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HIV and AIDS

Social and Behavioral Science Research (SBSR)

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## Reaching 90-90-90: Evidence from Project SOAR to strengthen the HIV response

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# Reaching 90-90-90: Evidence from Project SOAR to Strengthen the HIV Response



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# Today's presentation

- Overview of Project SOAR
- Key Findings
  - Testing and treatment
  - Social barriers
- Research Utilization and Capacity Strengthening

# What is Project SOAR?

- “Supporting Operational AIDS Research” (SOAR) conducts HIV implementation science to inform programs and policy
- 6 years (2014–2020), USAID funded
- US\$50+ million



THE UNIVERSITY  
of NORTH CAROLINA  
at CHAPEL HILL





# Where SOAR works

Haiti

2

Dominican Republic  
1

Senegal  
2

Cote d'Ivoire  
2

Cameroon  
2

Angola  
1

Namibia  
8

Botswana  
1

South Africa  
15

Nigeria  
1

Uganda  
11

Rwanda  
3

Zambia  
5

Lesotho  
10

Ethiopia  
1

Kenya  
10

Tanzania  
9

Malawi  
14

Mozambique  
7

Zimbabwe  
7

Eswatini  
9

Global Activities  
10

70 activities in 21 countries

# Research utilization: core strategy



Key to ensuring impact on programs/policy

- Involvement of stakeholders at all stages of research process
- Ensuring local ownership of findings
- Creating champions to foster use of data

The image shows the cover of a guide titled "Project SOAR's Approach to Research Utilization". The cover features a large, dark blue, curved arrow pointing upwards and to the right. The title is centered in a white box. The text "guide and tools" is written vertically on the left side. At the bottom, there are logos for USAID, PEPFAR, Project SOAR, Palladium, and Population Council. The date "MARCH 2016" is printed vertically on the left side of the arrow. The URL <http://www.projsoar.org/resources/resource-type/guide-and-tools/> is displayed at the bottom.

guide and tools

Project SOAR's  
Approach to  
Research Utilization

MARCH 2016

USAID PEPFAR PROJECT SOAR Palladium POPULATION COUNCIL

<http://www.projsoar.org/resources/resource-type/guide-and-tools/>

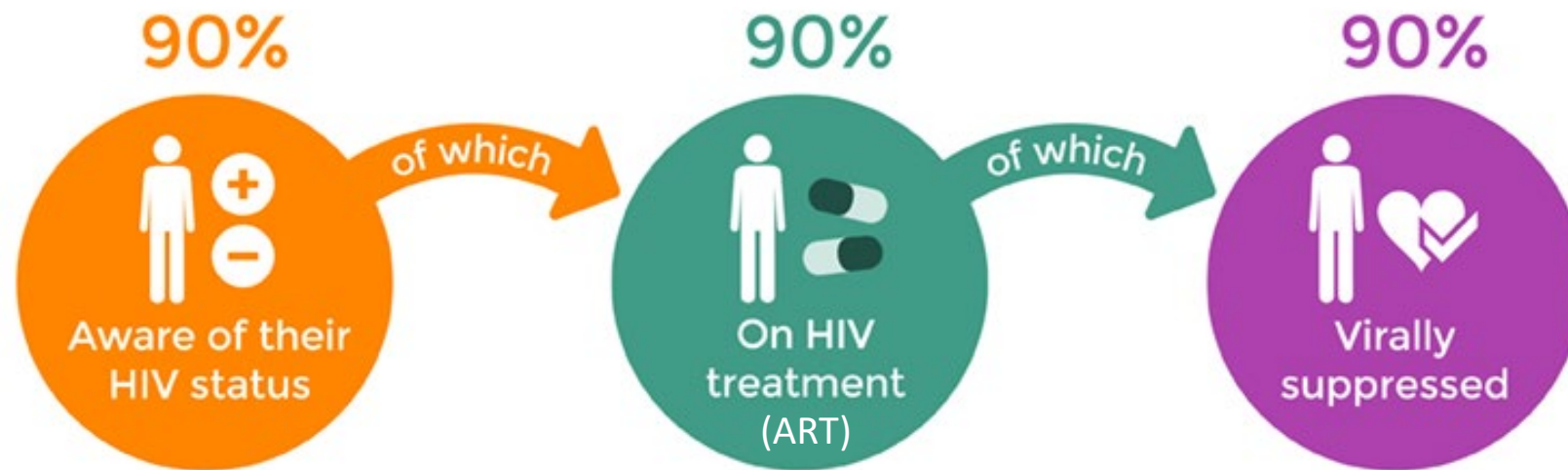
# Responding to major shifts in HIV global priorities

- Scale up of AGYW programming (DREAMS)
- Adoption of “test and start” guidelines
- Pre-exposure prophylaxis
- Undetectable=Untransmissible (U=U)
- Key populations and stigma (KPIF, Stigma Index)





# Project SOAR: contributes to global goals for controlling the epidemic



**ZERO**  
Discrimination

Gender  
**EQUITY**

Fewer than  
**500,000**  
new HIV  
infections  
annually

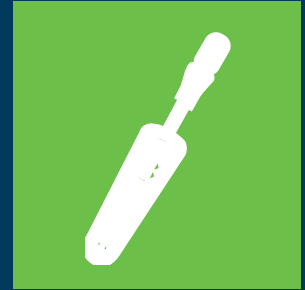




# Awareness of HIV status



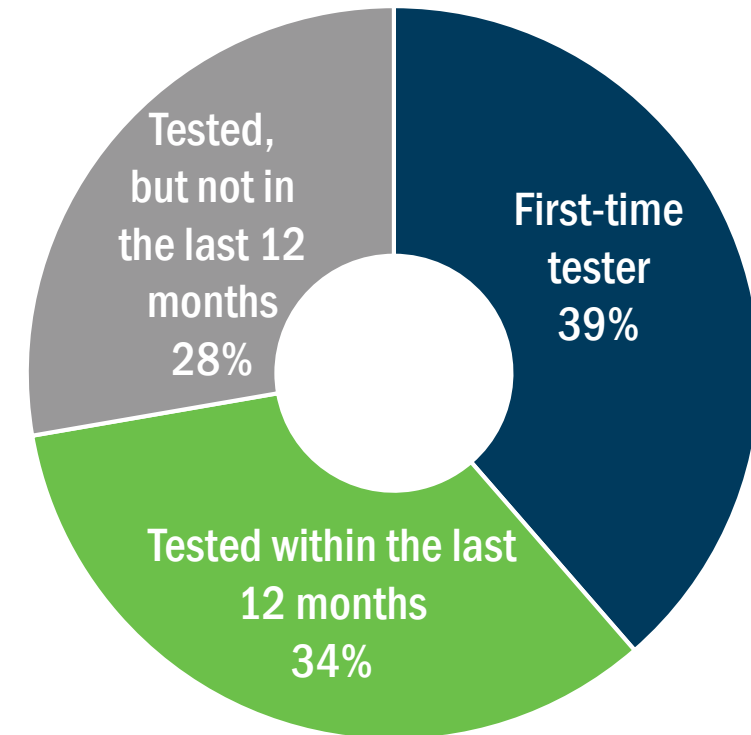
# Key takeaways



- HIV self-testing (HIVST) effective in reaching undiagnosed key populations (KPs)
- HIV screening tools for children/orphans and vulnerable children (OVC) achieved higher sensitivities, yet false negative rates remain unacceptably high
- Re-testing HIV-negative pregnant and post-partum women is essential for pediatric case finding
- A participatory, systems approach can increase the offer and uptake of facility-based HIV testing

# HIV self-testing in Senegal

- High use and acceptability of HIVST
  - 94% used the HIVST, most within 2 days (89%)
- Reached key populations (KPs) who had never taken an HIV test or those who had not tested in the last year
- Confirmatory testing of positives was low (3%), and remains a challenge



