (ATLAS project)

In thousands, estimations, June 2019



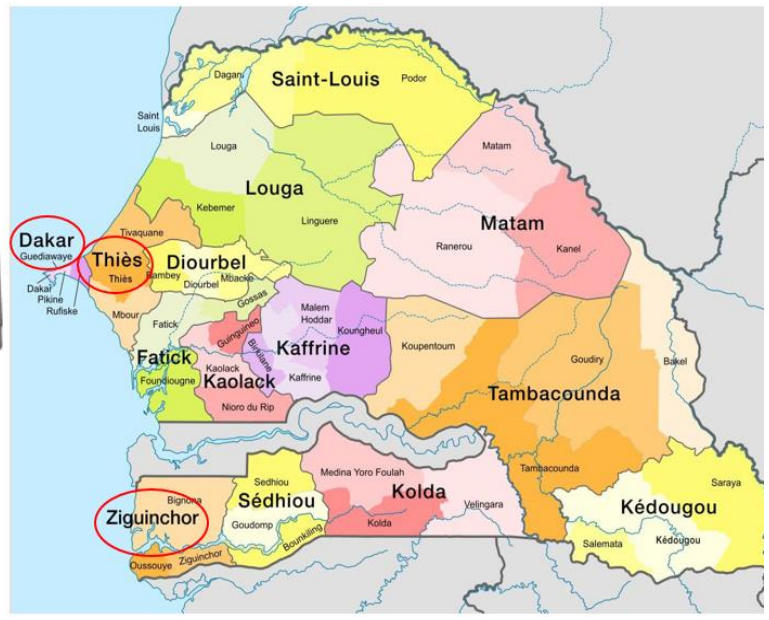
Implementing partners and regions



**MoH (PNLS)**  
**Ariel Glaser**  
**Heartland Alliance**  
**Espace Confiance**  
**Ruban Rouge**



**MoH (CSLS)**  
**HCNLS**  
**AKS**  
**AMPRODE SAHEL**  
**ARCAD-SIDA**  
**DANAYA SO**  
**SOUTOURA**  
**PSI Mali**



**MoH (DLSI)**  
**CNLS**  
**CEPIAD**  
**ENDA Santé**  
**CTA**



## CONTEXT



**Epidemiological  
categories**

**Individuals  
reached by  
surveys**

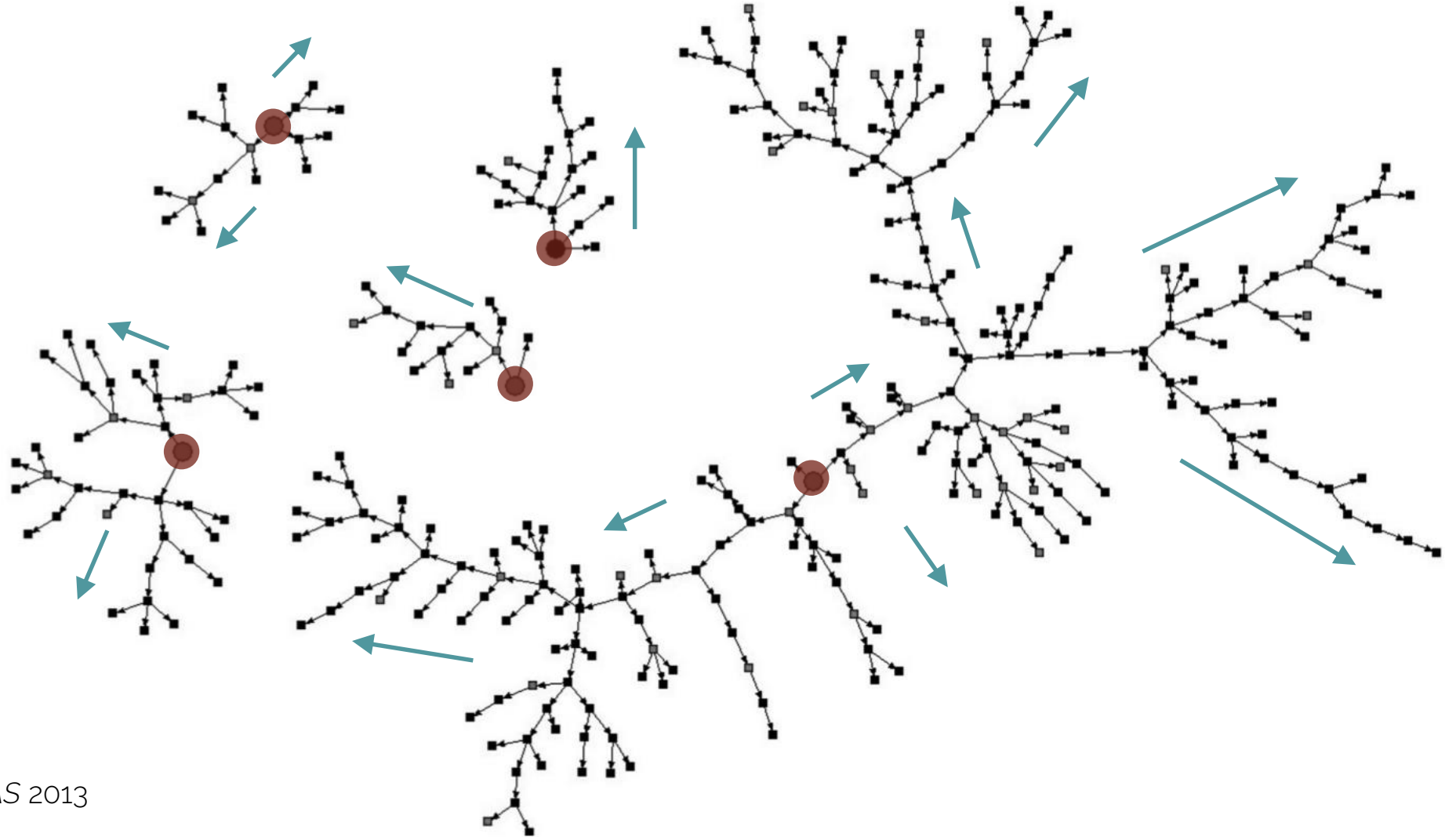
