Changes that require service delivery

Clinical stability
- Suppressed viral load to elevated viral load*
- Well to unwell*
- Interrupted care to re-engaged in care

Pregnancy status
- Pregnant to pregnant infant pair (breastfeeding)
- Pregnant infant pair to mother

Preferences or model availability
- Migration (location change)
- Facility to community model*
- Individual to group model*
Transitions intensive to less intensive DSD models ("down-referral")

Transitions between intensive DSD models (lateral move)

Transitions intensive to intensive DSD models ("up-referral")
being transitioned:

- is not ready for the transition
- has not fully understood or agreed to or accepted the transition
- loses or perceives to lose a valued service component

processes may fail to support an effective transition

- no/poor transition planning
- system failures

For example

- prescription not submitted to appropriate drug supply system,
- ART refills not supplied to location for collection,
- ART stock outs, etc.
Viral suppression and long term retention outcomes analysis: Expanded eligibility criteria and increased enrolment in 3MMD

### Expanded Eligibility Criteria
- Reduced the time on ART required for 3MMD eligibility from 6 months to 3 months
- No need for laboratory tests to verify eligibility (CD4 or viral load)

### Methodology
Retrospective cohort study of routine data collected from electronic medical records of patients enrolled in 3MMD on/after 30th March 2020, from 20 high-volume health facilities in four provinces (48% of all patients active on ART on those provinces).

#### Cohort 1
Patients who met 3MMD eligibility criteria before the change in policy

#### Cohort 2
Patients who started ART on/after 1st November 2019 and became eligible for 3MMD due to the change in policy

All patients were followed until September 2020 to assess viral load suppression (VL<1,000 copies/ml after at least 6-months on ART), and until May 2021 to assess long-term retention in care (>12 months on ART).

### Results
Both cohorts achieved viral suppression rates of 91%.

- **94.4% Adults**
- **97.4% Adults**
- **70% Female**
- **53% Female**

Expanded access to 3MMD had no negative impact on patients' viral load suppression (both at 91%) or long-term retention.
Enrolment analysis: Community dispensing of ARVs (CDA) strategy

How it Works

- Return to 3MMD
- List of clients missing appointments (M&E team)
- CDA for clients who accept (clinical officer/nurse and psychosocial support worker)
- Telephone calls/home visits to offer CDA (counselors)

Results

Evolution of the number of clients enrolled in CDA as % of active clients on ART (TX_CURR only in sites with CDA), Q4FY20–Q1FY22

<table>
<thead>
<tr>
<th>Year</th>
<th>TX_CURR</th>
<th>DCA</th>
<th>% DCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020Q4</td>
<td>152,463</td>
<td>9,004</td>
<td>5.9%</td>
</tr>
<tr>
<td>2020Q1</td>
<td>182,593</td>
<td>11,775</td>
<td>6.4%</td>
</tr>
<tr>
<td>2020Q2</td>
<td>211,178</td>
<td>14,971</td>
<td>7.1%</td>
</tr>
<tr>
<td>2020Q3</td>
<td>236,101</td>
<td>25,205</td>
<td>10.7%</td>
</tr>
<tr>
<td>2020Q4</td>
<td>268,101</td>
<td>30,711</td>
<td>14.6%</td>
</tr>
<tr>
<td>2021Q1</td>
<td>281,600</td>
<td>45,870</td>
<td>16.3%</td>
</tr>
</tbody>
</table>

Way Forward

- As of the end of Q1FY2022, 113 health facilities were implementing CDA by health providers;
- The strategy was formally approved by Ministry of Health and included in the updated national guidelines for differentiated models of services.

Methodology

Mix-methods:
- Analysis of weekly monitoring data;
- Semi-structured interviews with health providers (8 health facilities).
Key Message: Combining 3MDD with community ARV drug distribution reduces dropouts and increases the number of active patients on treatment.
Expanded eligibility criteria:

- Reduced the time on ART required for 3MMD eligibility from 6 to 3 months
- No need for laboratory tests to verify eligibility (CD4 or viral load)

- **Cohort 1 (C1):** Patients who met 3MMD eligibility criteria before the change in policy.
- **Cohort 2 (C2):** Patients who started ART on/after 1st November 2019 and became eligible for 3MMD due to the change in policy.

All patients were followed until September 2020 to assess VLS (VL<1,000 copies/ml after at least 6-months on ART), and until May 2021 to assess LTR.

13,041 patients were included (8,009 in C1, 5,032 in C2); 70% were female in C1 and 53% in C2, and 5.6% were children in C1 (ages 0-14 years) vs 2.6% in C2.

Distribution of patients in an optimized ART regimen was equivalent across the two cohorts, with 98% in C1 vs 99% in C2.

The distribution of patients by time on ART in C1 was: 11.5% ≤1 year; 14.5% 1-2 years, and 73.6% ≥2 years.

Viral load suppression was 91% for both cohorts.

Long-term retention was equivalent between both cohorts (83% in C1 vs 81% in C2), and for both, 83% of patients still on ART were also still on 3MMD.

These results support the implementation of the expanded 3MMD policy beyond the COVID-19 response.

**Conclusion:** Expanded access to 3MMD for HIV treatment had no negative impact on patients' viral load suppression and on retention.
Methods

Objective: Evaluate the effect of DSD models on healthcare workers’ job satisfaction, workload, and time use

- Selected public sector clinics in Malawi (n=12), South Africa (n=21), and Zambia (n=12)
- Quantitative and qualitative survey of providers
  - Convenience sample of ≤10 DSD providers per facility between April 2021 and January 2022
  - Used principal component analysis to create an index score for job satisfaction
  - Explored associations between key variables and low reported job satisfaction
- Time and motion study
  - Convenience sample of ≤5 clinical DSD providers per facility
  - Each provider observed for 1-2 days
  - Estimated mean time (minutes) spent per provider per day on each activity, stratified by the proportion of clients enrolled in DSD models at that facility and by facility size
I see fewer patients each day
The queues are shorter
I can spend more time with individual clients
I work shorter hours
I have more management/administrative responsibility
I spend more time in training

Figure 1: Provider-reported changes after DSD-implementation

Figure 2: How did DSD implementation affect your job?
- Freed up my time
- Made my job easier
- Changed how my clinic was managed

Malawi
South Africa
Zambia
Compared to facilities with low DSD model uptake, providers in facilities with high DSD model uptake:

- Worked longer or shorter days:
  - Malawi: -32 minutes/day
  - South Africa: +27 minutes/day
  - Zambia: -70 minutes/day

- Spent more or less time on direct client care:
  - Malawi: +21 minutes
  - South Africa: -52 minutes
  - Zambia: +36 minutes

- Spent more or less time free or on breaks:
  - Malawi: -16 minutes
  - South Africa: +49 minutes
  - Zambia: +7 minutes

- Spent more or less time on client-related tasks:
  - Malawi: -31 minutes
  - South Africa: +27 minutes
  - Zambia: -70 minutes

- Saw more clients per day:
  - Malawi: +10 clients
  - South Africa: +3 clients
  - Zambia: +2 clients
Figure 5: Average minutes spent by provider per activity per day

Compared to facilities with low ART client volume, providers in facilities with high client volume