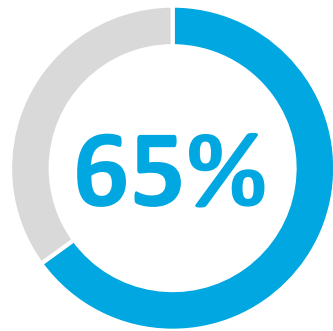
**MOH integrated HIVST in its test and treat guidelines.**

# HIV screening tool for orphans and vulnerable children in Tanzania

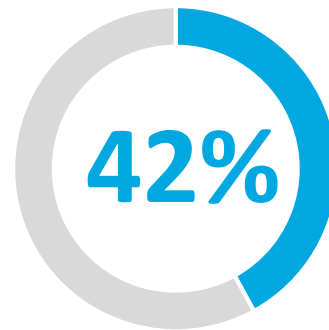
- High acceptability of home-based screening and testing of OVC
- Overall low HIV-positive yield (n=76; 0.4%) at household and facilities
- Screening tools remain imperfect
  - High sensitivity (up to 70%) compared to Bandason tool, yet false negative screenings are 30–40% of true positives
- Further studies needed to weigh financial costs of screening/testing against human costs of missed or delayed diagnosis

# Pediatric case finding in Uganda and Kenya

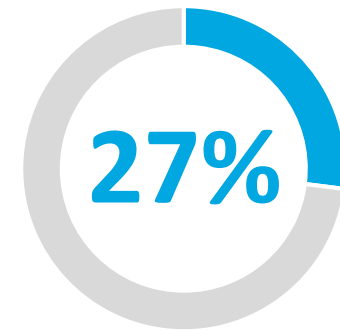
- Failure to (a) link HIV-positive women to antiretroviral therapy (ART) and (b) re-test HIV-negative women is responsible for missed pediatric HIV cases
- Assessed 174 HIV-positive children (2–14) that were missed



Of 95 mothers who had an HIV test at ANC, 65% tested negative



Of 41 mothers who knew they were HIV positive, 42% did not receive ART during pregnancy



Of 56 mothers who knew they were HIV positive but did not receive ART during breastfeeding



**Local DHMTs/MOHs re-educating healthcare workers (HWs) on ART guidelines and re-testing HIV-negative pregnant and postpartum women.**

# Utilizing a systems approach to increase facility-based HIV testing in South Africa

- Formative research identified gaps and bottlenecks in HIV testing services (HTS) uptake
- Changes implemented after discussion of findings with clinic staff:
  - Promotion of HTS in the waiting areas,
  - Offering HTS during registration or when taking vital signs
  - Increasing efficiencies in counselor staffing management and working hours
- Result: increased proportion of patients offered HTS (9% to 31%;  $p < 0.001$ ), among which uptake increased (8% to 21%;  $p < 0.001$ )



# Linking people to HIV treatment and retaining them in care





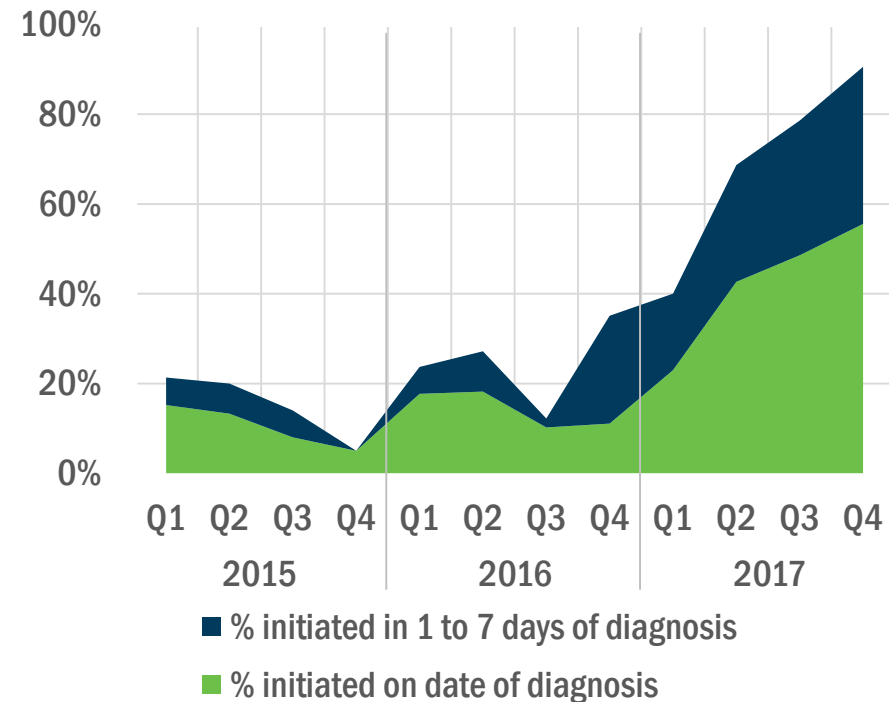
# Key takeaways



- “Test and start” is working
- Integration of depression management in HIV care is feasible and acceptable
- A family-centered care model encouraged HIV disclosure and treatment support, reduced stigma within the family
- Receiving HIV treatment services at an accessible location in the community improved treatment initiation and retention for female sex workers (FSWs)
- Monthly support groups and delivery of ARVs by community health agents improved treatment retention among adults living with HIV

# Test and start in Namibia

- Namibia transitioned in April 2017
- Time to initiation greatly decreased
  - 43 days → 3 days
- Viral suppression improved:
  - Recent ART initiates: 89% → 97%



>90% treatment initiation within 7 days after test and start

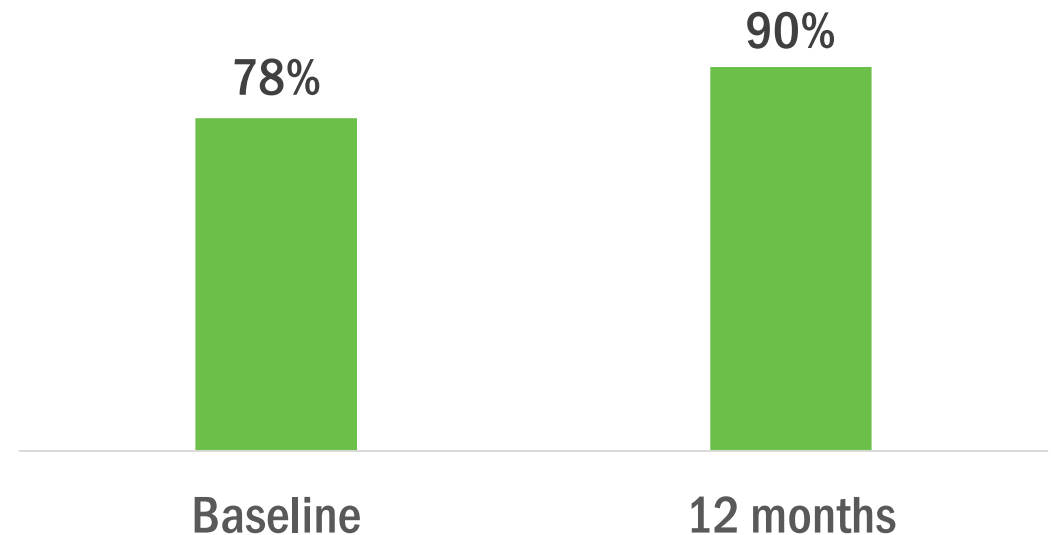
# Integration of depression screening and management into HIV care in Malawi

- 86% of patients with mild depression initiated psychosocial counselling
- 96% of patients with moderate–severe depression-initiated antidepressants
- Feasible and acceptable
  - But no impact on HIV outcomes