**Sexual networks**

**Individuals  
reached by  
programmes**

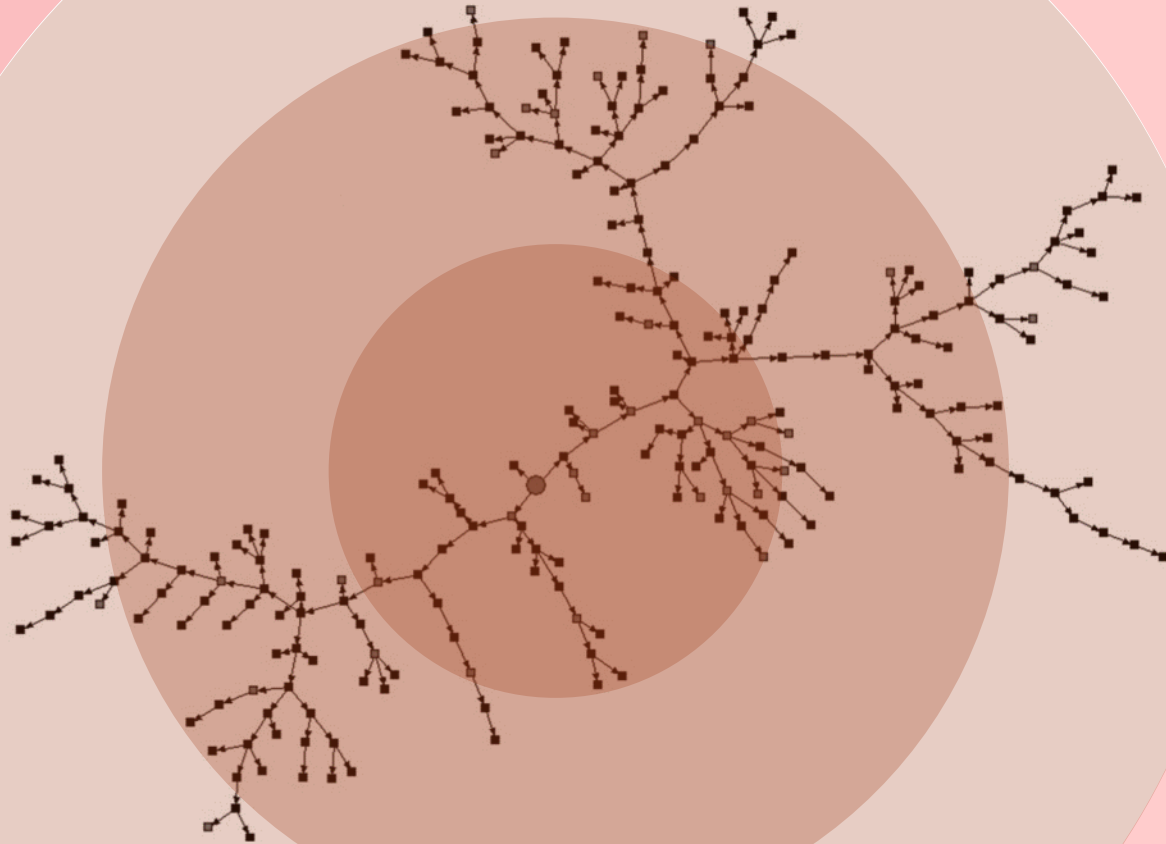
**Social  
groups**

# RDS

## Respondent Driven Sampling



**There is a relation between exposure to HIV, access to HIV testing and position within sexual networks**



**Self-reported orientation, HIV prevalence & status knowledge by RDS waves**

**Waves 0-3**

49% self-reported to be Gay  
48% infected by HIV  
53% knew their HIV status


**Waves 4-7**

48% self-reported to be Gay  
27% infected by HIV  
37% knew their HIV status

