# Summary of differentiated service delivery science at CROI 2023

IAS

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# »DSD for HIV treatment

# IAS Annual clinical consultations and scripts (South Africa)

## *HIV Outcomes After Extended 12-Month Scripts For ART During COVID-19 In South Africa*

**Lara Lewis**[1], Yukteshwar Sookrajh[2], Johan van der Molen[1], Thokozani Khubone[2], Phelelani Sosibo[2], Riona Govender[3], Sifiso Phakathi[3], Munthra Maraj[2], Rose van Heerden[2], Francesca Little[4], Reshma Kassanjee[5], Nigel Garrett[1,6], Jienchi Dorward[1,7]

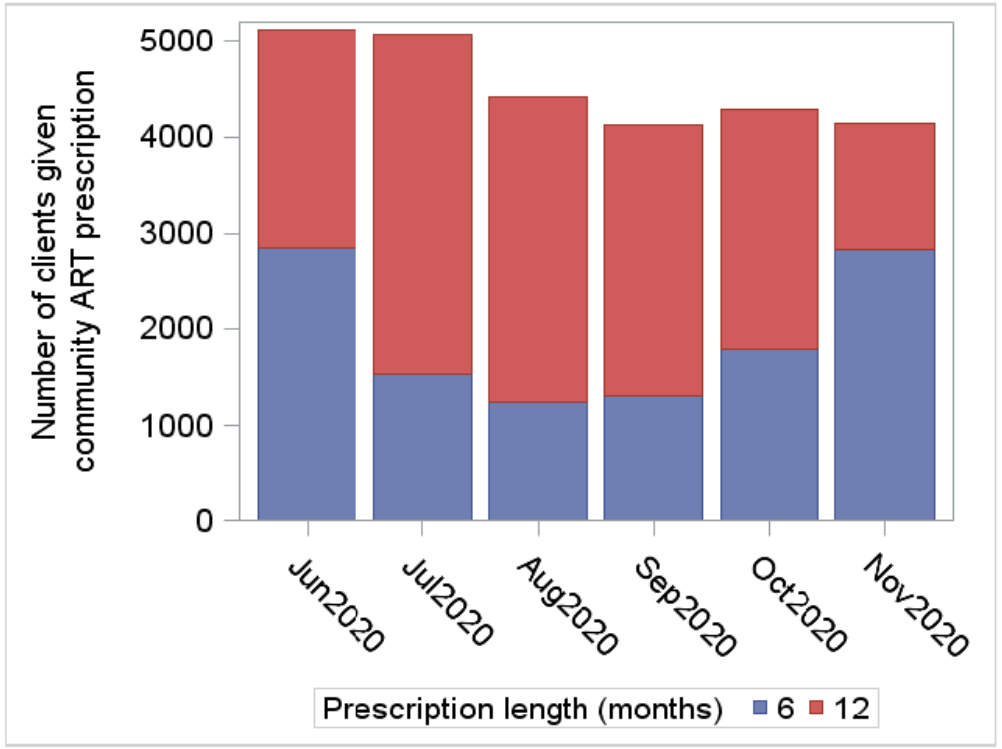


**Figure 1**: **Number of prescriptions issued by month**

| Length of baseline ART prescription | >90 days late for visit, %(n) | Transfer, %(n) | Died, %(n) | Retained in care, %(n) | Adjusted relative risk of retention (95% CI) | Virally suppressed, %(n) | Adjusted relative risk of suppression (95% CI) |
|---|---|---|---|---|---|---|---|
| **6 months** | 5.2(606) | 2.7(309) | 0.3(29) | 91.8(10609) | 1 | 89.7(7903) | 1 |
| **12 months** | 3.6(565) | 1.6(256) | 0.2(24) | 94.6(14750) | 1.03(1.01-1.05) | 91(11129) | 1.01(1.00-1.02) |

**Table 1: Association between prescription length and 12-month retention-in-care (N=27,148) and viral suppression (N=21,043) among adults referred for community ART in June-December 2020**

Retention-in-care and viral suppression among adults provided with 12-month prescriptions for community ART were similar to those among adults provided with the standard 6-month prescriptions, supporting the use of longer prescriptions in DSD programmes.

Abstract here

# Patient choice or health system processes impacting continual use of community ART once enrolled? (South Africa)

***Usage Patterns and Outcomes in a Large Community ART Programme in South Africa*** 1042

**Lara Lewis**[1], Yukteshwar Sookrajh[2], Johan van der Molen[1], Thokozani Khubone[2], Munthra Maraj[2], Phelelani Sosibo[2], Rose van Heerden[2], Francesca Little[3], Reshma Kassanjee[4], Nigel Garrett[1,5], Jienchi Dorward[1,6]

1. Centre for the AIDS Programme of Research in South Africa (CAPRISA), Durban, South Africa. 2. eThekwini Municipality Health, Durban, South Africa. 3. Department of Statistical Sciences, University of Cape Town, Cape Town, South Africa 4. Centre for Infectious Disease Epidemiology and Research, School of Public Health, University of Cape Town, Cape Town, South Africa 5. Discipline of Public Health Medicine, University of KwaZulu-Natal, Durban, South Africa. 6 Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, United Kingdom

In a cohort of 80,000 PLHIV eligible for community ART, 62% were referred. 42% remained consistently in the program after referral.
Loss-to-care was lower and viral suppression similar among those remaining in community ART compared to those who moved back to clinic-based care after referral.

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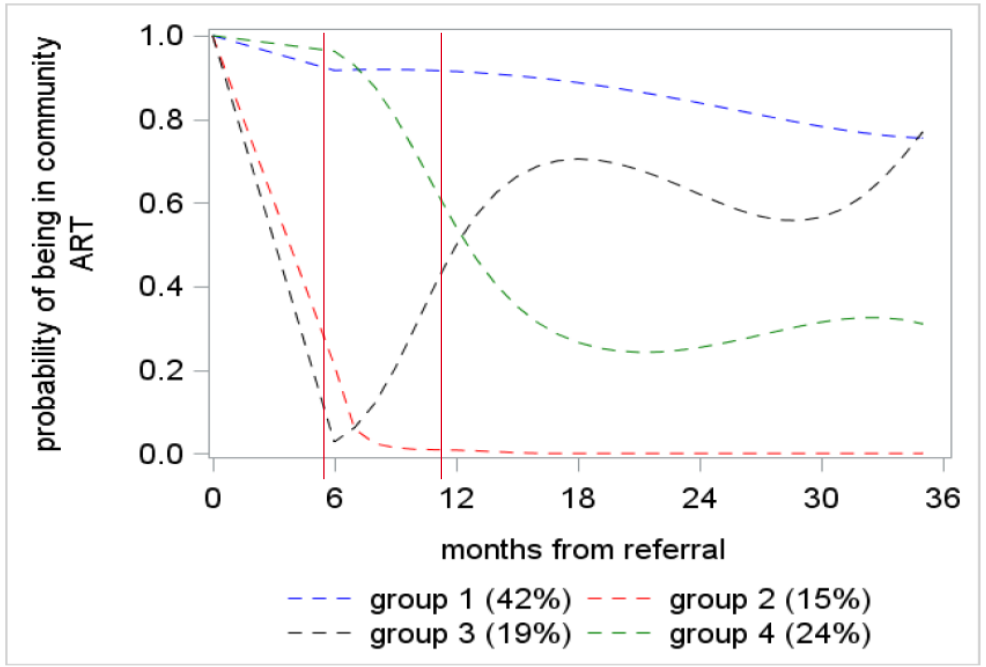



