HIV Learning Network
The CQUIN Project for Differentiated Service Delivery

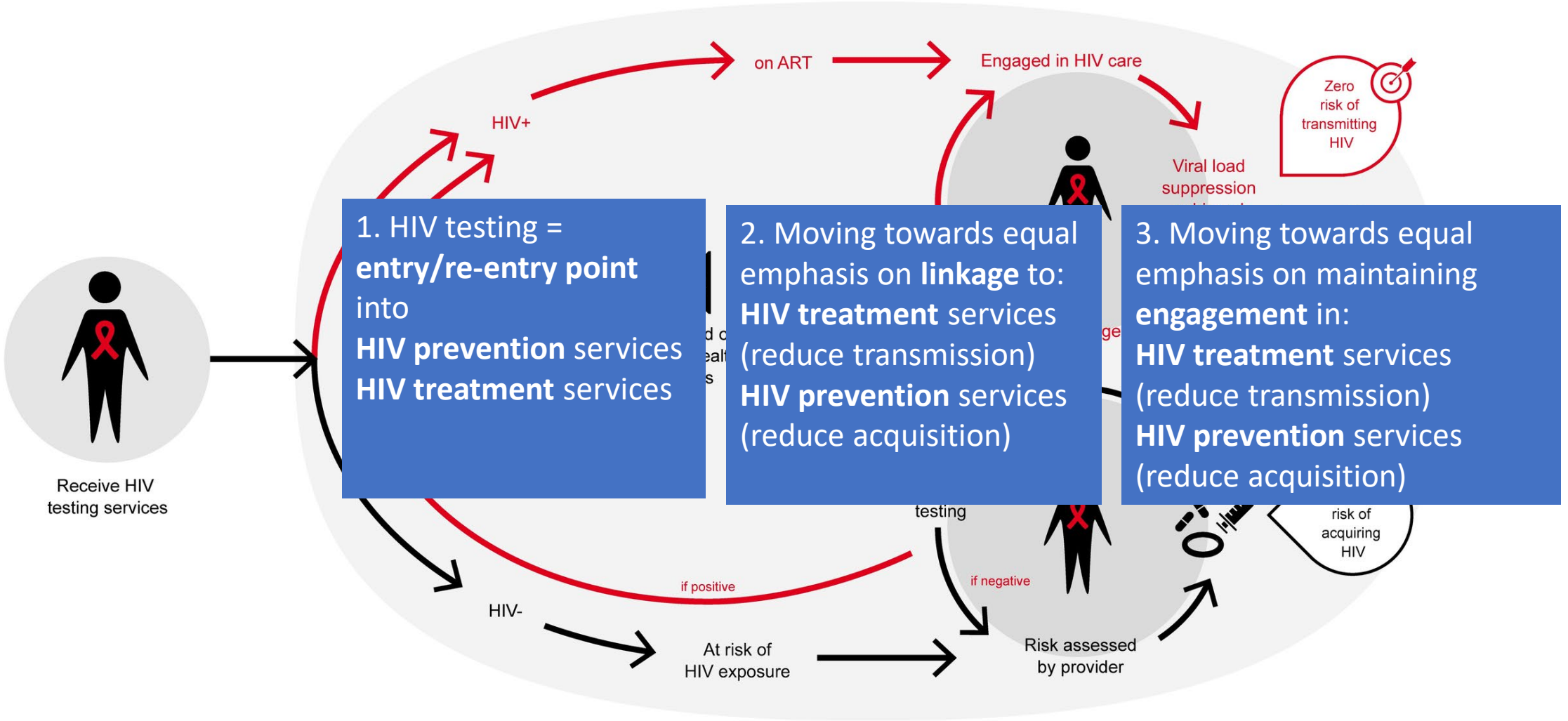
icap Global Health

Delivering status-neutral testing

Lynne Wilkinson, IAS DSD

Leveraging DSD Strategies to Optimize HIV Testing and Linkage Services
March 13-16, 2023 | Nairobi, Kenya

Status neutral testing requires equal prioritization of treatment and prevention across the cascade