<table>
<thead>
<tr>
<th></th>
<th>Malawi</th>
<th>South Africa</th>
<th>Zambia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worked longer or shorter days</td>
<td>-83 minutes/day</td>
<td>+3 minutes/day</td>
<td>+72 minutes/day</td>
</tr>
<tr>
<td>Spent more time on direct client care</td>
<td>+22 minutes</td>
<td>+18 minutes</td>
<td>+26 minutes</td>
</tr>
<tr>
<td>Spent more or less time free or on breaks</td>
<td>+69 minutes</td>
<td>-2 minutes</td>
<td>-60 minutes</td>
</tr>
<tr>
<td>Saw more or fewer clients per day</td>
<td>+9 clients</td>
<td>-2 clients</td>
<td>+5 clients</td>
</tr>
</tbody>
</table>
Conclusion: Effective reallocation of providers’ time may enhance facility performance, reduce the amount of unproductive time each day, and reduce stress on frontline providers.
Conclusion: Targeted interventions for people living with HIV newly initiating ART should be prioritized to ensure treatment continuity, especially in the era of multi-dispensing.
From Oct 2019-Dec 2021, the proportion of ART clients receiving MMD increased from **49%** to **80%** (>10M)

**By Q4 2021, 36% of PEPFAR ART clients on 6MMD (4.6M)**

**By Q4 2021, 44% of PEPFAR ART clients on 3-5MMD (5.7M)**

Source: DATIM
From Oct 2019-Dec 2021, the proportion of ART clients <15 receiving MMD increased from 27% to 60% (320,000+)

By Q4 2021, 13% of ART clients <15 were on 6MMD (68,000)

By Q4 2021, 47% of ART clients <15 were on 3-5MMD (252,000)
PEPFAR trends in MMD, viral load coverage (VLC) & viral load suppression (VLS)

Source: DATIM, South Africa and Ukraine not included
Across 18 PEPFAR-supported countries, the rollout and scale up of multi-month dispensing of antiretroviral therapy was associated with stable and increasing aggregate viral load suppression rates.

Key Message:

analyzed. Aggregate PEPFAR VLS rates were not
Conclusion: Offering DSD model entry to at least some ART patients <6 months after ART initiation may help address high attrition during the early treatment period.
Conclusion: Patient-centered PICA strategy
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Eligible for and enrolled in DSD</th>
<th>Eligible for but not enrolled in DSD</th>
<th>Not eligible for and enrolled in DSD</th>
<th>Not eligible for and enrolled in DSD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=8,979</td>
<td>n=21,614</td>
<td>n=1,318</td>
<td>n=20,076</td>
<td>N=51,987</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-19</td>
<td>10 (1%)</td>
<td>79 (1%)</td>
<td>8 (1%)</td>
<td>601 (3%)</td>
<td>698</td>
</tr>
<tr>
<td>20-24</td>
<td>118 (1%)</td>
<td>546 (3%)</td>
<td>33 (3%)</td>
<td>1,230 (6%)</td>
<td>1,927</td>
</tr>
<tr>
<td>25-49</td>
<td>reahed</td>
<td></td>
<td>989 (7%)</td>
<td>15,696 (75%)</td>
<td>39,009</td>
</tr>
<tr>
<td>50+</td>
<td>2,008 (23%)</td>
<td>4,818 (22%)</td>
<td>288 (22%)</td>
<td>3,149 (16%)</td>
<td>10,353</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>6,419 (71%)</td>
<td>15,149 (70%)</td>
<td>935 (71%)</td>
<td>13,134 (65%)</td>
<td>35,637</td>
</tr>
<tr>
<td>Male</td>
<td>2,560 (29%)</td>
<td>6,465 (30%)</td>
<td>383 (29%)</td>
<td>6,942 (35%)</td>
<td>16,350</td>
</tr>
<tr>
<td>Time on ART at cohort start</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-6 months</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>1 (1%)</td>
<td>923 (5%)</td>
<td>924</td>
</tr>
<tr>
<td>6-12 months</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>1 (1%)</td>
<td>821 (4%)</td>
<td>822</td>
</tr>
<tr>
<td>1-2 years</td>
<td>17 (1%)</td>
<td>267 (1%)</td>
<td>16 (1%)</td>
<td>2,879 (14%)</td>
<td>3,179</td>
</tr>
<tr>
<td>2-5 years</td>
<td>2,057 (23%)</td>
<td>7,804 (36%)</td>
<td>386 (30%)</td>
<td>8,563 (43%)</td>
<td>18,810</td>
</tr>
<tr>
<td>5 years +</td>
<td>6,905 (77%)</td>
<td>13,543 (63%)</td>
<td>892 (69%)</td>
<td>6,857 (34%)</td>
<td>28,197</td>
</tr>
<tr>
<td>Last viral load result</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;400 c/mL</td>
<td>8,979 (100%)</td>
<td>21,614 (100%)</td>
<td>1,022 (78%)</td>
<td>10,337 (51%)</td>
<td>41,954</td>
</tr>
<tr>
<td>400-1000 c/mL</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>122 (9%)</td>
<td>1,189 (6%)</td>
<td>1,309</td>
</tr>
<tr>
<td>1000+ c/mL</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>81 (6%)</td>
<td>2,844 (14%)</td>
<td>2,928</td>
</tr>
<tr>
<td>No VL on record</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>93 (7%)</td>
<td>5,706 (28%)</td>
<td>5,799</td>
</tr>
</tbody>
</table>

**Conclusion:**

[Image of a graph showing the distribution of patients retained in care at 12 months and viral suppression in months 3-18]
Key Message: Standardization of services to all outreach points is recommended and there is a need for public health facilities to integrate CHCD in their outreach programmes.
Key Message: Eswatini has markedly scaled up DT coverage and diversity, ensuring that HIV treatment is responsive to the needs of different groups and sub-populations.
Key Message: It is recommended to conduct a comprehensive analysis to assess the effect of individual level factors, individual factors and clinical conditions on adverse follow-up outcomes.
Key Message: While measures to mitigate the impact of conflict on the health of people living with HIV have led to positive results, a broader plan is needed that includes plans to improve viral load coverage.
During COVID-19, registered patients grew 107% to over 4.72 million registered on CCMDD by October 2021.

61% of CCMDD patient universe

Most new patients opt to collect from 2,848 external pick-up points, supporting increased patient benefit.

10 min

The number of active patients collecting at external pick-up points increased by 65% with an average waiting time of less than 10 minutes.

Conclusion:
Conclusions:

- [Graphs and diagrams related to patient enrollment and distribution by age group and study group (DH vs. HC) are shown.]