**Figure 2: Patients identified with GBTM as having common community ART usage trajectories**

GBTM – group-based trajectory modelling

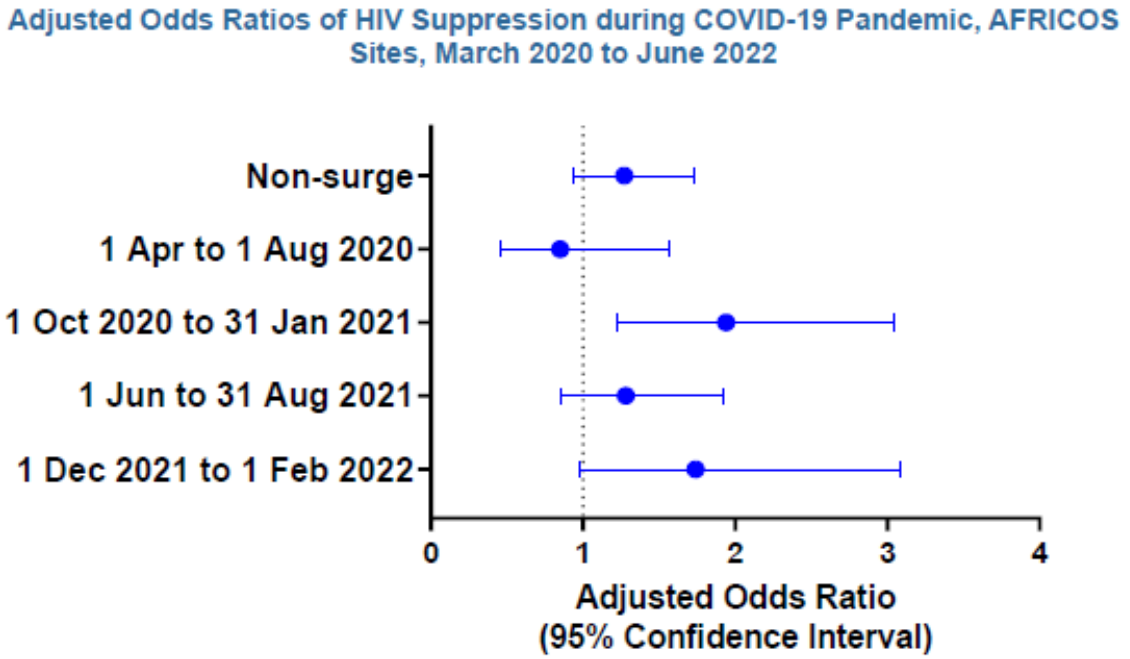
- Clients are required to return from collection of 2 or 3 monthly ART at out-of-facility pick-up points (community ART) to clinics for clinical review/rescripting every 6 months in South Africa.
- The extent health system processes (getting the required rescript timeously) impede continued use of community ART requires further assessment.

# Did community ART and multi-month dispensing (MMD) during COVID-19 facilitate improved viral load suppression? (Kenya, Nigeria, Uganda)

## Impact of COVID-19 Induced Program Adaptations on HIV Suppression in Three Countries

**Vamsi Vasireddy**,[1,2] Neha Shah,[2] Allahna L. Esber,[2,3] Trevor A. Crowell,[2,3] Joseph S. Cavanaugh,[2] Hannah Kibuuka,[8] Ajay Parikh,[2,3] Jonah Maswai,[2,4] Valentine Sing'oei,[4,5] Michael Iroezindu,[2,6] Emmanuel Bahemana,[2,7] and Julie A. Ake,[2] on behalf of the AFRICOS Study Group

- African Cohort Study (AFRICOS) at 12 clinics across Uganda, Kenya, and Nigeria.
- Assessed VS (< 1000 c/mL) before and during the COVID-19 pandemic.
- People living with HIV were less likely to be virally suppressed during the first surge period (OR (Odds ratio) 0.85, CI 0.46-1.56), but viral suppression significantly increased during the second surge period (OR 1.95, CI 1.23-3.04) compared to the pre-COVID period.

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# ART delivery by drone for hard to physically reach (Uganda)

## EVALUATION OF MEDICAL DRONES FOR ANTI-RETROVIRAL DELIVERY IN AN ISLAND POPULATION

**Authors:** Rosalind M. Parkes-Ratanshi[1,2], Patrick Ssesaazi[1], **Agnes-Bwanika Naggirinya[1],** Jackie Lydia N Ssemata[1], Joan Akullo[1], Dickson Masoni[1], Agnes Kiragga[1], Theresa Pattery[3], Robert Kimbui[3], Andrew D. Kambugu[1]


- Control group also included island inhabitants with a different feeder clinic

**Table 1 – PLHIV outcomes in those receiving ART by drone and control group** (*health facility data)

| | Baseline | | | | | 6 month follow up | | 12 month follow up | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mazinga HC | % | Bufumira HC | % | p-value | Bufumira HC | % | Mazinga HC | % | Bufumira | % | p-value |
| | Control | | Drone ART delivery | | | Drone ART delivery | | Control | | Drone ART delivery | | |
| Number surveyed | 100 | | 150 | | | 100 | | 60/100^ | | 63 | | |
| Number receiving more than one ART delive | NA | | NA | | | 99 | | NA | | 63 | | |
| On anti-retroviral therapy | 58 | 58.00% | 132 | 87.40% | 0 | 100 | 100% | 60 | 100% | 63 | 100% | . |
| Missed ART appointment in last 12 months | 23 | 39.70% | 37 | 28.00% | 0.073 | 2 | 2% | 21 | 35% | 1 | 1.60% | 0 |
| Reporting running out of ART in last 12 mon | 19 | 32.80% | 31 | 23.50% | 0.159 | 1 | 1% | 5 | 8% | 1 | 2% | 0.101 |
| Viral load sample taken in last 12 months | 88 | 88.00% | 145 | 96.70% | 0.029 | 97 | 97% | 58 | 97% | 60 | 95% | 0.721 |
| Viral load result undetectable (<1000c/ul) | | 51%* | | 70%* | 0.006 | 92 | 92% | 46 | 77% | 57 | 90% | 0.013 |
| Dead | | | | | | | | 1 | 1% | 2 | 3% | 0.311 |
| Lost to follow up | | | | | | | | 40 | 40% | 0 | 0 | <0.001 |

Abstract here, update from AIDS 2022 abstract

# ART/non-communicable disease (NCD) integrated care need (South Africa)

## *Cardiovascular risk among people accessing differentiated HIV care in South Africa*

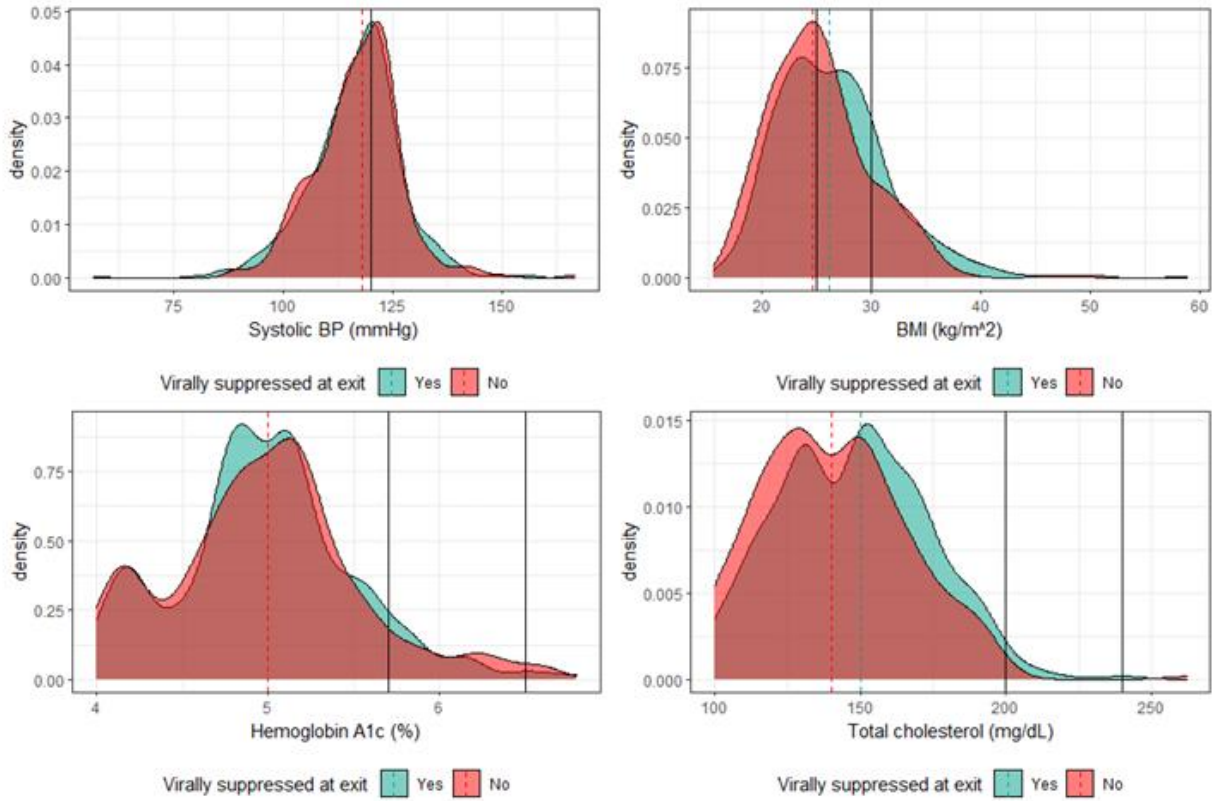
**Maitreyi Sahu**[1], Adam A. Szpiro[1], Heidi van Rooyen[2], Stephen Asiimwe[3], Maryam Shahmanesh[4], D. Allen Roberts[1], Meighan L. Krows[1], Kombi Sausi[2], Nsika Sithole[4], Torin Schaafsma[1], Jared M. Baeten[1,5], Connie Celum[1], Adrienne E. Shapiro[1], Alastair van Heerden[2,6], and Ruanne V. Barnabas[7,8] for the DO ART Study

- Assessed CVD risk 12 months after ART initiation including for people in facility and community models of care
- Among clients accessing community-based care, virally suppressed persons had higher cholesterol and BMI compared with persons not virally suppressed.