1. HIV testing = **entry/re-entry point** into **HIV prevention** services **HIV treatment** services

2. Moving towards equal emphasis on **linkage** to: **HIV treatment** services (reduce transmission) **HIV prevention** services (reduce acquisition)

3. Moving towards equal emphasis on maintaining **engagement** in: **HIV treatment** services (reduce transmission) **HIV prevention** services (reduce acquisition)

As we near 95-95-95, testing should reach clients in need of services across both the prevention and treatment cascades

Testing to link and engage in prevention:

- People at risk of HIV acquisition

Testing to link and (r)engage in treatment:

- People not previously reached
- People reached but not successfully linked
- People previously on ART, cycling in/out of ART services
- People recently infected (previous test result negative)

Must consider where and how we will reach these different groups

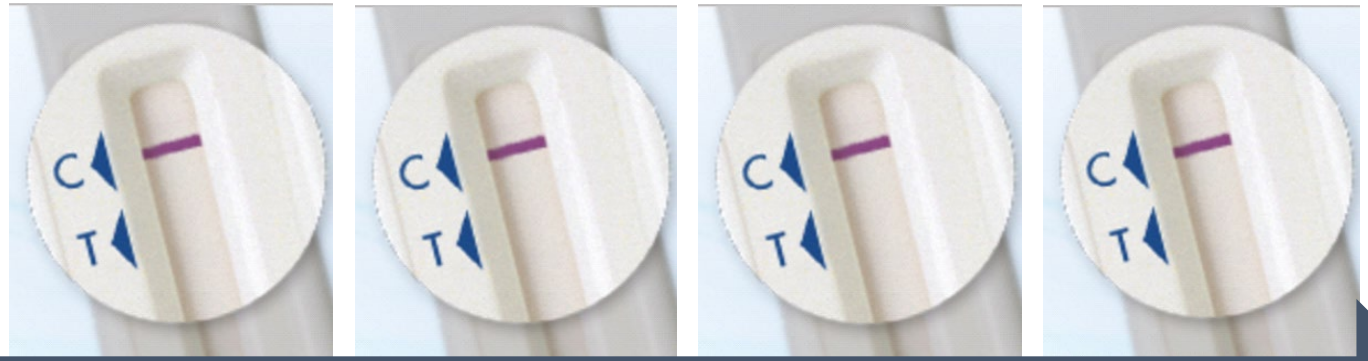
- **Clients attending health facilities but not offered testing**
- **Clients within reach of a person attending health facilities**

icap Global Health

Three shifts in service delivery with implementation of status-neutral testing

Shift 1: An HIV negative test result should prompt action

Case finding approach



Waiting until a person acquires HIV to prioritize action
(*possibly referral for VMMC/with some non-biomedical prevention….*)

Link to ART services

Status neutral approach

Assess for and link to PrEP services

	PrEP assessment, initiation (re-initiation) and early follow-up (0-3 months)	PrEP continuation (>3 months)
WHEN Service frequency	**Leveraging DSD for PrEP** to support linkage & engagement to enable cycling on/off PrEP as needed	
WHERE Service location		
WHO Service provider		
WHAT Service package**		

Shift 2: Increase testing in facility OPD/family planning (FP) services to increase facility and community case finding

Reduce facility HTS and increase testing yield

Remember:
Bulk of facility testing in ANC/PNC, TB and inpatient remains unchanged

Facility OPD/FP	
Tested	**Not tested**
	

Missing PLHIV **especially men and AGYW** presenting or accompanying others to health facilities – within easy reach
Utilizing HR heavy risk-based screening tools in attempt to increase yield
Missed diagnoses also means missed contact sourcing opportunities

Shift 2: Increase testing in facility OPD/family planning (FP) services to increase facility and community case finding