[Further details on conclusions regarding patient outcomes and study findings are implied but not explicitly transcribed.]
Table 1: Viral Load Coverage

<table>
<thead>
<tr>
<th>Multi-month ART Dispensing</th>
<th># VL result</th>
<th># Nil VL result</th>
<th>% VL coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMD 1-2</td>
<td>275</td>
<td>95</td>
<td>74%</td>
</tr>
<tr>
<td>MMD 3</td>
<td>44,851</td>
<td>22,545</td>
<td>67%</td>
</tr>
<tr>
<td>MMD 4-5</td>
<td>7,718</td>
<td>2,379</td>
<td>76%</td>
</tr>
<tr>
<td>MMD 6</td>
<td>26,545</td>
<td>14,768</td>
<td>95%</td>
</tr>
<tr>
<td>Total</td>
<td>318,297</td>
<td>39,787</td>
<td>89%</td>
</tr>
</tbody>
</table>

Figure 1: Viral Load Suppression

Recommendation:
Conclusions:

- Achieved undetectable viral load levels
- 
-
Figure 1. Perceived quality of care among study participants (n=867)

Figure 2. Crude and adjusted odds ratios of low perceived QoC for DSD model and conventional care study participants

Figure 3. Suggested HIV service improvements

Conventional care:

- We spend so much time waiting at the facility they seem to be short-staffed.
  > Male, 40 years old. Conventional care, not eligible for DSD model.
  > "The system they are using is in order I wouldn’t like to see any improvement as they are doing their best. I have been a patient since 2015 at this facility and they treat me very well every time."
  > Female, 36 years old. Conventional care, not eligible for DSD model.
  > "They must allow us when we send people to come and look for me as we have missed appointments due to work commitment."
  > Female, 48 years old. Conventional care, not eligible for DSD model.

DSD models:

- The external PEP should be more flexible as in my view I have just three pharmacies that offered care as an external PEP.
  > Female, 27 years old. DSD - External Pick-Up Point.
- They should sort our status. Sometimes we used to arrive at the clinic and not get our treatment because our names are not on that list then we had come here at the clinic. A file box is perfect for me because I receive a notification when my treatment is ready.
  > Female, 38 years old. DSD - External Pick-Up Point.
- Being able to renew scripts at the pharmacy where I collect medications.
  > Female, 41 years old. DSD - External Pick-Up Point.
- More explanation or education for patients as I was referred to external pick-up point today and I am happy with collecting my medication at the facility.
  > Female, 35 years old. DSD - Facility Pick-Up Point.
- Treatment must be delivered to home and only come once to check blood and checkups.
  > Female, 24 years old. DSD - Facility Pick-Up Point.

Conclusion: 

- "The external PEP should be more flexible as in my view I have just three pharmacies that offered care as an external PEP.
- They should sort our status. Sometimes we used to arrive at the clinic and not get our treatment because our names are not on that list then we had come here at the clinic. A file box is perfect for me because I receive a notification when my treatment is ready."
- "Being able to renew scripts at the pharmacy where I collect medications."
- "More explanation or education for patients as I was referred to external pick-up point today and I am happy with collecting my medication at the facility."
- "Treatment must be delivered to home and only come once to check blood and checkups."
Conclusions:

- Maintain regular contact with the health system.
Client: "The change I have noticed is that when you come for the six-monthly clinical visits the clinician takes much time with the patient compared to when I was coming on a monthly visit."

Health care worker: "We are having a happier workforce because the psychological challenge as a result of being fatigued all the time is a thing of the past."

Conclusion:
Satisfaction with facility-based ("internal") vs. community-based ("external") pick-up points

- 82% very satisfied or satisfied with internal pick-up points vs. 91% with external pick-up points.
More than half of PLHIV who were surveyed (43%) said that they would like to collect ARVs closer to their home if it were possible, 40% said they already collect close to home, 17% said no because they already collect ARVs close to home, and 1% said don't know.

Would people living with HIV like to collect ARVs closer to home? Survey of n=9,847
Conclusion:
Lessons learned:
- Alternative PuPs allow patients to quickly collect medication outside of clinic queues. Further benefits are realized in a predictable supply chain using a 'Port 2 Patient' strategy which helps for demand planning.
- Previously, manual systems in the primary health clinics, often resulted in stock-outs and patients not always receiving their medication on time.

Conclusions:
- Patient convenience and accessibility.
- Improved efficiency and supply chain management.
- Enhanced patient adherence and satisfaction.
### TABLE 3. Comparison of treatment continuity between clients in CBOs and health facilities

<table>
<thead>
<tr>
<th>TIME POINT</th>
<th>FACILITY</th>
<th>RETENTION RATE (%)</th>
<th>OR (CI)</th>
<th>P-VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd month</td>
<td>CBO clients (n=2633)</td>
<td>94</td>
<td>1.31 (1.23 - 1.38)</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td></td>
<td>HF clients (n=2017)</td>
<td>90.04</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>6th month</td>
<td>CBO clients (n=2549)</td>
<td>91</td>
<td>1.33 (1.25 - 1.41)</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td></td>
<td>HF clients (n=1916)</td>
<td>86.1</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>12th month</td>
<td>CBO clients (n=2425)</td>
<td>86.6</td>
<td>1.34 (1.26 - 1.43)</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td></td>
<td>HF clients (n=1805)</td>
<td>81.1</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>24th month</td>
<td>CBO clients (n=2063)</td>
<td>86.1</td>
<td>1.28 (1.2 - 1.4)</td>
<td>&lt;0.079</td>
</tr>
<tr>
<td></td>
<td>HF clients (n=1606)</td>
<td>72.2</td>
<td>1.0</td>
<td></td>
</tr>
</tbody>
</table>

### TABLE 4. Yearly comparison of viral suppression rate between CBO and health facility clients, 2016–2020

<table>
<thead>
<tr>
<th>TIME POINT</th>
<th>FACILITY</th>
<th>VIRAL SUPPRESSION (%)</th>
<th>OR (CI)</th>
<th>P-VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>CBO clients</td>
<td>97.8 (89/91)</td>
<td>3.1 (2.0 - 4.7)</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>HF clients</td>
<td>93.55 (29/31)</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>CBO clients</td>
<td>96.31 (209/217)</td>
<td>1.7 (1.4 - 2.1)</td>
<td>0.45</td>
</tr>
<tr>
<td></td>
<td>HF clients</td>
<td>94.62 (123/130)</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>CBO clients</td>
<td>98.55 (542/550)</td>
<td>1.72 (1.5 - 2.0)</td>
<td>&lt;0.00</td>
</tr>
<tr>
<td></td>
<td>HF clients</td>
<td>92.4 (316/342)</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>CBO clients</td>
<td>97.44 (647/664)</td>
<td>1.98 (1.74 - 2.27)</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td>HF clients</td>
<td>90.2 (313/347)</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>CBO clients</td>
<td>95.12 (917/954)</td>
<td>1.8 (1.6 - 2.0)</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>HF clients</td>
<td>92.27 (501/543)</td>
<td>1.0</td>
<td></td>
</tr>
</tbody>
</table>

**Conclusion:**

[Diagram or visual representation as described in the original text]
Conclusion: CDA has been a valuable strategy in Niassa and helped improve ART retention.
Conclusion:
Conclusion: In...
Figure 1: Month on month Interrupted in Treatment (IIT) by Population type

Conclusions:

- 
- 
- settings where patients face diverse challenges that result in IIT
Conclusion:

- Analysis of Intervention Sites:
  - Avencion sites: general reduction over period for all sites to below 15%

- Analysis of Non-Supported Sites:
  - Unsupported sites: High & increasing IIT
The priority areas for integration into DSD for HIV treatment models are:

- TB treatment and prevention
- Family planning (FP)
- Cervical cancer screening and treatment (according to national guidance)
- Cardiovascular risk assessment and management of hypertension and diabetes
- Screening and management of depression, anxiety and substance abuse

The goal of integration should be to provide a stop service for the recipient of care (RoC) during routine care.