**Waves 8-13**

27% self-reported to be Gay  
15% infected by HIV  
33% knew their HIV status



A large iceberg floats in the ocean. The tip of the iceberg, which is visible above the water, is a jagged, snow-capped mountain peak. The vast majority of the iceberg is submerged below the surface, appearing as a dark, textured mass. The sky is a clear, light blue with some wispy clouds. The water is a deep blue, and the horizon line is visible in the distance.

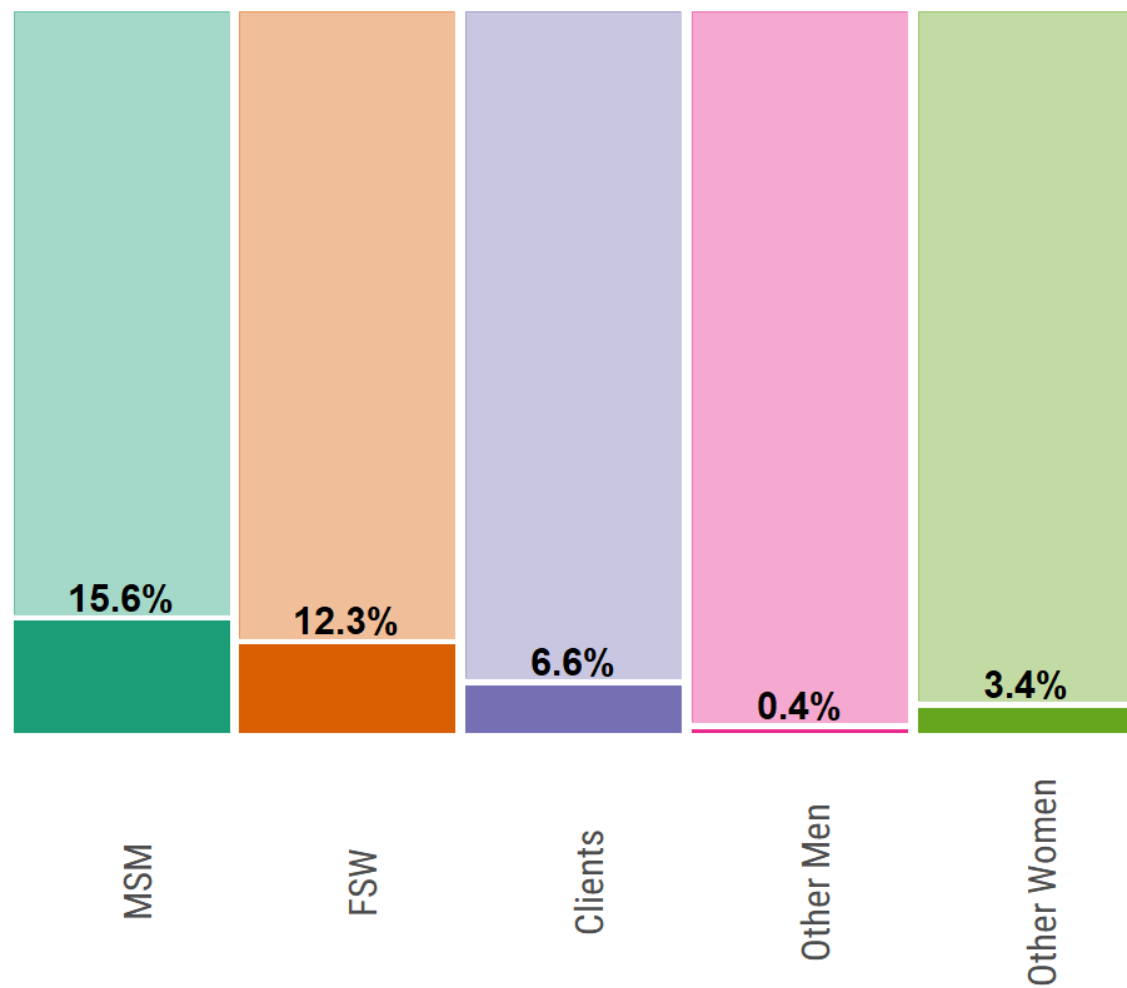
## Some MSM are not observed in the different surveys