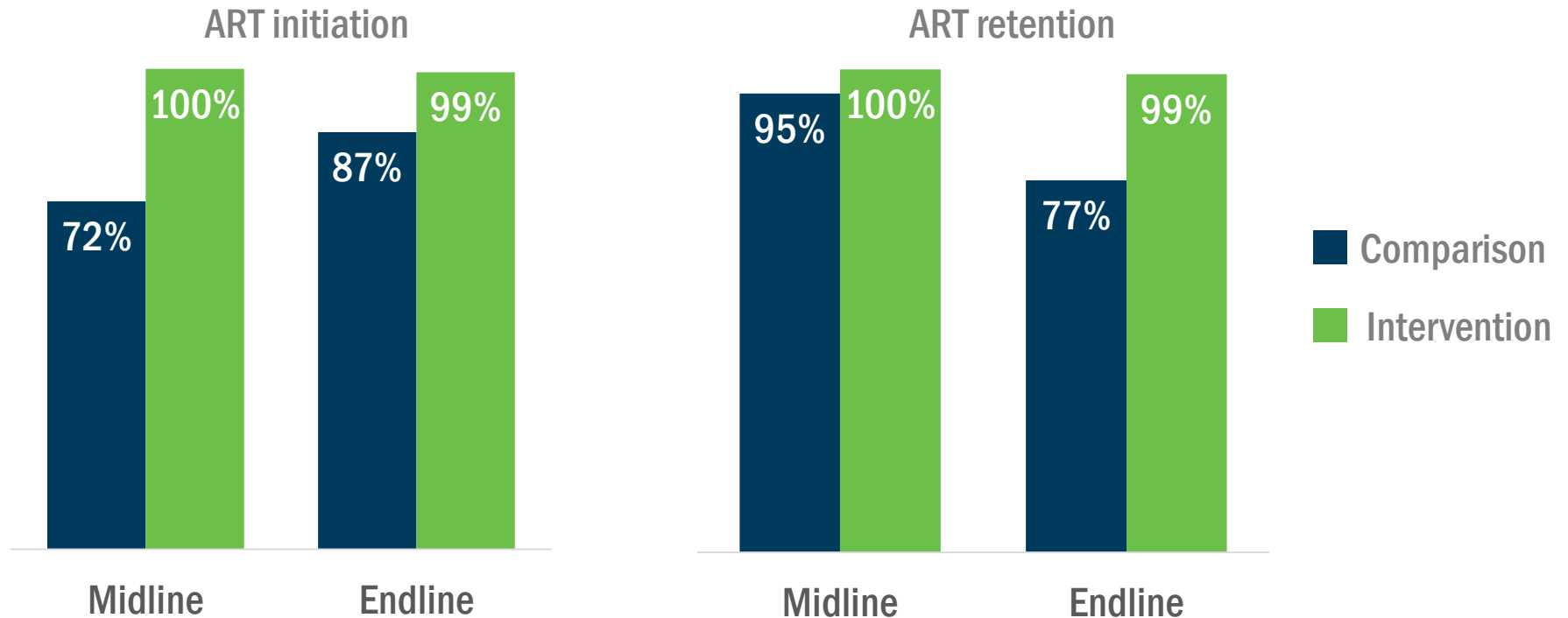


# Family-centered care model in Eswatini

- Encouraged family members to disclose HIV status and support each other
- Reduced HIV-related stigma within the family
- Caregivers viewed the counseling as better than in standard of care
- Allowed HWs to track family histories and identify family solutions to HIV care challenges
- However, no difference in HIV outcomes between groups
- Overall improvement in viral suppression

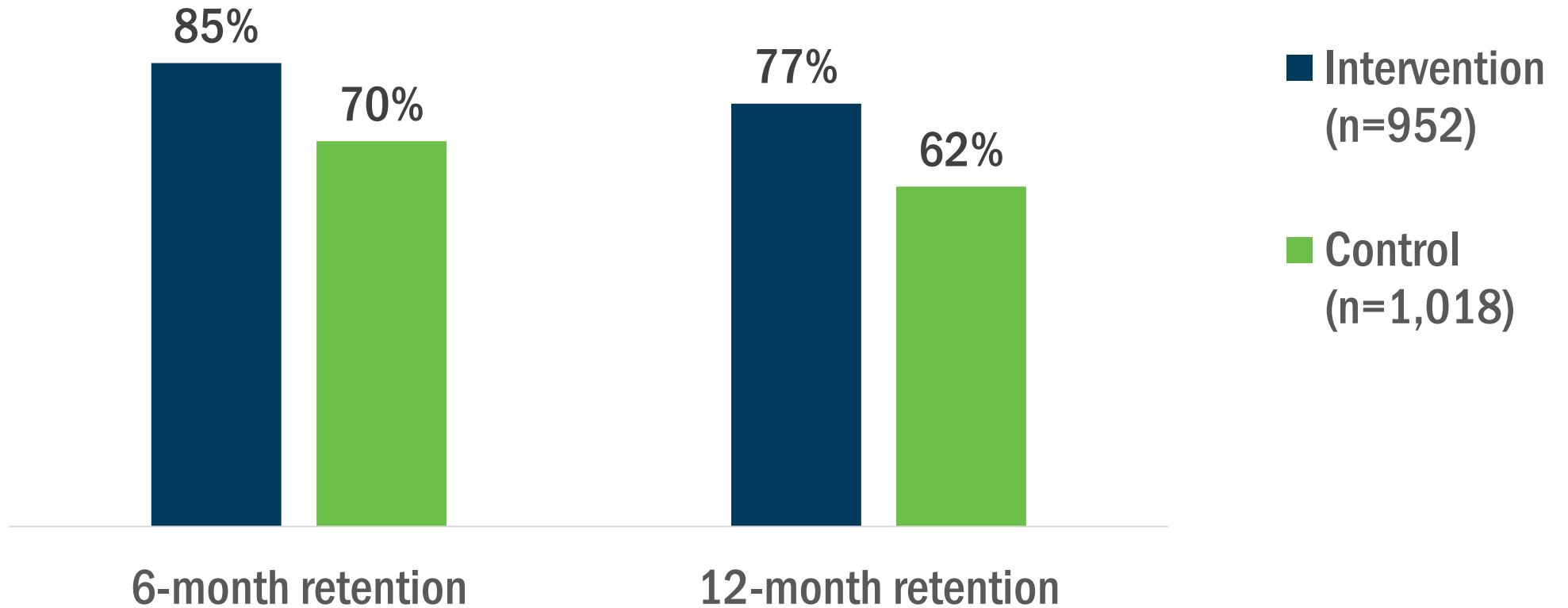


# Community ART services for female sex workers in Tanzania



 **Government used findings to inform national ART guidelines.**

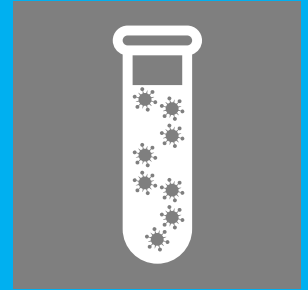
# Community support intervention for adults living with HIV in Tanzania