- At the same facility, ideally in the same clinic room
- On the same day
- By the same healthcare professional

DSD for HIV treatment models can be leveraged to:

Screen or assess for other health conditions or needs at entry into DSD and at clinical visits.

Integrate the delivery of other medications into the DSD for HIV treatment models for RoCs established on treatment.
Increased duration of refills and alignment of medication refills

Task sharing of prescribing for initiation, titration (for NCD medication) and maintenance

Decentralization of drug dispensing and distribution
HIV/TPT Integration
Multiple bottles of medicines at home, storage challenges, risk of stigma and accidental disclosure

HIV/Family Planning
Limited availability of a full range of FP options; difficulties in delivering one-stop shop services

Staff shortages and limited skills to offer services across multiple disease programs, harmonization of monitoring tools needed, limited medicines for NCDs
Integrated primary care comprised:

- One clinic for either HIV, diabetes or hypertension (one-stop clinic).
- The same physicians, consulting rooms, waiting areas, and triage
- Provision of health information, similar records, pharmacy and laboratory services.

- Integrated care clinics located within health facilities offering primary care.
- Services provided by routine healthcare staff in close to normal health service conditions.

- Vertical care was standard primary care for HIV, diabetes or hypertension organised in separate clinics.

From Jaffar oral presentation in this session
• Multi-country, designed to generate evidence for policy-makers.

• Sites in Dar es Salaam, Tanzania and Kampala region, Uganda


• Huge disruption to routine care because of Covid-19.

From Jaffar oral presentation in this session
### INTE-AFRICA – Baseline characteristics

<table>
<thead>
<tr>
<th></th>
<th>Integrated Arm</th>
<th>Vertical Arm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number enrolled, n(%)</strong></td>
<td>3439</td>
<td>3591</td>
</tr>
<tr>
<td><strong>Age, mean (SD) years</strong></td>
<td>50.8 (14.4)</td>
<td>50.3 (13.4)</td>
</tr>
<tr>
<td><strong>Sex, number female (%)</strong></td>
<td>2571 (74.8)</td>
<td>2579 (71.8)</td>
</tr>
<tr>
<td><strong>Disease condition, n(%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV alone</td>
<td>1701 (49.5)</td>
<td>1665 (46.4)</td>
</tr>
<tr>
<td>Hypertension alone</td>
<td>906 (26.3)</td>
<td>883 (24.6)</td>
</tr>
<tr>
<td>Diabetes alone</td>
<td>181 (5.3)</td>
<td>308 (8.6)</td>
</tr>
<tr>
<td>Multimorbidity (2 or all 3 conditions)</td>
<td>651 (18.9)</td>
<td>735 (20.4)</td>
</tr>
</tbody>
</table>

*From Jaffar oral presentation in this session*
### OUTCOMES

<table>
<thead>
<tr>
<th></th>
<th>Integrated Arm</th>
<th>Vertical Arm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number enrolled, n(%)</td>
<td>3441</td>
<td>3592</td>
</tr>
<tr>
<td>Retained in care, all participants, n (%)</td>
<td>3087 (90)</td>
<td>3308 (92)</td>
</tr>
<tr>
<td>Retained in care, participants with diabetes or hypertension or both, n (%)</td>
<td>1853 (92)</td>
<td>1858 (95)</td>
</tr>
<tr>
<td>Viral load&lt;1000 copies per mil</td>
<td>1694/1741 (97)</td>
<td>1710/1755 (97)</td>
</tr>
<tr>
<td>Blood pressure&lt;140/90 mmHg</td>
<td>1569/2408 (65)</td>
<td>1398/2429 (58)</td>
</tr>
<tr>
<td>Fasting glucose &lt;7 mmol/l</td>
<td>65/247 (26)</td>
<td>115/545 (21)</td>
</tr>
</tbody>
</table>

*From Jaffar oral presentation in this session*
• PLHIV with HTN report barriers to care include costs of transportation and time for care seeking.\(^1\)

• Integration can overcome these barriers with:

  **Multi-month dispensing & Alignment**: MMD of ART and HTN medications in the same interval

• Person-centred models may be associated with improved clinical outcomes

---

**Makonda Design & Aims**

• Evaluate preferences for HTN care (n=1000, 14 facilities) with **Discrete Choice Experiment (DCE)** & stated preferences for care

• **Chart review subset**: frequency of HTN and ART refills to evaluate MMD, alignment, and blood pressure control

---

\(^1\) C Moucheraud, K Nyirenda et al. Global Public Health Jan 2021
<table>
<thead>
<tr>
<th></th>
<th>People living with HIV and HTN* (n=501)</th>
<th>Chart review sub-group (n=244)</th>
<th>HTN (N=502)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median age (IQR)</td>
<td>54 (48-60)</td>
<td>54 (48-60)</td>
<td>58 (51-66)</td>
</tr>
<tr>
<td>Female, n (%)</td>
<td>293 (58%)</td>
<td>125 (55%)</td>
<td>291 (58%)</td>
</tr>
<tr>
<td>Duration on ART**, median years (IQR)</td>
<td>10 (6-15)</td>
<td>12 (7-15)</td>
<td>N/A</td>
</tr>
<tr>
<td>Duration with hypertension median years (IQR)</td>
<td>5 (3-8)</td>
<td>5 (3-9)</td>
<td>5 (2-8)</td>
</tr>
<tr>
<td>Diabetes, n (%)</td>
<td>45 (9%)</td>
<td>20 (8%)</td>
<td>121 (24%)</td>
</tr>
</tbody>
</table>

*Most (n=462, 92%) identified from three fully integrated ART-NCD clinics in Lilongwe

**98% on TLD and 91% suppressed <40 copies/mL within the prior 2 years

Chart review to look at ART dispensing intervals, alignment with HTN medication, blood pressure data (n=244)
Preferences for care

- Stable stock of blood pressure medication
- MMD of HTN medications
- See provider alone (vs group)
- Provider friendliness
- Distance
- Wait time

HTN (n=502) vs People living with HIV and HTN (n=501)
- 79% of participants had complete alignment
- With less strict definition (>50% of visits), 90% aligned
- Most common aligned interval was 90 days (54%)
- Blood pressure control (n=229) more common among those with complete alignment (28% versus 19%, p= 0.211)

**Predominant dispense interval among individuals receiving aligned refills**

- 90 day: 54%
- 180 day: 11%
- 120 day: 11%
- 60 day: 1%
- 30 day: 2%
- None predominant: 21%

**Blood pressure control**

- **Normal** blood pressure (<140/90)
- **Mild, moderate, or severe hypertension**

Refills not aligned (n=48):

- Normal blood pressure: 19%
- Mild, moderate, or severe hypertension: 81%

Refills aligned (n=181):

- Normal blood pressure: 72%
- Mild, moderate, or severe hypertension: 28%

**Normal**: systolic <140 and diastolic <90 mm Hg
**Mild**: systolic 140-159 and/or diastolic 90-99 mm Hg
**Moderate**: systolic 160-179 and/or diastolic 100-109 mm Hg
**Severe**: systolic ≥180 and/or diastolic ≥110 mm Hg
• Moderate or higher blood pressure elevation was common
• 94% reported missing taking blood pressure medication 0-1 times/week
• 12% had a gap of >30 days in blood pressure medication supply
• 44% on first-line monotherapy (HCTZ); 10% on ≥ 3 HTN medications
• 89% had no changes in HTN medications over one year