Most participants are young (<35) and  
report having older sexual partners

Similar feedback from peer educators on the field  
They have difficulties to reach older MSM,  
in particular married men

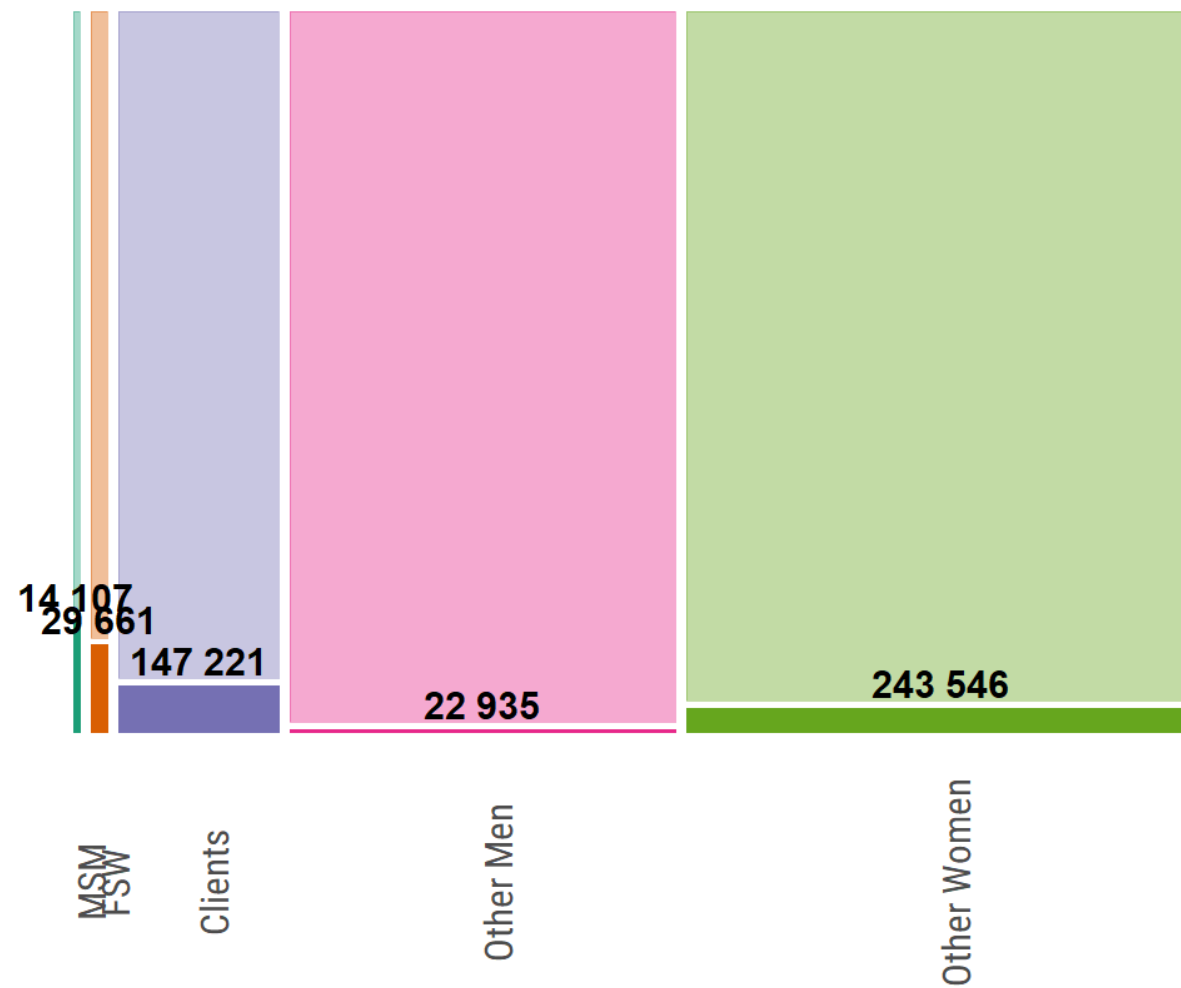
## HIV prevalence by sub-population

Côte d'Ivoire 2018, unpublished data  
derived from Maheu-Giroux et al. JAIDS 2017

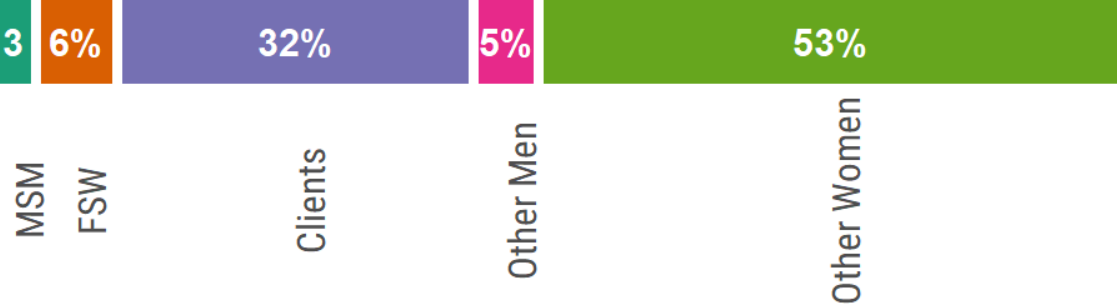


## Number of PLHIV by sub-population

Côte d'Ivoire 2018, unpublished data  
derived from Maheu-Giroux et al. JAIDS 2017