# Viral suppression

# Key takeaways

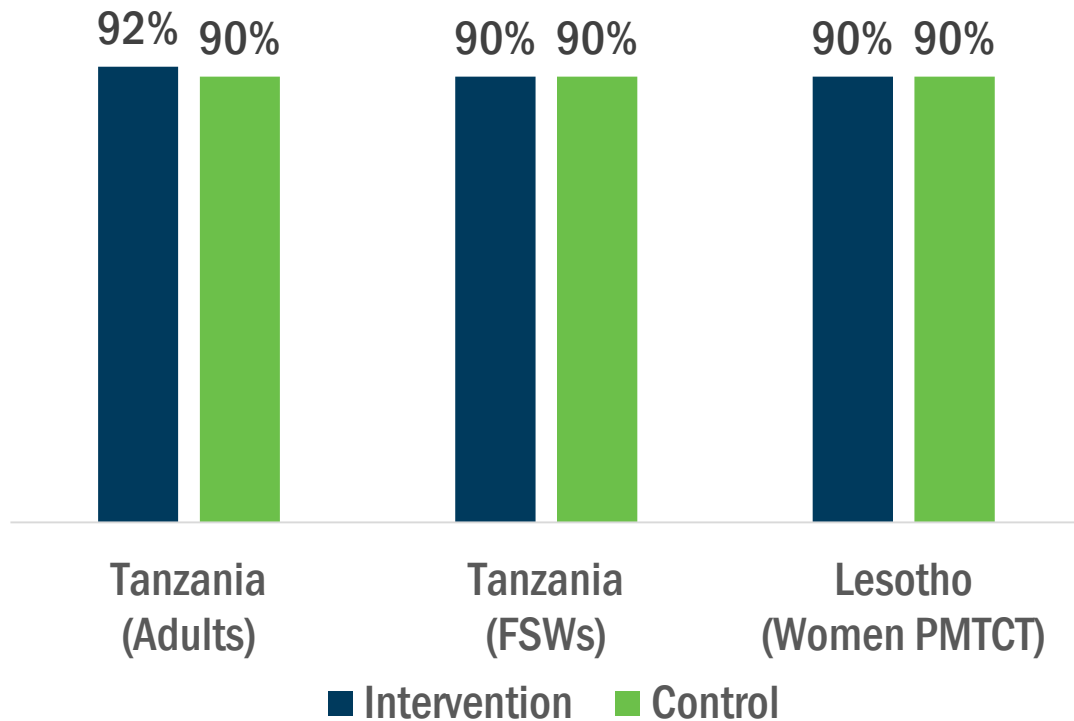


- Community treatment models strengthened ART program follow-up and improved ART retention, yet did not increase viral suppression substantially over 90%
- Suboptimal pediatric ART regimens are still being used, resulting in lower viral suppression
- Exposure to violence or psychological abuse is associated with viral load (VL) failure among young people
- Viral load testing and documentation remains suboptimal; poor viral load literacy an important factor that needs to be addressed



# Community-level interventions in Tanzania and Lesotho

Viral suppression at 12 months among retained patients



- Interventions in Tanzania and Lesotho effective at strengthening follow-up and retention of ART patients
- Among retained people living with HIV (PLHIV), however, still need to find ways to improve viral suppression to >90%

# Pediatric ART regimens in Eswatini

- 43% of Eswatini children living with HIV on suboptimal ART regimen (NVP-based)
- Those on suboptimal ART less likely to be virally suppressed than those on EFV-based regimen (72% vs 87%)



**MOH rolled out a plan to replace sub-optimal pediatric ART regimens.**

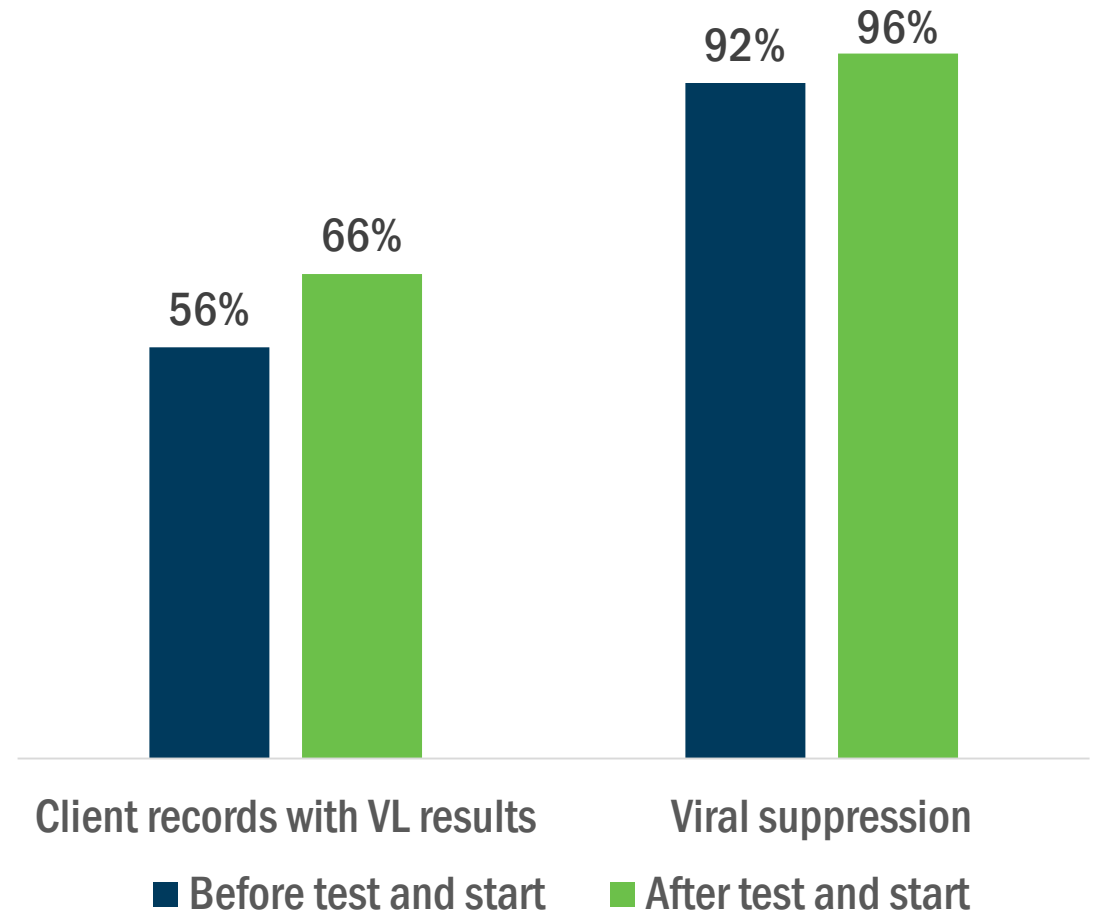
# Violence and ART among youth in Zambia

- Over 70% of young people transitioning to adult HIV services reported previous exposure to violence
- Youth exposed to higher volumes of violence were **~3.5 times** more likely to experience VL failure
- Exposure to psychological abuse also associated with VL failure



# Viral load testing and literacy in Namibia

- VL testing has improved after test and start, but remains sub-optimal
- Client education and engagement are needed to improve VL testing
  - Clients lack knowledge
  - Providers assumed that clients were more VL literate
  - Breakdowns in transcribing VL results to client records





## Social barriers: gender and stigma

# Key takeaways



- Community-based programs in high-prevalence settings can reduce harmful gender norms and violence
- DREAMS programming reduces HIV vulnerability among adolescent girls and young women (AGYW)
- Male partners who experience childhood trauma are more likely to perpetrate violence, have multiple partners
- PLHIV Stigma Index has been updated to more effectively document stigma, led and owned by PLHIV
- Key populations living with HIV experience multiple, intersecting stigmas

# Gender-focused community intervention: South Africa

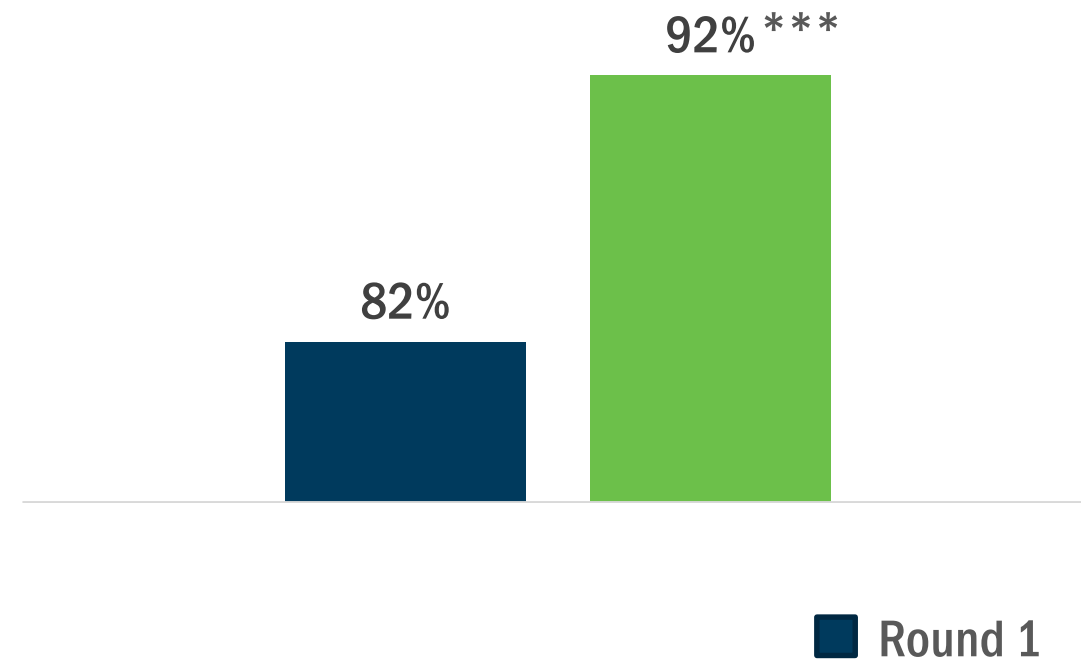
- Stepping Stones implemented in informal settlements
- Fewer women experienced and men perpetrated violence
- Stronger support for equitable gender norms for both men and women