Relatively young clients accessing differentiated and facility-based HIV care in South Africa have substantial burden of elevated blood pressure, BMI, and smoking

DESCRIPTIVE RESULTS, continued

**Figure: Distribution of clinical measures of cardiovascular risk, by viral suppression status at exit [dashed lines are group medians]**

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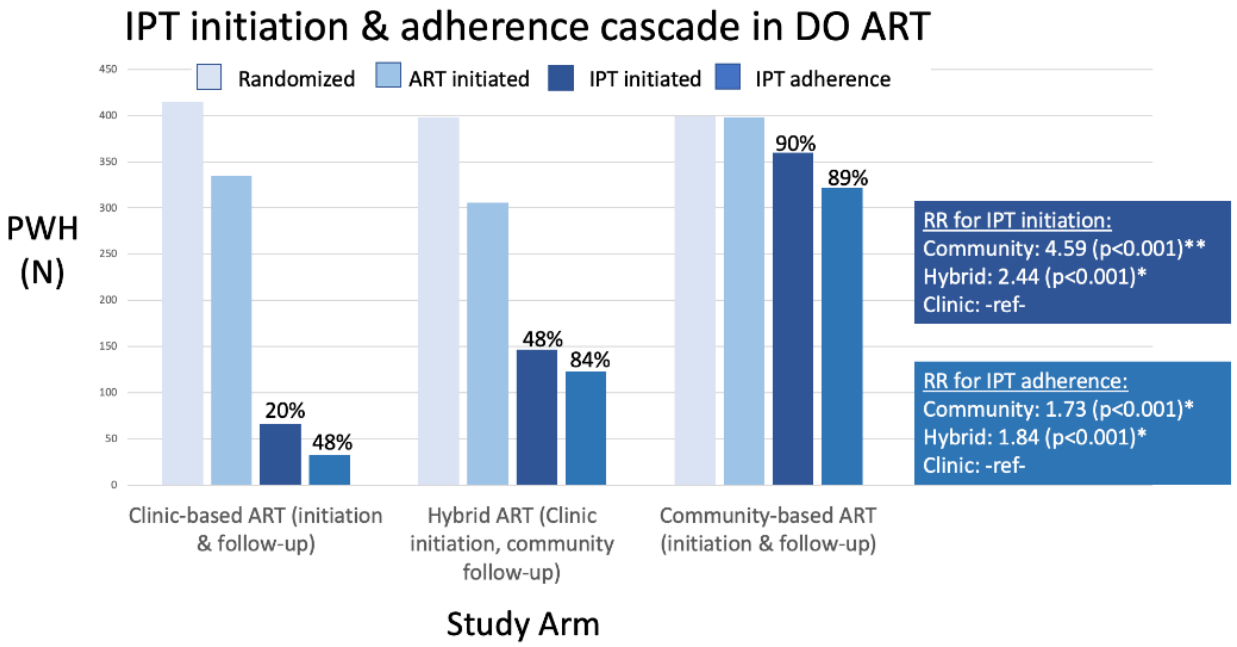
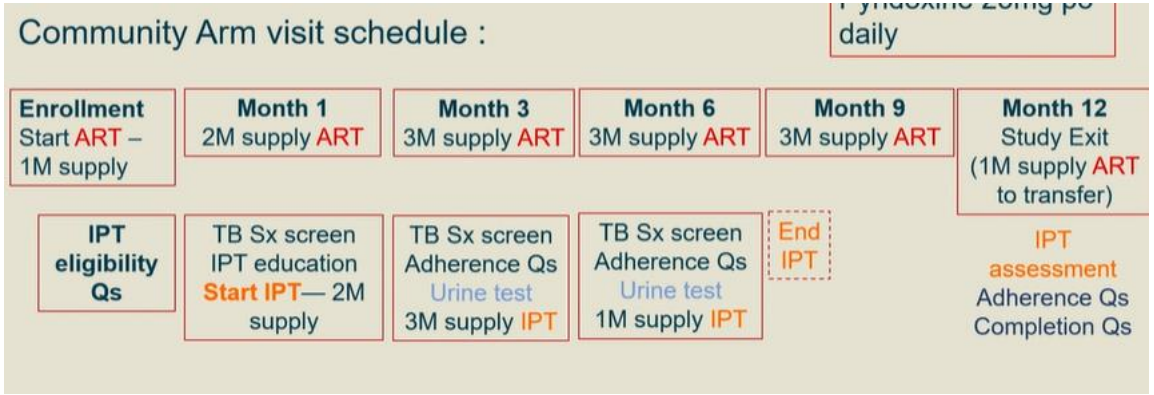
# TB preventive therapy (TPT) integration outcomes (South Africa)


## Increased TB preventive therapy coverage with integrated community based IPT and ART

Adrienne E. Shapiro, Adam Szpiro, Kombi Sausi, Nsika Sithole, Olivier Koole, Meighan Krows, Torin Schaafsma, Maryam Shahmanesh, Heidi van Rooyen, Connie L. Celum, Alastair van Heerden, Ruanne Barnabas




- POC urine INH metabolite testing sub-study:

| | Total N=255 | Hybrid N=62 | Community N=193 |
|---|---|---|---|
| INH positive | 160 (63%) | 28 (45%) | 132 (68%) |
| INH negative | 95 (37%) | 34 (55%) | 61 (32%) |

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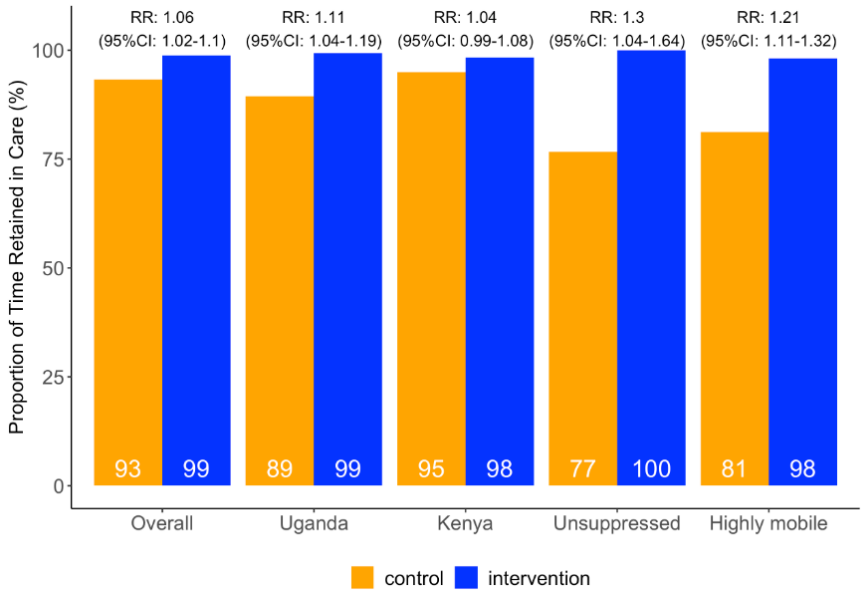
# DSD for highly mobile populations (Kenya and Uganda)


## Randomized trial of dynamic choice HIV care for highly mobile persons in East Africa

James Ayieko, Colette Inviolata, Elijah Kakande, Fred Opel, Erick Wafula Mugoma, Laura Balzer, Jane Kabami, Elizabeth A.Bukusi, Carol S.Camlin, Edwin Charlebois, Melanie Bacon, Maya Petersen, Diane V.Havlir, Moses Kamya, Gabriel Chamie