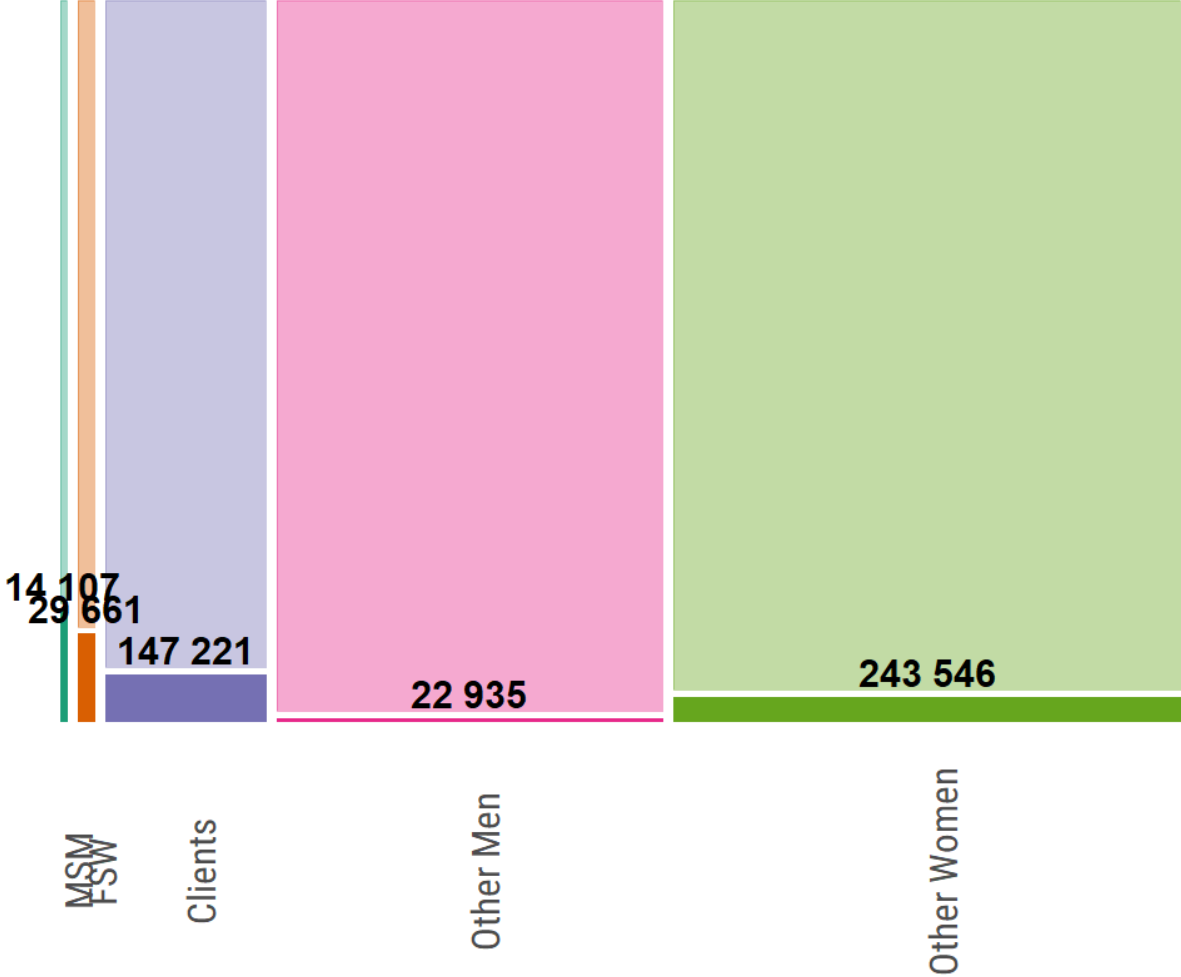


# Distribution of PLHIV by sub-population

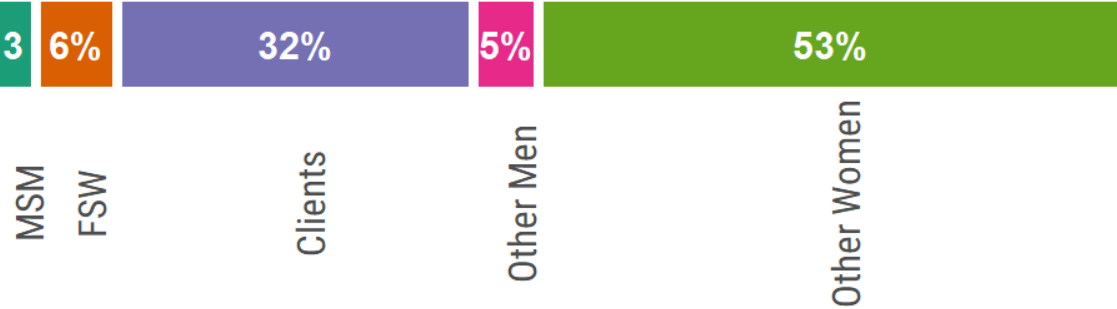


# Number of PLHIV by sub-population

Côte d'Ivoire 2018, unpublished data derived from Maheu-Giroux et al. JAIDS 2017

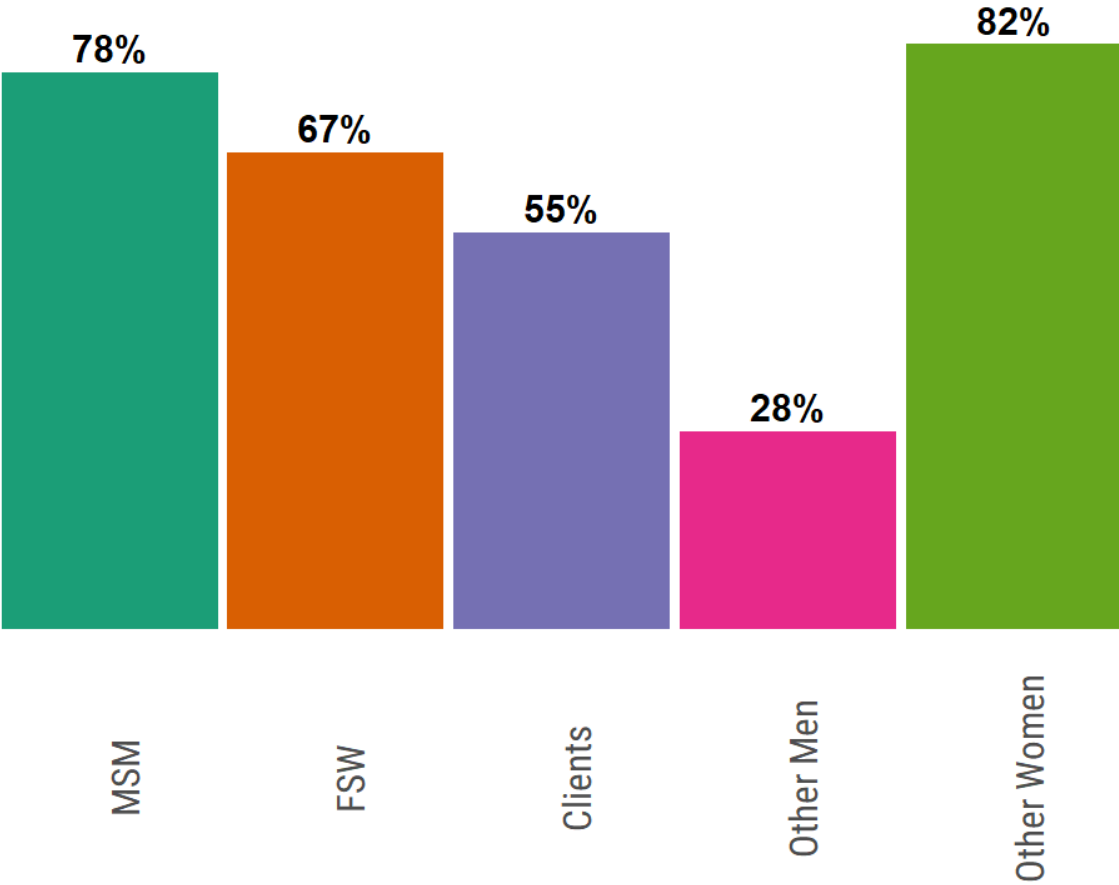