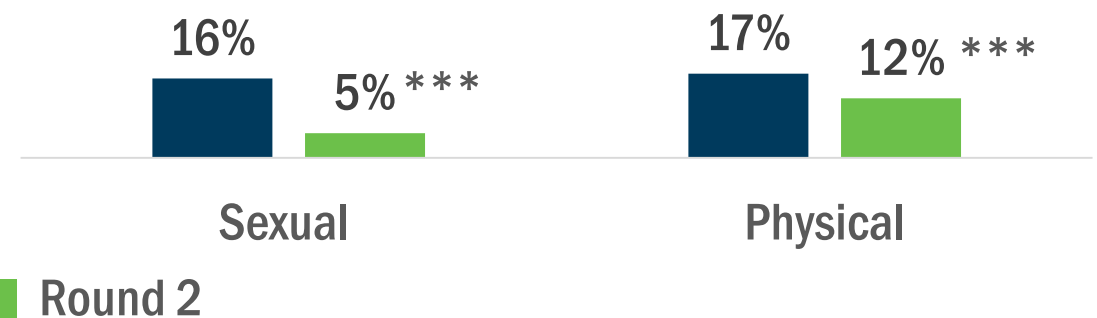
# DREAMS in Malawi

Change over time in HIV-related factors among 20- to 24-year-old young women, bivariate regressions