**Normal**: systolic <140 and diastolic <90 mm Hg  
**Mild**: systolic 140-159 and/or diastolic 90-99 mm Hg  
**Moderate**: systolic 160-179 and/or diastolic 100-109 mm Hg  
**Severe**: systolic ≥180 and/or diastolic ≥110 mm Hg
### SAIA Components

**Cascade Analysis Tool**

<table>
<thead>
<tr>
<th>HTN Care Cascade</th>
<th>Total</th>
<th>%</th>
<th>Drop-Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>if Months</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target Population</td>
<td>19,558</td>
<td></td>
<td></td>
</tr>
<tr>
<td># of IHW infected Individuals</td>
<td>3,054</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### STEP 1
- Outpatient Consult: IHW & Adult Patients
- Total Eligible (Step 1 & Step 2): 200
- 10% → 1,854
- 100

#### STEP 2
- BP measured at Outpatient Consults for IHW & Adult Patients
- Total Eligible (Step 2): 100
- 50% → 100
- 33

#### STEP 3A
- IHW Patients eligible for HTN medications for the first time
- Total Eligible (Step 3A & Step 3B): 33
- 33

#### STEP 3B
- IHW Patients already diagnosed with HTN
- Total Eligible (Step 3B): 21
- 21

#### STEP 4A
- IHW Patients with HTN medication prescription (new)
- Total Eligible (Step 4A & Step 4B): 32
- 97%

#### STEP 4B
- IHW Patients with HTN medication prescription (refill)
- Total Eligible (Step 4B): 18
- 86%

#### STEP 5
- IHW Patients who pick up HTN medications last month
- Total Eligible (Step 5): 17
- 94%

#### STEP 6
- IHW Patients on HTN treatment with controlled BP
- Total Eligible (Step 6): 12
- 71%

### Conclusion:

- [Blank Space for Conclusion]
Conclusions:

- Standardized screening and management protocol
- Other NCDs among PLHIVs at ART Centres can help in
Conclusions:

- Uptake of PrEP and FP among AGYW in PAC settings in Kenya are associated with

- However, younger women are significantly less likely to initiate PrEP or FP and PrEP

Figure 1. Distribution of PrEP and Family Planning Uptake by AGYW in Post-Abortion Care Clinics
Conceptual Framework for ACCELERATE program (based on PRECEDE)

- Local experts training program
- HCW training program
- Monitoring and evaluation

**Intervention**

- **PRECEDE Dimensions**
  - PREDISPOSING
  - ENABLING
  - REINFORCING

**Targeted barriers**

- Low general population awareness
- Lack of local hepatitis experts
- Low clinical competency among HCWs

---

**Ways that people with HBV learned their status**

- Routine medical check-up
- Clinical suspicion of hepatitis
- Antenatal care
- Community screening event
- Because client was living with HIV
- Index/contact testing
- Integrated with HIV VCT
- Post-exposure (needlestick/sex) pp
- HIV PrEP clinic or key pop. program

---

**Conclusions:**

Applying treatment criteria for HBV monoinfection requires...
Fig 2. Treatment outcomes

Conclusions:

- Patients on treatment 4,143
- Patients completed treatment 5,523
- Patients died 18
- Patients had HCV RNA test 1,610
- HCV RNA test undetectable 1558 (96.8%)
- Patients had sustained virologic response at 12 weeks or more after treatment completion 1435/1486 (96.6%)
Figure 2. Viral suppression by MMD enrolment, March 2020-September 2021.

Figure 3. Retention in treatment by MMD enrolment, March 2020-September 2021.

Conclusions:
- [Insert conclusions text here]
- [Insert conclusions text here]
Conclusions:

- 

- 

- 

- 

-
### Predictors of viral suppression among children in Northern Nigeria

**Table: Characteristics of participants**

<table>
<thead>
<tr>
<th>Characteristics of participants</th>
<th>Overall n (col %) (N=4273)</th>
<th>Virologically suppressed n (row %) (N=2144)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years) N=4357</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-9</td>
<td>2006 (46)</td>
<td>1225 (66)</td>
</tr>
<tr>
<td>10-15</td>
<td>2151 (49)</td>
<td>1327 (62)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>2146 (49)</td>
<td>1307 (61)</td>
</tr>
<tr>
<td>Male</td>
<td>2227 (51)</td>
<td>1254 (56)</td>
</tr>
<tr>
<td><strong>Duration on ART (years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1</td>
<td>634 (15)</td>
<td>351 (55)</td>
</tr>
<tr>
<td>1-9</td>
<td>3377 (77)</td>
<td>1960 (58)</td>
</tr>
<tr>
<td>≥10</td>
<td>361 (8)</td>
<td>250 (69)</td>
</tr>
<tr>
<td><strong>ART regimen, N=3805</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DTG-based</td>
<td>2275 (60)</td>
<td>1426 (63)</td>
</tr>
<tr>
<td>NNRTI-based</td>
<td>385 (10)</td>
<td>202 (52)</td>
</tr>
<tr>
<td>PI-based</td>
<td>1092 (29)</td>
<td>547 (50)</td>
</tr>
<tr>
<td>Other</td>
<td>53 (1)</td>
<td>30 (57)</td>
</tr>
<tr>
<td><strong>On MMDI, N=3802</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2220 (58)</td>
<td>1168 (53)</td>
</tr>
<tr>
<td>Yes</td>
<td>1582 (42)</td>
<td>1030 (65)</td>
</tr>
<tr>
<td><strong>ART adherence (N=1,584)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥95% adherence or more</td>
<td>1217 (77)</td>
<td>716 (59)</td>
</tr>
<tr>
<td>Missed ≥ 2 days</td>
<td>367 (23)</td>
<td>182 (50)</td>
</tr>
<tr>
<td><strong>Support group (N=510)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>283 (55)</td>
<td>165 (58)</td>
</tr>
<tr>
<td>Yes</td>
<td>227 (45)</td>
<td>115 (51)</td>
</tr>
</tbody>
</table>

**Conclusions:**
- 
- 

**Comparison:**
- Refill for less than 84 days
- Other ART regimen
- Not in a support group
- At most one day of missed treatment in a month
Conclusion:

- 
- 
-
Conclusion:

- Low viral load coverage in key populations in Zambia.
- Improvement in coverage over time, especially in community settings.
- Continued efforts needed to achieve desired coverage levels.