### Distribution of PLHIV by sub-population

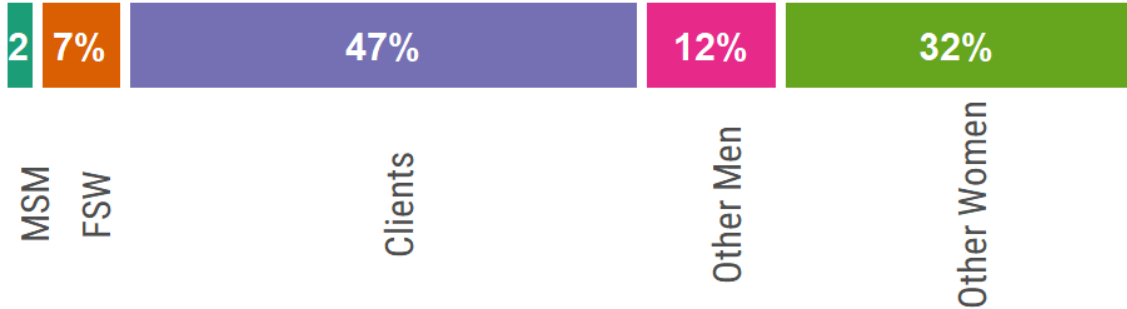


### First 90 by sub-population

Côte d'Ivoire 2018, unpublished data, courtesy of Maheu-Giroux and colleagues



### Distribution of undiagnosed PLHIV by sub-population





## Who transmit and who acquire HIV?

According to the same model,  
in Côte d'Ivoire, between 2005 and 2015

- › MSM:  
4% of those acquiring HIV  
4% of transmitters
- › FSW:  
5% of those acquiring HIV  
19% of transmitters
- › **44% of HIV infections occurred between a client of FSW and a no-FSW women**