- Mobile adults (≥15 years old; ≥2 weeks out of community in prior 12 months) with either viral non-suppression or recent missed visits
- The intervention = dynamic choice of a "travel pack" (emergency 14-day ART supply, discrete ART packaging and travel checklist), multi-month (up to 6-month) and offsite medication refills, facilitated transfer to out-of-community clinics, and routine screening for travel and hotline access to a mobility coordinator who oversaw intervention delivery
- Outcomes analyzed at 48 weeks




- No significant difference in viral suppression between the intervention (85%) vs. control (86%) arms.
- Improvement in retention in care (98.8% vs. 93.2%, adjusted risk ratio (aRR): 1.06 (1.02-1.1); p < 0.001; most notably in the unsuppressed and highly mobile populations and ART possession (97.5% vs. 91.4%, aRR: 1.07 (1.03-1.11); p < 0.001)

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# Adolescent healthcare worker managed group model in community (Haiti)

## FANMI: A Randomized Trial of Community Cohort Care for Adolescent Girls living with HIV in Haiti

Weill Cornell Medicine Medical College

Vanessa Rouzier[1,2], Lindsey Reif[1], Marie J. Bajo[2], Rose Cardelle Riche[2], Heejung Bang[3], Elaine J. Abrams[4], Jessy Devieux[5], Jean W. Pape[1,2], Daniel Fitzgerald[1], Margaret L. McNairy[1]

| | Standard Care in Adolescent Clinic | FANMI |
|---|---|---|
| Patient | **INDIVIDUAL:** Monthly individual clinic session at the Adolescent HIV Clinic | **COHORT:** Monthly cohort session with 5-8 peers in a community room |
| Setting | **ADOLESCENT HIV CLINIC:** All services including counseling, clinical, laboratory and pharmacy are provided at the Adolescent HIV Clinic at GHESKIO | **COMMUNITY:** All services including counseling, clinical, laboratory and pharmacy are provided in a group setting in the community |
| HIV Services | **SEQUENTIAL:** Each patient rotates to counselor, clinician, laboratory staff, and pharmacist individually and sequentially | **INTEGRATED:** Each patient receives all services in the cohort group session with one nurse |

Figure 1. Illustration of HIV service delivery in Adolescent HIV Clinic and FANMI

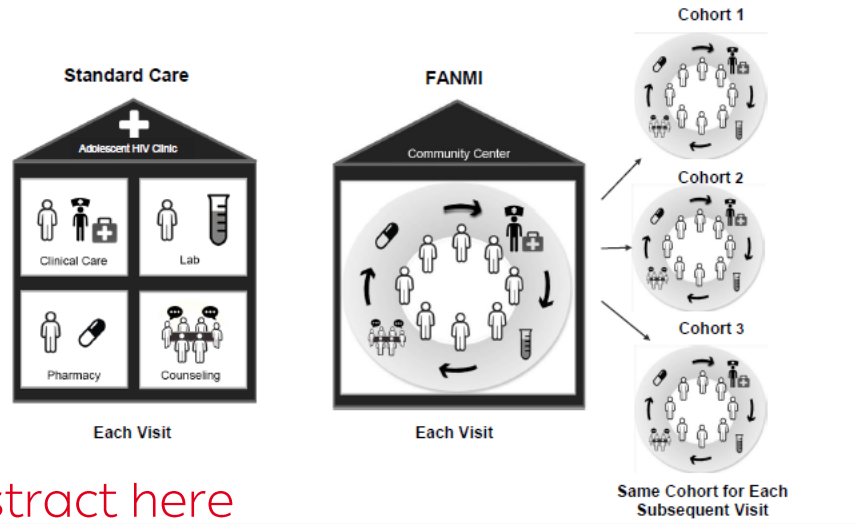


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**Table 2. Effect of FANMI intervention on retention in care at 12 months in intent-to-treat and per-protocol analyses**

| | FANMI | Standard Care | Unadjusted RR (95%CI) |
|---|---|---|---|
| Intent-to-treat | 47/60 (78%) | 51/60 (85%) | 0.92 (0.78-1.09) |
| Per-protocol* | 47/53 (89%) | 51/58 (88%) | 1.01 (0.88-1.15) |

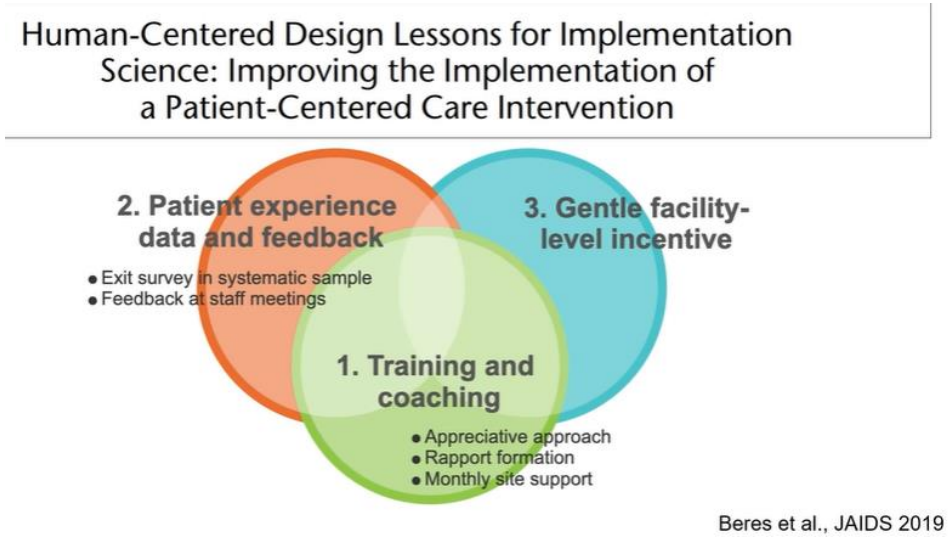
Participants who self-presented to the adolescent HIV and were subsequently enrolled were more likely to achieve the primary outcome of retained in care at 12 months from ART initiation, compared to those who were recruited from a community setting and subsequently enrolled –95% vs. 70% in the FANMI arm (88% vs. 83% in the standard arm)

# IAS Disengagement prevention (Zambia)


**THE IMPACT OF PATIENT-CENTRED CARE ON HIV TREATMENT IN ZAMBIA: A STEPPED-WEDGE TRIAL**

Jake M. Pry, Carolyn Bolton Moore, Kombatende Sikombe, Jacob Mutale, Charles B. Holmes, Izukanji Sikazwe, Brian Rice, Elvin Geng, Charles Goss, Ingrid Eshun-Wilson, Laura K. Beres, Njekwa Mukamba, Sandra Simbeza, Aaloke Mody, Anjali Sharma

- 24 clinics in Lusaka, Zambia stepped wedge trial design over 4 x 6 moth periods
- Intervention included
  - Systematic measurement and response to patient experience (satisfaction, HCW attitude/communication, timeliness
  - Patient centred care training and mentoring
  - Small incentives to enhance performance improvement




- No difference in treatment-failure (Risk difference (RD)=0.9%, 95% CI: -5.4 – 7.2).
  - **Under-25s experienced the greatest improvement** in treatment-success (RD 13.6% [95% CI: -1.4 – 28.6]).
- Among all individuals, retention increased in intervention group (RD 4.7% [95% CI: -0.3 – 9.7])
  - **Greatest improvement among reengaged** (RD 5.2% [95% CI: 0.1 – 10.3] **and new ART patients** (RD 11.3% [95% CI: 0.2 – 22.5]).
- After 6 months of intervention, patient experience improved considerably (Sum score mean, 0.85; 95% CI: 0.37 – 1.32).