Self-reported HIV testing in last 12 months



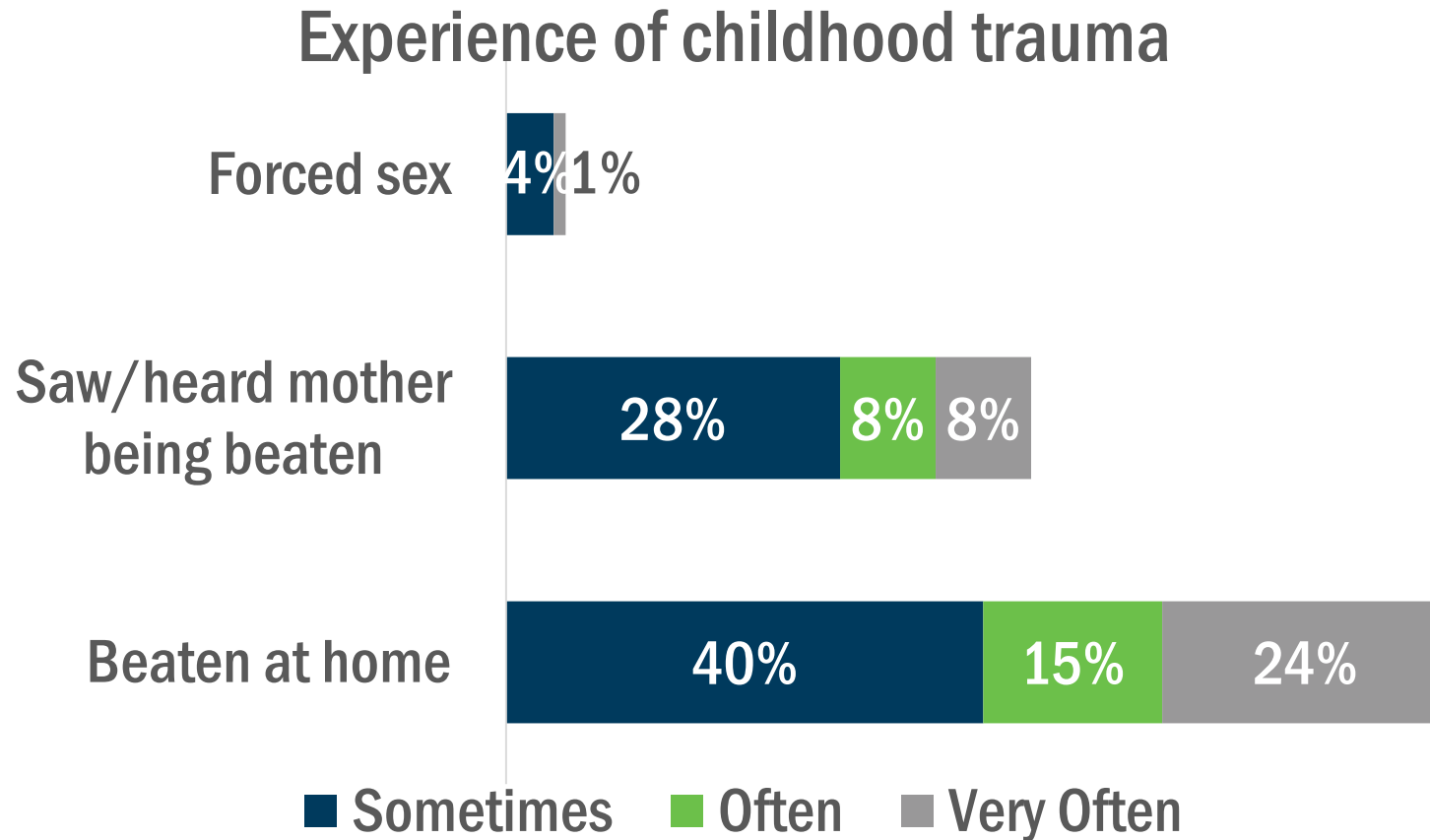
Experience of violence from partners



\*\*\*p<0.001



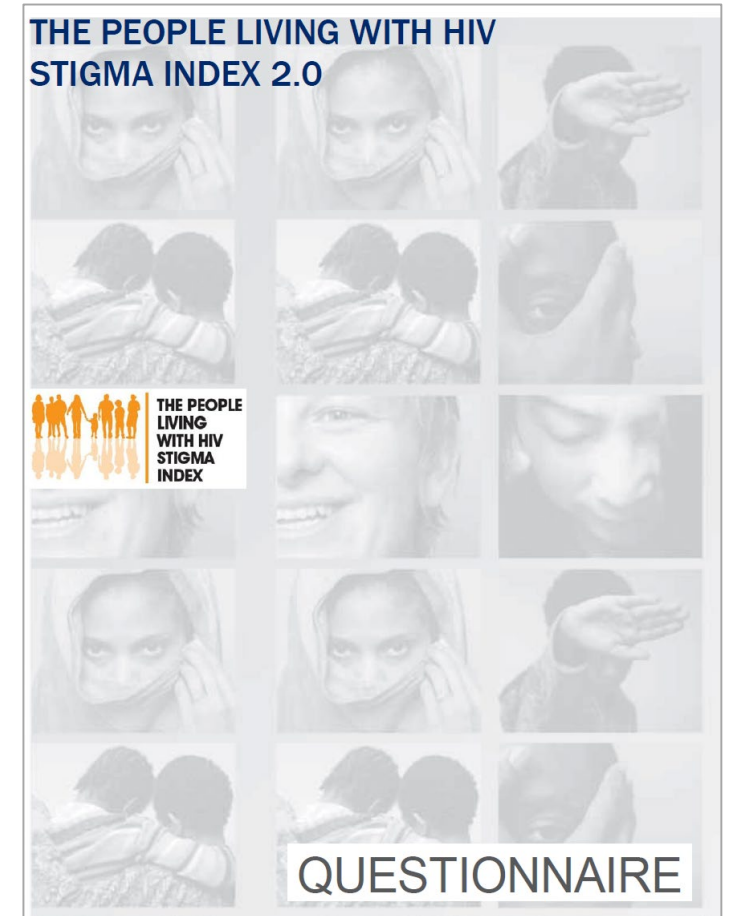
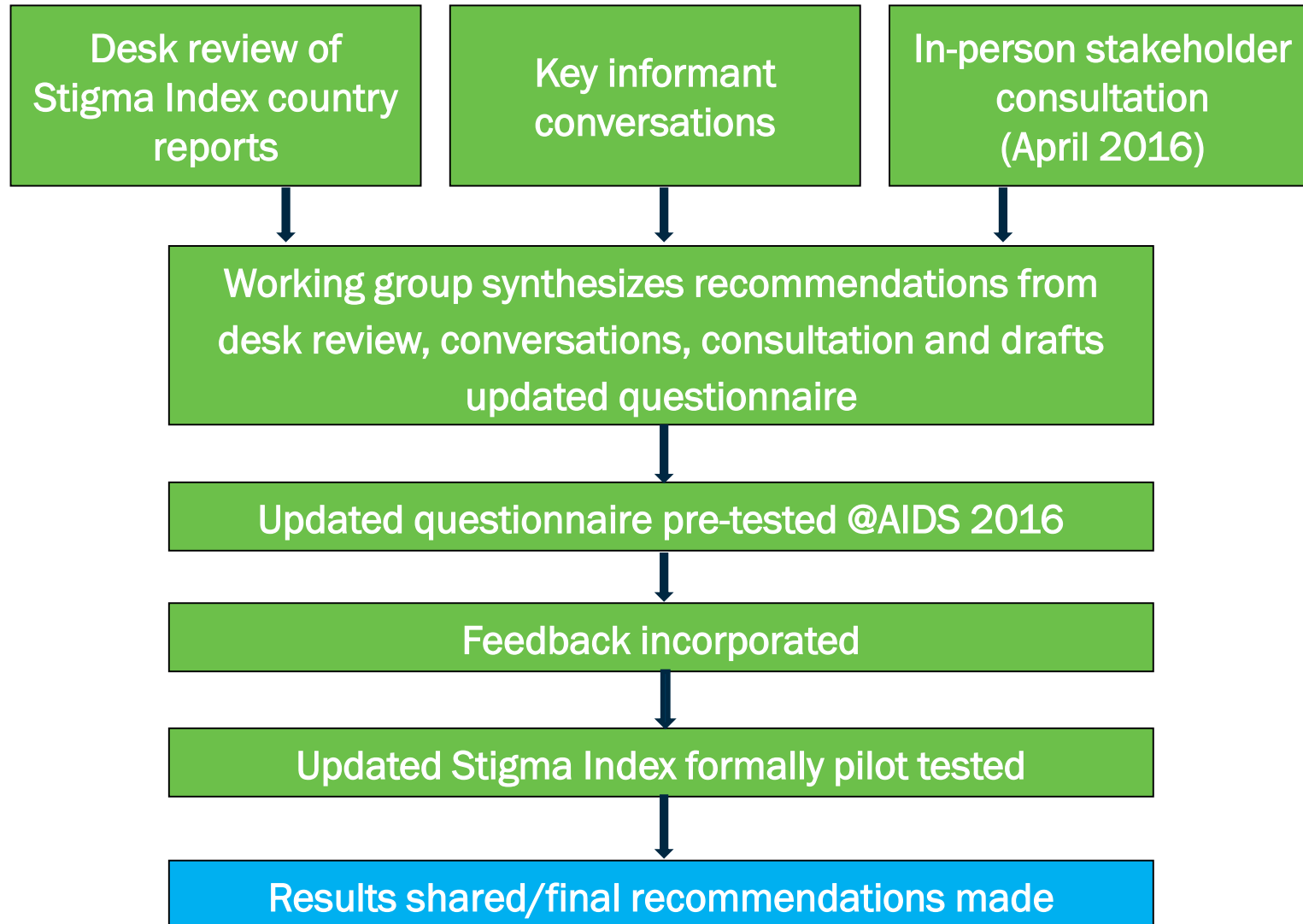
# Male partners of AGYW in Malawi



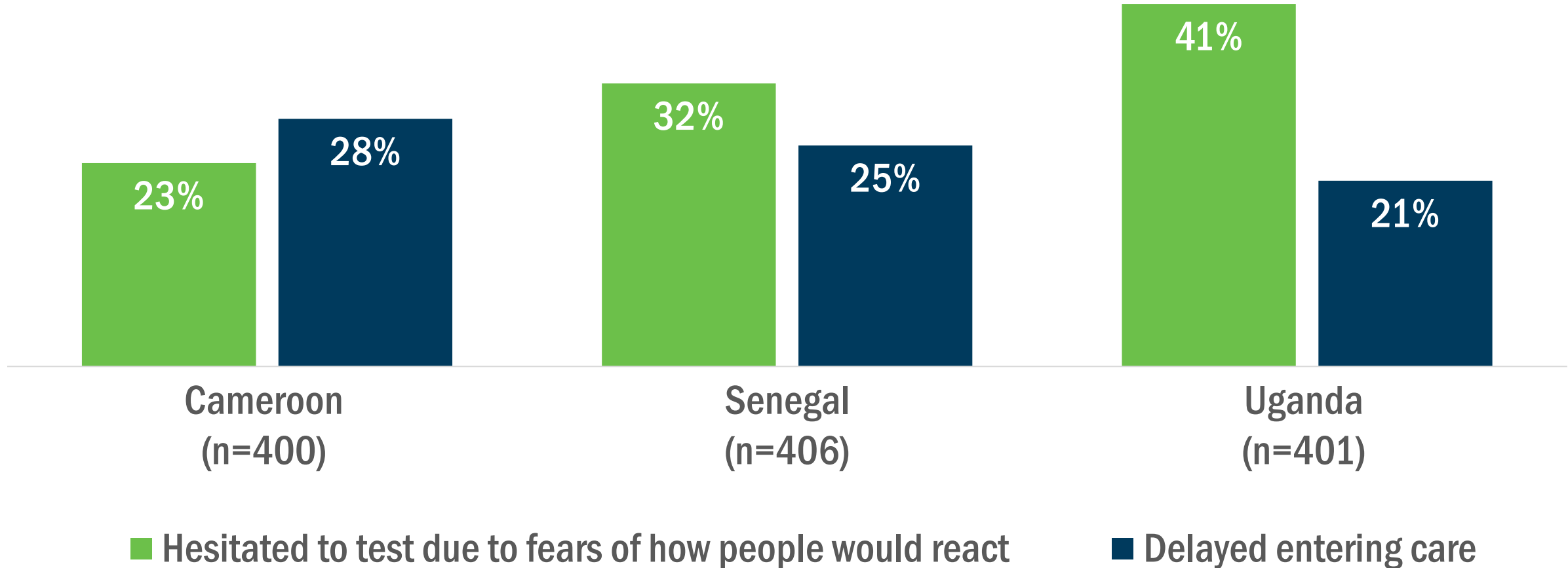
## Experience of childhood trauma increased odds of:

- Perpetrating violence (OR=2.52,  $p < 0.001$ )
- Having 2+ sexual partners (OR=1.56,  $p < 0.01$ )