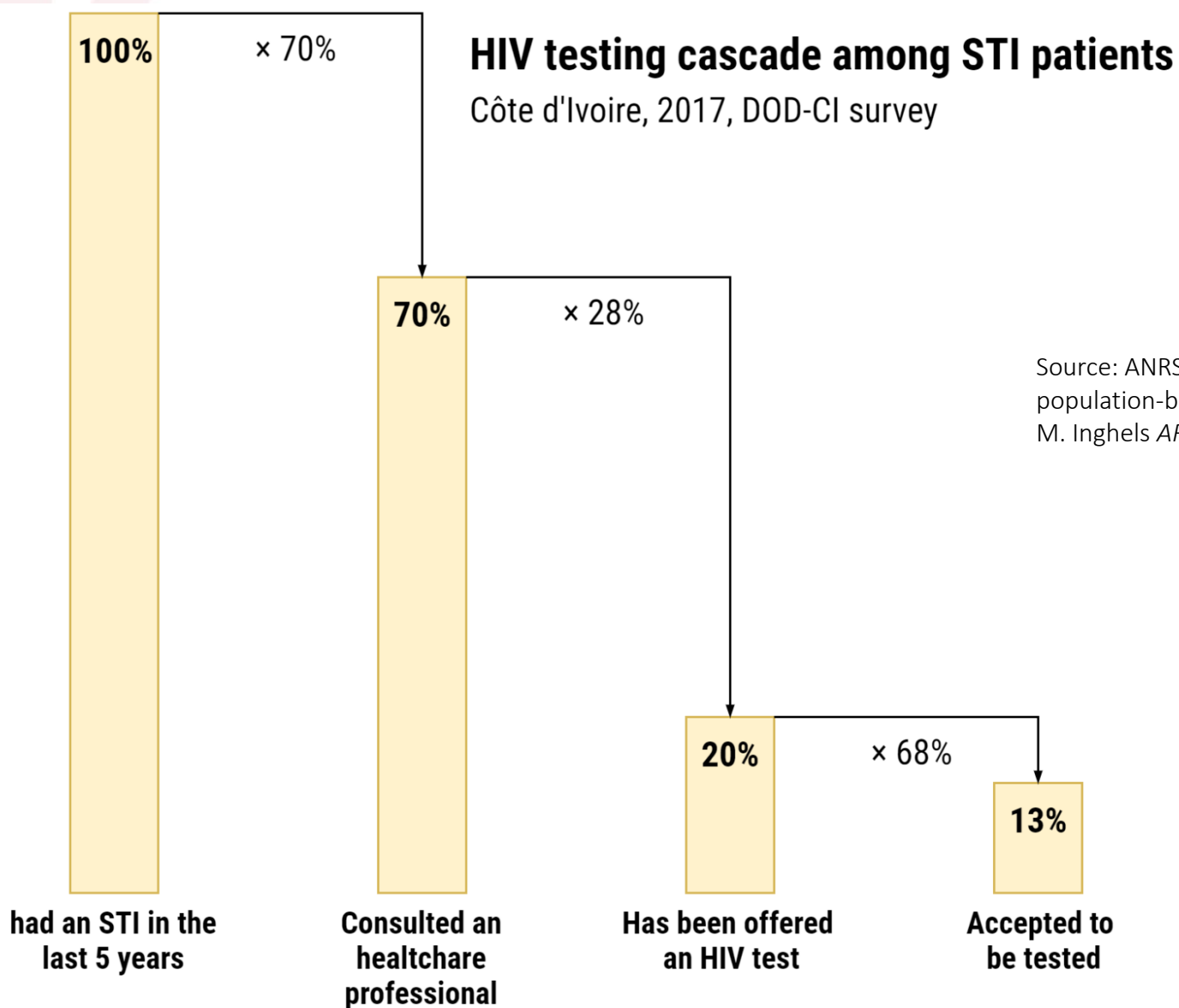
## Differences by countries

According to a similar model  
for Dakar only in Senegal:

- › *Sex between men* (MSM) account for around **half** of new HIV infections
- › *Commercial sex* account for around **one sixth** of new HIV infections

# STI consultations and HIV testing

Only 28% of those who consulted a health professional for an STI in Côte d'Ivoire reported that they were offered to test for HIV.



Source: ANRS 12323 DOD-CI population-based survey 2017, M. Inghels *AFRAVIH* 2018



## ATLAS RESEARCH







Research embedded in ATLAS

## **General objective**

**Describe, analyse and understand**  
the **social, health, epidemiological** and  
**economic effects**  
of the introduction of HIV self-testing  
in Côte d'Ivoire, Mali and Senegal  
to improve testing offer (accessibility,  
effectiveness and ethics)

## Secondary objectives (1/2)

- Identify the social, cultural and organisational factors facilitating and limiting the primary and secondary distribution of HIV self-tests and their use/appropriation by the different actors concerned (program or project manager and NGO representative, delivery agents, primary contacts, secondary contacts).
- Establish the socio-behavioural profile and HIV testing history of HIV self-tests users and their care history in the event of a reactive self-test.
- Analyze the positive and negative social and health consequences of the introduction of HIV self-testing for individuals, communities and the health system.

## Secondary objectives (2/2)

- Estimate the incremental costs of dispensing HIV self-tests per delivery channel.
- Model the epidemiological impacts of the ATLAS program and different scaling scenarios on epidemic dynamics.
- Estimate the medium- and long-term cost-effectiveness and budgetary impact of different scaling up strategies.