

Summary of differentiated service delivery at IAS 2021



 **IAS 2021**

All of IAS 2021 content was considered

- Abstracts
 - Late-breaker abstracts
 - Oral abstract presentations
 - E-posters
- Symposium and bridging sessions
- Satellites



Download the complete DSD roadmap for IAS 2021 [here](#).

Content summarized by thematic area

1. DSD for HIV treatment
2. DSD for HIV testing and linkage
3. DSD for PrEP
4. Re-engagement strategies

1. DSD for HIV treatment

- DSD for HIV treatment in 2021
- Integration – TB, NCDs, family planning, screening
- Specific populations
- DSD country planning/optimization
- DSD cost and cost-effectiveness
- Facility adaptations
- DSD patient outcomes – across DSD models
- Multi-month dispensing
- DSD patient outcomes – community models

What's new in DSD for HIV treatment: From WHO recommendations to reality

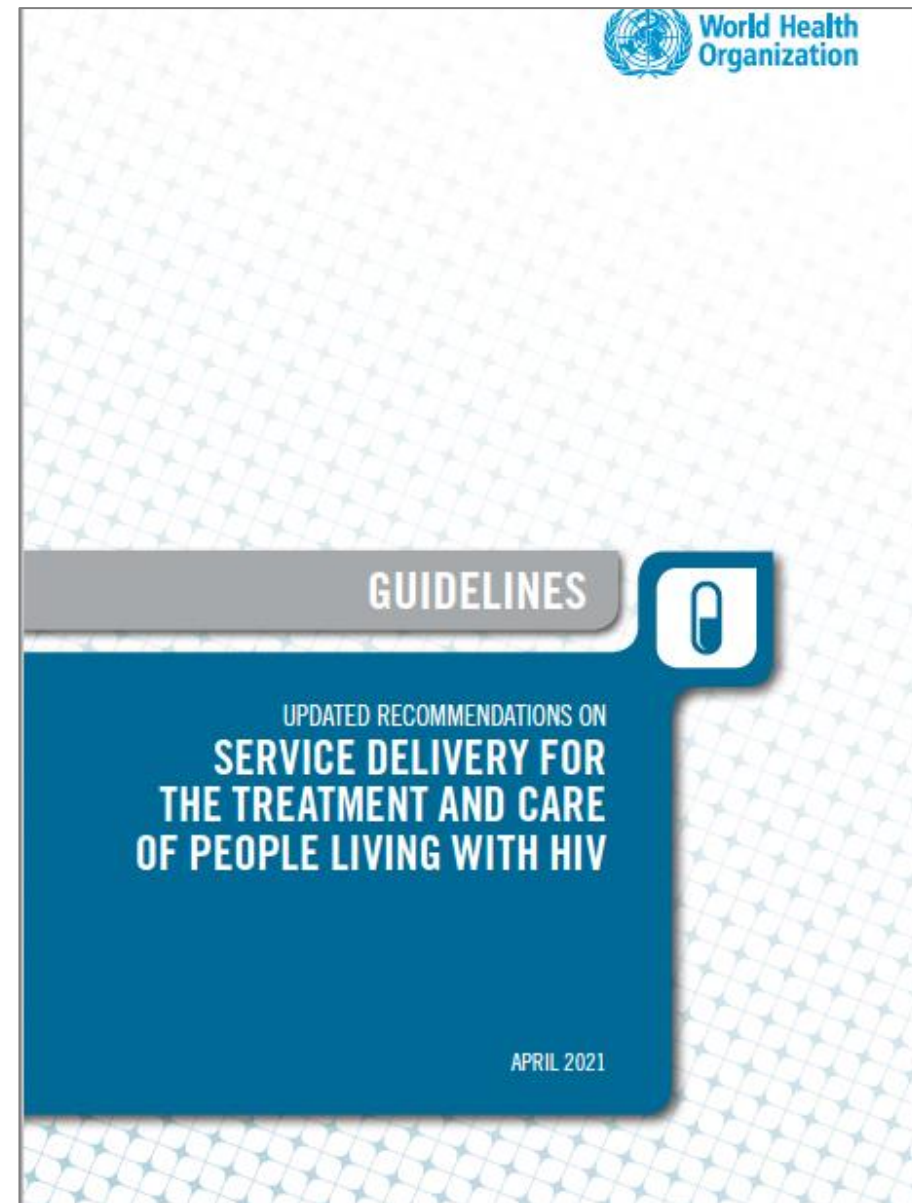
- Satellite session providing an overview of new WHO service delivery recommendations relevant to DSD for HIV treatment
- Included four content presentations:

Community ART initiation:
Implementation experience from
Lesotho – *Thabo Ishmale Lejone,
Lesotho*

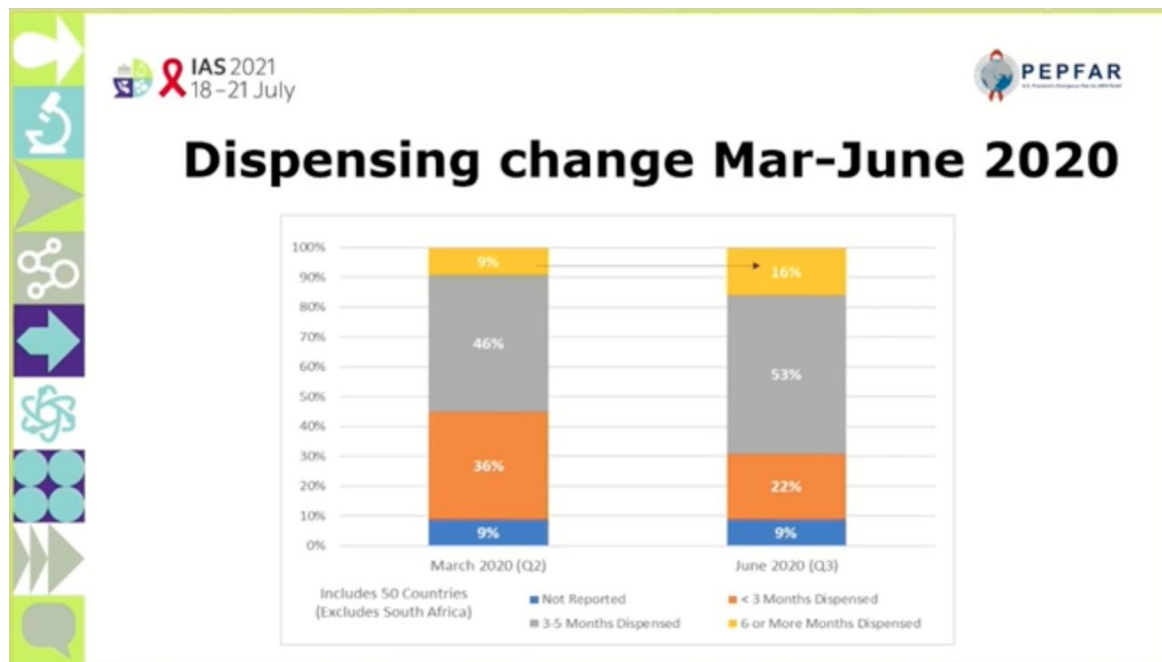
Annual clinic visits and extended
ART refills
in different DSD for HIV treatment
models:
implementation research
experience from
Lesotho and Zimbabwe
*Geoffrey Fatti, Kheth'Impilo, South
Africa*

Interventions to support re-
engagement to
care: best practices from PEPFAR
partners
*Catherine Godfrey, Office of the
Global
AIDS Coordinator, United States*

Integrating hypertension care in
DSD for
HIV treatment: implementation
experience
from Uganda
*Martin Muddu, Aids Health
Organization-Uganda
Carea, Uganda*



Differentiated Service Delivery and COVID-19: Resilience, Innovation and Lessons Learned



- Expansion of multi-month dispensing (MMD) and increased eligibility in PEPFAR supported countries (see presentation by Catherine Godfrey)

<https://theprogramme.ias2021.org/Programme/Session/162>

Conclusions

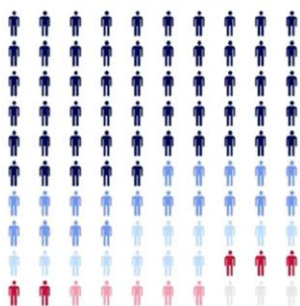
- Our findings from over 1000 HF in 11 African countries observed over one year showed a transient effect of the COVID-19 pandemic on HIV services with evidence of rapid recovery
 - From Q2 to Q3, the number of persons HIV tested decreased with associated declines in number of HIV-positive persons identified and number of new ART initiations, particularly in countries with more stringent response measures
 - However, from Q3 to Q4, recovery in HIV testing and new ART initiations was noted
 - Over the entire year there was an increase in overall number of persons on ART
- Viral load suppression remained high through all four quarters and during the COVID-19 pandemic, in the context of expansion of multi-month dispensing of ARV
- Rebound was brisk demonstrating HIV program resilience, likely due to expansion of differentiated service delivery models and other innovations including:
 - Expansion of multi-month dispensing as noted in our findings
 - ART distribution in the community
 - Virtual adherence consultations

- COVID-19 led to reduced testing and ART initiation, while the number of people on treatment continued to increase and viral suppression remained high (see presentation from Tiffany Harris)

Rapid Adaptation of the Health Workforce for HIV Service Delivery in the era of COVID 19: Implications for sustainable epidemic control and beyond

- This satellite focused on PEPFAR's lessons learned from adapting the roles and responsibilities of the 210,000 PEPFAR-supported healthcare workers to ensure provision of HIV services during the COVID-19 response

Diversity of health worker roles required to support services across the HIV continuum



Of PEPFAR supported staff across facilities and communities in FY20

- 55% were lay/community
- 19% were clinical
- 13% were other
- 5% were social service
- 5% were lab
- 3% were pharmacy

Note: data from FY20 HRH_CURR

PEPFAR supported workforce has enabled many of the rapid adaptations and innovations made to maintain HIV services during COVID-19

1. Shifted services into communities to decongest facilities
1. Accelerated multi-month ART dispensing
1. Decentralized drug distribution
1. Expanded use of digital applications to deliver virtual or telehealth services



Photo Credit: PEPFAR PNG-USAID

Key Message: PEPFAR's increased support towards lay and community health workers underlines their critical role and highlights the need to clearly define their role to sustain the adaptations post COVID.

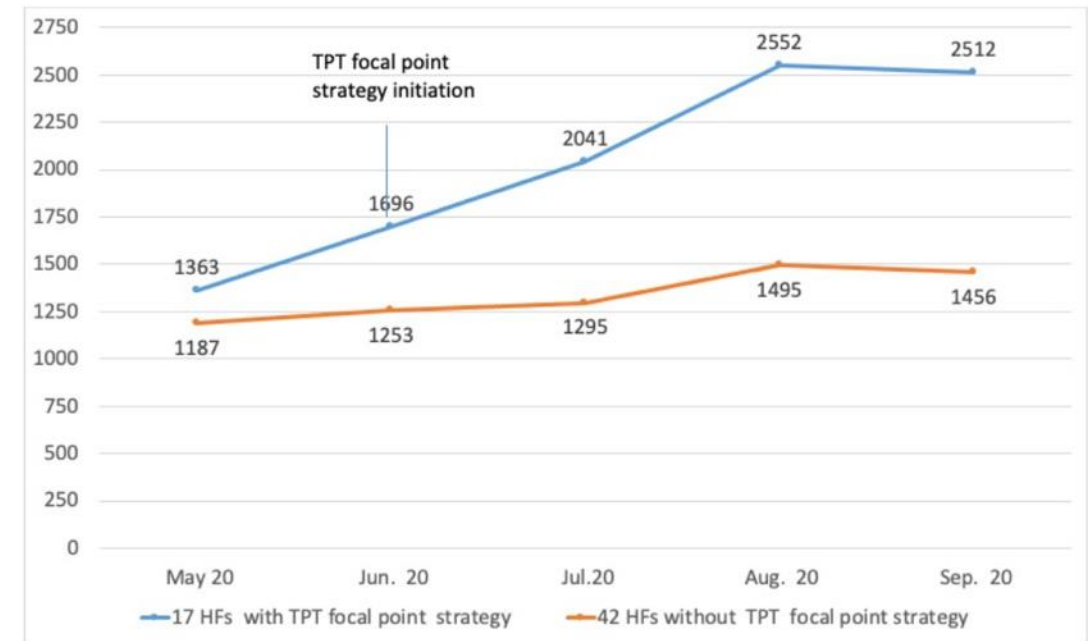
1. DSD for HIV treatment

- DSD for HIV treatment in 2021
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Tuberculosis Preventive Therapy (TPT) focal point strategy and its impact on TPT cascade in Nampula Province

- In 2019, 67% of new ART patients initiated TPT nationally. In Nampula, in the same period, only 41% of new ART patients initiated TPT.
- ICAP implemented a TPT focal point
- Cough officers conducted daily TB screenings in waiting areas of maternal and child health and HIV services, fast-tracking presumptive TB cases for diagnosis and identifying and referring all eligible TPT patients.
- The TPT FPs used a 'TB Prevention and Treatment Cascade Longitudinal Registry to monitor patients from initiation through completion and to conduct outreach to patients missing appointments as necessary.
- There was an 84% (from 1,363 to 2,512) increase in the number of patients initiating TPT in the 17 HF's comparing pre and post implementation data from the 17 HF, compared with a 23% increase observed in 42 HF's with the standard of care in the same period.

Figure 1: TPT Initiation trend, May-September 2020 period in Nampula Province (59HF)

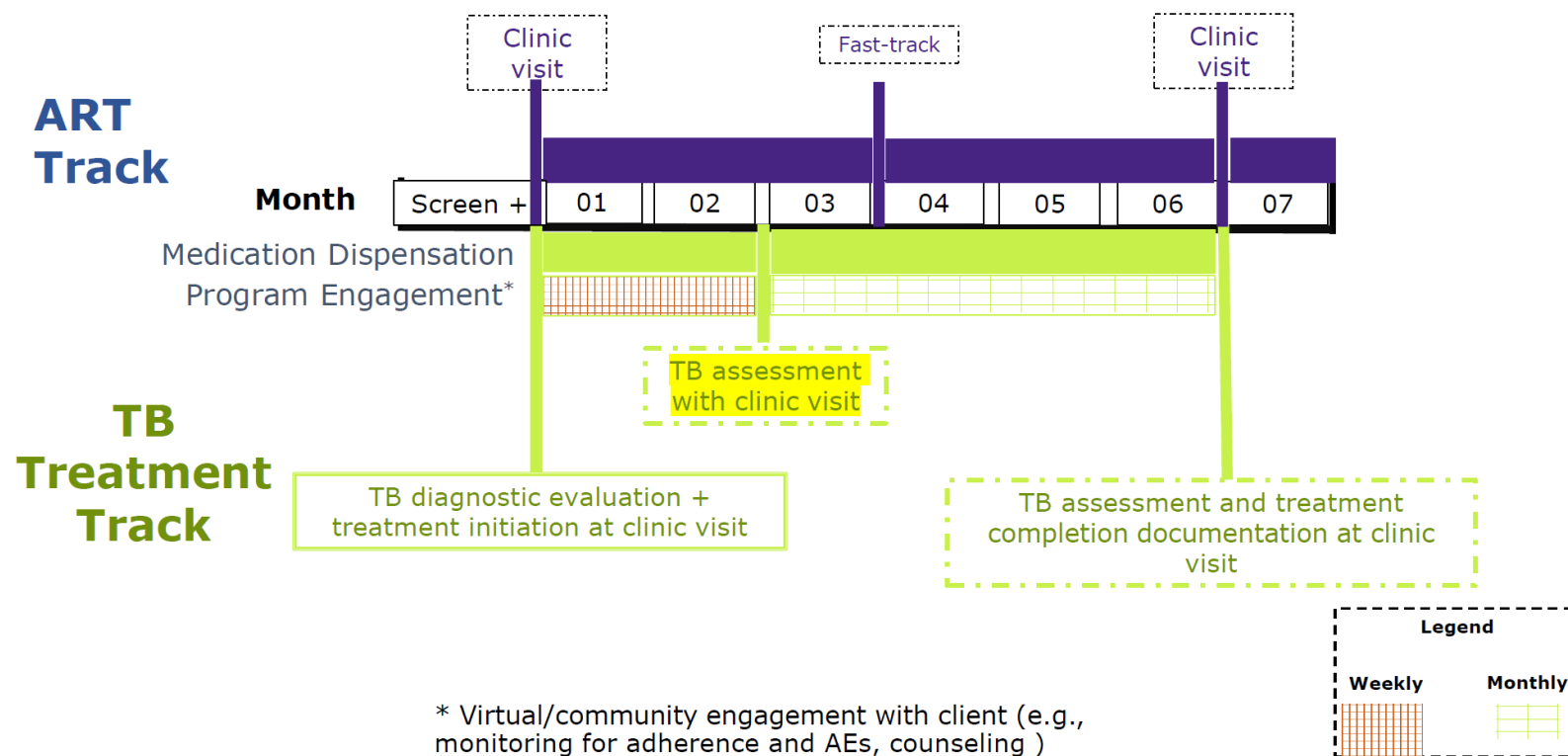


Key Message: Targeted interventions, including dedicated human resources and close monitoring, are essential to address gaps within the TPT cascade.

Integrating TB treatment into DSD: Experience from PEPFAR programmes



TB treatment & alignment with HIV care



Key messages :

- Consider alignment of medication dispensing
- Allow MMD of TB medication after intensive phase

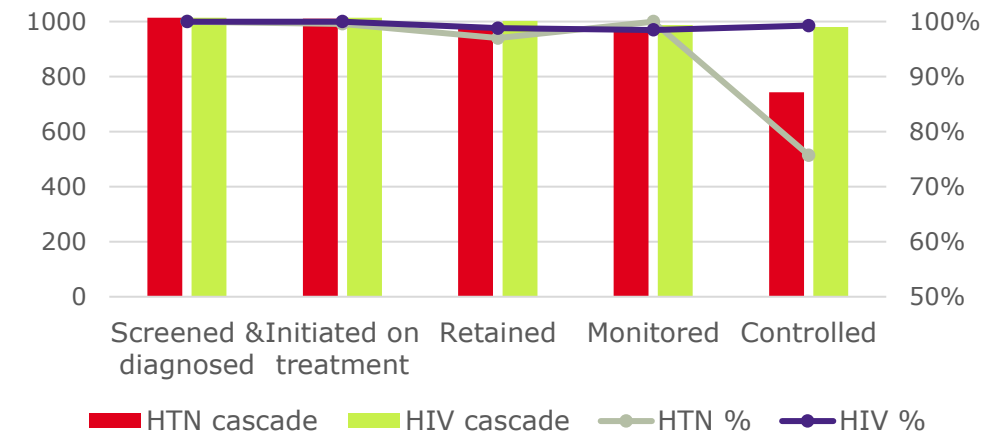
Integrating hypertension care in DSD for HIV treatment: implementation experience from Uganda

- Prevalence of hypertension (HTN) in people living with HIV is 20-29% in Uganda
- Incorporate DSD components for HTN:
 - 3 month MMD (758 patients)
 - Telemedicine: Phone call follow ups
 - Community medication delivery during COVID-19
- At baseline, 24.4% of those living with HIV were confirmed to have hypertension (n=3,877 of 15,953)
- Of the 3,877 with hypertension, only 38 were on treatment, 6 were retained and monitored and 2 were controlled
- 1,105 people living with HIV and hypertension were recruited to the HTN-HIV care model

[PDF of slides](#)

"Integrating hypertension care in DSD for HIV treatment: implementation experience from Uganda" in the satellite, [What's new in DSD for HIV treatment: From WHO recommendations to reality](#)

HTN and HIV cascade for those in the HTN-HIV care model after 6-months follow-up



Key Messages:

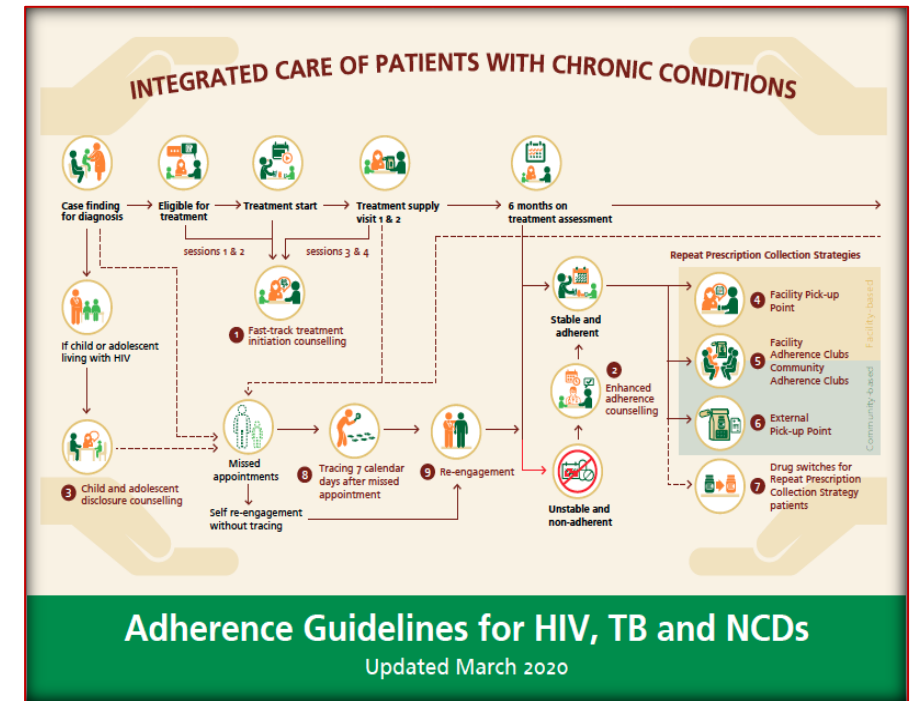
- Nearly one quarter of adult PLHIV had HTN (24.4%)
- Simple, stepwise treatment protocols were effective for HTN control
- Task-shifting (HTN screening and treatment) facilitated HTN-HIV integration

Providing HIV, diabetes and hypertension treatment refills outside of health facilities in South Africa (1)

- Three DSD models available for anyone living with HIV , hypertension or diabetes
- Facility pick-up up points (FAC-PuP)
 - The treatment for the FAC-PuP can be pre-dispensed by the facility pharmacy or by a Central Dispensing Unit (CDU) or Centralized Chronic Medicines Dispensing and Distribution (CCMDD)
- Adherence Clubs
 - Facility- and community-based
- External pick-up points (EX-PuP)
 - Including from private pharmacies, lockers, community points, etc.