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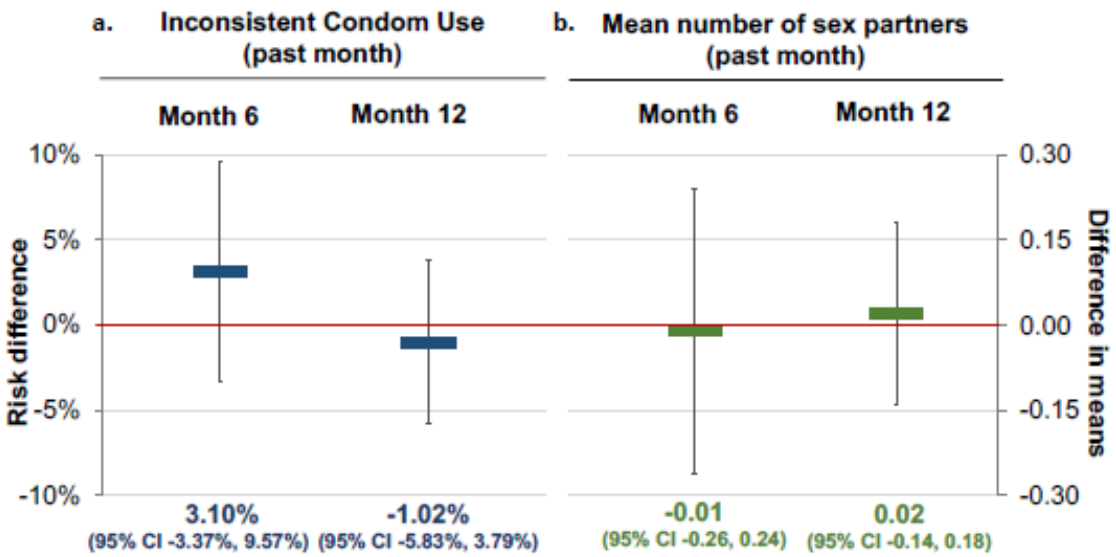
# »DSD for PrEP

# 6-monthly PrEP refills using interim HIV self-testing (HIVST) (Kenya)

## Effects of 6-month PrEP dispensing with HIV self-testing on sexual behaviors in Kenya

**Ashley R. Bardon**[1], Kenneth Ngure[2], Peter Mogere[3], Katherine Thomas[1], Stephen Gakuo[3], Catherine Kiptinness[3], Sarah Mbaire[3], Dorothy Mangale[1], Jacinta Nyokabi[3], Nelly R. Mugo[1,3], Jared M. Baeten[1], Katrina F. Ortblad[4]

**Fig. 2a & b. Effect of 6-monthly PrEP dispensing supported with HIVST on sexual behavior outcomes**




| | | | | |
|---|---|---|---|---|
| **SOC (N=166)** | 87.0% (107/123) | 93.8% (121/129) | 1.1 (SD 0.9) | 1.0 (SD 0.6) |
| **HIVST (N=329)** | 90.3% (224/248) | 91.4% (222/243) | 1.1 (SD 1.4) | 1.0 (SD 0.9) |

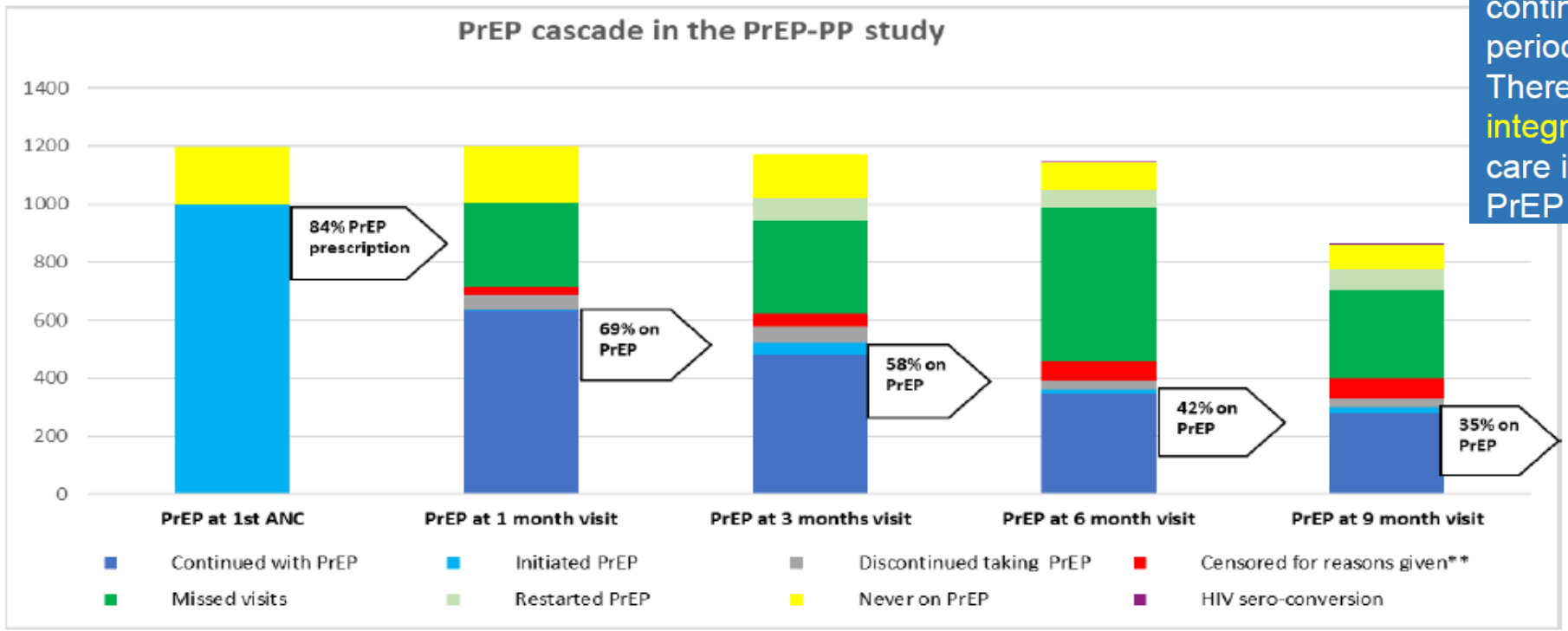
Six-month PrEP dispensing supported with interim HIVST did not have a significant impact on sexual behaviors among clients in Kenya.

Abstract here

# Differentiated PrEP services within antenatal care (ANC) (South Arica)

## Integrating PrEP into Antenatal Care for HIV-negative pregnant women in South Africa

**Dorothy Nyemba** [1], Rufaro Mvududu [1] , Nyiko Mashele [1], Linda-Gail Bekker [2], Pamina Gorbach [4], Thomas Coates [3], Landon Myer [1] , Dvora Joseph Davey [1,3,4]




High PrEP initiation at first ANC visit, followed by rapid drop off in PrEP continuation, especially in postpartum period.
There is an urgent need for PrEP integration into ANC and postpartum care including interventions to improve PrEP continuation.

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# Integrated contraception/PrEP services within hair salons (South Africa)

## A PILOT RANDOMIZED CONTROLLED TRIAL ASSESSING UPTAKE OF PREP AND CONTRACEPTION IN HAIR SALONS IN SOUTH AFRICA

Abstract #999

Ingrid V. Bassett[1,2,3], Joyce Yan[4], Sabina Govere[5], Sthabile Shezi[5], Lungile M. Ngcobo[5], Taing Aung[2], Jana Jarolimova[1, 2, 3], Dani Zionts[2], Christina Psaros[1], Nduduzo Dube[5], Robert A. Parker[3,4,6]
[1]Division of Infectious Diseases, Massachusetts General Hospital, Boston, MA; [2]Medical Practice Evaluation Center, Massachusetts General Hospital, Boston, MA; [3]Harvard Medical School, Boston, MA; [4]Biostatistics Center, Massachusetts General Hospital, Boston, MA;

In South Africa, delivery of PrEP and contraception in hair salons was acceptable and reached young women with risk factors for unplanned pregnancy, STIs, and HIV. However, traditional risk factors for HIV were not associated with PrEP uptake.

**Figure 1.** PrEP and contraception uptake among intervention participants.

36/97 (37%) of intervention participants accepted PrEP at baseline or later.

86/97 (89%) of intervention participants accepted contraception at baseline or later.