Figure 1. Viral load coverage in two models of service delivery to key populations in Zambia — October 2020 to June 2021.
Conclusions:

- ICAP will continue to work with key partners and DPs/SPS to strengthen...
Conclusion:

- [Text content is not visible due to image quality]
FIGURE 1. QI intervention implementation and linkage

Conclusion:
Conclusions:

- [List items]

- [List items]
Table 1. Sociodemographic data (n=123)

<table>
<thead>
<tr>
<th></th>
<th>Patients (IDT) (n=59)</th>
<th>Health Care Providers (BID) (n=19)</th>
<th>Employees (FGD) (n=16)</th>
<th>Community Members (RQD) (n=26)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>24 (37%)</td>
<td>10 (53%)</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Male</td>
<td>45 (63%)</td>
<td>8 (44%)</td>
<td>14 (100%)</td>
<td>26 (100%)</td>
</tr>
<tr>
<td>Educational Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education level</td>
<td>17 (25%)</td>
<td>0</td>
<td>1 (7%)</td>
<td>3 (12%)</td>
</tr>
<tr>
<td>Basic Level</td>
<td>18 (28%)</td>
<td>0</td>
<td>1 (7%)</td>
<td>3 (12%)</td>
</tr>
<tr>
<td>Medium level</td>
<td>13 (20%)</td>
<td>3 (17%)</td>
<td>2 (21%)</td>
<td>6 (23%)</td>
</tr>
<tr>
<td>Pre-university level</td>
<td>13 (20%)</td>
<td>9 (50%)</td>
<td>5 (36%)</td>
<td>11 (42%)</td>
</tr>
<tr>
<td>Higher level</td>
<td>4 (6%)</td>
<td>4 (22%)</td>
<td>4 (25%)</td>
<td>2 (12%)</td>
</tr>
<tr>
<td>NA - Not Applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Primary barriers and facilitators identified by participants

<table>
<thead>
<tr>
<th>BARRIERS</th>
<th>FACILITATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male and female patients, employees and</td>
<td>Good quality care offered by health care providers</td>
</tr>
<tr>
<td>males in community highlighted:</td>
<td></td>
</tr>
<tr>
<td>• Perception that poor quality care</td>
<td>• Good quality care offered by health care providers</td>
</tr>
<tr>
<td>would be received by health care</td>
<td>• Extended Working Hours (EWH)</td>
</tr>
<tr>
<td>providers</td>
<td>*Because because of the schedule</td>
</tr>
<tr>
<td>• Not knowing such services were available</td>
<td>established here, usually doesn’t correlate</td>
</tr>
<tr>
<td>*Today is the first day that I am hearing</td>
<td>with the work schedule. So, we are more</td>
</tr>
<tr>
<td>of this, I have to go to the hospital</td>
<td>available to go to the hospital when</td>
</tr>
<tr>
<td>now, you have to look for the family’s</td>
<td>it is not time of work* (Male patient,</td>
</tr>
<tr>
<td>health services)</td>
<td>interview, Cosguane HP).</td>
</tr>
<tr>
<td>• Competing priorities (e.g., work</td>
<td>• One Stop Model</td>
</tr>
<tr>
<td>responsibilities)</td>
<td></td>
</tr>
<tr>
<td>*I had an headache, I have to take</td>
<td></td>
</tr>
<tr>
<td>paracetamol, at times, you have to</td>
<td></td>
</tr>
<tr>
<td>look for the family’s health services</td>
<td></td>
</tr>
<tr>
<td>• Prolonged wait time at regular, non-</td>
<td>• Care/Attendance by male providers</td>
</tr>
<tr>
<td>EWH centers</td>
<td></td>
</tr>
<tr>
<td>• Men have a low predisposition to seek</td>
<td></td>
</tr>
<tr>
<td>health services</td>
<td></td>
</tr>
<tr>
<td>Healthcare providers highlighted barriers</td>
<td></td>
</tr>
<tr>
<td>such as:</td>
<td></td>
</tr>
<tr>
<td>• Limited human resources, limited</td>
<td></td>
</tr>
<tr>
<td>equipment and long distances (for</td>
<td></td>
</tr>
<tr>
<td>patients and providers) from home to</td>
<td></td>
</tr>
<tr>
<td>the health facility, and male health</td>
<td></td>
</tr>
<tr>
<td>care seeking behavior/attitudes.</td>
<td></td>
</tr>
</tbody>
</table>
Conclusions:
- [Text cut off]
- [Text cut off]

and needs may get more men engaged in health services.
<table>
<thead>
<tr>
<th>Intervention Type</th>
<th>n (%)</th>
<th>Definition</th>
<th>Description of Interventions</th>
</tr>
</thead>
</table>
| Facility-based services   | 3 (19%) | Interventions focused on changes to protocols/services within facilities.        | • All (n=3) focused exclusively on same-day ART initiation  
• Two examined the impact of clinical algorithms (i.e., screening tools) to facilitate same-day ART initiation |
| Community-based services  | 4 (25%) | ART dispensed outside the health facility                                    | • All (n=4) provided immediate ART initiation and counseling in community, home, and/or work settings  
• Two provided a single counseling session at initiation, while two provided ongoing monitoring and counseling |
| Outreach                  | 4 (25%) | Community-based activities to identify those in need of ART services and/or to promote linkage to a health facility | • All (n=4) offered testing and support to attend facility for initiation  
• Two provided facility escort  
• Two provided a single interaction at initiation, while the other two provided follow-up interactions |
| Counseling/peer support   | 3 (19%) | Ongoing counseling to identify and resolve barriers to care                   | • All (n=3) provided ongoing (3-6 months) counseling from peers living with HIV. Duration and location were based on client preferences.  
• One was tailored for men and delivered by male peers living with HIV |
| Conditional incentives    | 2 (13%) | Monetary/non-monetary incentive(s) conditional based on ART engagement        | • One intervention offered large fixed monetary incentives for monthly clinic visits  
• One intervention offered men large lottery non-monetary incentives for clinic registration, ART initiation, and/or viral suppression. |

**Conclusion:**
- [ ]
- [ ]
- [ ]
Conclusions:
<table>
<thead>
<tr>
<th>Region</th>
<th>Facility</th>
<th>No. of tests done</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Central</td>
<td>Kassandra HC IV</td>
<td>114</td>
</tr>
<tr>
<td>North Central</td>
<td>Kayunga RRH</td>
<td>63</td>
</tr>
<tr>
<td>North Central</td>
<td>Kiboga Hospital</td>
<td>16</td>
</tr>
<tr>
<td>South Central</td>
<td>Masaka RRH</td>
<td>66</td>
</tr>
<tr>
<td>Busoga</td>
<td>Mayuge HC III</td>
<td>112</td>
</tr>
<tr>
<td>Bugisu</td>
<td>Mbale RRH</td>
<td>68</td>
</tr>
<tr>
<td>North Central</td>
<td>Mubende RRH</td>
<td>64</td>
</tr>
<tr>
<td>Bugisu</td>
<td>Nakaloke HC III</td>
<td>37</td>
</tr>
<tr>
<td>Teso</td>
<td>Soroti RRH</td>
<td>93</td>
</tr>
<tr>
<td>Teso</td>
<td>Tiriki HC IV</td>
<td>15</td>
</tr>
<tr>
<td>South Central</td>
<td>Villa Maria Hospital</td>
<td>33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POC CD4+ result</th>
<th>(\leq 200)</th>
<th>&gt;200</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>VisiFECT result</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(\leq 200)</td>
<td>172</td>
<td>23</td>
<td>195</td>
</tr>
<tr>
<td>&gt;200</td>
<td>5</td>
<td>481</td>
<td>486</td>
</tr>
</tbody>
</table>

**Conclusion:**

[Blank Space]
Key Message:

depends entirely on model design (number of interactions)
Differentiated and simplified pre-exposure prophylaxis for HIV prevention