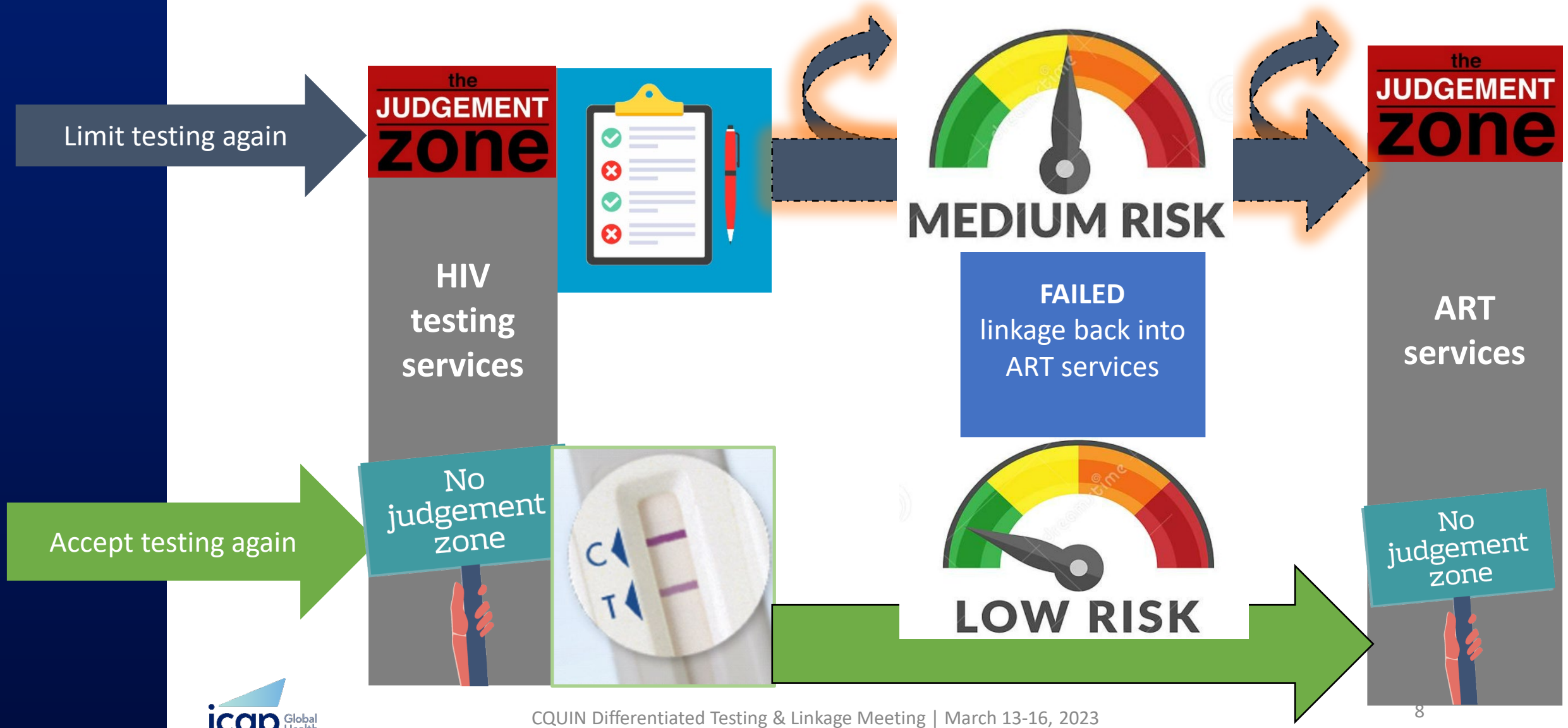
Focus on optimizing facility testing to increase absolute number of cases identified

Remember:
Bulk of facility testing in ANC/PNC, TB and inpatient remains unchanged

Facility OPD/FP	
Tested	Not tested
	

Maximize facility reach including men & AGYW enabling increased community targeting for key populations
Leverage HIVST for screening
Increase sourcing of contacts for index testing

Shift 3: Allow people previously on ART to use testing to re-engage in ART services



Implementing these shifts = more HIV test kits needed

Impact on health system costs depends on optimizing resources needed (consumables & HR) and testing approach efficiencies

1. Optimize facility testing reach

2. Realize the potential of HIVST especially in facilities

95-95-95

Requires more test kits

Status neutral HIV testing will not be built in a day: WHERE TO START?