Abstract here

# Differentiated PrEP services within private pharmacies (Kenya)

## Client preferences for PrEP refills at facilities vs. pharmacies: a pilot In Kenya

Peter Mogere[1], Alexandra P. Kuo[2], Stephen Gakuo[1], Njeri Wairimu[1], Stephanie Roche[3], Mary Mugambi[4], Jared M. Baeten[5*], Kenneth Ngure[1,6], Katrina F. Ortblad[3]

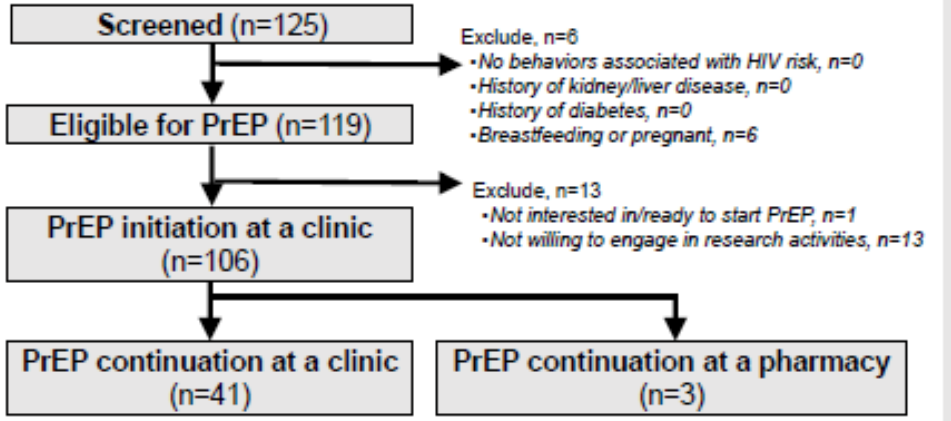
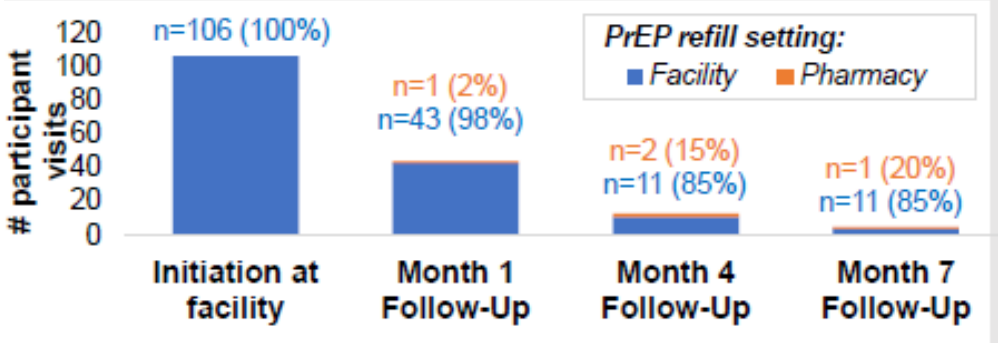



Fig. 1. Consort diagram: study enrollment & follow-up




**Uptake of pharmacy PrEP refills was very low among clients engaged in clinic-delivered PrEP services, despite high interest**

(45% interested in pharmacy refills; only 3% refilled PrEP at the pharmacy).

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# Costing of pharmacy delivered PrEP (Kenya)

## Costs of providing pharmacy-initiated PrEP in Kenya: findings from a pilot study

1090

Alexandra P. Kuo[1], Obinna Ekwunife[2], Peter Mogere[3], Victor Omollo[4], Josephine Odoyo[4], Yilin Chen[5], Jared M. Baeten[6*], Elizabeth Bukusi[4,5,7], Kenneth Ngure[5,8], Katrina F. Ortblad[2], Monisha Sharma[5].

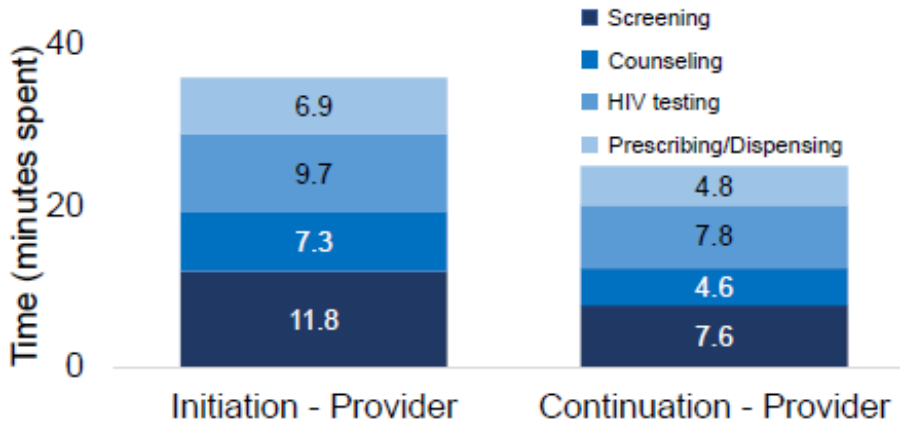



Fig. 1. Provider perspective time and motion

| | Average provider financial cost, per visit[1] | |
|---|---|---|
| Delivery Category | Initiation | Continuation |
| Screening | $0.38 | $0.25 |
| Counseling | $0.31 | $0.25 |
| HIV testing[2] | $0.54 | $0.45 |
| Prescribing/ Dispensing[3] | $6.47 | $18.91 |
| Total | $7.70/ 1 month | $19.86/3 months 3 months |

[1]Converted from KES to USD using conversion rate averaged from 11/2020 to 12/2021 ($1USD = 110.72 KSH)

[2]Includes hypothetical HIV test cost if acquired, as this was donated for the study

[3]Includes hypothetical PrEP cost if acquired, as this was donated for the study

**Daily oral PrEP can delivered at pharmacies at costs comprable to PrEP delivery at public clinics in Kenya**

- The median financial cost per client for pharmacy providers to deliver PrEP was $7.70 per month (IQR $6.72-$9.41) at initiation and $19.86 per 3 months (IQR $17.21-$21.74) at continuation visits with PrEP drugs accounting for the greatest proportion of costs.

Abstract here

# Prevention package choice in outpatient departments (OPD) (Kenya and Uganda)

## Randomized Trial of Dynamic Choice Prevention at Outpatient Department in East Africa

**Catherine A. Koss**,[1] James Ayieko,[2] Jane Kabami,[3] Laura B. Balzer,[4] Elijah Kakande,[3] Helen Sunday,[3] Marilyn Nyabuti,[2] Erick Wafula,[2] Melanie Bacon,[5] Elizabeth A. Bukusi,[2] Gabriel Chamie,[1] Maya L. Petersen,[4] Moses R. Kamya,[3,6] Diane V. Havlir,[1]

### Figure 1. Dynamic Choice HIV Prevention Intervention Components

**PRODUCT CHOICE**
- Oral PrEP (TDF/XTC)
- PEP (pill in pocket option)

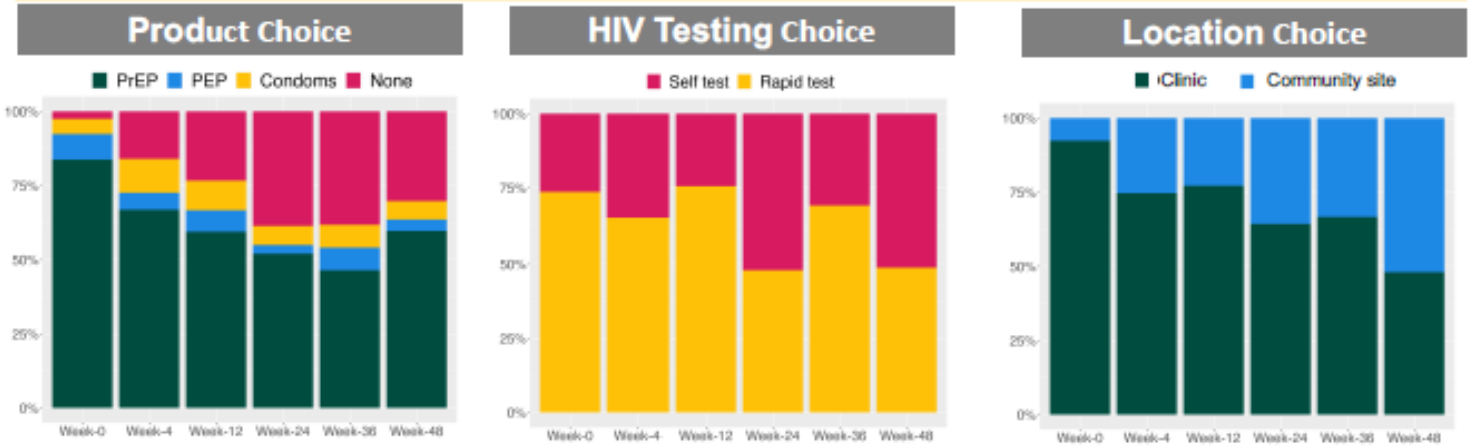
***(+ option to switch products over time)***