[PDF of slides](#)

"Providing HIV, diabetes and hypertension treatment refills outside of health facilities in South Africa" in the symposium, [Don't wait - integrate! How COVID-19 has highlighted the need for HIV services to be person-centered](#)



Same eligibility for all options

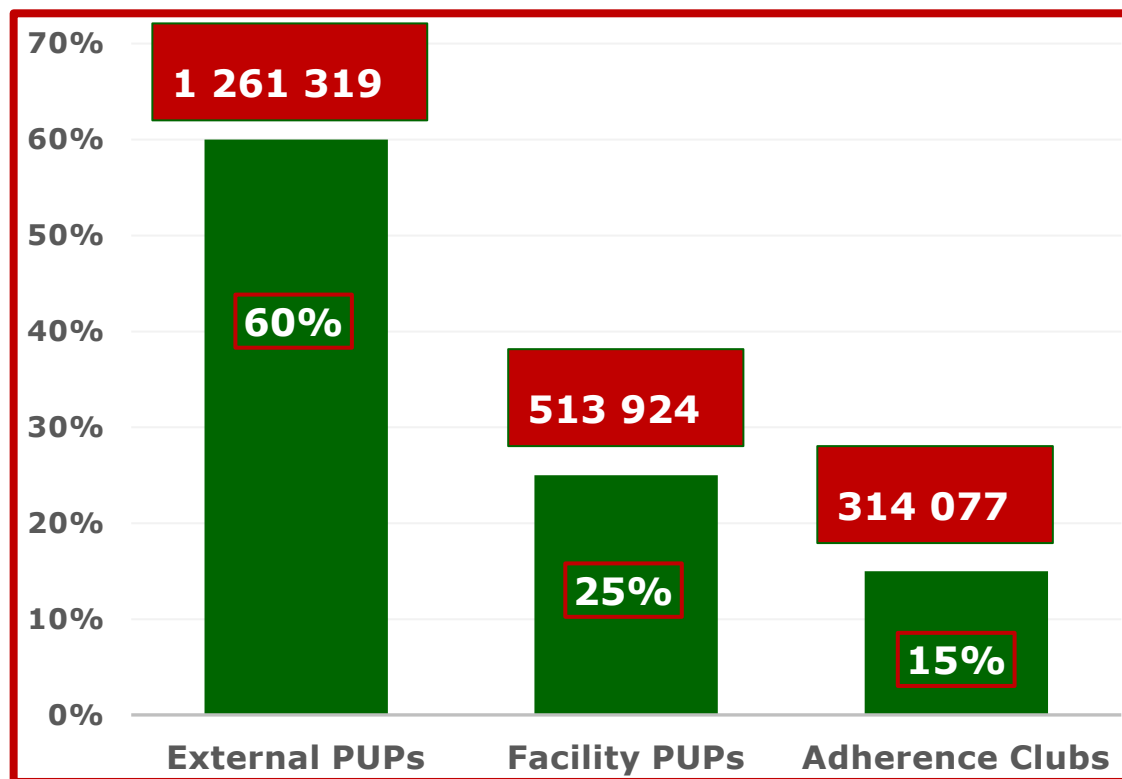
- Above 18 years
- On treatment for at least 6 months
- Most recent assessment results normal:
 - Most recent viral load (VL) taken in past 6 months <50 copies/ml for HIV
 - Most recent HbA1c taken in past 6 months ≤7% for Diabetes
 - 2 consecutive BP <140/90 for Hypertension
- Clinician confirms the patient's eligibility for RPCs option
- Patient voluntarily opts for the RPCs option
- No current TB or medical condition requiring regular clinical consultations



Providing HIV, diabetes and hypertension treatment refills outside of health facilities in South Africa (2)

All three models are supported by pre-packed medications

DSD Model Mix Performance – March 2021



Majority receive medication at the external pick-up point
Majority of clients are HIV positive with or without hypertension or diabetes

	Facility pick-up point (FAC-PuP)	Adherence club	External pick-up point (Ex-PuP)	TOTAL
ART only (Tier.Net/DHIS. March 2021)	513 924	314 077	1 261 319	2 089 320
ART + other chronic meds (CCMDD, May 2021)	658 671	500 590	1 486 684	2 634 684
Chronic meds only (CCMDD, May 2021)	144 747	186 513	225 365	545 364
TOTAL	658 671	500 590	1 486 684	2 634 684

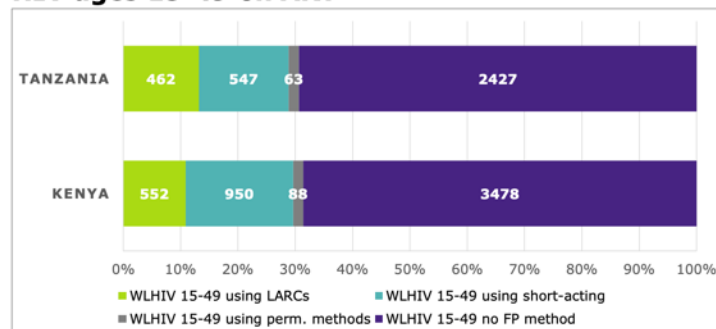
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"Providing HIV, diabetes and hypertension treatment refills outside of health facilities in South Africa" in the symposium, [Don't wait - integrate! How COVID-19 has highlighted the need for HIV services to be person-centered](#)

Integration of family planning services into DSD for HIV treatment - results from 12 facilities in Kenya and Tanzania (1)

- EGPAF supported facilities: dispensaries, health centers, and hospitals in Homa Bay County Kenya (6 sites) and the Kilimanjaro Region of Tanzania (6 sites)
- Assessment of integration of FP into DSD models
- Uptake of LARC was very variable across the sites
- National policies in both countries support integration of FP into ART provision
- In Kenya FP was not integrated into ART services and required referral to MCH
- In Tanzania FP was integrated into the ART clinic but was provided in a different room by a different HCW

Contraceptive uptake among women living with HIV ages 15-49 on ART



[PDF of slides](#)

[Don't wait - integrate! How COVID-19 has highlighted the need for HIV services to be person-centered](#)

SUMMARY OF SERVICE INTEGRATION

Kenya

WHEN	<ul style="list-style-type: none"> Screening for FP needs only in clinical ART visit FP follow up/refills not aligned with ART
WHERE	<ul style="list-style-type: none"> ART and FP not in same place Escorted referral to MCH
WHO	<ul style="list-style-type: none"> ART and FP services provided by different provider CHW/lay staff not engaged in FP services
WHAT	<ul style="list-style-type: none"> Short-acting and LARCs (referral to MCH) FP education (but not FP commodity refills) in some DSD

Tanzania

WHEN	<ul style="list-style-type: none"> FP services in clinical and ART refill visits Oral pills refills aligned with ART refills (if supply allows)
WHERE	<ul style="list-style-type: none"> ART and FP services provided in same clinic ART and oral pill refills in same place (but not distributed within the DSD model itself)
WHO	<ul style="list-style-type: none"> ART and FP services by different provider, except in OSM CHW/lay staff not engaged in FP services
WHAT	<ul style="list-style-type: none"> Short-acting and LARCs in both visits FP education in some DSD models (e.g. Teen Clubs/Mother Support Groups)

Integration of family planning services into DSD for HIV treatment - results from 12 facilities in Kenya and Tanzania (2)

Key messages and recommendations

- Support implementation of existing policies with **operational guidance** and capacity building.
- Implement **one-stop model** for HIV and FP services, including by same provider where possible.
- **Align provision** of oral pills/depot and ARVs, particularly as MMD is extended to MMD6. *Must address supply issues.*
- **Improve forecasting** of FP commodities to adequately include the needs of women living with HIV, particularly as MMD expands.
- **Include oral contraception into prepacked ARVs** for distribution in facility and community ARV refills.
- Increase capacity for provision and **promote access to LARCs**.
- Leverage **adoption and roll-out of self-injectable contraception** — can be pre-packaged with ARVs for distribution in facility-based and community-based DSD models.
- **Strengthen monitoring** of contraceptive uptake among women living with HIV in DSD models, including adapting ART monitoring tools to include integrated reporting of FP service delivery and reinforcing the need for documentation among service providers.
- **FP integration needs to be designed not only for the clinical visit but also for the refill visit as part of the DSD model.**

Don't wait - integrate! How COVID-19 has highlighted the need for HIV services to be person-centered

Key Messages:

- Strengthen the integration of HIV, TB, and NCD services and ensure realization of 4th 90 – "A long and health life for people living with HIV"
- Scale up person-centered approaches through optimal implementation of DSD/DMOC, "We need to see DSD as the new normal...If this is how people want their care, it is a right not a luxury" (UNAIDS Global Strategy beyond 2021)
- COVID-19 inspired and expedited service delivery innovations - we need to seize the opportunity and optimize responses to scale up DSD.
- Scale up evidenced-based DSD implementation and standardization approaches;
- Leverage existing partnerships and community and stakeholder engagement;
- Embrace innovations and ensure sustainability

Finding the missing cases: Integrating lay-provider HIV testing services (HTS) for people with presumptive tuberculosis (TB) during household TB screening campaigns in the Democratic Republic of the Congo (DRC)

- Lay providers (Relais communautaires (ReCo)) doing household TB screening campaigns trained to provide HTS counseling, HIV testing and offer accompanied referrals to nearby project-supported facilities.

Lessons learned

- Strong acceptability of HTS, slightly higher acceptance among females than males (57% versus 45%).
- Higher HIV testing yield than yield through routine HTS outreach in the same geographies during a similar period (28% versus 5.9%).

Figure 2: Flow for integrated HTS in household TB campaigns.

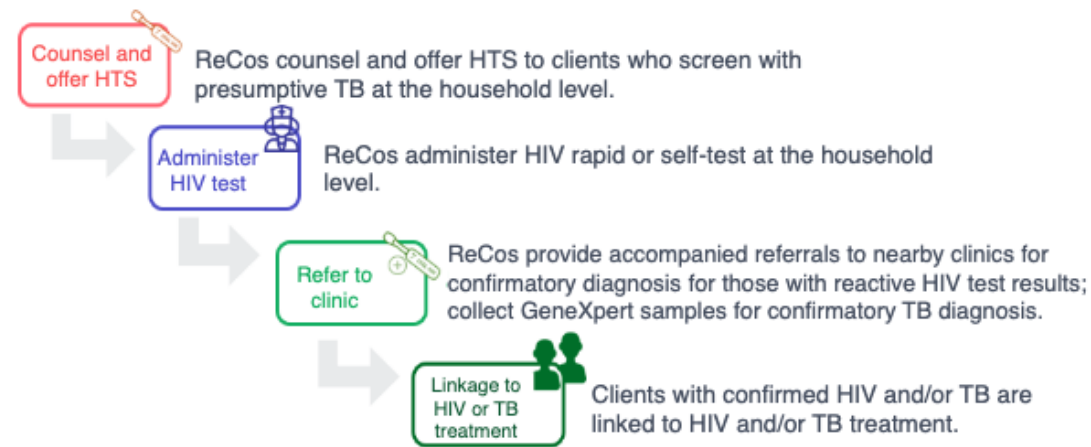
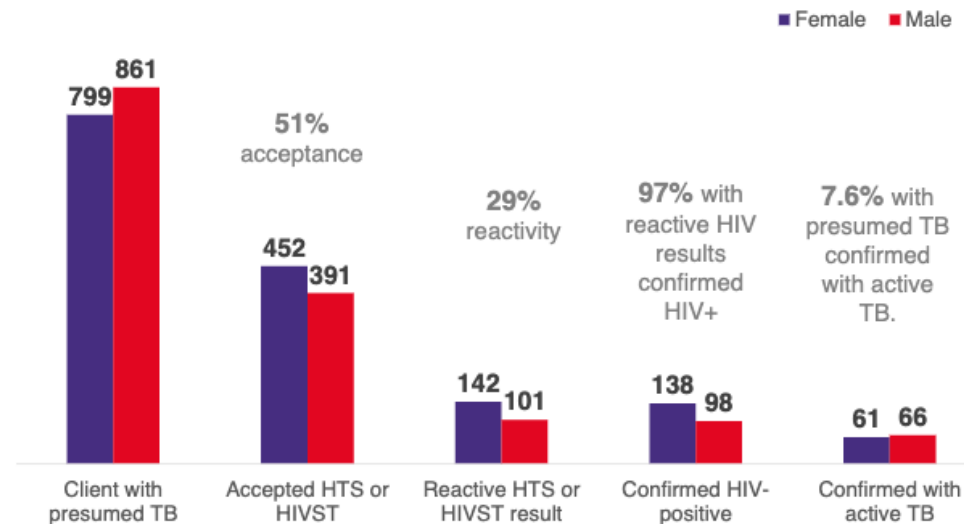


Figure 3: HIV testing cascade by sex, July-September 2020.



TB/HIV one-stop clinic reduces nonmedical cost of staying in care at Makululu Urban clinic and Kabwe Women, Newborn & Children's Hospital (KWNCH) in Kabwe District, Zambia

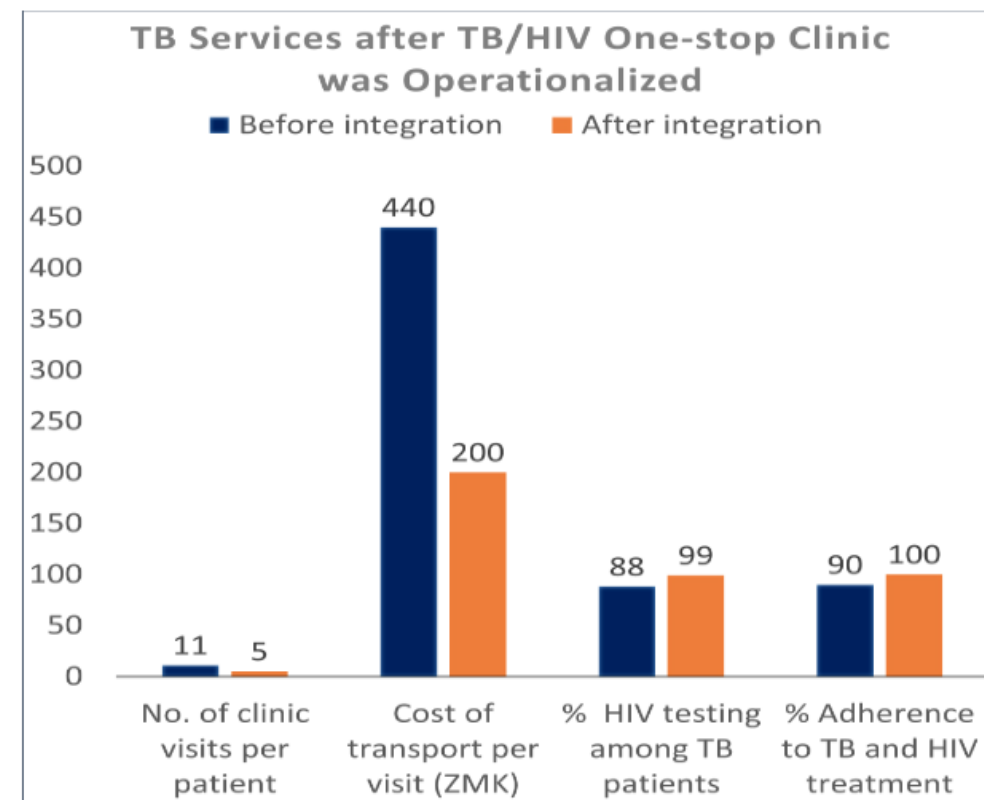
One-stop TB/HIV clinic to reduce non-medical costs and improve patient's adherence and outcomes of the TB/HIV clients at an MCH hospital

Results

- 50% reduction in visits and transport costs, increase in HIV testing among TB patients and increase in adherence to treatment

Takeaway

- Supported improvements for HIV, TB and patients (cost reductions)



IAS 'Lockdown is a good thing, but there should be more access to health': HIV and SRH service delivery experiences of South African adolescents and healthcare workers during COVID-19

Qualitative study:
Phone-based interviews
with adolescents and
young people living with
or vulnerable to HIV
(ages 15-23; n=27) and
with healthcare workers
from public health
facilities (n=14)

Healthcare workers reported the following challenges:

- Staff shortages and inadequate physical resources which contributed to high levels of stress;
- Feelings of guilt that they were not providing a "good enough" service due fear of acquiring or transmitting COVID-19.

Adolescent participants reported challenges accessing HIV/SRH services included:

- Fear of contracting COVID-19;
- Longer health-facility wait times;
- Getting yelled at by healthcare workers;
- Discomfort and perceived stigma from queuing outside health facilities.

Disruptions to HIV/SRH service access for AYP speak to the importance of:



Making service delivery platforms adaptable, flexible, and safely accessible, through movement restrictions and recurring lockdowns.



Continued, integrated HIV and SRH service delivery and care for AYP.



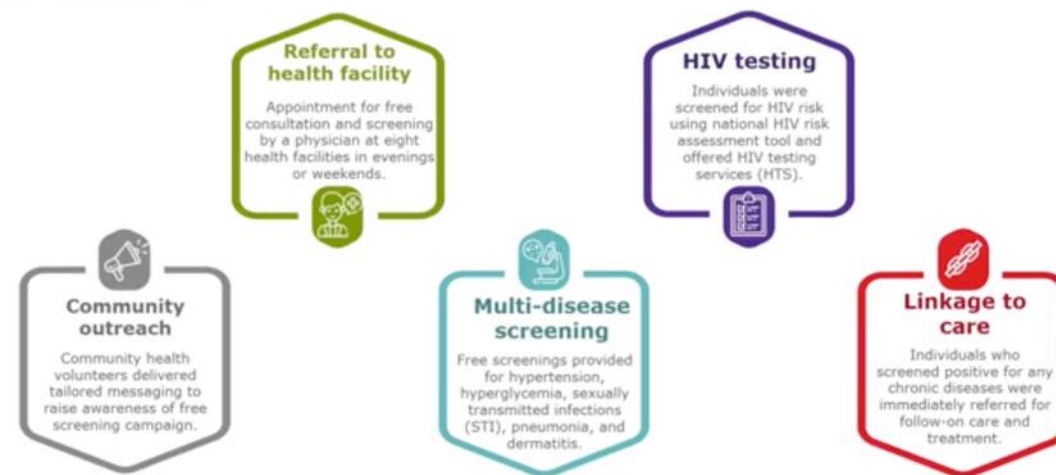
Sustained psychosocial support for healthcare workers.

Key Message:
Adolescents and young people need dedicated infrastructure and resources to meet their health needs during COVID-19 lockdowns.

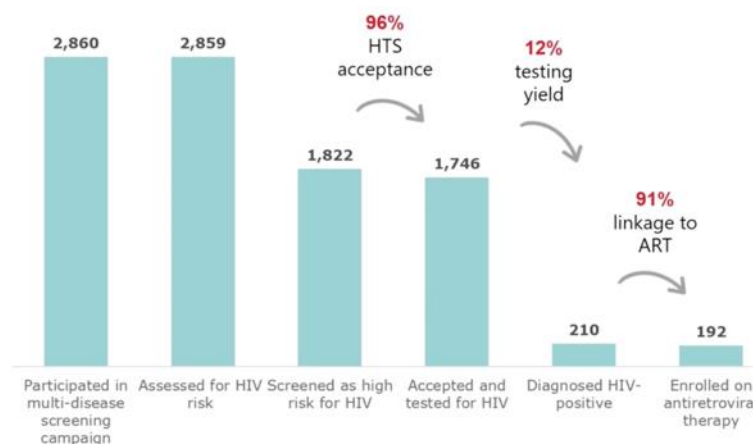
Using multi-disease health screening campaigns to increase uptake of health and HIV testing services (HTS) in the Democratic Republic of the Congo (DRC)

- In 2019, only 56% of estimated HIV-positive individuals in the DRC were diagnosed and enrolled on antiretroviral treatment (ART)
- USAID-funded Integrated HIV/AIDS Project, piloted use of a multi-disease screening campaign
- Health facilities offered free screenings during weekend and evening hours for hypertension, hyperglycemia, sexually transmitted infections (STI), pneumonia, dermatitis, and HIV
- 2,860 clients (57% male) participated in the screenings, with highest representation among clients over 49 years (19%).
- HIV prevalence was 12%, with higher prevalence among females (13%) than males (12%) and clients 25 years of age and older.
- Overall STI prevalence was 22%, and the HIV/STI co-infection rate was 14%
- More females than males had hypertension (11% versus 8%; $p < 0.05$). Hyperglycemia was detected among 7% of clients.
- 91% (192/210) of HIV-positive individuals were initiated on ART.

INTERVENTION DESIGN: MULTI-DISEASE SCREENING CAMPAIGN



RESULTS—HIV TESTING CASCADE



Key Message: Offering a multi-disease health screening is a promising strategy to engage clients in health and HIV testing in DRC

DSD for HIV treatment

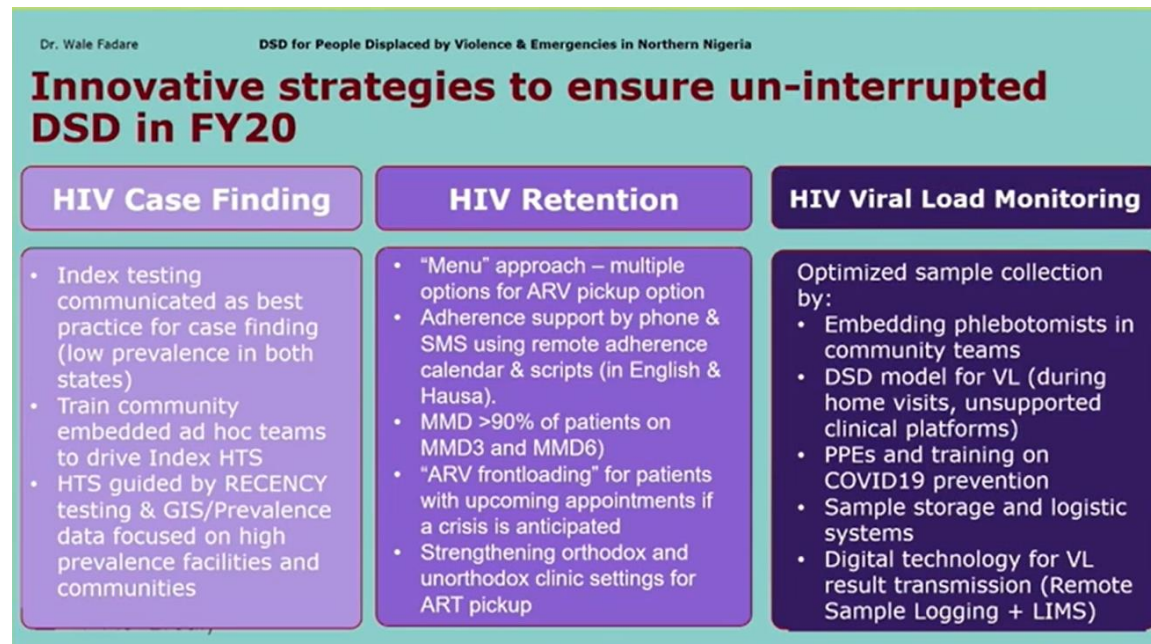
- Integration – TB
- Integration – NCDs
- Integration – Family planning
- Specific populations
- DSD country planning/optimization
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Differentiated HIV Services for Mobile, Migrant and Displaced Populations

- Mobility increases the risk of HIV acquisition and disengagement from care
- Case studies from Nigeria, Mozambique, and South Sudan explored the adaptations necessary to avoid disruptions in HIV services by natural disasters and civil unrest and provided recommendations for countries to design, deliver, and evaluate HIV services for mobile populations.

"One thing that has helped us is the integrated model we applied.....

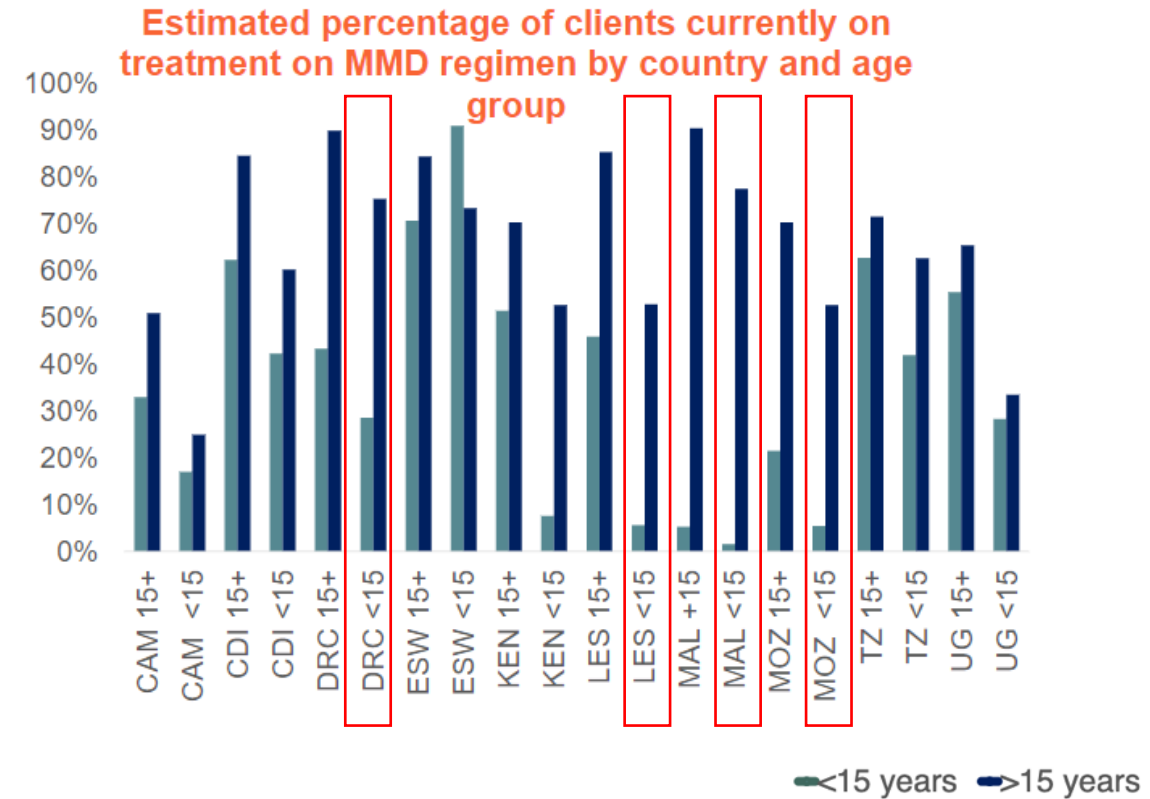
We worked as a team, and every contact with the patient, whether by a lab scientist or case manager, was an opportunity to provide services and build capacity".