Update to WHO implementation guidance
TECHNICAL BRIEF

Differentiated pre-exposure prophylaxis (PrEP) service delivery
Key considerations in developing policy guidance for differentiated PrEP service delivery
Tested for HIV (between enrollment & 6 months)
Refilled PrEP (at 6 months)
PrEP adherent (any TFV-DP detected)
Fig. 1. Summary of allocation of PrEP delivery procedures by study arm

Table 1: Unit cost per person month of PrEP for the trial scenario

<table>
<thead>
<tr>
<th>Costs (2019 USD)</th>
<th>SOC</th>
<th>Six-month PrEP + OF/BB HIVST</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost per client per</td>
<td>Cost per client per</td>
</tr>
<tr>
<td></td>
<td>month</td>
<td>month</td>
</tr>
<tr>
<td>Variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel (clinical)</td>
<td>$2.64</td>
<td>$1.70</td>
</tr>
<tr>
<td>Medication</td>
<td>$6.75</td>
<td>$6.75</td>
</tr>
<tr>
<td>Laboratory testing</td>
<td>$3.46</td>
<td>$4.75</td>
</tr>
<tr>
<td>Other supplies</td>
<td>$0.77</td>
<td>$0.67</td>
</tr>
<tr>
<td>Sub-total</td>
<td>$13.64</td>
<td>$13.87</td>
</tr>
<tr>
<td>Fixed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start-up</td>
<td>$4.16</td>
<td>$3.59</td>
</tr>
<tr>
<td>Personnel ( supervision and administration)</td>
<td>$7.07</td>
<td>$5.26</td>
</tr>
<tr>
<td>Capital (e.g., equipment)</td>
<td>$2.31</td>
<td>$1.99</td>
</tr>
<tr>
<td>Overhead (e.g., building, airtime, transport)</td>
<td>$3.43</td>
<td>$2.96</td>
</tr>
<tr>
<td>Sub-total</td>
<td>$16.96</td>
<td>$13.80</td>
</tr>
<tr>
<td>Summary</td>
<td>$30.60</td>
<td>$27.67</td>
</tr>
</tbody>
</table>

Fig. 2. Distribution of average personnel time spent on PrEP delivery activities

Table 2: Unit cost per person month of PrEP for the MOH scenario

<table>
<thead>
<tr>
<th>Costs (2019 USD)</th>
<th>SOC</th>
<th>Six-month PrEP + OF/BB HIVST</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost per client per month</td>
<td>Cost per client per month</td>
</tr>
<tr>
<td>Variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel (clinical)</td>
<td>$1.24</td>
<td>$1.08</td>
</tr>
<tr>
<td>Medication</td>
<td>$6.75</td>
<td>$6.75</td>
</tr>
<tr>
<td>Laboratory testing</td>
<td>$3.26</td>
<td>$2.64</td>
</tr>
<tr>
<td>Other supplies</td>
<td>$0.41</td>
<td>$0.36</td>
</tr>
<tr>
<td>Sub-total</td>
<td>$11.67</td>
<td>$11.02</td>
</tr>
</tbody>
</table>

Conclusion:
- 6-month PrEP dispensing with interim HIVST demonstrated comparable and lower costs than SOC clinic-based dispensing every three months in Kenya, with decreased personnel time.
- Reduction in cost of PrEP and HIVST kits may increase the affordability of PrEP and should be considered.
Conclusions:

- DTP refill visits with HIVST was highly acceptable as a differentiated care intervention for PrEP delivery among clients and providers. Context-specific adaptations and scale-up of the intervention could improve efficiency of PrEP delivery in public HIV clinics in Kenya.
Conclusions:
- The pharmacy clients participating in this pilot study found pharmacy-delivered PrEP services acceptable, which suggests that this model reaches and meets the care preferences of at least some portion of the target population for PrEP.
Conclusion:

- The fidelity of PrEP delivery at private pharmacies in the pilot study was high, as assessed by USP actors. This suggests pharmacy providers can deliver high-quality PrEP services supporting possible scale up of pharmacy-based PrEP delivery models in Kenya and similar settings.
Conclusions:

- Most of the HST services had been adopted by the majority of pharmacies.
- However, further efforts are needed to ensure that all pharmacies have access to and are trained in the use of the HST services.
Conclusion

- This implementation strategy package may be useful to integrate PrEP provision into antenatal clinics. It enhanced PrEP delivery across implementation outcomes and client satisfaction without meaningfully increasing wait time or decreasing provider-client time.
**Conclusion:** Next steps involve making possible for other health professionals prescribing prophylaxis and supporting training process professionals.
<table>
<thead>
<tr>
<th>WHEN Service frequency</th>
<th>PrEP screening, initiation and early follow-up (0-3 months)</th>
<th>PrEP continuation (+3 months)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Screening</td>
<td>PrEP initiation visit</td>
</tr>
<tr>
<td></td>
<td>Same-day PrEP</td>
<td>Months 1, 3</td>
</tr>
</tbody>
</table>

**WHERE Service location**

- Key population (KP)-led clinics/Community-based organizations (CBOs)
- Pribta Tangerine Clinic (Full telehealth scheme)
- KP-led clinics/CBOs
- Pribta Tangerine Clinic
- KP-led clinics/CBOs
- Pribta Tangerine Clinic

**WHO Service provider**

- KP lay providers
- 2. Physicians/virtual physicians (which is prescribed remotely by physicians)
- 3. Clients
- 1. KP lay providers
- 2. Physicians/virtual physicians
- 3. Clients
- 1. KP lay providers
- 2. Physicians/virtual physicians
- 3. Clients

**WHAT Service package**

- **Recommended:**
  - Same-day HIV testing
  - Cr, HBsAg (results come later)
  - PrEP counseling
  - PrEP prescription/virtual prescription
  - PrEP dispensing/give PrEP out
- HIV testing
- PrEP/effective use counseling
- PrEP prescription/virtual prescription
- PrEP dispensing/give PrEP out
- HIV testing
- Cr (results come later, every 6-12 months)
- PrEP/effective use counseling
- PrEP prescription/virtual prescription
- PrEP dispensing/give PrEP out

- **Alternatives:**
  - Syphilis testing (every 3-6 months)
  - CT/NG testing (self-collection sampling, every 3-6 months)
  - Anti-HCV
- Syphilis testing (every 3-6 months)
- CT/NG testing (self-collection sampling, every 3-6 months)
- Anti-HCV (every 6-12 months)

*Laboratory results sharing via email, chat application, SMS, phone call*
Conclusion:

- Community distribution of PrEP is well regarded by KPs in Zambia and was perceived by KPs to improve PrEP access, uptake, and persistence.
- Future PrEP programs should consider integrating community-based delivery approaches to promote uptake among KPs.
Conclusion:
- This gamified peer-driven recruitment model is a promising strategy for initiating trans women on PrEP while managing privacy concerns and warrants further implementation and evaluation.
In summary....