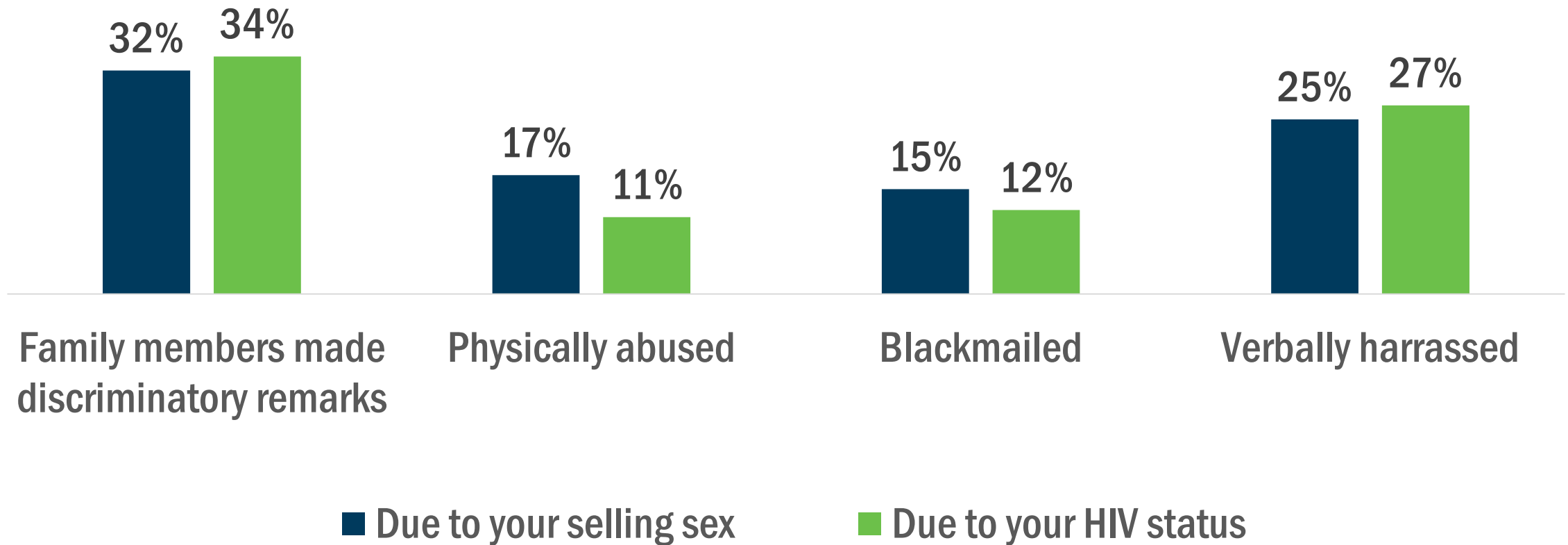
# Consultative process to update the PLHIV Stigma Index



# HIV-related stigma and testing and treatment delays: Cameroon, Senegal, Uganda



# Multiple stigmas among HIV-positive sex workers in the Dominican Republic





# Prevention

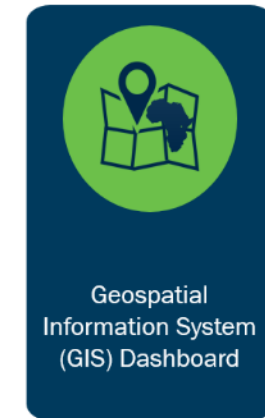
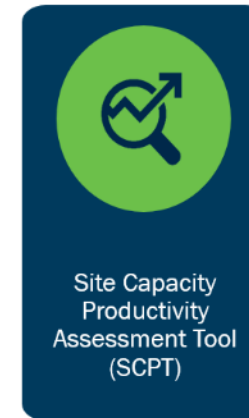
# Modeling and costing

- User-friendly tools making data accessible to inform programs and resource allocation

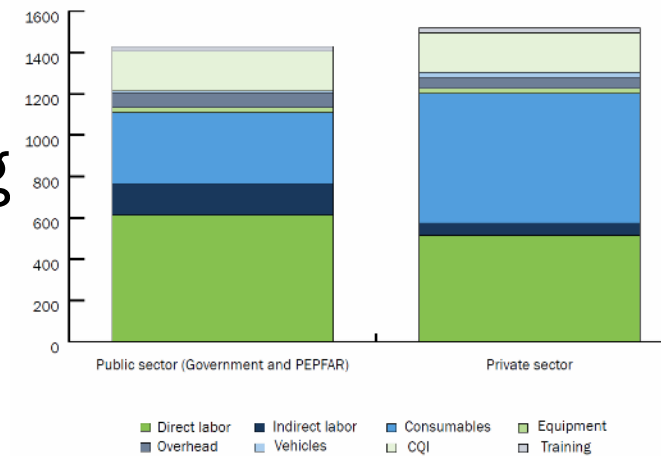
- DMMPT

- Voluntary medical male circumcision (VMMC) costing and modeling

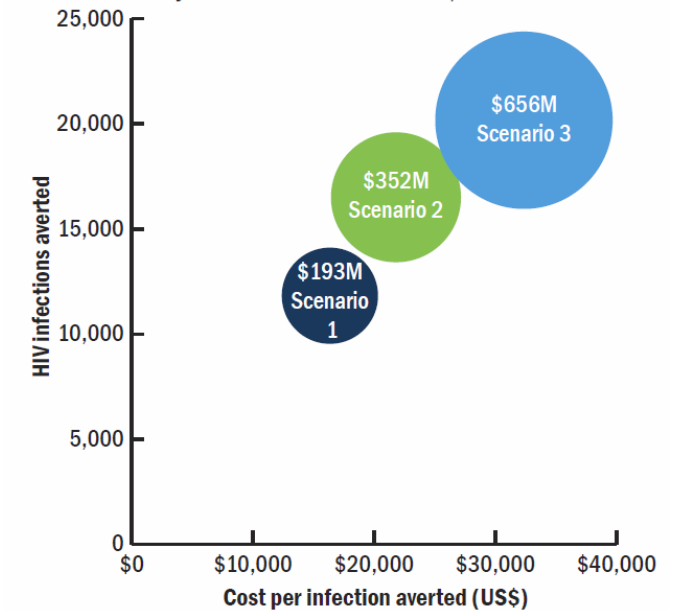
- Pre-exposure prophylaxis (PrEP) modeling



Unit cost comparison: public vs private sector



Cost-effectiveness, HIV infections averted, and total cost by oral PrEP rollout scenario, 2018–2030





# Research utilization and capacity strengthening

# Research utilization creates a team of researchers, program managers, and policy makers





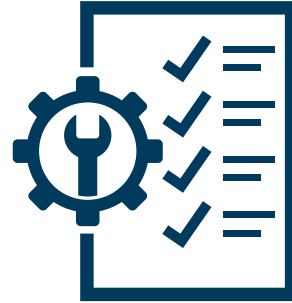
# Best practice: institutionalizing research utilization

- Engaging stakeholders throughout studies and activities
  - Research advisory committees
  - Data use plans
- Technical convenings
  - Utilizing diverse sources of data (rigorous studies, HIS, routine, etc.)
  - Youth and treatment
  - Gender-based violence and treatment
- Promoting research utilization experience with global audiences
  - IAS 2019 and ICASA 2019 satellite sessions
  - *AIDS & Behavior* manuscript