Key message: MMD, service integration and engagement of community health workers are key components of service delivery for mobile populations.

An assessment of multi-month dispensing of antiretroviral therapy for children and adolescents across 10 African countries

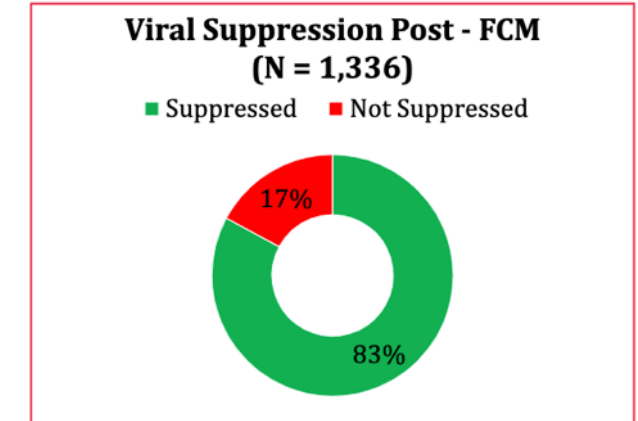
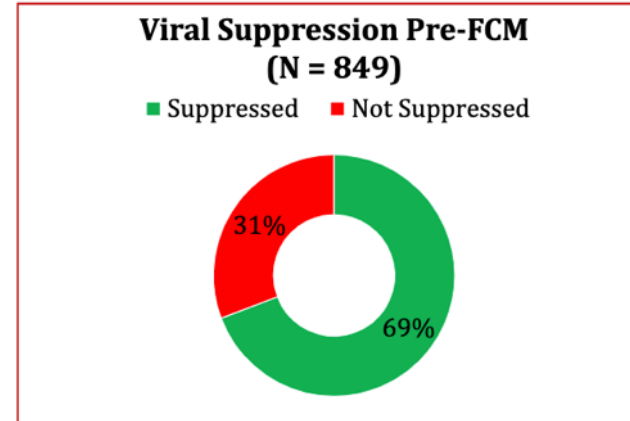
- MMD = 3+ months
- Routine EGPAF PEPFAR data Oct 19-Sept 20 from 10 countries in Cameroon (CAM), Cote d'Ivoire (CDI), Democratic Republic of Congo (DRC), Eswatini (ESW), Kenya (KEN), Lesotho (LES), Malawi (MAL), Mozambique (MOZ), Tanzania (TZ), Uganda (UG)
- Malawi and Mozambique experienced the highest increase of CALHIV clients on MMD over the 12-months, with proportions increasing from 2% (n=232) to 91% (n=10,854) and 5% (n=734) to 53% (n=6,120) respectively.



Key Message: Increase in 3MMD also observed for children and adolescents < 15 years of age.

Impact of a family-centered care model on viral suppression among HIV-infected children in Migori, Kenya

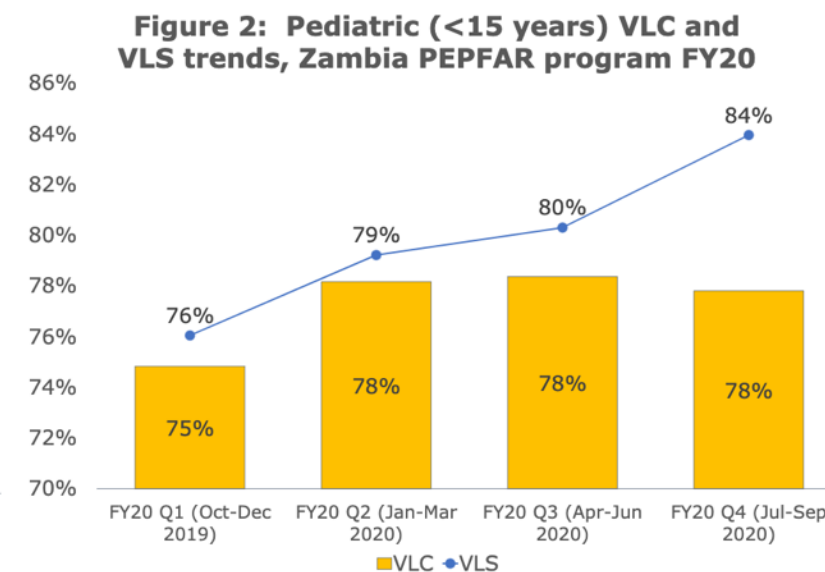
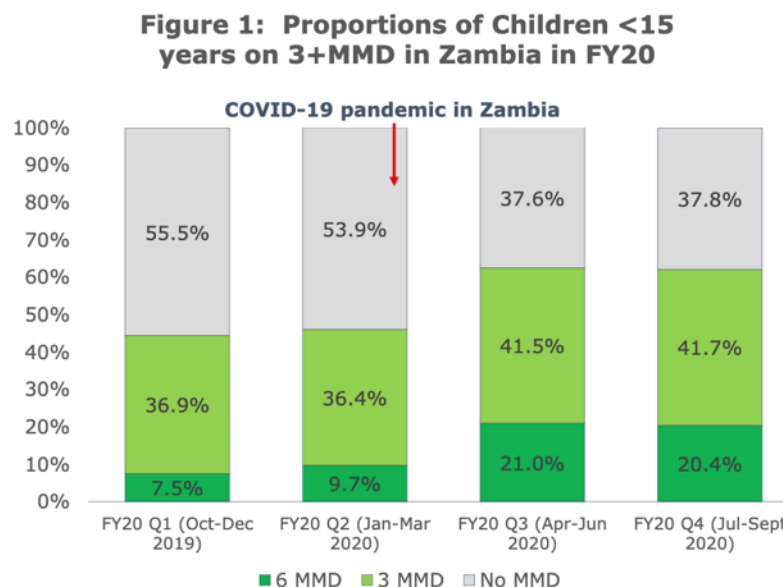
- Family-centered model (FCM) = family/caregiver treatment literacy sessions, engagement with peer educators, participation in psychosocial support groups, ART optimization, and linking patients to orphans and vulnerable child support programs.
- Eight University of Maryland Baltimore supported facilities in Migori, Kenya
- Viral suppression (VS) among children 2-9 years before and after FCM-implementation
- VS was substantially higher among children 2-9 years of age who received the FCM intervention
 - After adjusting for age and sex, children in the post-FCM period were 2-fold more likely to be virally suppressed compared to those in the pre-FCM period (aOR 95% CI 2.2 (1.7-2.7))



Key Message: Children 2-9 years of age in the family-centered model were twice as likely to be virally suppressed compared to those in the standard of care.

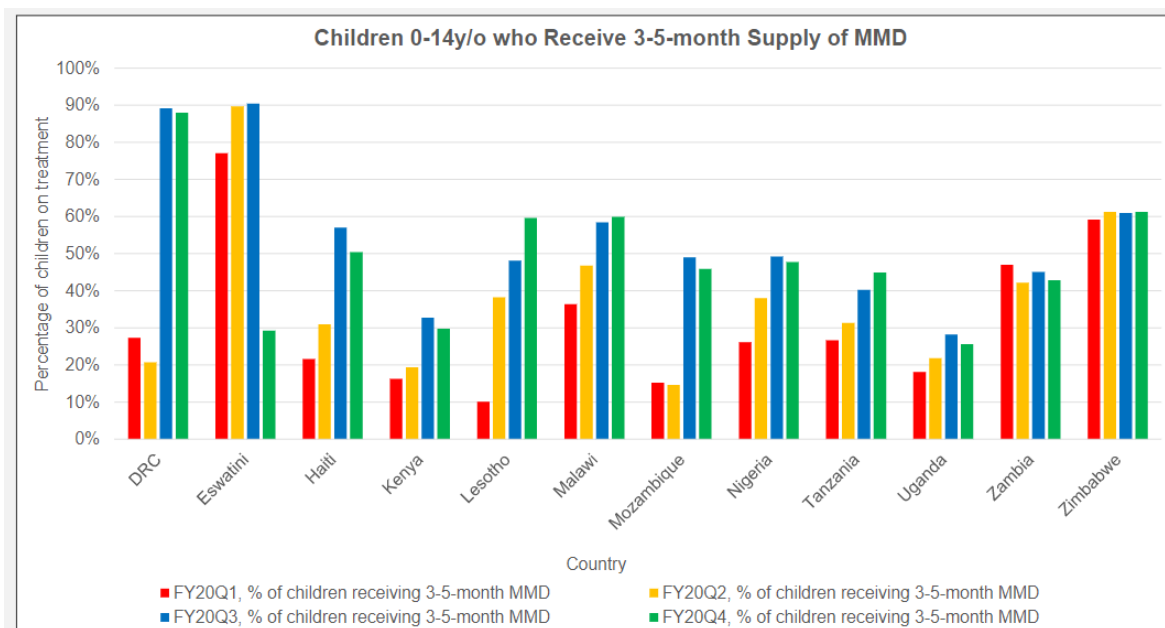
Scale-up of multi-month dispensation of antiretroviral therapy among children living with HIV as a COVID-19 mitigation measure and retention strategy, Zambia, 2020

- Routine data in Zambia
- >15 years on ART minimum 3-month MMD (3MMD) from March to Sept 2020
- Compared pediatric viral load coverage (VLC) and suppression (VLS)
- MMD in children increased from 46.11% (pre-COVID) to 62.1% in September 2020 (Figure 1)
- Viral load completion remained constant and viral suppression improved over the same time period (Figure 2).



Key Message: MMD in children increased while viral load completion remained constant and suppression improved.

The impact of the COVID-19 pandemic on uptake of multi-month dispensing (MMD) of antiretroviral therapy for children living with HIV: a multicountry analysis.



- Routine PEPFAR data Oct 19-Sept 20 from 12 countries
- By the **end of Q4 (Sept. 2020)**, nearly half (**45.9%**) of CLHIV were receiving 3-5MMD, a statistically significant increase from 32.0% 3-5MMD coverage in Q1

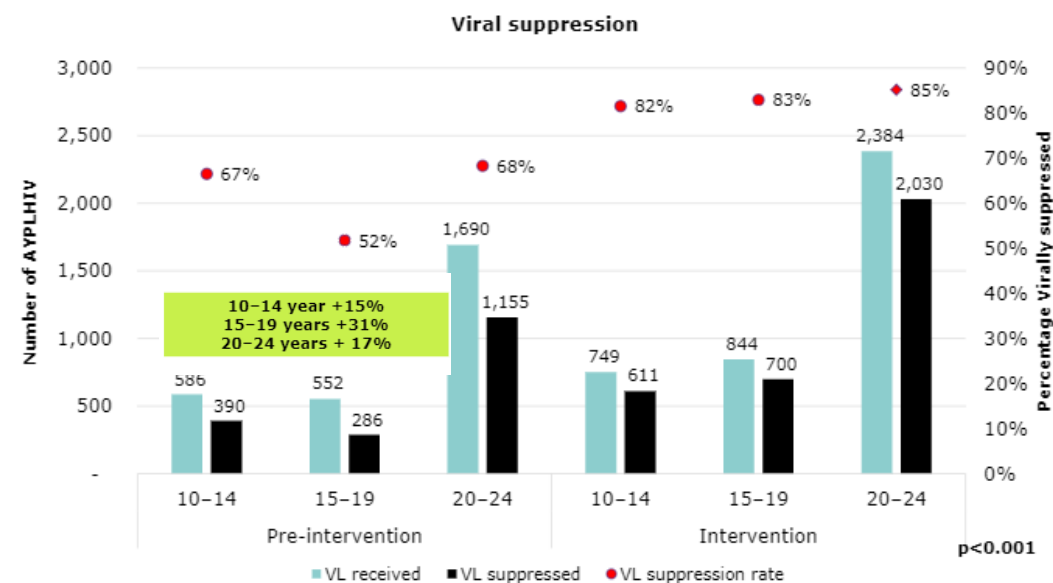
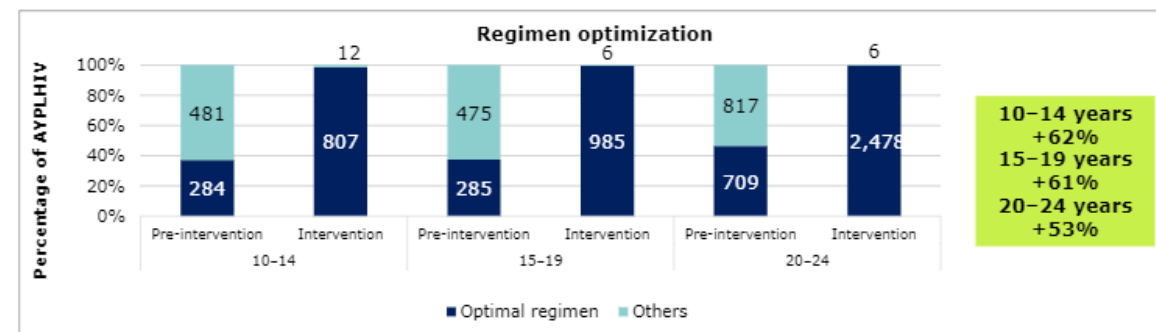
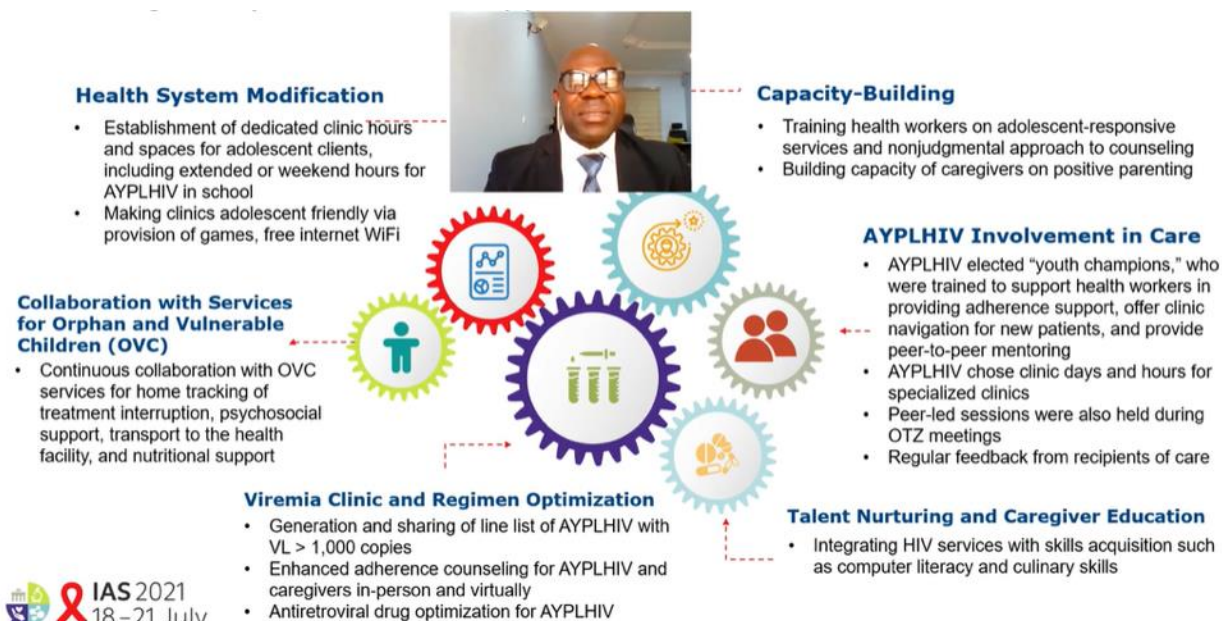
FY20 Quarters	CLHIV on Treatment ¹	<3MMD (%)	3-5MMD (%)	6MMD (%)
FY20Q1	176,516	108,210 (65.6%)	52,769 (32.0%)	3,919 (2.4%)
FY20Q2	181,123	109,186 (60.6%)	65,510 (36.4%)	5,453 (3.0%)
FY20Q1/Q2	178,820	108,698 (63.1%)	59,140 (34.2%)	4,686 (2.7%)
FY20Q3 ²	182,914	82,304 (46.3%) **	84,725 (47.6%) **	10,869 (6.1%) *
FY20Q4 ³	185,357	7,944 (45.2%) **	80,673 (45.9%) *	15,774 (9.0%) **

Key Message: By end of Sept 2020, nearly half of those <15 years of age were received 3-5 MMD.



Optimizing antiretroviral treatment and viral suppression for adolescents and young people living with HIV by implementing Operation Triple Zero (OTZ) in four states in Nigeria

OTZ = zero missing appointments, zero missed drugs and zero viral load.



Key Message: OTZ lead to improvements in regimen optimization, viral load testing and viral suppression

HIV service delivery to key populations in the time of COVID-19: experiences from India

India's National AIDS Control Program response to supporting HIV during COVID-19:

- Multi month dispensing (MMD) for all people living with HIV
 - *instead of only for those established on treatment*
- Home and community based delivery of ART
 - *instead of facility pick up*
- ART available from any center
 - *instead of facilities where client is*
- Take home supply of opioid agonist therapy
 - *instead of daily observed dosing*

Impact of the pandemic on HIV testing experience

- Travel restrictions, confusion of which clinics were offering HIV testing, fear of COVID exposure at facilities

Delivering treatment where people live

<https://theprogramme.ias2021.org/Programme/Session/15>

	Total (n=44)	MSM (n=13)	FSW (n=16)	TGW (n=15)
Age [n(%)]				
20-29	17 (39)	6 (46)	4 (25)	7 (47)
30-39	18 (41)	3 (23)	9 (56)	6 (40)
40-49	9 (20)	4 (31)	3 (19)	2 (13)
HIV Status [n(%)]				
Positive	24 (55)	7 (54)	10 (62.5)	7 (47)
Negative	20 (45)	6 (46)	6 (37.5)	8 (53)
State [n(%)]				
Maharashtra	18 (41)	6 (46)	6 (37.5)	6 (40)
Telangana	26 (59)	7 (54)	10 (62.5)	9 (60)

HIV treatment experiences

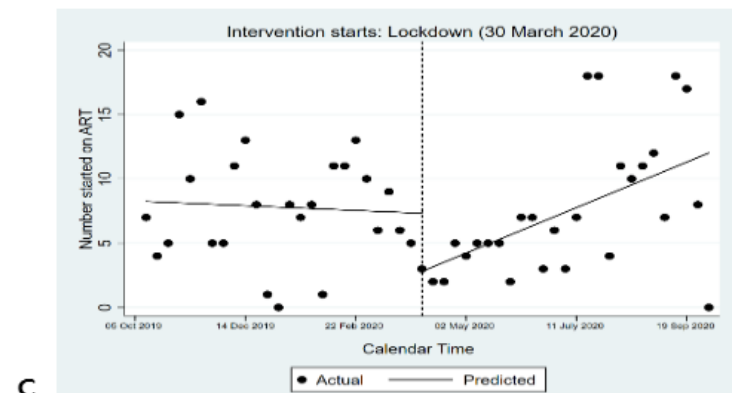
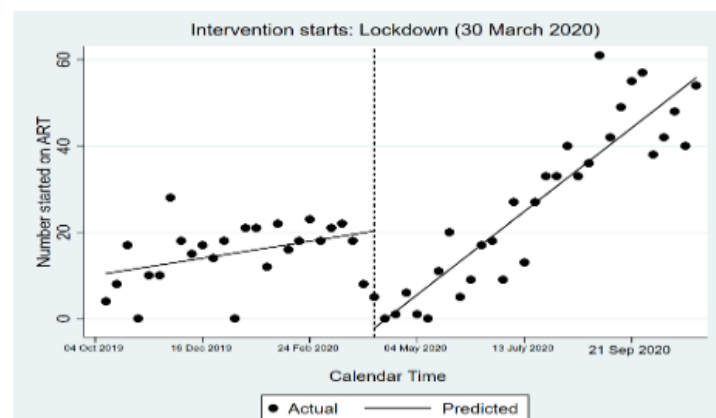
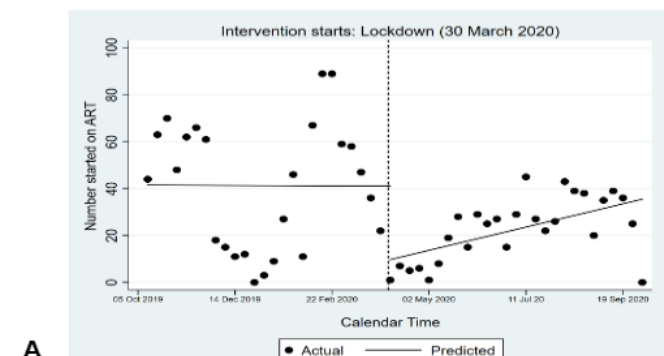
- ART refills accessed at public ART centers or through home delivery
- Challenges from ART stock-outs or disrupted hours of ART center operations
- Disruptions in services led to delayed or cancelled CD4 and viral load monitoring
- Appreciation for door-delivery of ART; enabled participants to maintain stock
- Appreciation for MMD; reduced trips for ART pick up
 - Concerns about MMD and potential status disclosure

Conclusion --> Community-based services should be expanded - decentralization can strengthen health systems to better serve KPs

Rapid rebound in HIV service utilization following initial interruptions to HIV prevention and treatment for key populations during COVID-19 in South Africa

- Assessment of the immediate and sustained impact of lockdowns on HIV case-finding, ART initiation, and PrEP initiation among female sex workers (FSW), men who have sex with men (MSM), and transgender persons (TG) in South Africa
- The study demonstrated a rapid rebound in HIV service utilization in the weeks following initial service interruptions due to lockdown
- Results may reflect the gradual lessening of lockdown stringency coupled with program-led service delivery innovations including increased mobile testing, ART home delivery, and amplified peer navigation.