- Close to reaching first 95 – BUT not for all sub-groups and not in all SSA contexts
- Reductions in volume of facility-based testing in the last 3 years impacted achieving second 90
- Many people using testing to re-enter care

Broader scope towards "status neutral" testing that actively supports linkage and engagement of individuals in PREVENTION and TREATMENT programmes

Targeted HIV testing services to increase knowledge of status among those more vulnerable to HIV acquisition and/or more likely to be associated with onward transmission through an innovative and strategic mix of modalities that evolve over time
Conclusions:

- We found evidence consistent with a positive causal impact of the Down South (DS2) campaign on HIV prevention outcomes among young people in a high-prevalence setting.

- As diverse testing and PrEP technologies become accessible, an immersive engagement campaign can expand HIV prevention choices and narrow the age and gender gaps in HIV testing and prevention goals.
Conclusions:
- Results of the pilot shows how web-based HIVST can be utilized as a COVID-19 adaptation for reaching KP, including younger age groups and those not previously reached.
- This approach was feasible, acceptable, and facilitated linkage to ART and PrEP services which overcame service delivery challenges during the pandemic.

Fig 5. HIVST distribution during Covid-19

Fig 6. HIVST distribution by delivery approaches

Fig 3. HIVST distribution and linkage to ART

Fig 4. HIVST distribution during Covid (April 21-June 2022)
HIVST cascade data were collected, documented in relevant HIVST tools and descriptively analyzed as shown in Table 1.

Table 1:

<table>
<thead>
<tr>
<th>Facility</th>
<th>KP O55</th>
<th>Pharmacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributed</td>
<td>33022</td>
<td>15231</td>
</tr>
<tr>
<td>Results reactive</td>
<td>19210</td>
<td>10121</td>
</tr>
<tr>
<td>Reactive %</td>
<td>69.6%</td>
<td>36.3%</td>
</tr>
<tr>
<td>Reactive % testing</td>
<td>15427</td>
<td>24018</td>
</tr>
<tr>
<td>Reactive % linked</td>
<td>13470</td>
<td>22398</td>
</tr>
<tr>
<td>Linked to ART</td>
<td>11464</td>
<td>23389</td>
</tr>
<tr>
<td>Concordant</td>
<td>23867</td>
<td>33480</td>
</tr>
<tr>
<td>N/A</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Conclusions:

- HIV testing yield and performance across the cascade was optimized through KP one stop shop stops.
- Low yield in community and pharmacy settings suggest need for better targeting.
- Absence of confirmatory testing following reactive tests from pharmacy distribution suggests need for linkage support.
- Absence of confirmatory testing following reactive tests from pharmacy distribution suggests need for linkage support.
- High linkage to ART across models.
Figure 1: Index Testing Cascade during Aug 2000 to Dec 2021

- 15,975 contacts elicited (1.6 contacts / index)
- 99% Eligible Contacts
- 90% Eligible Contacts completed HIV Test
- 97% Contacts newly diagnosed as HIV positive
- 20% Positivity
- 92% Newly Diagnosed PLHIV initiated on treatment

Conclusions:
- Index testing approach provided high yield and absolute number of new HIV positive cases identified.
Conclusions:
- Access to HIVST, coupled with courier delivery options and online outreach strategies, combats the negative impact of COVID-19 on HTS and resonates with hard-to-reach groups, especially first-time testers.
Of 73 women enrolled and eligible for STI testing:
- 71 (97%) accepted STI testing
- 68 (93%) provided vaginal swabs and fingerstick blood
- 3 (4%) provided blood specimen only

21/68 (30.9%) tested positive for at least one STI
- 4/68 Gonorrhea (5.9%)
- 16/68 Chlamydia (23.5%)
- 1/68 Trichomoniasis (1.5%)
- 4/71 Syphilis (5.6%)

Conclusions:
STI testing in hair salons in urban South Africa, integrated with HIV prevention and contraceptive services, is acceptable, reaches women with risk factors for STIs and HIV, and reveals a high STI prevalence. Hair salons may serve as novel venues to increase the reach of STI testing to women at risk for STIs and HIV.
Conclusions:

- Social networking strategy (SNS) is an effective strategy for reaching previously undiagnosed, hard-to-reach, and highly stigmatized groups;
- Use of unique participant codes and real-time data monitoring prevented repeat participation by KP;
- Engagement of key population civil society groups helped to identify persons who were already receiving ART;
- Scheduling of appointments prevented overcrowding of safe spaces;
- Continuous planning and risk mitigation ensured safety and confidentiality of key populations.
Conclusion:
- Vending machines present an additional approach to distribution HIV self-tests. These outlets can be used for contactless provision of kits to relieve the burden on the system and increase access.
<table>
<thead>
<tr>
<th>Theme</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barriers to enrollment in ICT and efficiencies</td>
<td>When we are doing screening we are only supposed to have one client at a time, but it sometimes depends on how many people we have for that day. HIV Diagnostic Assistant, female.</td>
</tr>
<tr>
<td>Limited quality assurance and monitoring of ICT screening protocols</td>
<td>In most of the times there is no quality assurance [observation], but if the provider is new, there is need to sit in the session to see what they are doing during screening. Community Health Nurse, female.</td>
</tr>
<tr>
<td>Client level barriers</td>
<td>You know according to our culture it is hard for people to disclose their extra marital affair due to the fear of condemnation by the society as such they just do not disclose it. Therefore, it becomes very difficult for us to recruit such people into ICT. Community Health Nurse, female.</td>
</tr>
<tr>
<td>Barriers to ICT tracing</td>
<td>I was fearful that sometimes the holiday people come with cars and bicycles and it may call attention from the neighbors. I wanted to bring them here alone, so that we may maintain our confidentiality. Male index client.</td>
</tr>
<tr>
<td>Use of organization branded vehicles associated with HIV</td>
<td>Sometimes even distance can be a hindrance because imagine that we are here at Kachulu they can come from T/A Kayembe very far from Dowa to get tested here, then it will be that yes we will register them here but then how do we follow them up to Dowa? HIV Diagnostic Assistant, female.</td>
</tr>
<tr>
<td>Long distances to communities</td>
<td>Yes, we do but sometimes especially at the beginning of the month we go to ICT without receiving the allowance because they are mostly not ready that time. Community Health Nurse, female.</td>
</tr>
<tr>
<td>Limited resources to facilitate tracing</td>
<td>They do not usually refuse to be screened but if they could refuse then it has to be those kind of silent refusal whereby a client gives you false information. Community Health Nurse, female.</td>
</tr>
<tr>
<td>Inaccurate identifying information for contact clients</td>
<td>HIV positivity rate. Indications for BC testing. Male index client.</td>
</tr>
<tr>
<td>Testing non-eligible BCLs who are easy to include during home visits to increase test productivity</td>
<td>HIV Diagnostic Assistant, male.</td>
</tr>
</tbody>
</table>

**Conclusion:**
- Improving quality of counseling and privacy, facilitating tracing activities, and promoting fidelity of ICT protocols are key to success across the ICT cascade.
Key messages

• More of the people we are initiating on ART have been on ART before
• No current WHO guidance on the “how to” sustain re-engagement including timing of VL
• Re-engagement pathways should not be a one size fits all
• Re-engagement pathways should not become a barrier to retention and should adapt to address client access challenges
• When designing a re-engagement pathway
  • Consider the duration the client has been off ART
  • Consider the clinical considerations
Conclusion:
Enrolling in a walk-in HIV clinic improved engagement in care and may have improved VS among persons incompletely engaged in HIV care.