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

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

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

90% Aware of their HIV status

90% of which On HIV treatment (ART)

90% Virally suppressed

Gender EQUITY

ZERO Discrimination

Fewer than 500,000 new HIV infections annually

Adapted from UNAIDS 2017
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

ART initiation
- Midline: 72%
- Endline: 87%

ART retention
- Midline: 95%
- Endline: 77%

Government used findings to inform national ART guidelines.

Community support intervention for adults living with HIV in Tanzania

- **6-month retention**
  - Intervention (n=952): 85%
  - Control (n=1,018): 70%

- **12-month retention**
  - Intervention (n=952): 77%
  - Control (n=1,018): 62%
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

- 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

![Chart showing client records with VL results and viral suppression before and after test and start.](chart.png)
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
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

- Round 1: 82%
- Round 2: 92%

Experience of violence from partners

- Sexual: Round 1: 16%, Round 2: 5%
- Physical: Round 1: 17%, Round 2: 12%

***p≤0.001
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

- Desk review of Stigma Index country reports
- Key informant conversations
- In-person stakeholder consultation (April 2016)

Working group synthesizes recommendations from desk review, conversations, consultation and drafts updated questionnaire

Updated questionnaire pre-tested @AIDS 2016

Feedback incorporated

Updated Stigma Index formally pilot tested

Results shared/final recommendations made

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

- Cameroon (n=400): 23%
- Senegal (n=406): 32%
- Uganda (n=401): 41%

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

- 32% of family members made discriminatory remarks due to selling sex.
- 17% were physically abused due to selling sex.
- 15% were blackmailed due to selling sex.
- 25% were verbally harassed due to HIV status.
- 34% of family members made discriminatory remarks due to HIV status.
- 11% were physically abused due to HIV status.
- 12% were blackmailed due to HIV status.
- 27% were verbally harassed due to HIV status.

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
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
Project SOAR (Cooperative Agreement AID-OAA-A-14-00060) is made possible by the generous support of the American people through the President’s Emergency Plan for AIDS Relief (PEPFAR) and United States Agency for International Development (USAID). The contents of this presentation are the sole responsibility of Project SOAR and Population Council and do not necessarily reflect the views of PEPFAR, USAID, or the United States Government.

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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