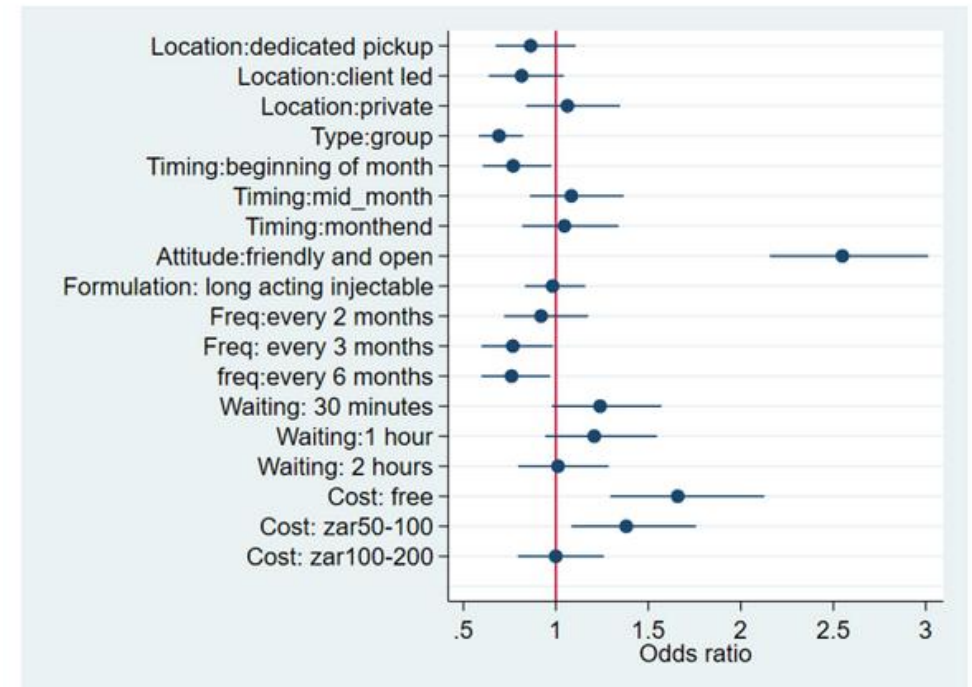
Figure 1. Trends in ART initiation before and after lockdown among (A) FSW, (B) MSM, and (C) TG in South Africa



Fast and friendly is key to keeping men on HIV treatment! Results from a discrete choice experiment to understand men's preferences in Johannesburg, South Africa for HIV treatment services

- Discrete choice experiment (DCE) to explore preferences among men in Johannesburg, South Africa, n=150
- Strong preference for:
 - Providers that are friendly, welcoming, non-judgemental (OR=2.55, 95% CI 2.16-3.01)
 - Services to be free (OR=1.66, 95% CI 1.29-2.13)
 - Not be scheduled for dates early in the month (OR=0.77, 95% CI: 0.61-0.98)
 - Not to dispense 3 () .77, 95% CI 0.60-0.98) or 6 months (OR: 0.77-95% CI 0.60-0.96) of drug at a time

Figure 1: Results of the conditional logit model of DCE data on men's HIV treatment preferences in Johannesburg, South Africa



References: Location (facility), Group/individual(individual), timing (anytime of month) staff attitude (unfriendly and judgemental), formulation(pills/tablets), Frequency of pickup (every month), waiting time (>2 hours), cost (>zar200)



Men and HIV in sub-Saharan Africa – progress and possibilities

The path to person-centred care for men in sub-Saharan Africa – where to from here - *Nelson Otwoma, National Empowerment Network of PLHAs in Kenya (NEPHAK), Kenya*

- My journey to viral suppression – overcoming siloed care and fear for stigma – *Mcdaphton Bellows, Partners in Hope, Malawi*
- Ensuring men are not missed from health systems: Community- and facility-based HIV programming in Malawi – *Kelvin Balakasi, Partners in hope, Malawi*



- My journey to becoming a Coach – a little empathy goes a long way – *Sifiso Joseph Magagula, Community Media Trust, South Africa*
- Changing the narrative around men and HIV in South Africa – MINA, Coach Mpilo, B-OK bottles – *Rodney Knotts, USAID, South Africa*

- My journey to Yathu Yathu –Nkanyi ya ma guys – *Augustine Chanda, Zambart, Zambia*
- What can we learn from a male-centred tuberculosis response? Results from the Eastern Cape, South Africa – *Andrew Medina-Marino, Desmond Tutu Health Foundation, South Africa*

Reaching males living with HIV through scale-up of index testing services: 8 countries in sub-Saharan Africa

Figure 1: Percent of index cases, contacts identified, and contacts testing HIV-positive who were male, 8 countries in SSA, October 2019-September 2020

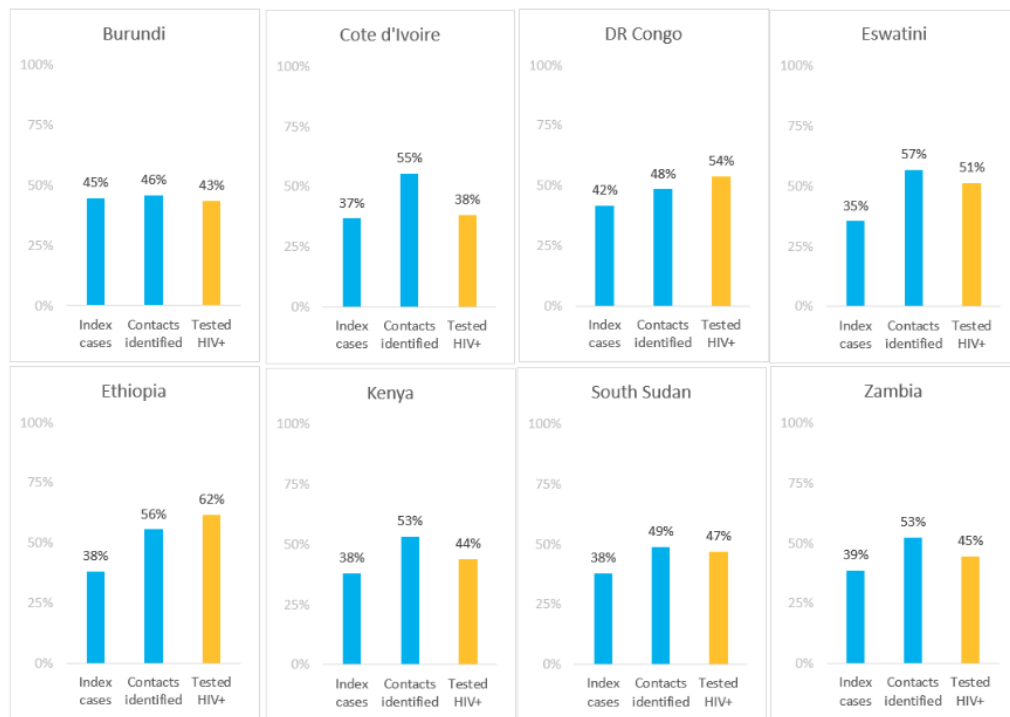
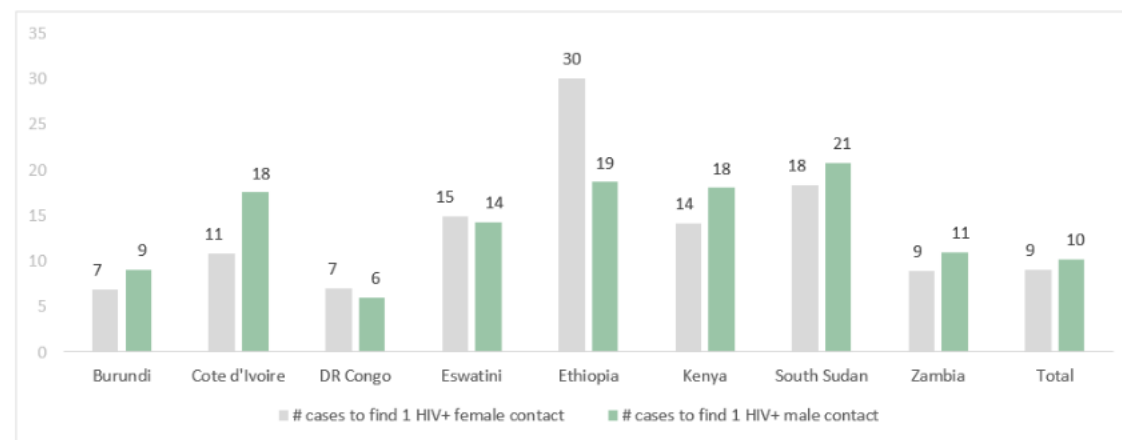


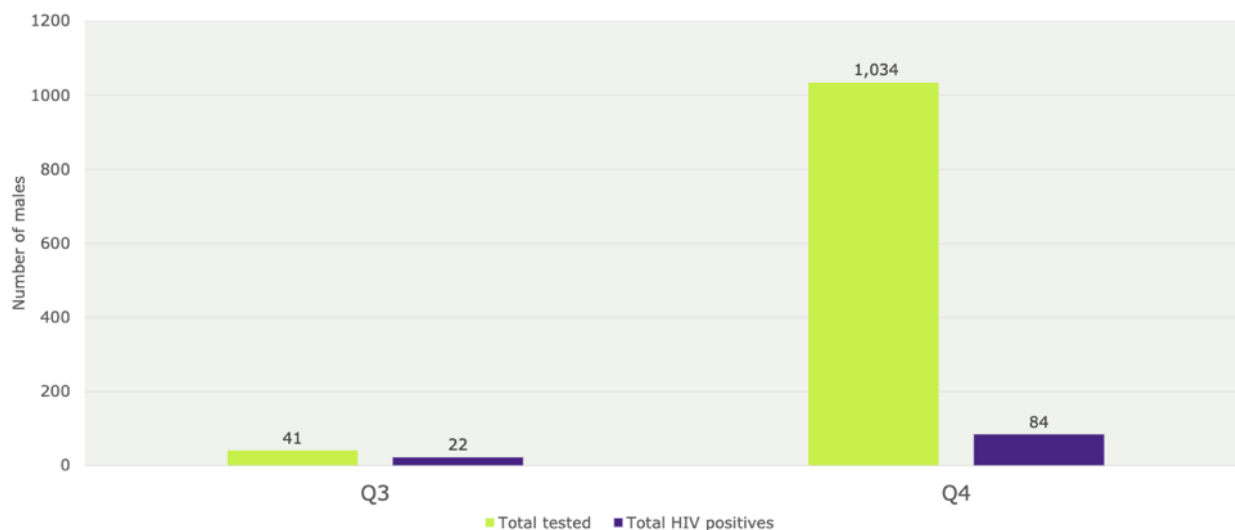
Figure 2: Number of cases offered index testing needed to identify one new HIV-positive contact, by sex of contact, 8 countries in SSA, October 2019-September 2020



- Analysis of testing data from eight countries
- While female clients represented a substantial majority of index cases, a majority of contacts named were male.
- However, most contacts testing HIV+ were female, and results varied substantially by country.

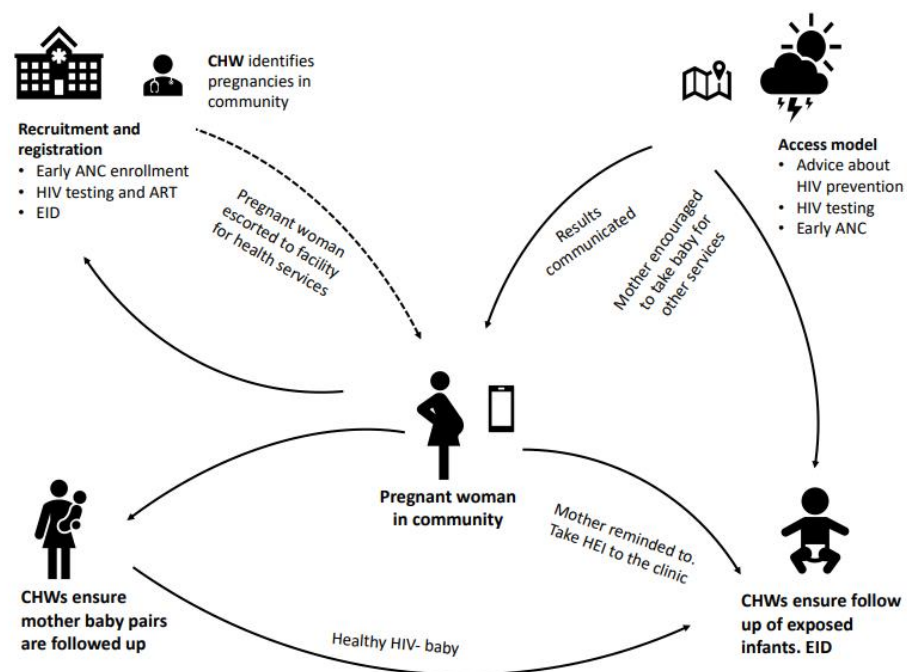
Use of male champions to improve male involvement in HIV testing: The experience of the Malawi EMPOWER Activity

FIGURE 2. Number of men tested for HIV through Malawi EMPOWER in FY20 by quarter



- Trained, male champions and community-based testing
- Large increase in testing, with 63% of those tested in Q4 being "new testers"

Community-based prevention of mother-to-child HIV transmission increases engagement in antenatal care for women and infants in Zambia: results from the SMACHT project.



LESSONS LEARNED

- ANC attendance increased six-fold, from 4,799 to 31,503.
- Early ANC attendance (<20 weeks) increased from 45% to 48%.
- PBFW HIV positivity yield increased from 10% to 13%.
- HEIs identified increased over two-fold, from 2,537 to 5,446
- HEIs tested at 6 weeks increased from 1,515 to 2,760

Key Message:

- DSD models for community-based PMTCT are effective at reaching PBFW and their infants.

Scaling up the community eMTCT delivery system during COVID-19 pandemic lock down in Uganda - a case of TASO Gulu, Northern Uganda

- During lockdown, TASO Gulu scaled up a community eMTCT delivery (CED) system, integrated within community drug distribution points (CDDPs)
- At each CED point, a volunteer mentor mother was identified and empowered to mobilize peers for eMTCT services (clinical review, ART refills, counseling, and blood draws for lab testing)

Results: At six months, VL suppression among PBFW at CED points was at 95.4%; PCR positivity rate among HEI was below 1.0%

Key Message:

- Community eMTCT delivery can effectively mitigate barriers to accessing eMTCT services and improve client health outcomes.

DSD for HIV treatment

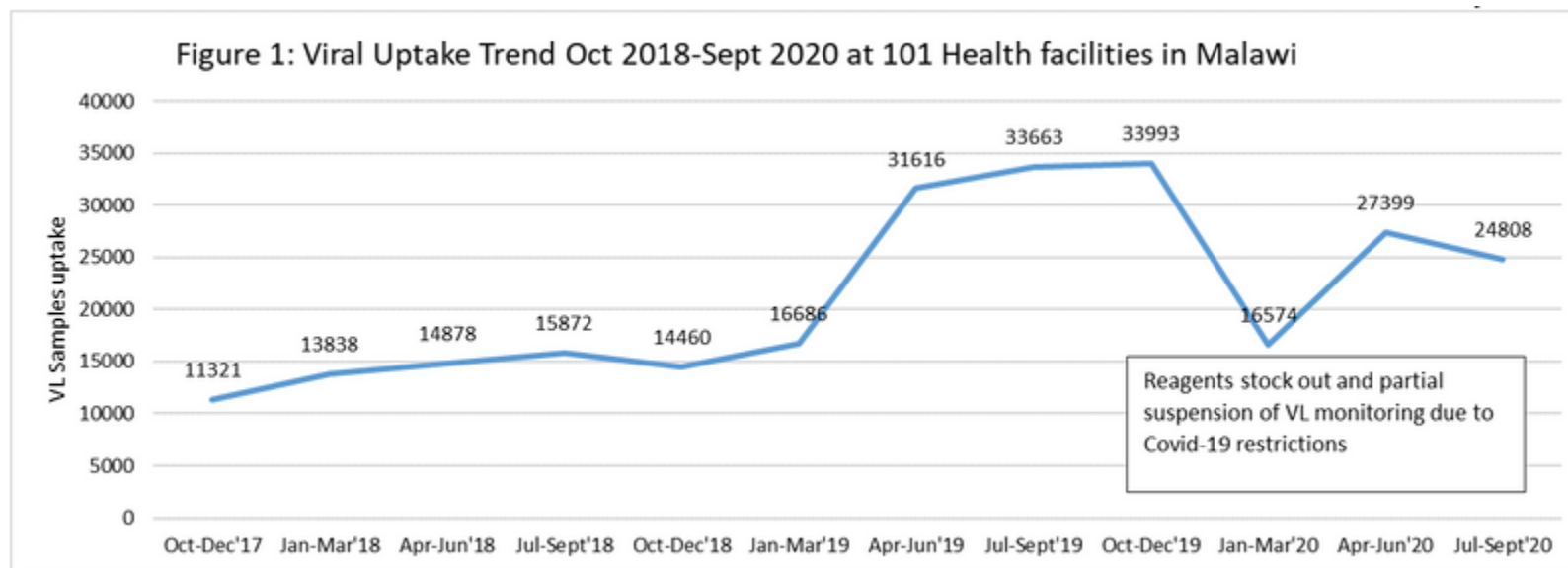
- Integration – TB
- Integration – NCDs
- Integration – Family planning
- Specific populations
- DSD country planning/optimization
- DSD cost and cost-effectiveness
- Facility adaptations
- DSD patient outcomes – across DSD models
- Multi-month dispensing
- DSD patient outcomes – community models

Achieving increased uptake of viral load monitoring through task shifting to Data Clerks in Malawi

- Partners in Hope (PIH) Malawi employed data clerks whose tasks involve overall facility data management, including review and flagging of medical charts of patients due for routine VL testing (following SOP and training).

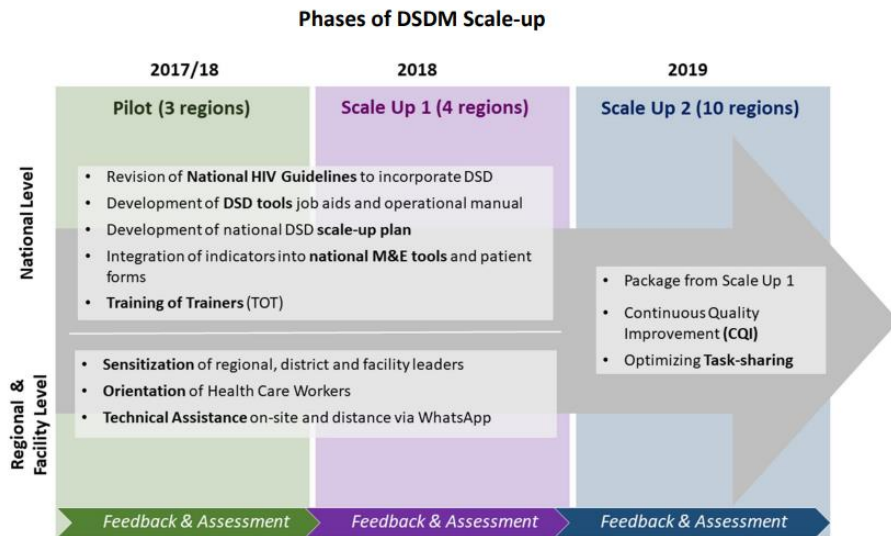
Key Messages:

- A simple task shifting initiative contributed to dramatically increased uptake of VL testing.
- Data Clerks and other lay health workers may also play crucial roles supporting other steps along the VL cascade





Adoption of differentiated HIV service delivery in Tanzania: from policy to practice.



DSD Treatment: Implementation Challenges

Classifying clients into early/late, stable/unstable:

- No place in CTC2 to document early or late presentation
- Need to use stickers (which can fall off)
- Confusion on classifying clients with viral load > 50 c/ml but below 1000 c/ml

HCW-led community OR facility group refills:

- Groups not well organized
- Lack of designated staff
- Community-led group model preferred by some clients

Population-specific models:

- Lack of designated room or time
- Poor clinic attendance makes it hard to support adherence

Results from cross-sectional survey in 60 facilities (June and Sept 2019):

- All facilities reported at least one differentiated testing model and ART delivery at their facility
- Adoption of multi-month refill models (100% both timepoints), extended hours for ART refills (87% to 88%), and fast-track refills (82% to 88%) remained high.
- Community refills by healthcare workers (29% to 35%), and facility-based group refills (9% to 18%) improved but remained low, and family refills decreased (49% to 42%).
- Overall variation in DSD uptake with population-focused and pharmacy-based models more readily adopted by health facilities



Differentiated antiretroviral therapy delivery in rural Zimbabwe: mixed-method study

Table 1: Five Differentiated ART models have been adopted in Zimbabwe

	Facility-based models	Community-based models
Individual models	Fast-track PLHIV obtain their ART refills at the pharmacy or a dispensing point of the facility, separate from the consultation room. There are no individual assessments unless requested.	Outreach Individuals from hard-to-reach areas obtain their refills at convenient outreach stations.
Group models	Club Refill The group consists of up to 20 PLHIV of mixed gender and age. The group is led by a healthcare provider, who distributes the refills to the group members on the same date and venue.	Community ART Refill Group (CARG) The group consists of up to 12 PLHIV from the same geographical area, sometimes separated by sex and gender. One member is nominated to collect the drugs and to distribute the ART refills to other group members. Once a year, all group members are seen together at the facility for their clinical review. Family Refill Similar to CARG, but the group consists of HIV positive family members.

Study findings from 27 facilities: 77% of facilities offered at least one differentiated ART delivery model, and 50% of facilities offered only one model.

Client and provider perceptions:

- Confidentiality, long distances and travel costs, and waiting times are key elements of consideration. Facility-based model fast-track was preferred because of reduced waiting times, contact with caregivers, and confidentiality, even though long distances may become an issue.

Key Messages:

- Most facilities did not offer a variety of models to suit clients' preferences
- Selection of available and suitable models needs a structured and systematic approach.

Differentiated HIV care for people using second-line antiretroviral therapy in South Africa: a retrospective cohort study

- Comparison of treatment outcomes among clients on second-line ART regimens who were referred for community ART delivery as part of the Centralised Chronic Medication Dispensing and Distribution (CCMDD) programme with those who remained at clinics.
- Among 171,301 PLHIV aged ≥ 15 years who collected ART in the study period, 5417 (3.2%) received second line ART; 546 (18.0%) were referred into the community ART programme

Results:

Referral for community ART delivery was associated with an increased odds of viral suppression (adjusted odds ratio [aOR] 1.46, 95% CI 1.04-2.10, $p=0.036$ and retention in care (aOR 1.44, 95% CI 1.13-1.85, $p=0.004$, $n=3025$)

Key Message:

- Study findings support expansion of community-based ART delivery programmes to include people receiving second-line ART

DSD for HIV treatment

- Integration – TB
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- Integration – Family planning
- Specific populations
- DSD country planning/optimization
- DSD cost and cost-effectiveness
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- DSD patient outcomes – across DSD models
- Multi-month dispensing
- DSD patient outcomes – community models

Cost-effectiveness of community delivery of HIV care in South Africa

Mathematical model using costs and clinical outcomes from the DO ART study to estimated population incidence, mortality, disability-adjusted life years (DALYs), incremental cost-effectiveness and budget impact for two scenarios:

1. Standard clinic-based HIV care
2. A home-testing campaign (HTC) once every five years, followed by community ART

Cost-Effectiveness Results

Community ART vs Clinic Care	Mean	Min	Max
Incremental Cost	\$2.07b	\$1.69b	\$2.31b
HIV infections averted*	957,808	775,441	1,068,738
HIV deaths averted*	874,015	703,693	965,636
DALYs averted	9.0m	7.4m	11.0m
Cost per DALY averted	\$230	\$154	\$312

Key message:

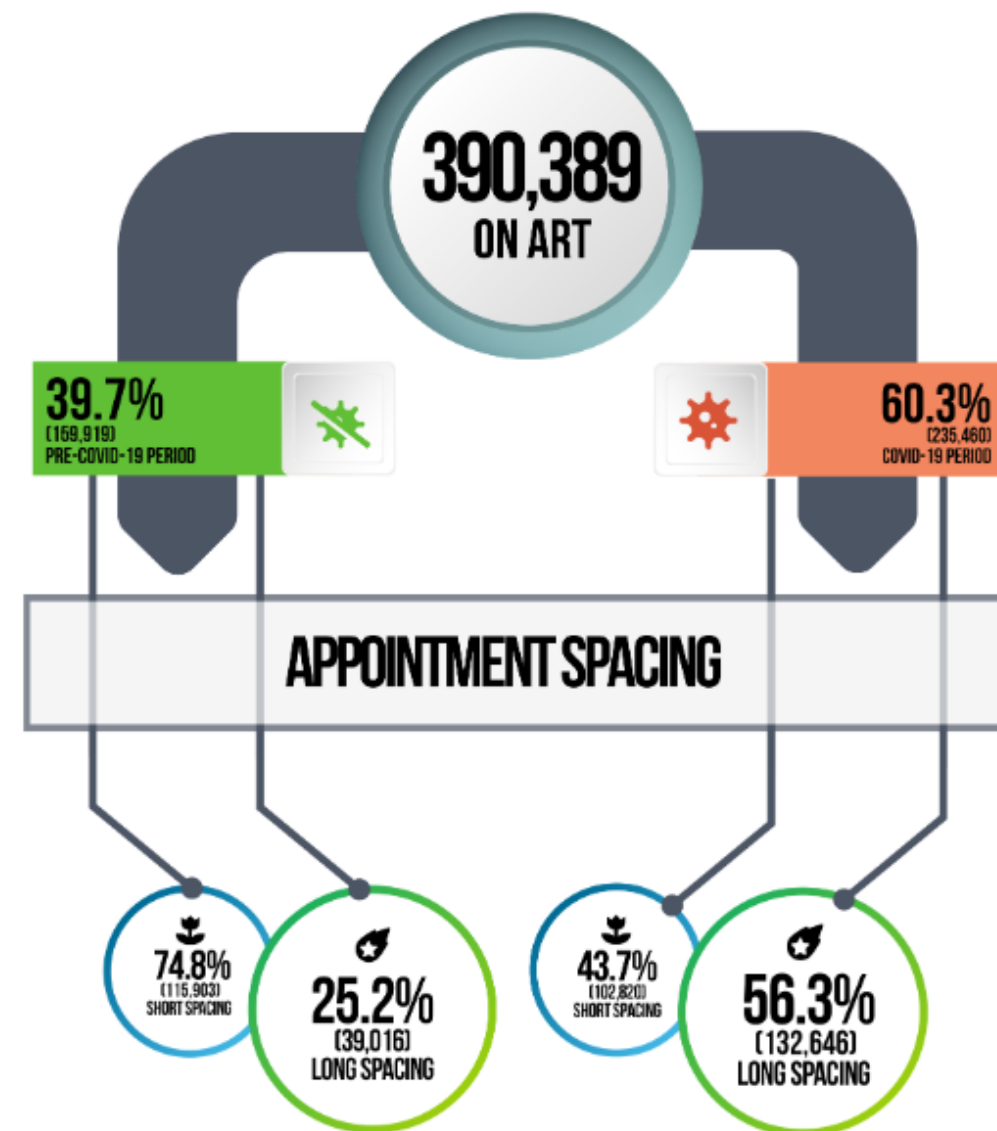
- Scale-up of community-based ART requires an additional 7% initial investment and is highly cost-effective, preventing over a quarter of HIV cases and deaths

DSD for HIV treatment

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Long appointment spacing: expedited differentiated service delivery in Kenya to mitigate COVID-19 infection among HIV populations

- Long appointment spacing defined as ≥ 3 months
- Pre-COVID-19 (1 February 2020 to 15 March 2020) and COVID-19 (1 April 2020 to 15 May 2020)
- Analysed patient-level data from the Kenya National HIV Data Warehouse, a longitudinal repository of data from over 1,300 facilities in 45 out of Kenya's 47 counties.
- In pre-COVID-19 and COVID-19 periods, **median appointment spacing was 34.5 days (IQR 28.6 –84.8) and 84 days (IQR 35 –96) respectively.**



The Phoenix rises: How COVID-19 has accelerated differentiated service delivery for HIV treatment

- In Thailand, IHRI adjusted same-day ART (SDART) initiation by extending the initial ART refill, supporting new clients with virtual follow-up and refills from a courier.
- Key population services were adapted to involve telehealth, Xpress services and STI self-sampling
- PrEP continuation was extended with visits every 6 months (instead of 3), support via telehealth and services including express and self-sampling.