**111**

**oral/poster presentations  
given by SOAR PIs at  
international, regional,  
and national conferences**



**45**

**program practices,  
guidelines, and tools have  
been influenced by  
exposure to SOAR research**

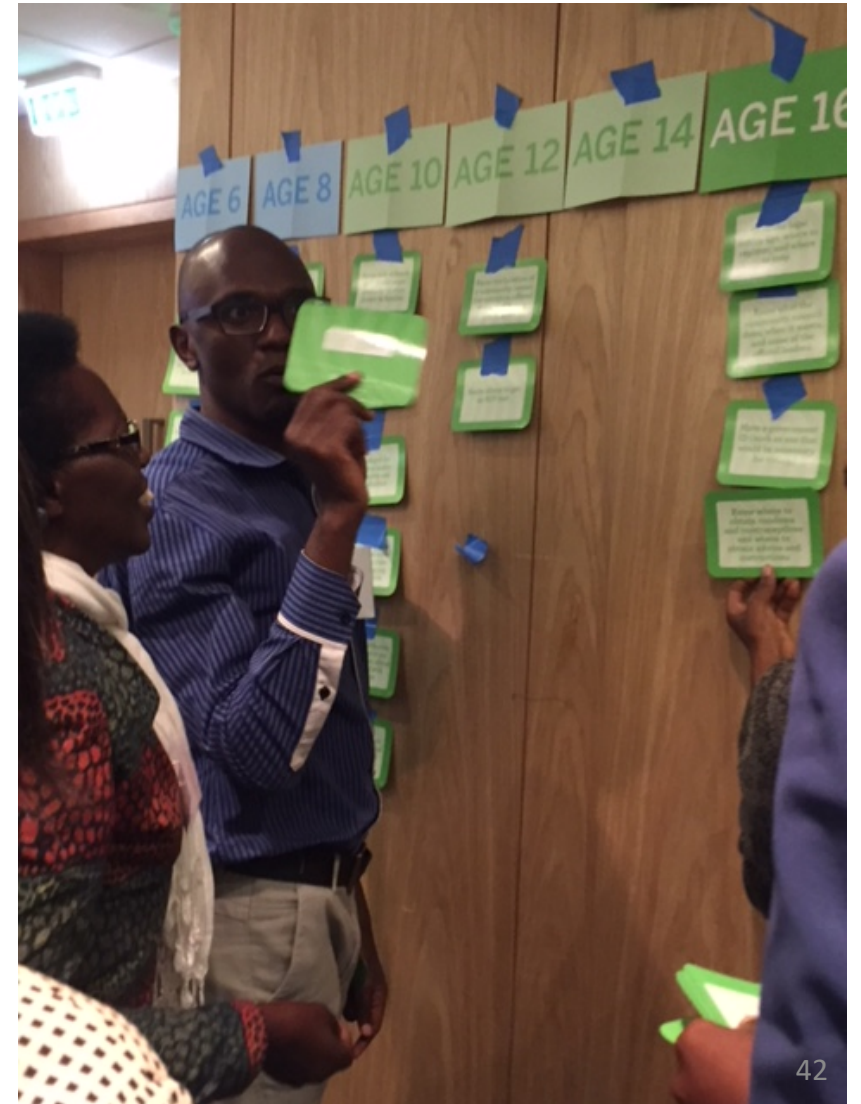


**160**

**researchers and/or  
institutions have  
used SOAR's  
research findings**

# Capacity strengthening highlights

- SOAR investigator workshops
  - Conducting research *and* using findings
- Interpreting and using key populations data
  - 6 country Global Fund technical assistance
- DREAMS partners: utilizing tools for targeting AGYW
  - 5 country workshops





**498**

**in-country researchers  
have participated in a  
SOAR capacity  
strengthening activity**



**113**

**local institutions have received  
targeted SOAR activities  
designed to strengthen their  
research capacity**



**135**

**in-country researchers and  
other stakeholders serving  
as co-investigators on  
SOAR studies**

# More resources available at projsoar.org

**results brief**

## Implementing and Scaling-up Stepping Stones in KwaZulu-Natal, South Africa: lessons from working in informal settlements

KwaZulu-Natal (KZN), a major epicentre of the South African HIV epidemic, has large informal settlements where thousands of people live. Since the settlements are unplanned, they are often underserved by municipal services and lack accessible health care. Given high rates of HIV, there is an urgent need to assess the successes and challenges of implementing HIV prevention and treatment in this context.

Stepping Stones is a widely used life skills training intervention focused on curbing gender-based violence (GBV) and reducing HIV risk. The program addresses issues such as communication about HIV, relationship skills, and assertiveness. The manual-based curriculum encourages participants to engage in critical reflection through role playing and group dialogue. Previous evaluations of Stepping Stones in South Africa found significant reductions in intimate partner violence and herpes simplex virus 2, and partner violence in couples co-located on and near community health centres. This brief reports on the implementation of the program in informal settlements in KZN, one of four provinces where the program was implemented.

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**results brief**

## The People Living with HIV Stigma Index 2.0: Results from pilot testing in three countries

Stigma and discrimination among people living with HIV contributes to poor quality health care, coercion gatherings, and social exclusion from social activities. Given its impact on the HIV epidemic, addressing stigma is a key priority for global HIV efforts.

**MAIN CHANGES BETWEEN THE ORIGINAL STIGMA INDEX AND THE STIGMA INDEX 2.0**

**Topical**

- Adapted questions/response options to distinguish experiences by gender identity, population, and individuals born with HIV
- Added new questions to examine more in depth the varied experiences of sex workers, men who have sex with men, lesbians, transgender individuals, people who use drugs
- Expanded the healthcare section with an emphasis on the HIV care continuum
- Incorporated existing, validated scales to measure internal stigma and mental health
- Created new scale to measure resilience

**Methodological**

- Framed questions to ask about the last 12 months to better track over time
- Streamlined structure to reduce administration time
- Reduced open-ended questions

**METHODS**

Project SOAR researchers from the Population Council and Johns Hopkins University provided technical assistance to local country partners (NICAP+), Senegal (Enda Santé and RNP+), and (NARDHANA) in pilot testing the draft Stigma Index 2.0. To be eligible, respondents had to have been living with HIV for at least one year.

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**results brief**

## Youth Living with HIV in Zambia: interpersonal violence, self-stigma, and viral suppression

As adolescents and young adults living with HIV age into adulthood, they must navigate the transition to HIV self-management and adult care. This is a complex process, particularly for young people who must manage a chronic illness like HIV. As a result, many adolescents and young adults living with HIV have incomplete adherence to antiretroviral therapy (ART), leading to poor viral suppression and a greater risk of HIV-related mortality.

Under Project SOAR, Johns Hopkins University in collaboration with Arthur Davison Children's Hospital is refining and testing a peer-mentoring strategy in Zambia (Project YES!) to strengthen the capacity of health systems and families to support youth living with HIV (YLHV) as they transition to, and engage in, self-management and adult HIV care and treatment. Results will offer evidence-based guidance and refined tools for YLHV, their families, and their health care providers to improve the care transition process and related HIV outcomes.

A total of 276 YLHV were enrolled in the study. This brief presents survey and viral load data for 273 participants. The brief also highlights findings from in-depth interviews with a sub-group of 40 YLHV participating in Project YES! who were selected to provide a range of experiences related to violence and viral suppression.

**KEY MESSAGES**

- YLHV participating in this study have experienced high levels of violence.
- Youth often reported experiencing multiple types of violence from multiple perpetrators when they were with high levels for females from a parent/caregiver and intimate partner, and males from a friend/peer.
- Self-stigma, as manifested by feelings of guilt, shame, and worthlessness, is also of concern.
- Many youth are not virally suppressed, and the majority of this group demonstrate resistance to either first or second line treatments.

**WHO ARE THE PARTICIPANTS?**

- 60% female
- 63% 15-19 years of age
- 73% perinatally infected (self-report)
- 49% currently in school
- 50% receive care in a pediatric setting

**USAID** **PEPFAR** **JOHNS HOPKINS** **PROJECT SOAR**

**ORIGINAL PAPER**

## The Role of Depression Screening and Treatment in Achieving the UNAIDS 90-90-90 Target in Sub-Saharan Africa

Volume 23 • Supplement 2 • September 2019

# AIDS and Behavior

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# Thank You



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Through operations research, Project SOAR will determine how best to address challenges and gaps that remain in the delivery of HIV and AIDS care and support, treatment, and prevention services. Project SOAR is producing a large, multifaceted body of high-quality evidence to guide the planning and implementation of HIV and AIDS programs and policies. Led by the Population Council, Project SOAR is implemented in collaboration with Avenir Health, Elizabeth Glaser Pediatric AIDS Foundation, Johns Hopkins University, Palladium, and The University of North Carolina.



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