**HIV TESTING CHOICE**
- Rapid test
- HIV self-test option

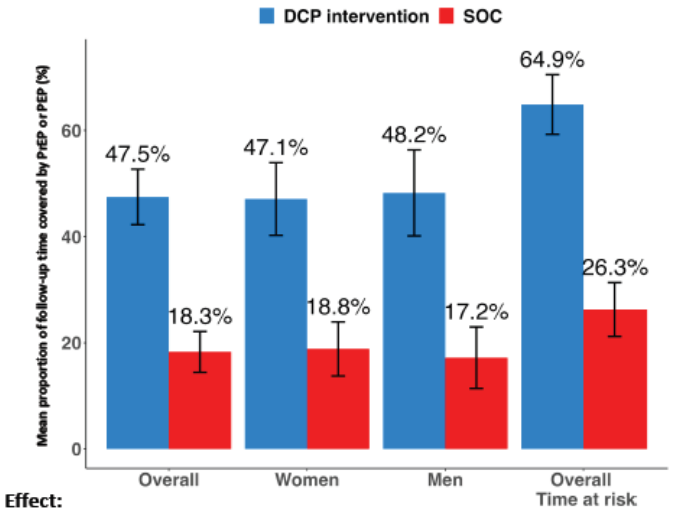
**SERVICE LOCATION CHOICE**
- Clinic
- Community site/home

**PATIENT-CENTERED CARE MODEL**
- **Phone access to clinician** for PEP or PrEP starts, advice/questions (24hrs/7 days/week)
- **Longer PrEP supply for start/refills** (up to 3 months)
- **Structured assessment of barriers** to PrEP/PEP start/adherence, with **personalized plans** in response
- **Psychological support** – referrals to counseling for trauma/gender-based violence

### Figure 2. Choice of HIV prevention product, visit location, HIV testing in DCP intervention arm




### Figure 3. Primary outcome: Proportion of follow-up time covered by PrEP or PEP




| Effect: DCP vs. SOC (95% CI) *P-value* | Overall | Women | Men | Overall Time at risk |
|---|---|---|---|---|
| | **29.2%** (22.7-35.7) p<0.001 | **28.2%** (19.7-36.8) p<0.001 | **31%** (21.1-41) p<0.001 | **38.6%** (31-46.2) p<0.001 |

A dynamic choice HIV prevention intervention – with choice of PrEP or PEP, HIV testing modality, and visit location, plus patient-centered care – resulted in *two-fold greater time covered by a biomedical prevention option* compared to SOC among women and men seen in general outpatient departments.

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# Sexual and reproductive health (SRH) demand creation for prevention and ART services (South Africa)

## INCREASED UPTAKE OF BIOMEDICAL HIV PREVENTION BY YOUTH THROUGH COMMUNITY-BASED SRH: A RCT 976

**Maryam Shahmanesh**[1,2,3], Glory Chidumwa[1], Natsayi Chimbindi[1,2,3], Jacob Busang[1], Carina Herbst[1], Nonhlanhla Okesola[1], Jaco Dreyer[1], Thembelihle Zuma[1,2,3], Theresa Smit[1], Jean-Michel Molina[4], Nuala McGrath[1,5], Guy Harling[1,2,3,7], Lorraine Sherr[2], Janet Seeley[1,6], Andrew Copas[2], Kathy Baisley[1,6], Isisekilo research group (Simphiwe Mdlui, Siphesihle Hlongwane, Samke Ngubane, Dumsani Gumede, Sithembile Msane, Ashley Jalazi, Thandeka Khoza, Kobus Herbst, Jana Jarolimova, Ngundu Osee Behuhuma)

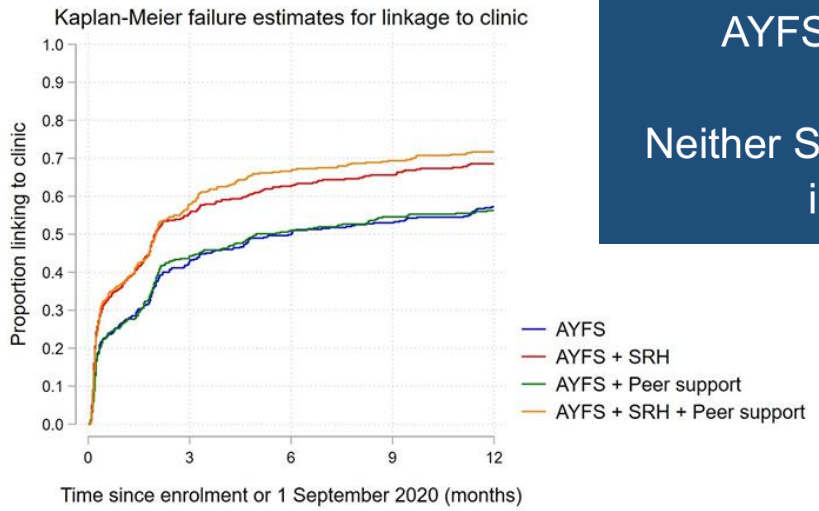
- **Randomised into 4 arms:**

Enhanced standard of care **(SoC): mobile adolescent youth friendly services (AYFS)** for differentiated HIV prevention (condoms, Universal Test and Treat, and PrEP if eligible)

**Sexual and Reproductive Health (SRH):** home-based self-collected specimens for STI testing (GeneXpert for gonorrhoea, chlamydia & trichomonas) and referral to AYFS for integrated SRH and HIV

**Thetha Nami peer-support**: referral to a peer navigator for needs assessment to tailor health and social support, condom provision and facilitation of AYFS attendance for differentiated HIV prevention

**SRH plus Thetha Nami peer support** into AYFS




In a 2x2 factorial RCT of representative sample of youth in South Africa

SRH (community STI testing and sexual reproductive health) increased demand for differentiated biomedical HIV prevention (linkage to AYFS within 60 days) aOR 1.61 (1.32-1.95)

Neither SRH or peer-support resulted in a reduction in prevalence of transmissible HIV

Abstract here

# »DSD for HIV testing

# IAS Leveraging HIVST to reach partners (Cameroon)

## *EFFECTIVENESS OF HIV SELF-TESTING IN CAMEROON: EVIDENCE FROM THE STAR INITIATIVE* P928

**YAGAI BOUBA**[1], ADAMOU SOULEYMANOU[2], AUDREY RAISSA DJOMO DZADDI[1], FATIMA MOULIOM NKAIN[3], EBIAMA LIFANDA[1], EDWIGE OMONA[2], INGRID KENKO[2], ANTOINE SOCPA[2], MICHELINE MARIE JOSE ESSI[2], HADJA HAMSATOU CHERIF[1], SERGE CLOTAIRE BILLONG[1], ANNE CECILE ZOUNG-KANYI[3]

- OraQuick used
- Targeted men at risk, partners of HIV+ people and youth 18-24 years
- HTS = HIV testing site

Secondary distribution models through ANC and index testing were effective in identifying new cases.