Session programme:

- Expanding eligibility to increase access to DSD for HIV treatment in Ethiopia - Mirtie Getachew MESELU, Ministry of Health, Ethiopia, Ethiopia
- Let's take going virtual viral - moving services online in Thailand - Reshmie RAMAUTARSING, Institute of HIV Research and Innovation, Thailand
- More than just longer refills - the need for community-based and community-led services - Wame JALLOW, International Treatment Preparedness Coalition (ITPC). Botswana

Adjusted building blocks of SDART initiation

	ART preparation	ART initiation	Post initiation follow-up	
WHEN	<ul style="list-style-type: none">• On the same day as HIV diagnosis• 4 weeks of ART supply		<ul style="list-style-type: none">• Follow-up 2 weeks after initiation• 6 weeks of ART supply	
WHERE	<ul style="list-style-type: none">• In person at the clinic		<ul style="list-style-type: none">• In person at the clinic or virtual at home based on client preference	
WHO	<ul style="list-style-type: none">• Physician• Nurse• Peer navigator	<ul style="list-style-type: none">• Counsellor• Pharmacist	<ul style="list-style-type: none">• Physician• Peer navigator	<ul style="list-style-type: none">• Pharmacist• Courier
WHAT	<ul style="list-style-type: none">• In-person clinical consultation• Adherence counselling		<ul style="list-style-type: none">• Clinical consultation• Adherence counselling• ART refill by courier delivery	

March-Aug 2020:

434 FU visits

153 (35%) online

Evaluating the integration of telehealth in same-day antiretroviral initiation service during COVID-19 in Bangkok, Thailand

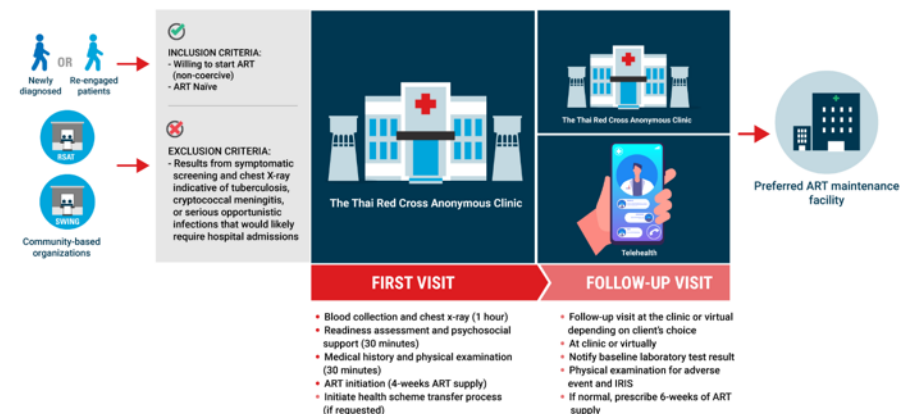
- Same-day antiretroviral therapy (SDART) initiation has been implemented since 2017 at the Thai Red Cross Anonymous Clinic (TRCAC)
- In response to the COVID-19 pandemic, a lockdown was announced in Thailand in March 2020, telehealth for SDART follow-up was established at TRCAC to minimize clinic visits
- During COVID-19 lockdown, a four-week ART supply was provided, and the option of a video call for clinical consultation and physical examination instead of clinical visit at two weeks was given.
- Telehealth was found convenient, time saving, follow-up with ART delivery for SDART clients is a feasible and safe, leading to its continuation beyond COVID-19.

Differentiated service delivery framework for SDART initiation: During and after the first wave of COVID-19

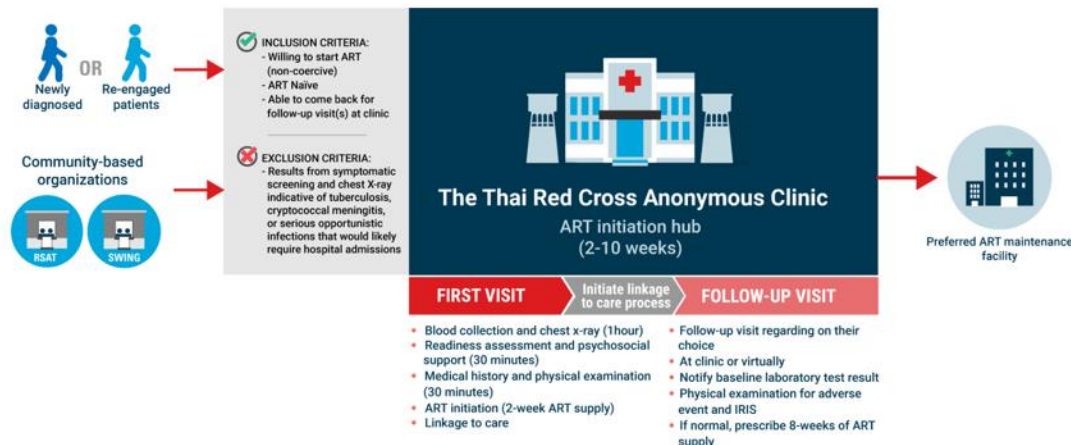
	ART preparation	ART initiation	Post initiation follow-up
WHEN	<ul style="list-style-type: none"> On the same day as HIV diagnosis 4 weeks of ART supply 		<ul style="list-style-type: none"> Follow-up 2 weeks after initiation 6 weeks of ART supply
WHERE	<ul style="list-style-type: none"> In person at the clinic 		<ul style="list-style-type: none"> In person at the clinic or virtual at home based on client preference
WHO	<ul style="list-style-type: none"> Physician Nurse Peer navigator 	<ul style="list-style-type: none"> Counsellor Pharmacist 	<ul style="list-style-type: none"> Physician Pharmacist Peer navigator Courier
WHAT	<ul style="list-style-type: none"> In-person clinical consultation Adherence counselling 		<ul style="list-style-type: none"> Clinical consultation Adherence counselling ART refill by courier delivery

SDART MODEL IN RESPONSE TO COVID-19

Eligibility criteria for the DSD model: In response to COVID-19 pandemic, "Able to come back for follow-up visit(s) at clinic" was removed from the inclusion criteria as telehealth filled this logistic gap.



SDART INITIATION HUB MODEL: Pre-COVID-19



Successful implementation of telemedicine and pharmacy enhanced HIV services as response to COVID-19 quarantine among health insured patients in Argentina

- Due to COVID-19, telemedicine (E-visits) and pharmacy enhanced services were implemented
- Telemedicine was based on linkage between institutional electronic medical record and WhatsApp through a specific application, allowing patient-physician video call through mobile devices.
- After each E-visit, a satisfaction survey was submitted to the patient.
- Pharmacy enhanced services consisted of home- or next-door pharmacy delivery and bimonthly withdrawals.
- To evaluate impact of these services, the study analyzed number of medical visits, ART coverage, pharmacy withdrawals and virological suppression in the population in 2020 vs. 2019 (non-pandemic year).
- **Telemedicine and pharmacy enhanced services were successful interventions in pandemic context.**

Year	2019	2020
ART coverage	97.5%	98.7%
Adherence	95.9%	98.1%
Virologic suppression	97%	94%

2019

- 34843 medical visits were done.
- No E-visits.
- ART coverage, adherence and virologic suppression were 97.5%, 95.9% and 97% respectively.

2020

- 32400 medical visits were done, being 10355 (32%) E-visits.
- ART coverage, pharmacy withdrawals and virologic suppression were 98.7%, 98.1% and 94% respectively.

DSD for HIV treatment

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- DSD patient outcomes – community models

Retention in care after early enrolment into differentiated service delivery models for antiretroviral treatment: a case for policy change

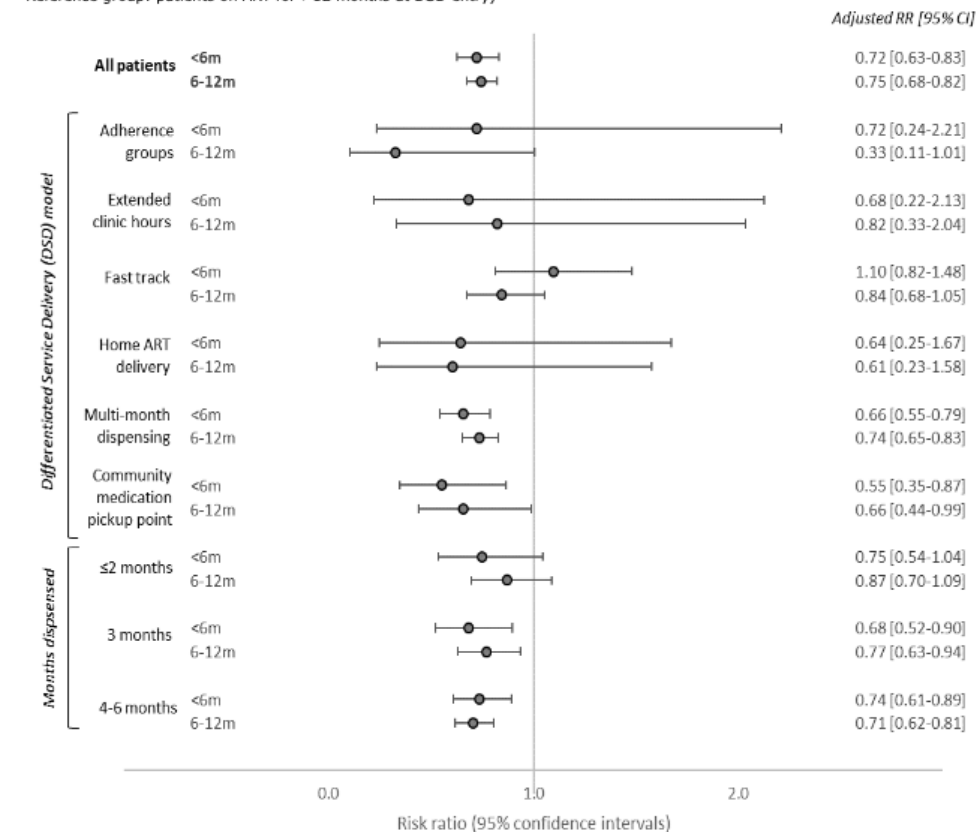
Patients enrolled in differentiated service delivery models earlier than guidelines recommended (after <6 or 12 months on ART) were retained in care as well as those with ART >12 months

Table 1. Distribution into DSD models by time on ART at DSD entry

DSD model	Total (N=87,761)	≥12 months on ART (N=78,022)	6-12 months on ART (N=6,630)	<6 months on ART (N=3,109)
Adherence groups	5% (4,150)	5% (3,940)	2% (147)	2% (63)
Extended clinic hours	1% (503)	1% (403)	1% (57)	1% (43)
Fast-track	39% (33,868)	41% (31,716)	24% (1,563)	19% (589)
Home ART delivery	1% (525)	0% (388)	1% (69)	2% (68)
Multi-month dispensing	49% (42,790)	47% (36,415)	66% (4,378)	64% (1,997)
Community medication pick-up points	7% (5,925)	7% (5,160)	6% (416)	11% (349)

Figure 1. Adjusted relative risk of LTFU within 12 months of DSD enrolment for patients enrolled early (<6 or <12 months) after ART initiation*

*Reference group: patients on ART for >12 months at DSD entry



Differentiated Service Delivery (DSD) model to increase access to HIV – 1 RNA viral load testing in four states in Nigeria

- Strategies implemented by RISE-Nigeria to increase access to VL testing services in 90 project-supported health facilities across four states
- VL champions had passes to move during lockdown and could take VL samples in communities
- Overall viral load coverage (VLC) increased from 71% to 96% , and VLS from 83% (20,950/25,325) to 89%
- VLC increased by 20% for children, 20% for adolescents and young people, and 72% for PBFW
- VLS increased by 19% for children, 6% for adolescents and youth, and 18% for PBFW, 2% males
- Median TAT of results reduced from 35 days at pre-intervention to 25 days post implementation

Improving viral load testing and suppression through implementation of differentiated service delivery models during COVID-19 in five counties in Kenya

FIGURE 2. Challenges and solutions to VL testing uptake

GAPS	INTERVENTION
Long turnaround time from batching of samples at spoke sites	<ol style="list-style-type: none"> 1. Improved efficiency of lab networking by the introduction of hub-and-spoke model supported by RLSN model 2. Identified VL focal people able to log in remotely
Missed opportunities lead to low VL testing uptake	<ol style="list-style-type: none"> 1. Standardized unique patient identifier for effective electronic medical record (EMR) and VLMIS use 2. Generated line list of eligible clients on a monthly basis 3. Tracked missed opportunities on a weekly basis 4. Monitored site-specific targets on a weekly basis 5. Checked triage system daily to select clients due for VL testing
Appointment tracking and monitoring	<ol style="list-style-type: none"> 1. Aligned sample collection days with ART refill days for multimonth dispensing 2. Monitored VL alongside retention indicators and provided <i>papa-mama</i> (PAMA) clinics for family members 3. Leveraged community ART distribution to collect VL samples
Suboptimal use of the Viral Load Monitoring Information System (VLMIS)	<ol style="list-style-type: none"> 1. VLMIS/EMR VL report will be routine requirement by the 13th of every month 2. Capacity building of multidisciplinary teams through on-the-job training and continuing medical education on VLMIS upgrades

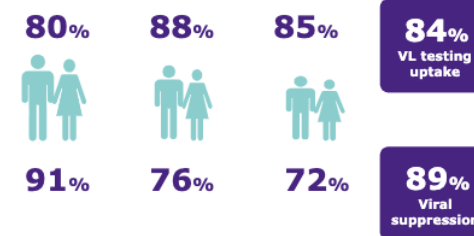
The following models were implemented to ensure treatment adherence, improving viral suppression and VL testing coverage: VL sample collection was aligned with clinical and antiretroviral therapy (ART) refill appointments, implementation of papa-mama clinics for family-oriented services, Operation Triple Zero (OTZ) clinics targeting adolescents and young women, establishment of community ART refill groups, and weekly tracking of missed opportunities for VL

FIGURE 3. Challenges and solutions to VL suppression

GAPS	INTERVENTION
Children: <ul style="list-style-type: none"> • Numerous treatment supporter visits • Late disclosure • Unstandardized regimen • Change in caregivers 	<ul style="list-style-type: none"> • Used PAMA clinics • Reduced treatment supporter visits • Optimized ART drugs • Leveraged orphans and vulnerable children (OVC) program • Aligned appointment days with weekend clinics
Adolescents: <ul style="list-style-type: none"> • Late disclosure • Stigma-related challenges • Weak OTZ clubs 	<ul style="list-style-type: none"> • Strengthened OTZ clubs • Used personal touch model • Used expressive art and teacher involvement • Leveraged OVC program • Aligned appointment days with weekend clinics • Paired virally unsuppressed adolescents with adolescent champions
Adults: <ul style="list-style-type: none"> • Stigma-related challenges • Chronic defaulters 	<ul style="list-style-type: none"> • Established viremia clinics • Strengthened routine booster adherence • Instituted case managers • Provided virtual enhanced adherence counseling

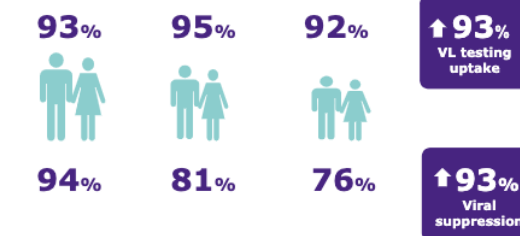
COVID-19 (Q1)

Adults - Adolescents - Children



COVID-19 (Q4)

Adults - Adolescents - Children



Key Message: Site-level viral suppression increased from 91 %- 94% among adults, 76% to 81% for adolescents, and 72 % to 76% for pediatric patients

DSD for HIV treatment

- Integration – TB
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Expansion of multi-month dispensing of HIV antiretroviral medication in sub-Saharan Africa in the COVID-19 era

- Routine PEPFAR data Oct 19–Mar 21 from 7 countries
- By end of observed periods, no country providing majority of clients with <3MMD

Figure 2: Antiretroviral therapy dispensing quantity, by country and PEPFAR fiscal year quarter, 7 countries in SSA, October 2019–March 2021



Key message: A majority of clients were receiving extended ART refills (3+ months) by the end of the study period

Impact of virtual follow-up and six-month dispensing on viral suppression and loss to follow-up (LTFU) during COVID-19 in the Democratic Republic of the Congo (DRC)

Three PoDi+ sites in DRC from inception (10/16, 01/17, 02/20) through January 2021 to assess COVID-19-related PoDi+ adaptations on VLS (03/20–01/21), treatment interruption, and mortality before and during the pandemic.

Table: Incidence rates and IIRs for clinical outcomes before and during COVID-19.

	During COVID-19 (1,541.26 PYO)	Before COVID-19 (4,151.87 PYO)	IIR before and during COVID-19
	n (IR/1,000 PYO; 95% CI)	n (IR/1,000 PYO; 95% CI)	(95% CI)
Unsuppressed VL	30 (19.46; 13.13–27.79)	65 (15.66; 12.08–19.95)	1.24 (0.80–1.91)
Treatment interruption	5 (3.24; 1.04–7.57)	33 (7.94; 5.47–11.16)	0.40 (0.15–1.04)
Death	7 (4.54; 1.82–9.35)	23 (5.54; 3.51–8.31)	0.81 (0.35–1.91)

Abbreviations: CI, confidence interval; IR, incidence rate; IIR, incidence rate ratio; n, number of cases; PYO, person years of observation; VL, viral load.



COVID-19 adaptations to PoDi+ model

Pre-COVID 19

- **Multi-month refills:** Three-month refills of ART, cotrimoxazole, and isoniazid (as applicable).
- **Health checks:** In-person tuberculosis (TB) and nutritional screenings during quarterly refill appointment.
- **Viral load sample collection:** Samples collected separately at health facilities.

During COVID 19

- **Multi-month refills:** Six-to-twelve-month refills based on client preference.
- **Health checks:** Virtual TB and general wellness screenings and adherence checks monthly via telephone.
- **Viral load sample collection:** Samples collected during refill visit at PoDi+ site.
- **Appointment reminders:** SMS reminders sent one week before scheduled refill appointment.