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## RESULTS

**Table 1.** Outcome of HIV testing by self-tester according to sex, age, region, and distribution models.

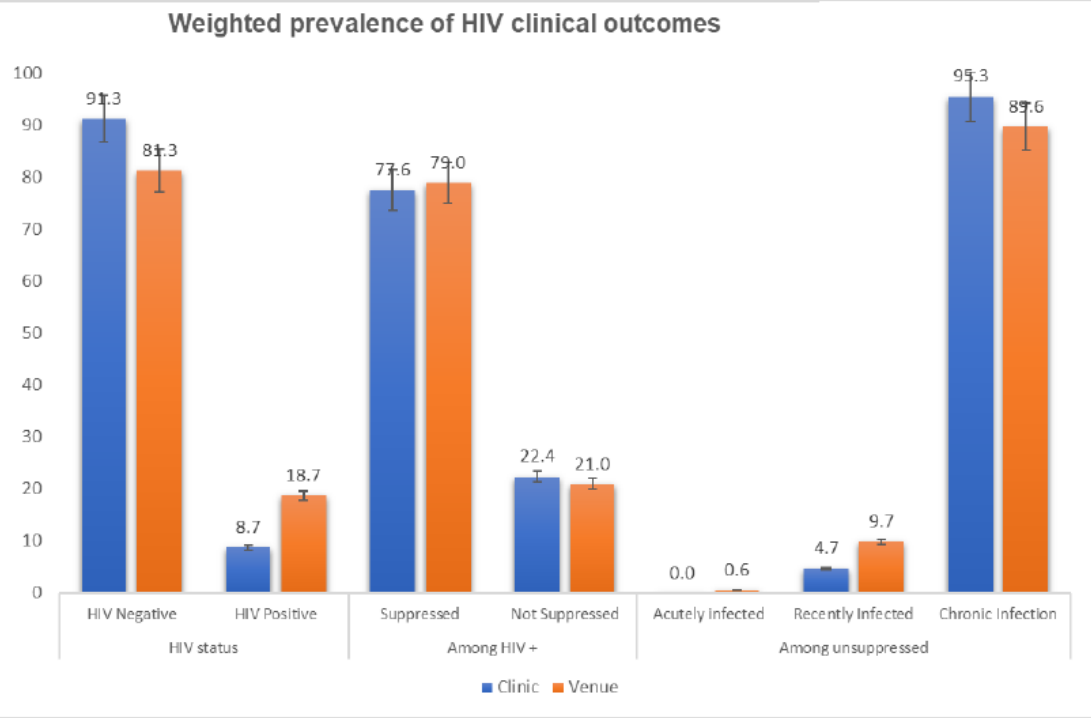
| Variable | Overall | Non reactive | Reactive | Invalid | P-value |
|---|---|---|---|---|---|
| **Region, n (%)** | | | | | |
| *Centre* | 23008 | 22357 (97.2) | 569 (2.5) | 82 (0.4) | |
| *Littoral* | 5920 | 5848 (98.8) | 69 (1.2) | 3 (0.1) | **<0.001** |
| *South* | 7006 | 6790 (96.9) | 187 (2.7) | 29 (0.4) | |
| **Distribution type, n (%)** | | | | | |
| *Primary* | 23854 | 23534 (98.7) | 218 (0.9) | 102 (0.4) | **<0.001** |
| *Secondary* | 12080 | 11461 (94.9) | 607 (5.0) | 12 (0.1) | |
| **Distribution models, n (%)** | | | | | |
| *ANC* | 7630 | 7376 (96.7) | 246 (3.2) | 8 (0.1) | |
| *Partners of PVVIH* | 4539 | 4157 (91.6) | 378 (8.3) | 4 (0.1) | |
| *Workplace* | 7309 | 7218 (98.8) | 85 (1.2) | 6 (0.1) | **<0.001** |
| *Community* | 16309 | 16111 (98.8) | 102 (0.6) | 96 (0.6) | |
| *HTS* | 147 | 133 (90.5) | 14 (9.5) | 0 (0.0) | |
| **Age categories, years, n (%)** | | | | | |
| *<25* | 18415 | 18142 (98.5) | 175 (1.0) | 98 (0.5) | |
| *25-39* | 11689 | 11252 (96.3) | 424 (3.6) | 13 (0.1) | **<0.001** |
| *≥40* | 5830 | 5601 (96.1) | 226 (3.9) | 3 (0.1) | |
| **Sex, n (%)** | | | | | |
| *Male* | 25710 | 25064 (97.5) | 570 (2.2) | 76 (0.3) | 0.144 |
| *Female* | 10224 | 9931 (97.1) | 255 (2.5) | 38 (0.4) | |
| **HIV testing History, n (%)** | | | | | |
| *At least one* | 29703 | 28949 (97.5) | 679 (2.3) | 75 (0.3) | |
| *Never* | 6019 | 5843 (97.1) | 137 (2.3) | 39 (0.6) | **<0.001** |
| *Unknown* | 212 | 203 (95.8) | 9 (4.2) | 0 (0.0) | |
| **Total** | **35934** | **34995 (97.4)** | **825 (2.3)** | **114 (0.3)** | |

# Venue based testing improves targeting of community based testing (Malawi)

## ARE VENUE-BASED STRATEGIES THE TICKET TO THE LAST MILE IN HIV PREVENTION IN MALAWI

1087

Emmanuel Singogo[1], Sharon S Weir[2], Evaristar Kudowa[1], Maganizo Chagomerana[1], John Chapola[1], Jessie K. Edwards[2], Confidence Banda[1], Thomas Hartney[3], Sarah Boudin[3], Gift Kawalazira[4], Andreas Jahn[4], Yohane Kamgwira[3], Lucy Platt[5], Brian Rice[5], James Hargreaves[5], Mina C. Hosseinipour[2]




### RESULTS

- Compared to the clinic population, the venue population was more likely to: be male (69% vs 28%); aged >25 years (61% vs 51%); unmarried (62% vs 40%); drink alcohol daily (44% vs 8%); have more sexual partners in the last year (mean 16 vs 2); report a new sex partner in the past 4 weeks (42% vs 15%); and report transactional sex (52% vs 12%).
- HIV prevalence was higher among the venue population (19% vs 9%); the proportion HIV+ suppressed was similar (78% vs 79%) as shown on the bar graph.
- Among women recruited at venues, prevalence increased by age: 0% among age 15-17 to 43% among age 18-21.

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# Modelling: Leveraging HIVST to increase community PrEP delivery (Kenya)

## *Modeled Impact of HIV Self-testing for PrEP Scale-up on Drug Resistance in Kenya*

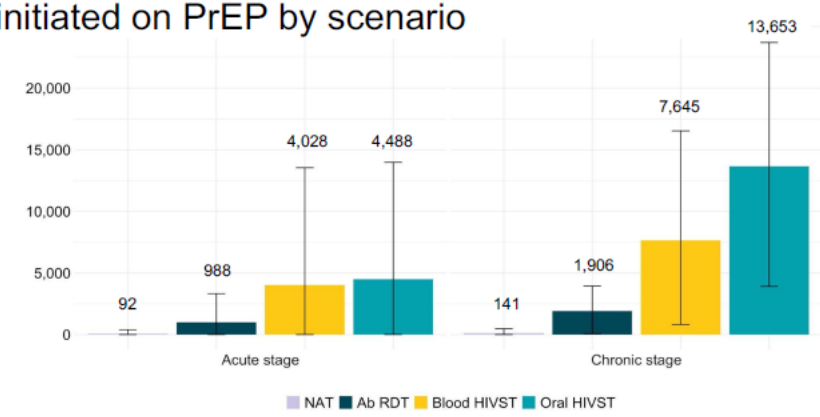
Sarah N. Cox[1,2*], Linxuan Wu[1,2*], Rachel Wittenauer[2,3], Ifechukwu Benedict Nwogu[2,3], Samantha Clark[2,3], D. Allen Roberts,[1] Olga Vitruk[2], Cheryl Johnson[4], Muhammad S. Jamil[4], Anita Sands[5], Robin Schaefer[4], Rachel Baggaley[4], Joanne D. Stekler[6], Adam Akullian[2,7], Monisha Sharma[2]

**Average time persons with HIV were inappropriately taking PrEP was short across scenarios (approximately 3 months)**

**Table 1.** NRTI resistance over 20 years by scenario

| Scenario | Total HIV infections with NRTI resistance | HIV infections with PrEP-associated NRTI resistance (%) | Population prevlaence of NRTI resistance (%) |
|---|---|---|---|
| No PrEP | 71,167 (48,759 - 90,446) | - | 1.4 (1.0 - 1.8) |
| NAT | 63,670 (44,748 - 81,353) | 0.1 (0.1 - 0.1) | 1.3 (0.9 - 1.6) |
| Ab RDT | 64,288 (45,411 - 81,986) | 0.2 (0.1 - 0.2) | 1.3 (0.9 - 1.6) |
| Blood HIVST | 66,253 (47,063 - 85,003) | 0.5 (0.3 - 0.7) | 1.3 (0.9 - 1.7) |
| Oral HIVST | 67,410 (47,279 - 87,255) | 0.7 (0.5 - 0.9) | 1.3 (0.9 - 1.7) |

**Figure 3.** Persons with HIV inappropriately initiated on PrEP by scenario




Broad community scale-up of oral PrEP supported by **HIV self-testing** shows a similarly **low risk of drug resistance** compared to provider-administered testing.

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# Web-based demand creation and courier provided HIVST services (India)

**Virtual Support Improves Client Experiences with an Online HIV Self-testing Service in India** 931

**Allison M. McFall** [1], Jalpa Thakker [2], Talia A. Loeb [1], Jade Bell [2], Aditya Singh [2], Rose Pollard [2], Mahender Taduri [3], Anthony Reddy [2], Jagadish Patil [3], Subash Ghosh [3], Ajay Enugu [2], Shruti H. Mehta [1], Sunil S. Solomon [2]

- Web-based HIVST service in India
- Virtual counsellors (VCs) were available to clients for pre/post-test counseling and assistance with using the kits, including interpreting and uploading results to the website, and linkage to appropriate services

| **Table 1.** Process and client characteristics | Ordered HIVST *(as of Aug. 2022)* |
|---|---|
| Clients | 5015 |
| Received kit | 87% |
| Completed test* | |
| Reported result | 82% |
| Screened positive | 5% |
| Male | 74% |
| Median age (IQR) | 26 (23-30) |
| Kits sent via courier | 45% |
| Ordered >1 HIVST kit | 9% |

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