Provision of Multi-Month Dispensing (MMD) of ARV in the time of COVID-19 in Cote d'Ivoire

Figure: Timing of transition to MMD by stability classification

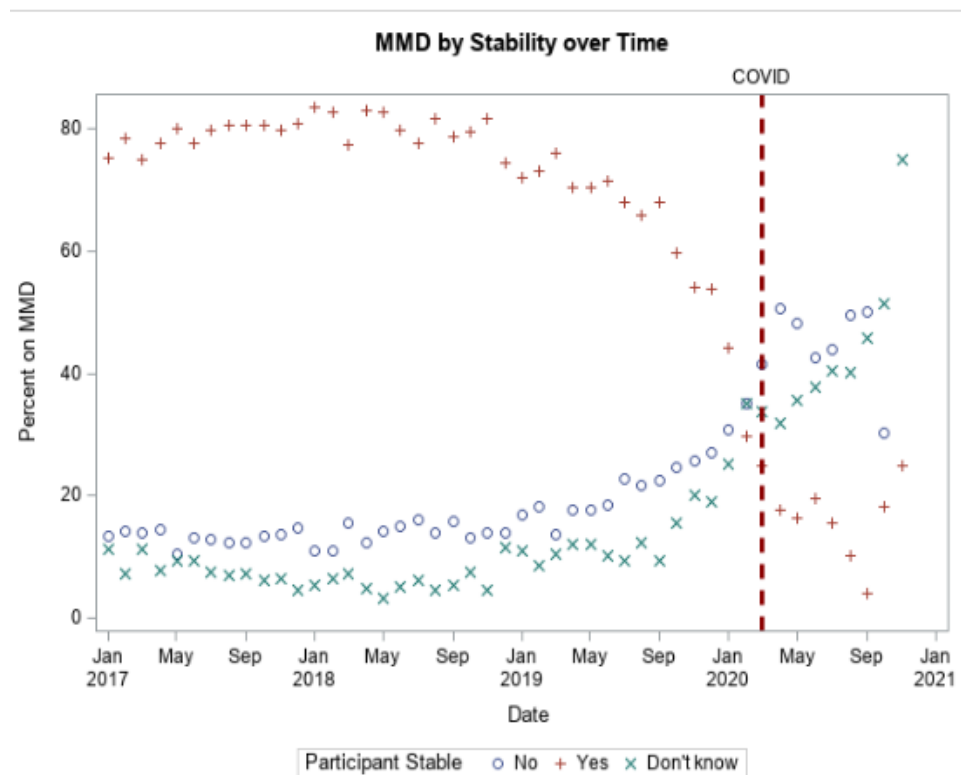


Table : Cross tab of Transition to MMD by Stability (*total sample*)

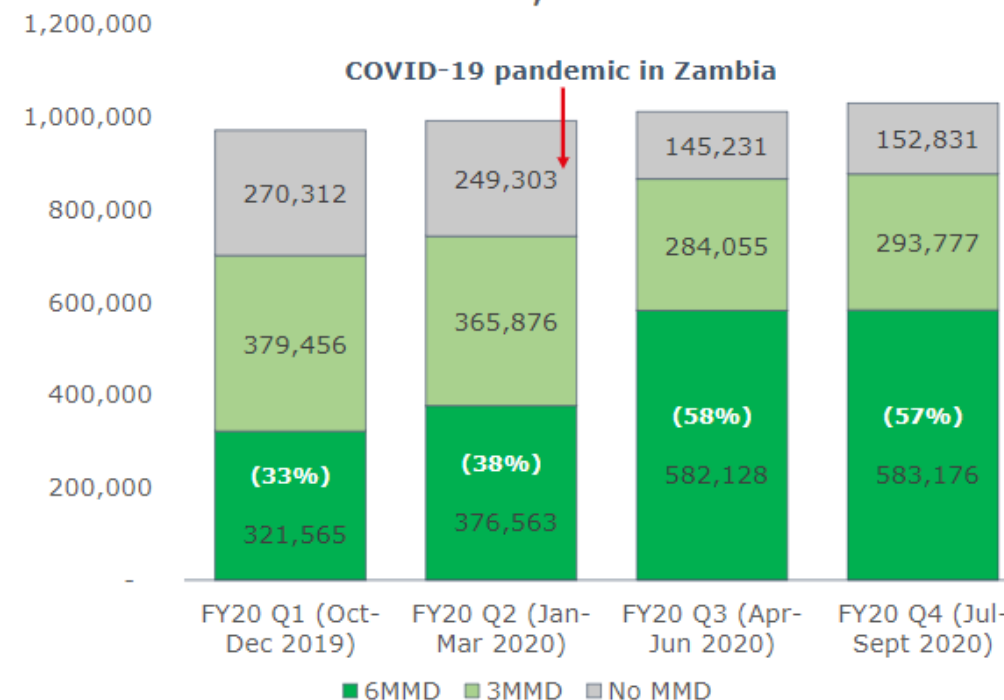
	Patients on MMD before (March 1, 2021) COVID (N=36540)	Patients transitioned to MMD during COVID (N=4131)	p-value
Age group (years)			
<15	1196 (3.3)	322 (7.8)	<0.0001
15-24	1219 (3.3)	348 (8.4)	
25+	34125 (93.4)	3461 (83.8)	
Time on ART			
≤365 days	633 (1.7)	1607 (38.9)	<0.0001
366 – 2 years	2787 (7.6)	861 (20.9)	
>2 years – 5 years	10807 (29.6)	859 (20.8)	
>5 years	22290 (61.0)	809 (19.4)	
VL Result (copies/mL)			
Undetectable (<40)	28332 (78.7)	2043 (57.4)	<0.0001
Detectable, <400	3697 (10.3)	587 (16.5)	
Detectable, 400-999	710 (2.0)	118 (3.3)	
Unsuppressed (1000+)	3276 (9.1)	814 (22.8)	
Current opportunistic infection			
Yes	304 (0.8)	67 (1.6)	<0.0001
No	36236 (99.2)	4064 (98.4)	
Classified as stable			
Yes	26856 (73.5)	779 (18.9)	<0.0001
No	5983 (16.4)	1958 (47.4)	
Don't Know	3701 (10.1)	1394 (33.7)	

Those transitioned during the pandemic were significantly younger, more recently initiated on ART, and less likely to have a suppressed VL. No outcomes reported.

Rapid scale-up of multi-month dispensation of antiretroviral therapy as a COVID-19 mitigation measure – Zambia, 2020

- Analyzed % PLHIV (≥ 15 yrs) on ART who received 6MMD by end of March 2020 compared with end of September 2020
- Switch from TLD to TLE due to TLD stock shortages to accommodate 6MMD
- Overall LTFU was 93,464 (9.4%) in March compared with 64,832 (6.3%) in September
- % on 6MMD increased from 33% to 57% present between October 2019–September 2020

Figure 1: MMD scale up among PLHIV in Zambia, FY20

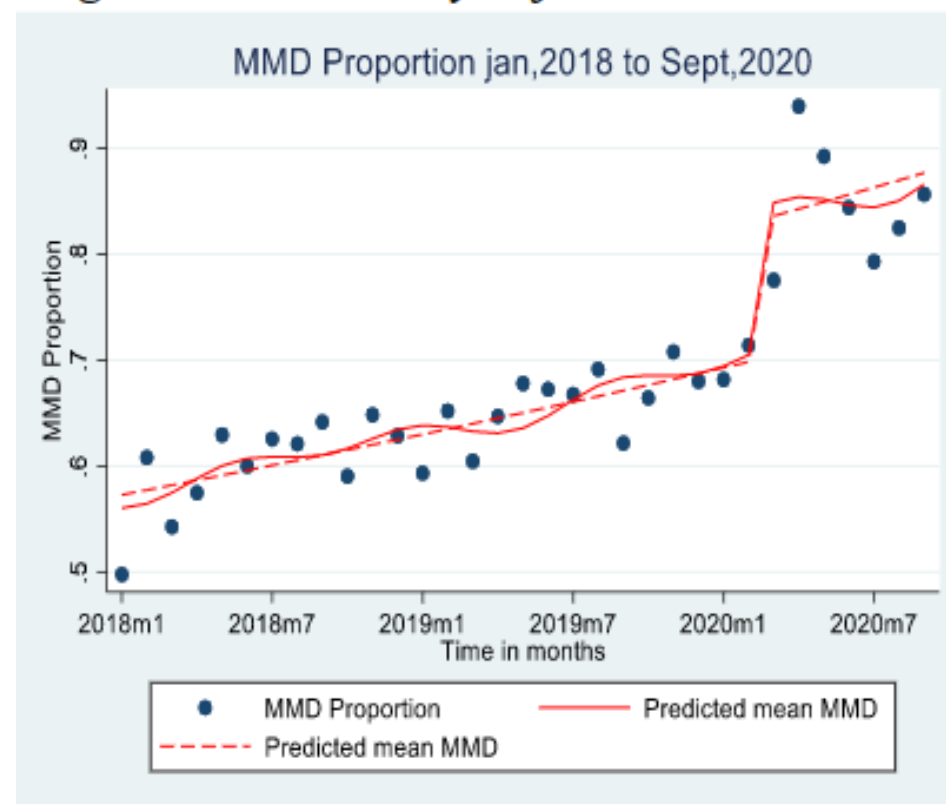


Scaling up multi-month dispensation (MMD) of antiretroviral therapy in response to COVID-19 in Zambia

- Routine data from 82 health facilities in Lusaka Province and 24 in Western Province, Zambia
- DSD adaptations to COVID-19 → patients to come to clinic or have a home delivery to receive 3MMD (for new patients) or 6MMD (for stable patients)
- “Treatment interruption” as any late ART distribution made 28 days or later from the client’s scheduled pharmacy appointment

Treatment interruption	*Odds Ratio (95%CI)	p-value
Dispensation		
6 months+	Ref	Ref
3-5 months	1.18 (1.01-1.48)	<0.001
<3 months	2.75 (2.41-3.01)	<0.001

Figure 2: Seasonality adjusted model



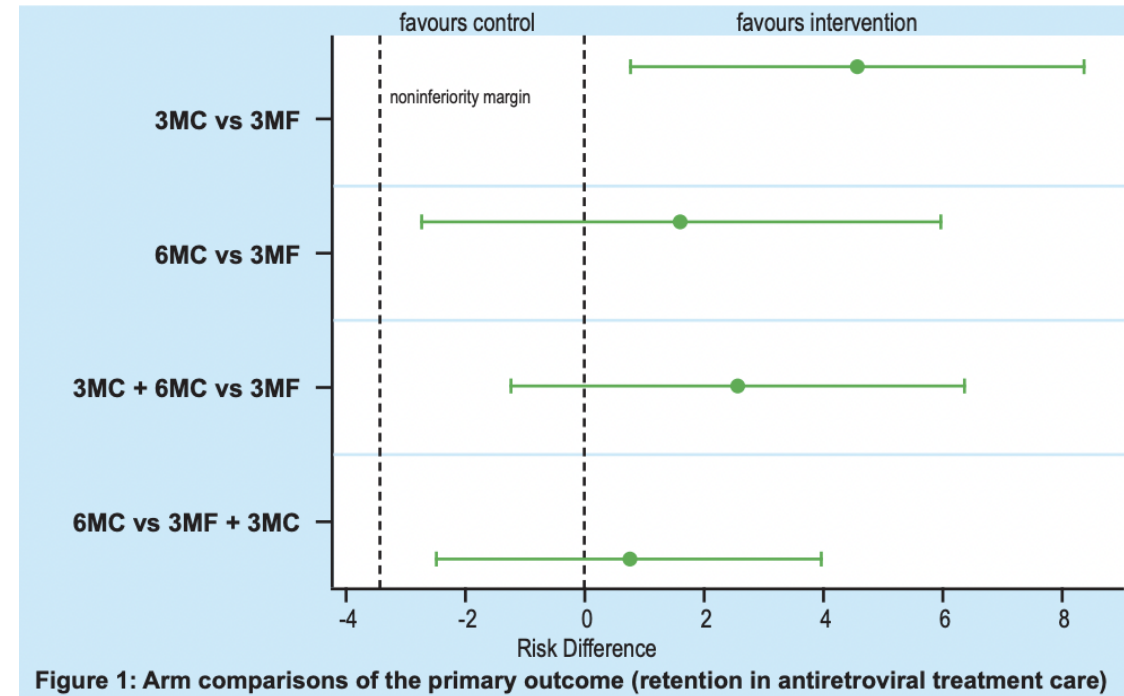
Key Message: Less treatment interruptions among those receiving longer ART refills

DSD for HIV treatment

- Integration – TB
- Integration – NCDs
- Integration – Family planning
- Specific populations
- DSD country planning/optimization
- DSD cost and cost-effectiveness
- Facility adaptations
- DSD patient outcomes – across DSD models
- Multi-month dispensing
- DSD patient outcomes – community models

The effectiveness of community-based multi-month dispensing of antiretroviral treatment with single annual clinical visits for newly stable HIV patients: a pooled analysis of two cluster-randomized trials in Southern Africa

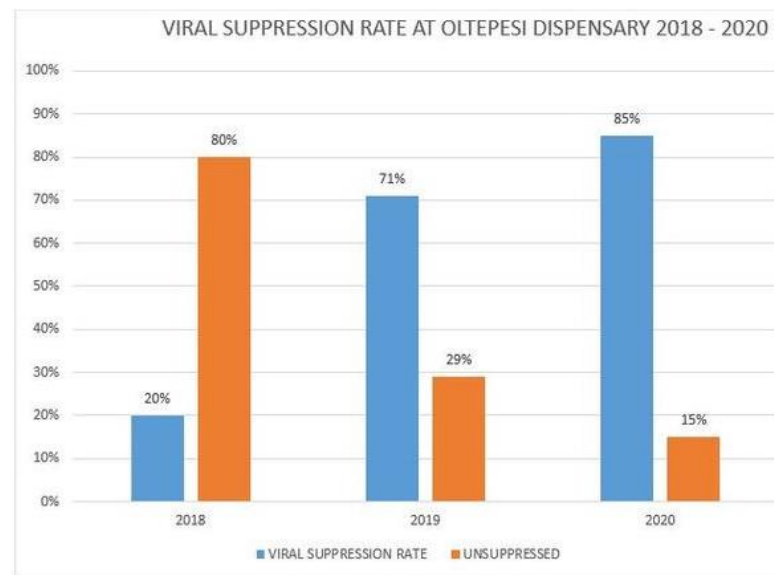
- Pooled data from two cluster-randomized noninferiority trials investigating community-based MMD conducted in Zimbabwe and Lesotho in Southern Africa
- Each trial had three arms: ART collected three-monthly at healthcare facilities (3MF, control); ART provided three-monthly in Community ART Refill groups (CARGs) (3MC); and ART provided six-monthly in either CARGs or at community-distribution points (6MC)
- Clinical visits were three-monthly in 3MF and annually in both intervention arms
- Primary outcome was retention in ART at 12 months



Key message: Amongst newly stable ART clients receiving ART for 6-12 months, three and six-monthly out-of-facility MMD models with single annual clinical visits were at least noninferior to standard 3-monthly facility-based care amongst participants aged ≥ 25 years.

Leveraging community ART dispensation through community health volunteers to enhance ART retention among the pastoralist PLHIVs of lower socioeconomic status in Kajiado: a case of Oltepesi Dispensary

- Community ART dispensing strategy: Community health volunteers (CHV) pick up ARVs from facility and deliver to clients' homes and provide health talks including adherence counseling, nutritional education, and psychosocial support
- Between 2018 and 2020, viral load suppression rates increased from 20% to 85%.



Dispensary since 2018 when ADEO started implementing the TCS program.

Key Message: Where barriers to retention are distance to facility and socioeconomic status, CHV can play a key role in improving access to treatment and viral suppression.

The Community HIV Epidemic Control Model: a community-based intervention to achieve 90-90-90 via comprehensive HIV differentiated service delivery in rural communities in Zambia

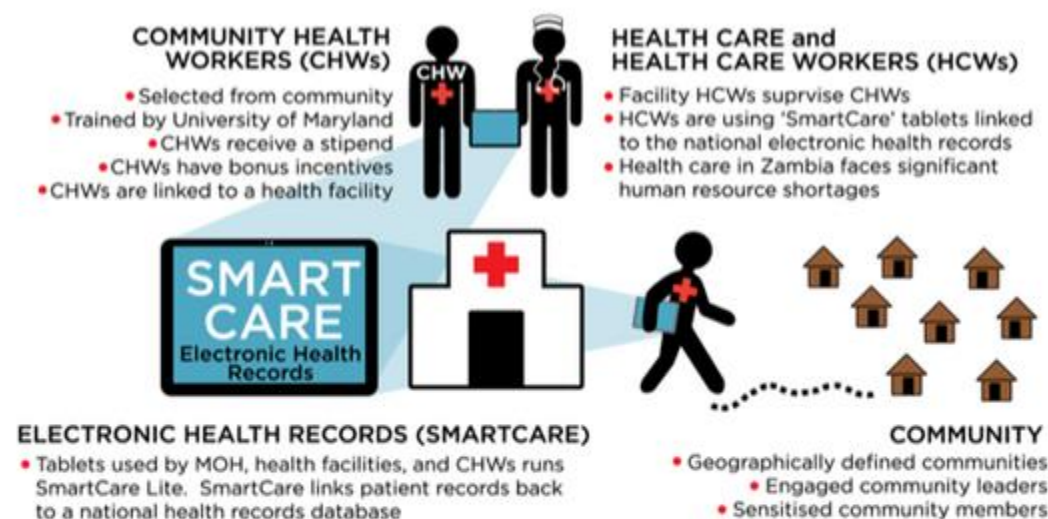
By task-shifting HIV service delivery into the community, Community HIV Epidemic Control (CHEC) achieved 90% ART linkage and 91% VLS, with 97% VLS among stable-on-care clients. Community-based programmes can increase uptake of HTS and linkage to care.

Delivering treatment where people live

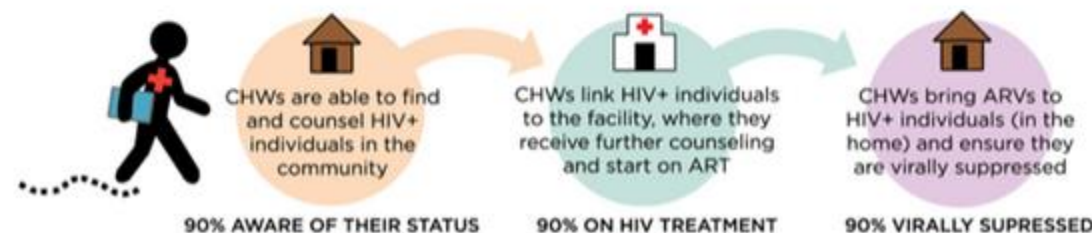
<https://theprogramme.ias2021.org/Programme/Session/15>

Components of CHW SOC Visit		
	ART Refills & Symptom Review	Psychosocial support
WHEN	The CHWs visit SOC clients every 90 days.	The CHW can provide support for all psychosocial issues at any point during the SOC consultation.
WHERE	The SOC client's home.	
WHO	SOC clients per criteria	
WHAT	<ul style="list-style-type: none"> Vital signs Symptom screen 90 day ARV supply for stable clients Referral to health facility for unstable clients 	CHWs attend to client challenges, addresses limitations and help clients to develop strategies and solutions to mitigate challenges.

COMMUNITY HIV EPIDEMIC CONTROL (CHEC) MODEL



COMMUNITY HIV EPIDEMIC CONTROL (CHEC) AND 90-90-90



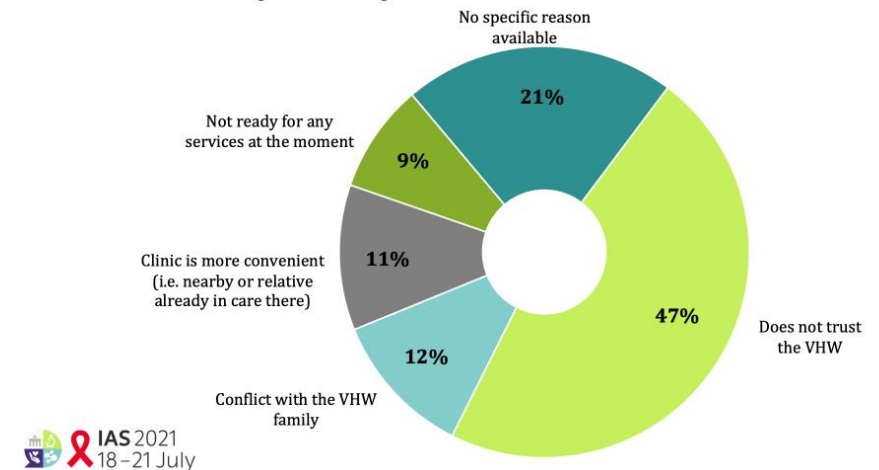
VIBRA trial – Village-based refill of ART following home-based same-day ART initiation: a cluster-randomized clinical trial

- To evaluate the effectiveness of offering ART refill by existing village health workers (VHW) following offer of same-day ART initiation during a door-to-door HIV testing campaign in rural Lesotho
- No difference in VL suppression at 12-months (54% in control vs. 49% in intervention)
- Only 41% of those offered VHW refill opted for this option
- VHWs did not add to effect of same-day home-based ART initiation

<https://theprogramme.ias2021.org/Programme/Session/15>

Delivering treatment where people live

Intervention participants who did not opt for VHW refill (N=70)



An evaluation of nurse-led Community ART Distribution (CAD) for stable ART clients in Malawi

- Community ART distribution (CAD) is a hub and spoke model where a nurse travels to a health post to provide comprehensive HIV services
- Retrospective cohort from medical records from four facilities
- N=700 with n=350 in CAD vs. "hub"
- No differences in retention or viral suppression after a year in the programme (no differences by gender or age)

Clinical outcomes of community ART distribution: DRC's experience with the PODI+ model

- Compared stable clients at health facilities (n=403) (receiving MMD) and those in PODI+ sites (n=441) in Kinshasa for 12-months
- No difference in adherence or retention between arms
- PODI+ client were more likely to be virally suppressed at the end of the study (OR=2.21, 95% CI 1.01-4.85).
- Total of 40 switched off MMD (25 in HF group, 15 in PODI+ group)

Figure 1. Percent of Participants Virally Suppressed, Enrollment and End of Study

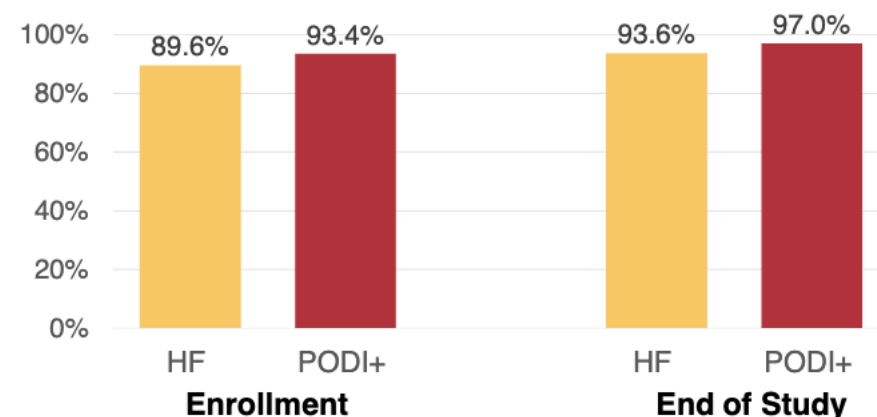


Table 2. Participant Outcomes by Study Arm

Outcomes	HF (n=403)	PODI+ (n=441)	Odds Ratio (95% CI)
≥ 90% adherence at visits (3, 6, 9, and 12 months), n (%)	270/394 (68.5)	306/437 (70.0)	1.07 (0.36, 3.21)
Attended +/- 1 month of scheduled visit at 3, 6, 9 and 12 months, n (%)	212/403 (52.6)	223/441 (50.6)	0.92 (0.39, 2.17)
Switched off MMD, n (%)	25/403 (6.2)	15/441 (3.4)	1.9 (0.65, 5.39)

Improved retention to HIV care and viral suppression among PLHIV through community home based care in Vihiga County, Kenya

- N=6307 patients recruited to have monthly home-based support from community health volunteers (CHVs)
- Each CHV has at most 20 clients
- Provided counseling & psychosocial support on treatment adherence, positive living, address stigma & discrimination as well as providing community differentiated care for stable clients
- 99% retention and 93% viral suppression after 12 months

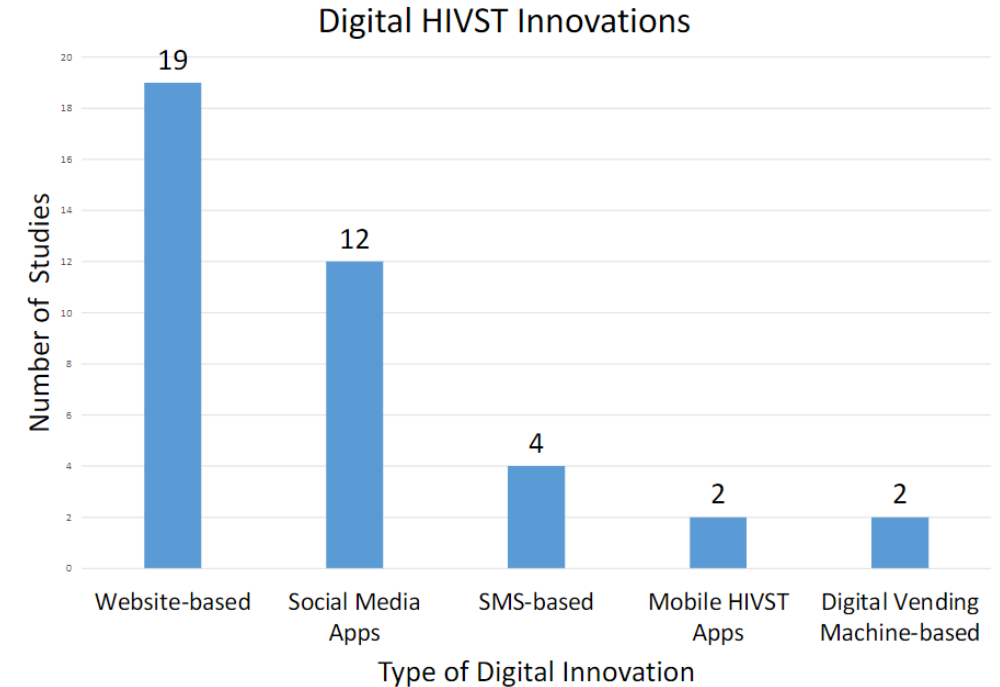
Using private pharmacies for decentralized distribution of antiretroviral therapy: Early lessons from seven sub-Saharan African countries

- Between June 2020 and January 2021, cross-sectional pharmacy (n=1,562) and client surveys (n=1,382) were conducted in seven countries (Botswana, Cameroon, Côte d'Ivoire, Democratic Republic of the Congo, Eswatini, Liberia, and Mozambique)
- Pharmacies → 54-100% willing, expected compensation ranged from US\$0.33-US\$3.68 per pickup, with higher fees in Botswana (US\$1.68 to US\$8.38). In Mozambique, 66% of pharmacies were willing to provide this service for no fee compared to just 6% in Botswana
- Clients → Client expressed interest (72%-80%) in the pharmacy model. Among those willing to pay for refills (44%-90%), a fee of US\$0.13-US\$6.51 was considered reasonable, though this was higher in Botswana (US\$4.19 to US\$8.38)

2. DSD for HIV testing and linkage

Can digital HIV self-testing (HIVST) be the next paradigm for self-testing? A systematic review of global evidence

- Digitally supported HIVST demonstrated high acceptability, with 54%-99% of participants expressing willingness to use HIVST with digital supports in the future.
- Six (32%, 6/19) web-based interventions evaluated impact on linkage to treatment/care after a positive HIV test (proportions ranged from 53%-100%)



Extending reach of HIV testing services (HTS) through private-sector outlets: feasibility of offering HIV self-testing (HIVST) at pharmacies and alternative medicine centers (AMC) in Democratic Republic of the Congo (DRC)

- Piloted at 21 private-sector outlets (19 pharmacies; 2 AMCs) across five health zones of Lubumbashi in Haut-Katanga province

Figure 1: Flow for assisted HIVST services at pharmacies and AMCs.

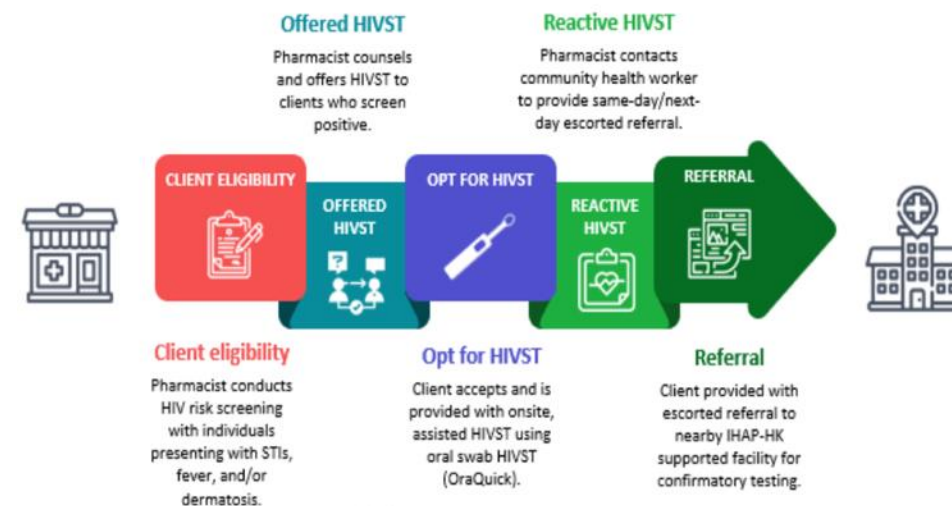
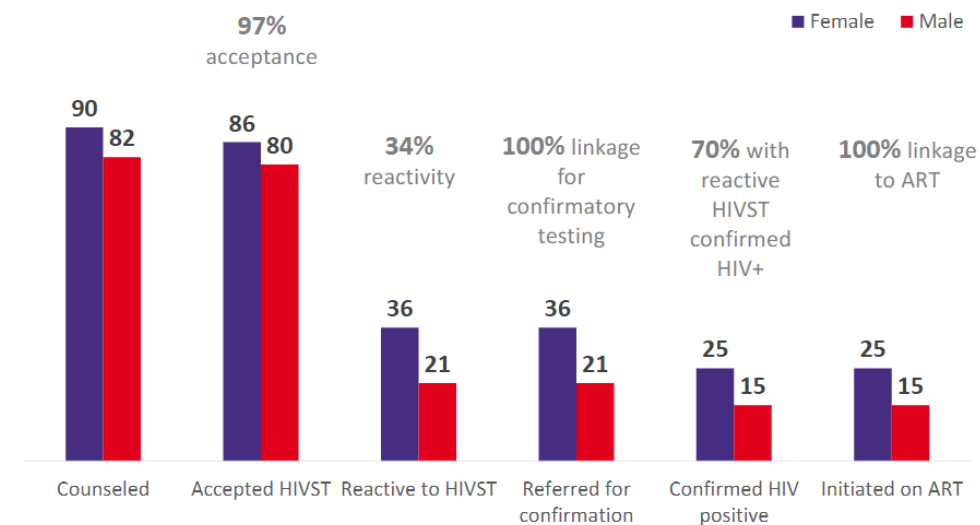


Figure 2: HIVST cascade by sex, May-December, 2020.



Reaching absent and refusing individuals during home-based HIV testing through self-testing: a costing perspective

Estimation of the cost of home-based HIV testing with and without secondary self-test distribution from a provider's perspective
Results:

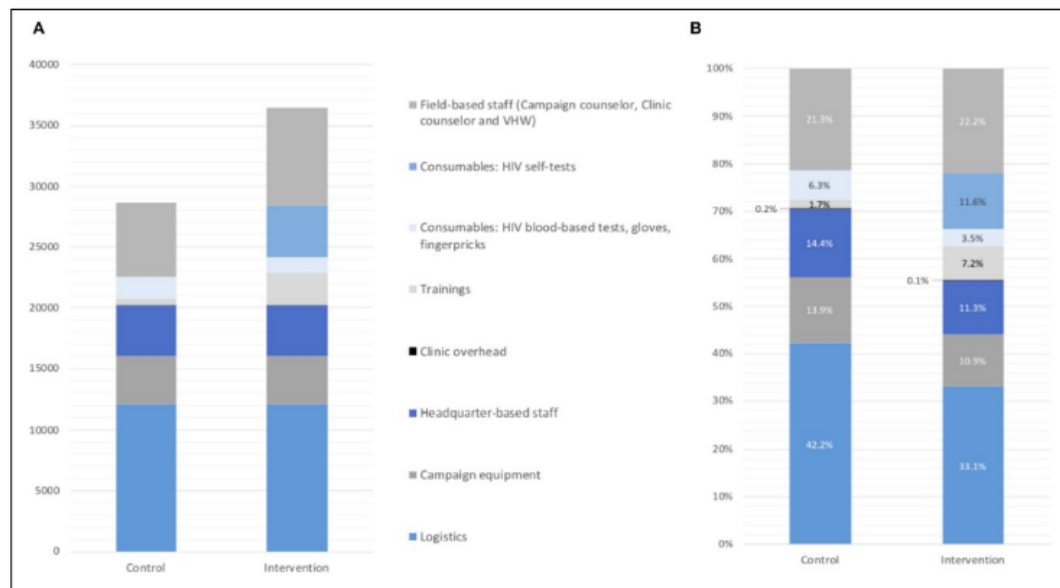


Figure 1: Cost item by arm in absolute US\$ (A) and proportion of total costs (B)

Conclusion:

Self-testing strategy yielding high coverage and the optimal integration of the self-test follow-up in the existing health system resulted in low cost of secondary self-test distribution during home-based HIV testing in Lesotho.

Key message:

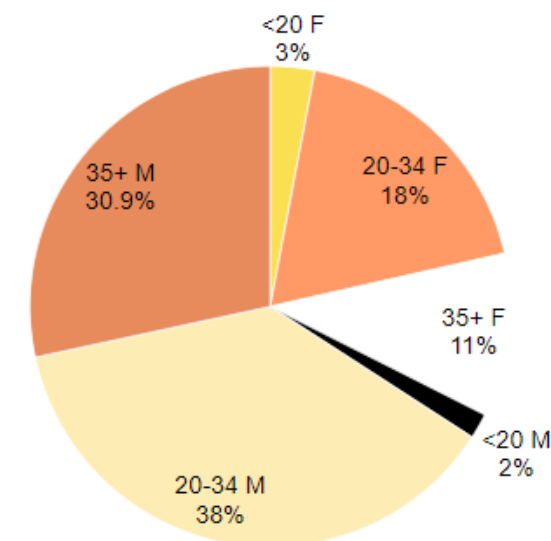
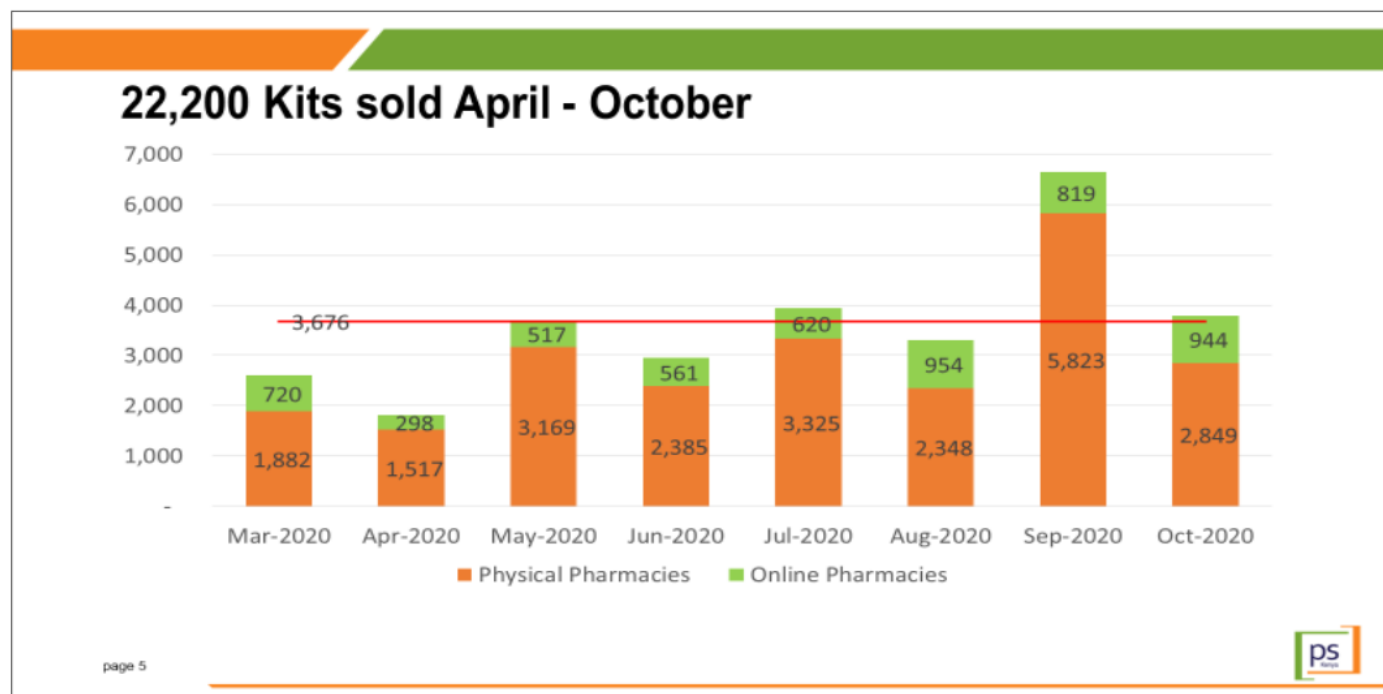
- Low cost of secondary self-test contribution for individuals refusing home-based testing may inform the current large-scale roll-out of HIV self-tests in Africa and should be considered for home-based testing policies in similar settings

SelfCare: a community-based demonstration study on the acceptability and feasibility of HIV self-screening among men who have sex with men and transgender women in Metro Manila, Philippines during COVID-19 quarantine



- 18-49 year MSM or TGW, living or working in Metro Manila, not diagnosed HIV-positive, and not on HIV PrEP.
 - Digital assistants created to explain process and next steps
 - High reporting rate (1 281/1 690, 75.8%) regardless of HIV status
- Study only one month as cut short by COVID-19

The pharmacy as a link to reaching men with HIV testing services: a case of HIV Self-testing Challenge Fund Project, Kenya



Sale of HIVST in private pharmacies across 700 registered pharmacies in Nairobi and Mombasa complimented 783,632 traditional HIV tests over the same period with a higher proportion of uptake amongst men

Home-based testing strategies for older adults in rural South Africa: a randomized controlled trial

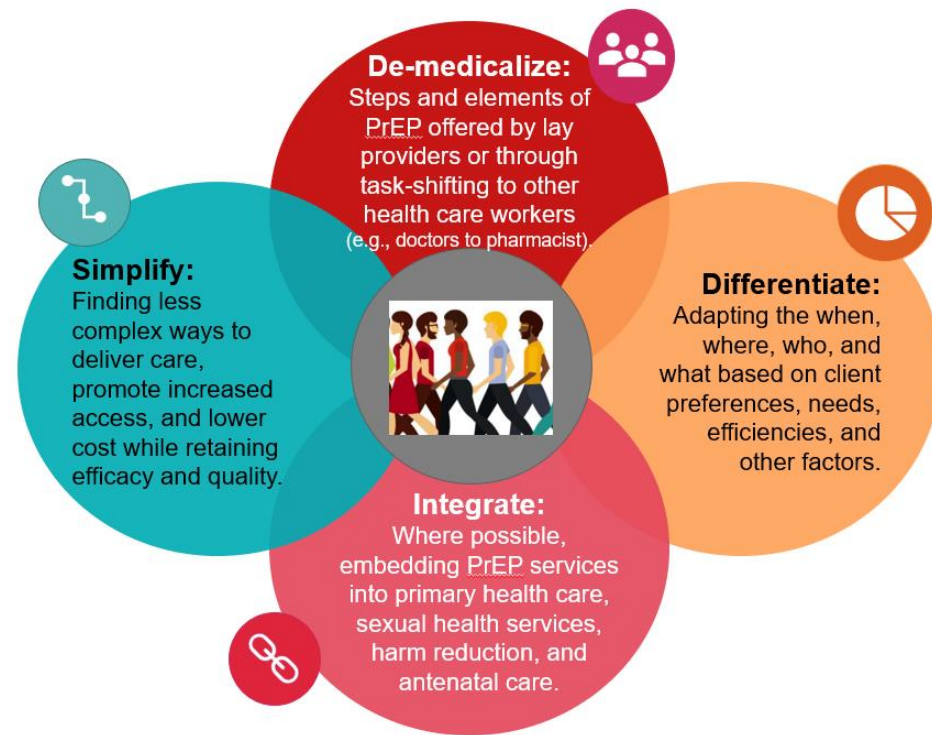
- The aim of the study was to establish the comparative effectiveness of three different home-based HIV testing strategies for older adults in rural South Africa:
 - (1) home-based HIV rapid testing + counseling,
 - (2) home-delivery of HIVST kits,
 - (3) both home-based HIV rapid testing+ counselling and home delivery of HIV self-testing kits
- There was no significant difference in testing uptake or knowledge of HIV status across groups.
- Those in the treatment arms with HIVST were significantly more likely to test at home, **suggesting a preference for self-testing in this population**

	Ever tested		Tested since visit		Knows HIV status		Tested at Home	
Counselor + RDT only	1	[1,1]	1	[1,1]	1	[1,1]	1	[1,1]
Self-test kit only	0.996	[0.984,1.008]	0.99	[0.912,1.076]	0.995	[0.979,1.010]	1.171**	[1.031,1.329]
Counselor+ RDTs + self-test kit	1.002	[0.991,1.013]	1.013	[0.933,1.100]	0.994	[0.979,1.009]	1.191***	[1.049,1.353]
Obs.	2972		2969		2972		1559	
Mean	0.983		0.527		0.969		0.495	

3. DSD for PrEP

Paving the road for new PrEP products: The promise of differentiated, simplified, and decentralized delivery to maximize the potential of new PrEP products

- The four key principles to scaling up PrEP are: (i) Demedicalization of PrEP through task-shifting to other healthcare workers, (ii) Simplifying PrEP care for end-users, (iii) Integration of PrEP with other services, (iv) and Differentiation of PrEP services based on client needs
- "Choice is empowering", but the availability of choice may differ for end-users depending on the context. The end-users of PrEP and community members highlighted how pill burden, stigma, accessibility of healthcare facilities may serve as barriers to uptake and adherence. They shared how new long-acting products have the potential to help make PrEP more accessible to diverse groups especially when received in a community center or safe spaces.
- Promising technological innovations for the PrEP formulation and methods, as well as differentiated service delivery models are in the pipeline to address the issue of access and hold promise for the scale up of PrEP



Building blocks for differentiated PrEP

Adapting the when, where, who and what



Pivoting HIV prevention during a parallel pandemic

- According to the "Assessment of needs, use, preferences and willingness to pay for HIV-related health services among key and general populations in four provinces in Vietnam" made in February 2021 by PATH and USAID,;
 - PrEP uptake in 3 provinces in Vietnam has increased from n=381 in FY2017 to n= 12,612 in FY2021
 - There is an unmet need even in the areas of ample supply
 - Two-thirds of key populations stated they would prefer long-acting injectables over oral PrEP.
- Shifting from primarily facility-centered care to alternative, more convenient models will likely make it easier for people to start and continue using PrEP
- Studies and learning from COVID-19 service adaptation from different regions, contexts and populations underscore that differentiated PrEP delivery is acceptable and feasible

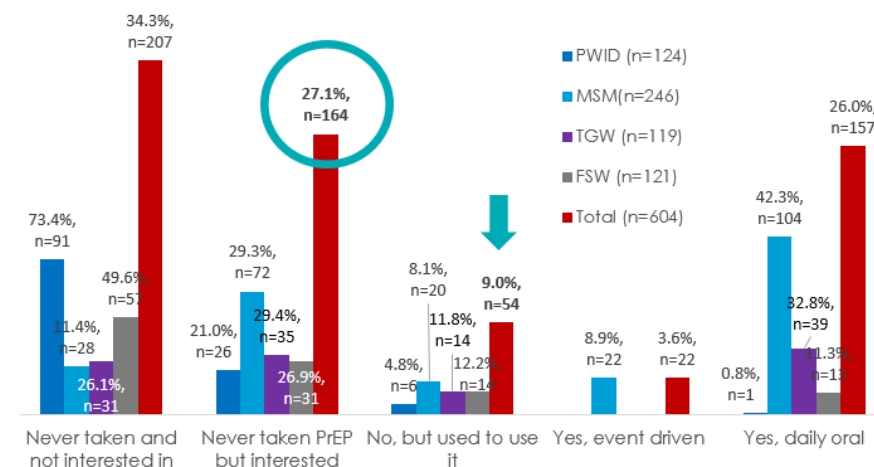
- When you have a combination of PrEP product "SuperHeros" and PrEP service "SuperStars"

Superhero products + SuperStar Services = SuperSolutions

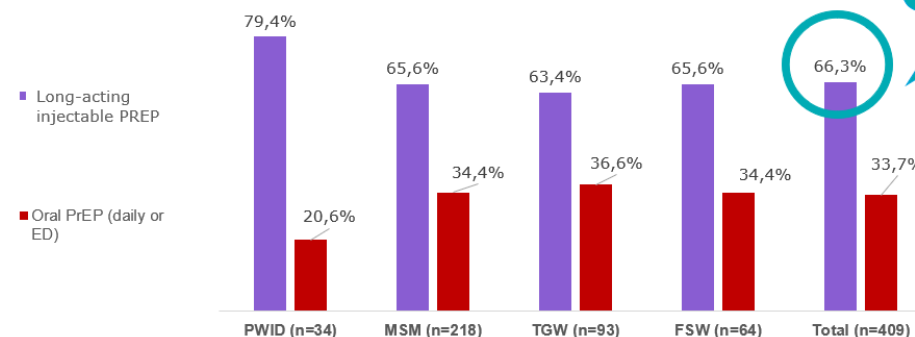


Unmet need remains even in areas of ample supply

PrEP use and need among key population groups in 4 provinces in Vietnam (n=604)



PrEP product preferred by population: oral PrEP or LAI-PrEP (n=409)



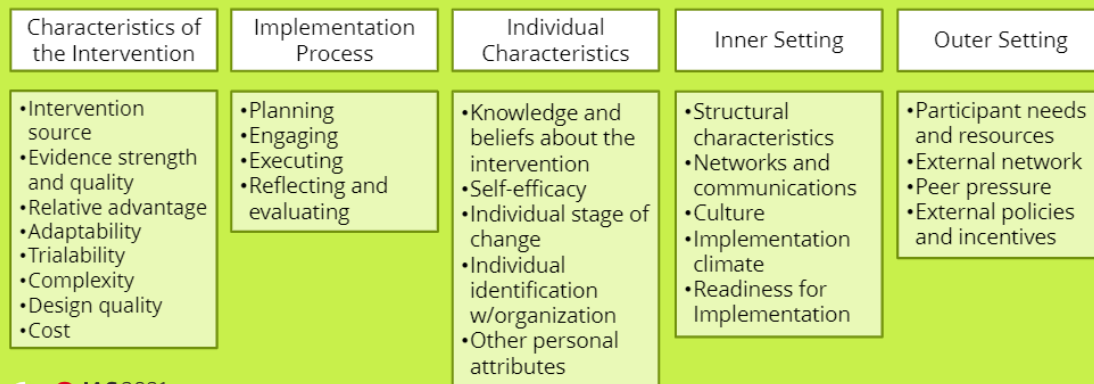
Two-thirds of KP stated preference for LAI-PrEP over oral PrEP

Identifying implementation barriers and facilitators of an integrated PrEP and HIV service delivery model at public facilities in urban Uganda

- The research uses technical assistance (TA) reports to understand implementation barriers and facilitators of an innovative PrEP delivery model that integrates PrEP and antiretroviral therapy (ART) delivery for HIV sero different couples in public health facilities in Kampala, Uganda
- **Key implementation facilitators** included sensitizing and educating facility staff about PrEP; establishing formal and informal feedback and accountability mechanisms; and empowering facility staff to address implementation challenges
- **Key implementation barriers** were related to ineffective recruitment and referral of eligible individuals from nearby facilities as well as stockouts of laboratory reagents and testing supplies
- This analysis provides important context related to early implementation barriers and facilitators to inform scale-up efforts for PrEP delivery within and beyond Uganda

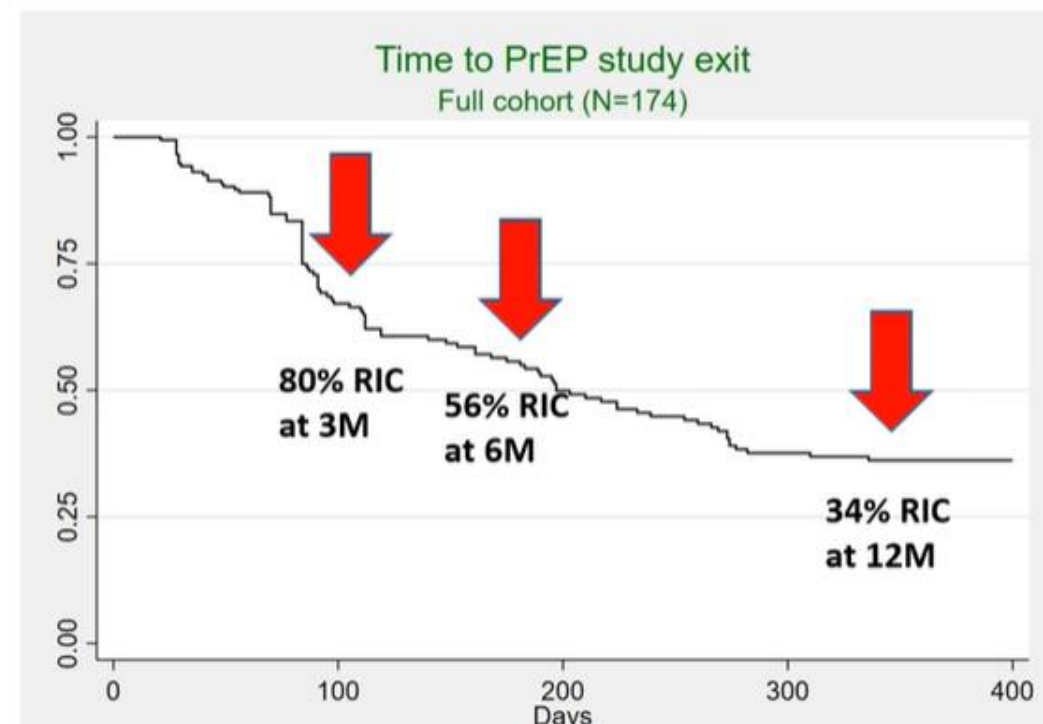
CFIR Framework

Consolidated Framework for Implementation Research (CFIR) was used to guide TA report development, data collection and analysis.



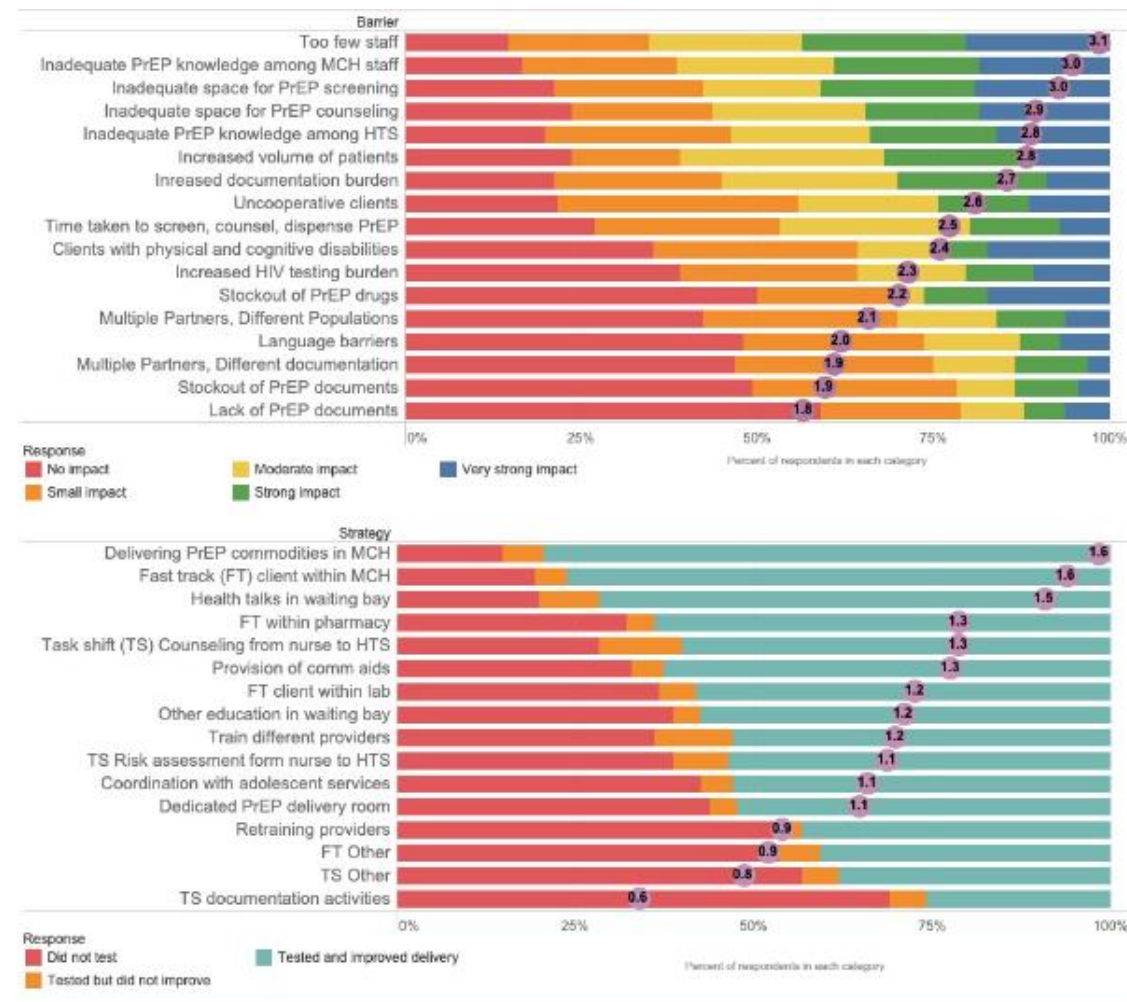
Integrating Pre-exposure Prophylaxis Delivery in Decentralized Community HIV-testing sites in rural KwaZulu Natal, South Africa

- From March 2019 to March 2020, daily oral PrEP was offered to HIV-negative females aged 18 to 35 years, at four HIV-testing sites in KwaZulu Natal, South Africa
- Risk reduction counselling, adherence counselling, HIV-testing, screening and treatment of sexually transmitted infections (STIs) were conducted at 3-, 6- and 12-month follow-up visits
- Overall study retention at 12 months was 39.2%. 17.5% (23/131), 29.6% (32/99), 14.5% (11/67) of women discontinued PrEP at months 6, 9 and 12, respectively.
- Retention rate was higher in older participants- 48.4% (aged 25-35 years) than in younger participants - 28.4% (aged 18-24 years).
- Adherence at 3 months was 57% (53/93) and 53.4% (31/58) at 6 months.



Health systems-level barriers and strategies for improved PrEP delivery for pregnant and postpartum women in Western Kenya

- Two surveys (a self-administered and a phone survey) used to assess barriers to PrEP delivery and strategies to overcome barriers as perceived by health care workers
- **Strongest reported barriers to PrEP delivery:** insufficient number of providers and inadequate training; insufficient physical PrEP services space; increased volume of patients; documentation burden; perceived uncooperative clients; and time needed to provide care
- **Less impactful barriers to PrEP delivery:** stockouts of PrEP drugs and documents; increased HIV testing; multiple implementing partners with competing priorities; and clients with challenges in language
- Strategies for co-location, fast-tracking, training, and task-shifting are useful for optimizing integrated PrEP provision within MCH care



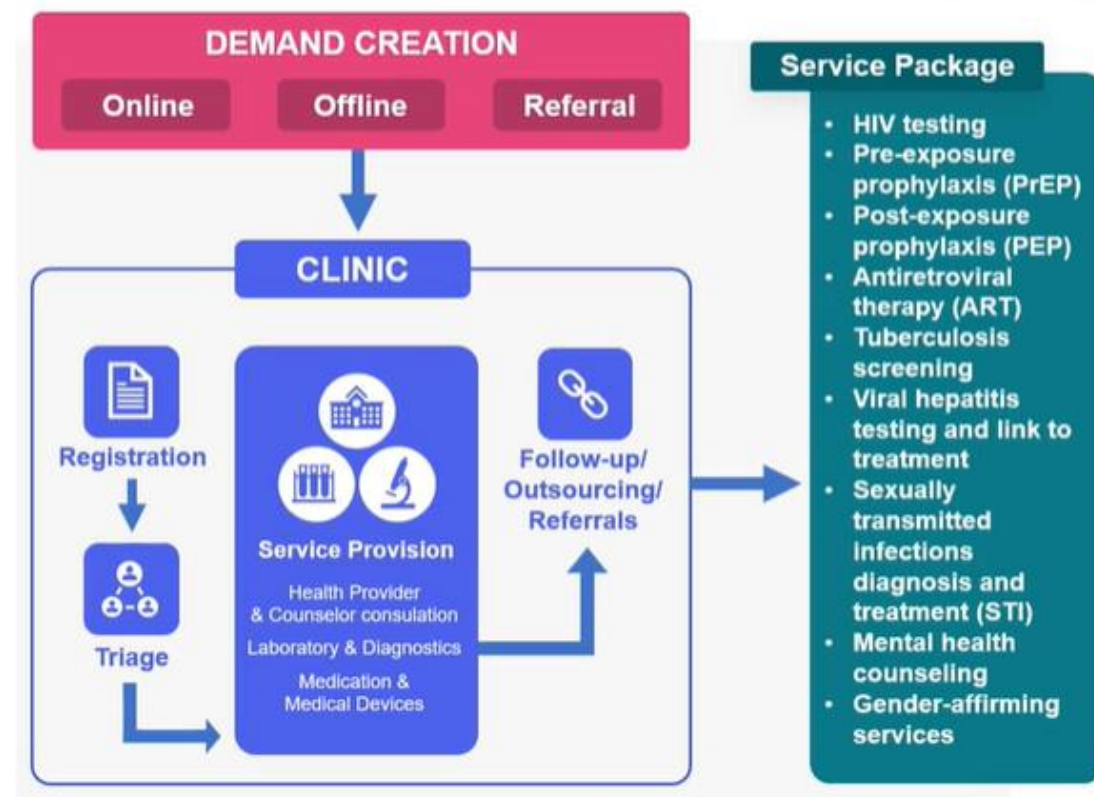
Implementation of service delivery changes to maintain access to HIV pre-exposure prophylaxis and mitigate COVID-19 in Kenya

- Conducted qualitative interviews with 40 clinic personnel, purposively sampled by region, PrEP delivery role, and clinic size.
- Results showed that COVID-19 served as a catalyst to service delivery innovations in Kenya. HIV clinics successfully and rapidly adapted their PrEP demand creation, refill, and retention strategies to continue to reach HIV serodiscordant couples during the pandemic.
- Opportunities to streamline PrEP delivery and engage hard-to-reach populations.

PrEP delivery cascade component	Practice prior to COVID-19 pandemic	Changes during the COVID-19 pandemic
Clinic infrastructure, staffing	Most clinics offered PrEP services in the HIV care and treatment area, with PrEP delivered primarily by ART providers.	Two clinics became COVID-19 isolation centers and relocated PrEP delivery to other areas of the clinic; some temporarily lowered staffing levels to decongest the clinic.
PrEP demand creation	Health talks in waiting bays; community outreach activities; contact tracing	Most activities suspended or scaled back; intensified phone-based contact tracing of individuals newly diagnosed with HIV and partner notification services; increased screening at other clinic departments.
PrEP initiation	Most clinics dispensed 1-month refills to new initiators and required they return for HIV testing at Month One.	Some clinics switched to dispensing 3-month refills to new initiators and request they return for HIV testing at Month One.
PrEP refill visits	Most clinics dispensed 1-month refills to continuing clients.	Most switched to dispensing 3-month refills to continuing clients with good adherence; many temporarily transferred the care of clients (e.g., clients on lockdown in another region) to other clinics or received such transfer clients; a few began dispensing PrEP within the clinical room, pre-packing PrEP, and/or task-shifting so that clients see fewer providers (e.g., clinics have the same clinician, rather than two separate providers, complete both the adherence counseling and clinical review).
PrEP retention	Some clinics did appointment reminders and followed up with no-shows by phone.	Most clinics have adopted or intensified appointment reminders and follow-up calls for no-shows.

Integrating viral hepatitis and PrEP services through KP-led clinics in Vietnam: An opportunity to achieve dual elimination of HIV and viral hepatitis by 2030

- One-stop shop (OSS) model service package includes HIV testing, PrEP, HBV/HCV testing, STI, non-occupational post-exposure prophylaxis, ART, mental health, and gender affirming care
- Clients seeking PrEP or non-PrEP were offered HBV and HCV testing, and non-PrEP clients were counseled and enrolled on PrEP
- 5,202 key population clients received care at OSS between Oct 20 and Mar 21 including 1,395 PrEP users
- HBV and HCV infection were exceptionally among non-PrEP users. Of those clients tested for HBV (1975) and HCV (1945), 64% and 65%, respectively transferred to PrEP uptake.
- OSS integrative care is an effective approach to increase uptake of PrEP and viral hepatitis services, but more work needs to be done to improve linkage to confirmatory testing and treatment for HBV and HCV



Outcomes of multi-month dispensing on continuation for pre-exposure prophylaxis: findings from a longitudinal surveillance study in Kenya

- Study examined the impact of multi-month dispensing (MMD) on PrEP continuation
- 714 clients initiated on PrEP, of these 24% opted for MMD and 76% for monthly refills.

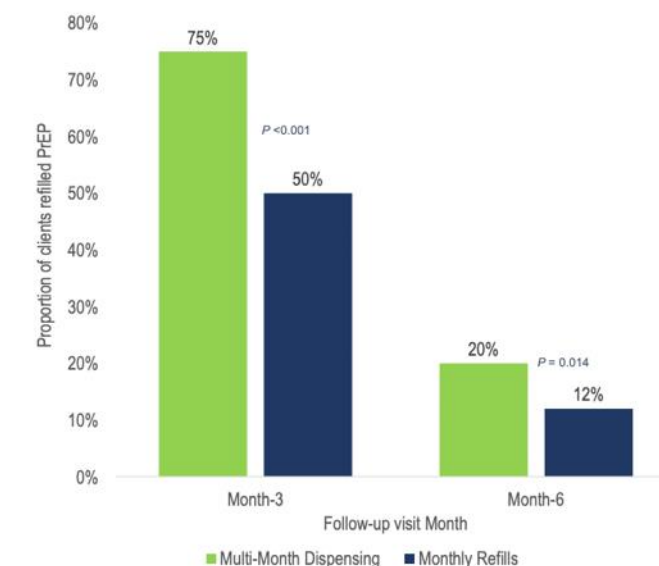
Results

- Continuation was higher at months 3 and 6 for MMD vs. monthly refills (75% vs. 50% [$p < 0.001$], and 20% vs. 12% [$p = 0.014$]), respectively
- In bivariate analysis, receiving MMD, entry through outreach and peer referral were associated with continuation at Month-3; while receiving MMD, being married, entry through outreach and peer referral were associated with continuation at Month-6.
- Independent predictors of PrEP continuation at Month-3 and 6 included being married, enrolment through outreach and through peer networks.
- These findings suggest that MMD is associated with higher PrEP continuation, but was complemented by social support networks and delivery of services within the proximity of beneficiaries

Table 1: Predictors of opting-in to Multi-Month Dispensing (MMD)

Variable	Category	PrEP Supply		A.O.R (95% C.I.)	Sig.
		Monthly	MMD		
Age in Years	24 and Below	206(76.9%)	62(23.1%)	n/s	
	25 and Above	340(76.2%)	106(23.8%)		
Sex	Female	493(77.9%)	140(22.1%)	2.07 (1.10-3.89)	0.024
	Male	53(65.4%)	28(34.6%)	Ref.	
Received SMS Reminders	Yes	88(66.7%)	44(33.3%)	1.40 (0.81-2.42)	0.224
	No	458(78.7%)	124(21.3%)	Ref.	
Marital Status	Married	172(81.5%)	39(18.5%)	0.79 (0.49-1.27)	0.332
	Single	374(74.4%)	129(25.6%)	Ref.	
Entry Channel	Outreach	146(82.5%)	31(17.5%)	2.30 (1.07-4.93)	0.033
	Peer referral	147(54.9%)	121(45.1%)	10.74 (5.73-20.11)	<0.001
	HIV testing providers	251(95.1%)	13(4.9%)	Ref.	
Family Planning Method	Short-term methods	151(81.6%)	34(18.4%)	0.26 (0.15-0.44)	<0.001
	Long-acting methods	271(89.4%)	32(10.6%)	0.19 (0.11-0.32)	<0.001
	No method	124(54.9%)	102(45.1%)	Ref.	

PrEP continuation for clients on MMD vs. monthly refills



Structured support groups improves PrEP uptake among female sex workers in Nairobi: a case study of BHESP

- BHESP introduced PrEP roll out targeting FSW at substantial risk of HIV infection in Nairobi.
- It was found that lack of knowledge, myths, misconception and stigma contributed to 60% of PrEP discontinuation among FSWs between 2018 and 2019.
- BHESP introduced well-structured PrEP support groups targeting newly enrolled and those that have missed their pill appointments. Support groups were deliberately planned to coincide with the PrEP refill/appointment days.
- Consequently, BHESP PrEP continuation for the enrolled FSW increased to 60% from 22% (3,540/ 2,120) in the previous year of implementation. After conducting exit interviews, FSWs who discontinued the use of PrEP reported to be as a result of reduced risk to HIV.
- PrEP support groups for newly enrolled on PrEP and those missing refill appointments strengthened adherence and retention as well as to increased knowledge and awareness on PrEP use

Reason for refusal	N= 168	%
Don't have time	6	4%
Fear side effects	17	10%
Prefer other prevention methods (e.g. condoms)	11	7%
Prefer other modes of PrEP administration i.e. injectables	13	8%
Don't want to answer	2	1%
Negative Stigma surrounding PrEP Users	41	24%
Mixed answers	8	5%
Myths and Misconceptions	59	35%
Pill burden (Multiple ongoing prescriptions)	5	3%
Fear of losing relationship/partner	6	4%

4. Re-engagement strategies

Addressing disengagement from HIV healthcare services in Khayelitsha, South Africa, through Médecins Sans Frontières' "Welcome Service" approach: comprehensive clinical and patient-centered care

Components of the *Welcome Service* intervention



↓ delays in ART re-initiation & unsuppressed VL management through clinician training & one-on-one mentorship



Re-organise triage to shorten waiting times & delays, effectively prioritise sick clients & streamline services

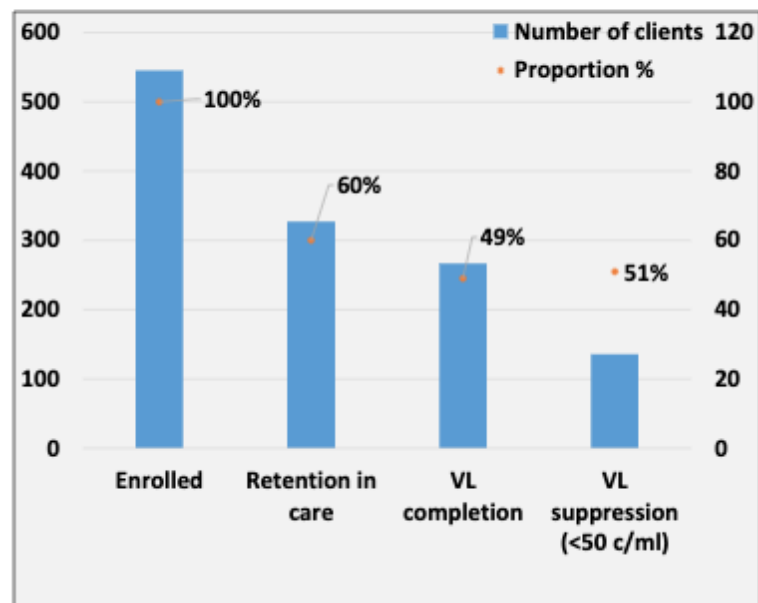


Client psychosocial support & counselling to address client-specific barriers through HCW training & supportive tool provision



Address negative attitudes & behaviours portrayed by HCWs towards PLHIV through training & support for HCWs

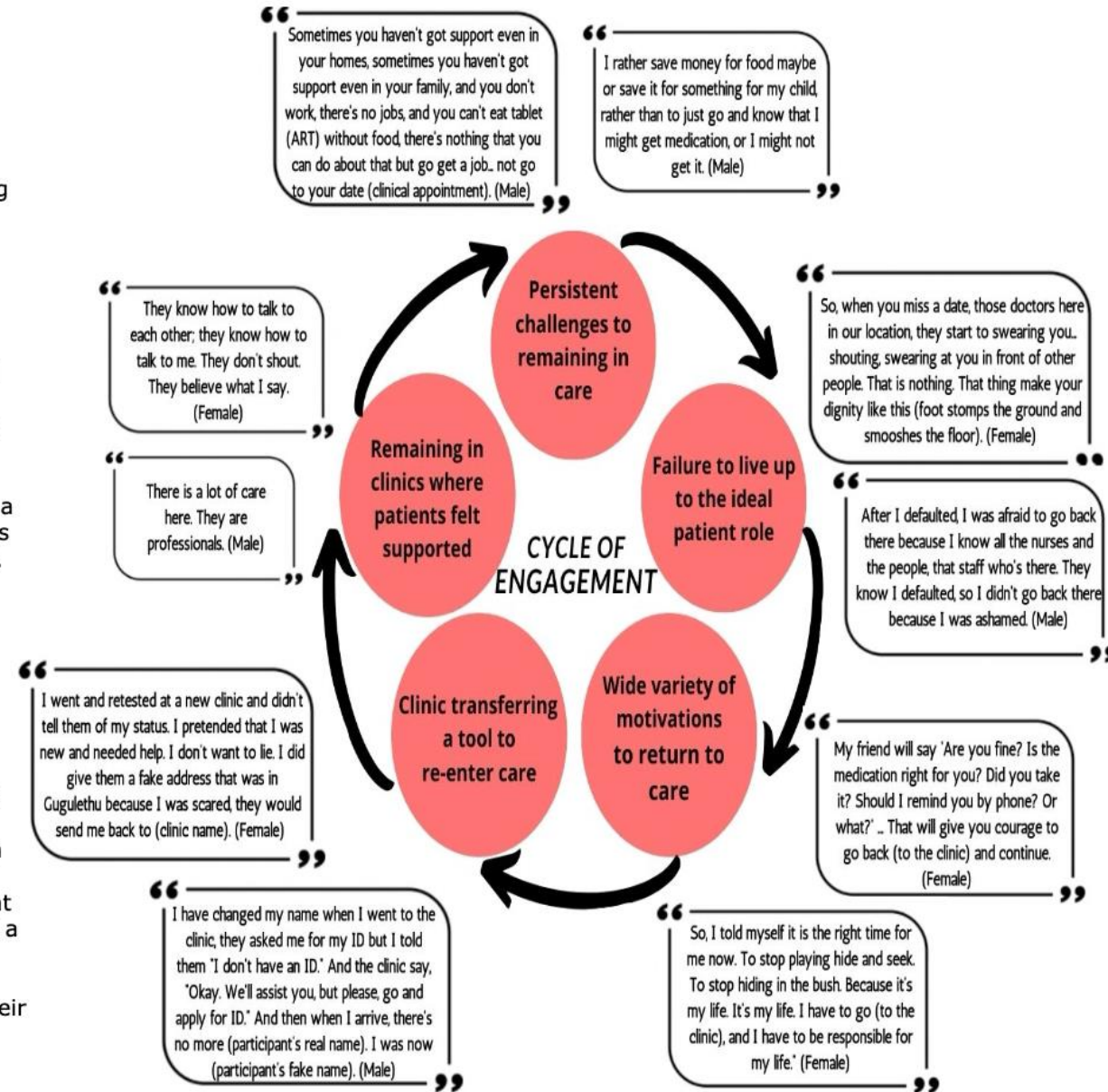
12-month outcomes of clients enrolled in the Welcome Service July 2018 - October 2019



Cyclical engagement in HIV care: a qualitative study of clinic transfers to re-enter HIV care in Cape Town, South Africa

- Semi-structured interviews (N=19) with treatment experienced people living with HIV who have clinic transferred at least once since starting treatment were conducted in Gugulethu, a former African township located 15km from Cape Town, South Africa

- On average, participants (10 female, 9 male) had been living with HIV for 14 years and had transferred clinics four times since starting ART.
- Among our treatment-experienced population, all participants discussed external barriers that interfered with maintaining their HIV care and engagement.
- Participants had a desire to be a "perfect patient" for themselves and meet nurses' expectations. Unanimously, participants reported instances of being shouted at or punished, both implicitly and explicitly, by healthcare workers for poor engagement behaviour.
- Wanting to escape the discrimination of being labelled by healthcare workers as a "difficult patient" and to have a fresh start in HIV care participants used informal silent transferring methods to attend a new clinic. Sometimes using a fake name, a fake address, or retesting to "find out" about their HIV status



One size does not fit all: preferences for HIV care delivery among out-of-care people living with HIV in the United States

- To examine preferences for community-based HIV care models among those out of care
- 1 – qualitative in-depth interviews (n=41), 2 – preference survey (n=50)

Results

- Strong preferences for mobile clinics and peer navigators

Discussion

- "While the mobile clinic was the most preferred alternative care model, preference for care models varied considerably demonstrating that one size does not fit all and highlighting the need to provide multiple alternate models of delivery"
- "Common factors influencing preference included convenience, accessibility, potential to preserve confidentiality, ensure quality of care, and foster rapport with HIV care provider, access to a smart device and associated stigma"