Where to start?

1. Identify & design

Identify facility service/s with biggest potential to cover gaps in:

a) case finding
b) re-engagement
c) prevention

Design status neutral approach within service

a) **mobilizing** within/from service into community
b**) testing** approaches utilized within service/s
c**) linking** to prevention/ treatment services

Where to start?

1. Identify & design

Identify facility service/s with biggest potential to cover gaps in:

a) **case finding**
b) re-engagement
c) prevention

Design status neutral approach within service

a) **mobilizing** within/from service into community
b) **testing** approaches utilized within service/s
c) **linking** to prevention/ treatment services

2.Operationalise

Reconsider testing and PrEP targets for prioritized service

Budget for resource needs to achieve revised targets

Consider supply chain changes

Develop implementation plan

including phased roll out

Where to start?

1. Identify & design

Identify facility service/s with biggest potential to cover gaps in:

a) **case finding**
b) **re-engagement**
c) **prevention**

Design status neutral approach within service

a) **mobilizing** within/from service into community
b) **testing** approaches utilized within service/s
c) **linking** to prevention/ treatment services

2. Operationalise

Reconsider testing and PrEP targets for prioritized service

Budget for resource needs to achieve revised targets

Consider supply chain changes

Develop implementation plan

including phased roll out

3. Monitor and adapt

Determine monitoring and evaluation component

Reporting indicators within service/s including a) testing coverage
b) sourced and tested contacts
c) PrEP & ART initiation

Adopt quality improvement approach to implementation

1.1 Identify priority service/s for implementation

In which service/s will increasing testing do the most to cover gaps in:
a) case finding b) linkage/re-engagement c) bio-medical prevention (PrEP)

- *Which population/s contribute the largest number of people living with HIV not on ART?*
- *Which population/s contribute the largest number of people at risk of acquiring HIV?*
- **Which service/s have capacity to reach high numbers of either (or both) these populations?**
- Is increasing HIV testing coverage in this service **feasible**?
- Is it possible to **rationalize costs** of increasing HIV testing in this service?
  - Can **HIVST be better leveraged** in the service/through secondary distribution?
  - Can **index testing/social network approaches be better leveraged** to increase testing reach?
  - Start in identified service only in **high burden facilities**?
- Is it feasible and appropriate to **co-locate PrEP service** in this service – to what extent?

Which populations contribute the largest number of people living with HIV not on ART?

In East and Southern Africa - biggest number is men (25-49 years old) with high viraemia – untested, did not link, disengaged or cycling in/out of ART care

Table S3. **Number of undiagnosed people living with HIV by sex and age stratification and by sub-Saharan African region in 2020 (in 1,000s).**

Sex	Age group (years)	Sub-Saharan Africa		Western Africa		Central Africa		Eastern Africa		Southern Africa	
Men	15-24	346	(318 to 366)	89	(85 to 91)	33	(30 to 35)	163	(150 to 172)	61	(51 to 69)
	25-34	597	(514 to 673)	156	(143 to 169)	53	(40 to 62)	258	(227 to 287)	130	(100 to 156)
	35-49	701	(611 to 788)	211	(191 to 230)	57	(45 to 68)	296	(265 to 327)	136	(104 to 169)
	50+	264	(231 to 299)	91	(81 to 97)	18	(14 to 21)	109	(96 to 123)	46	(36 to 58)
Women	15-24	563	(492 to 621)	124	(119 to 129)	79	(63 to 91)	222	(200 to 240)	138	(108 to 164)
	25-34	557	(459 to 652)	173	(154 to 188)	92	(66 to 123)	196	(170 to 224)	94	(65 to 125)
	35-49	581	(507 to 664)	166	(156 to 179)	100	(78 to 123)	199	(179 to 221)	115	(87 to 145)
	50+	234	(202 to 272)	54	(51 to 59)	39	(31 to 46)	77	(71 to 87)	64	(48 to 83)

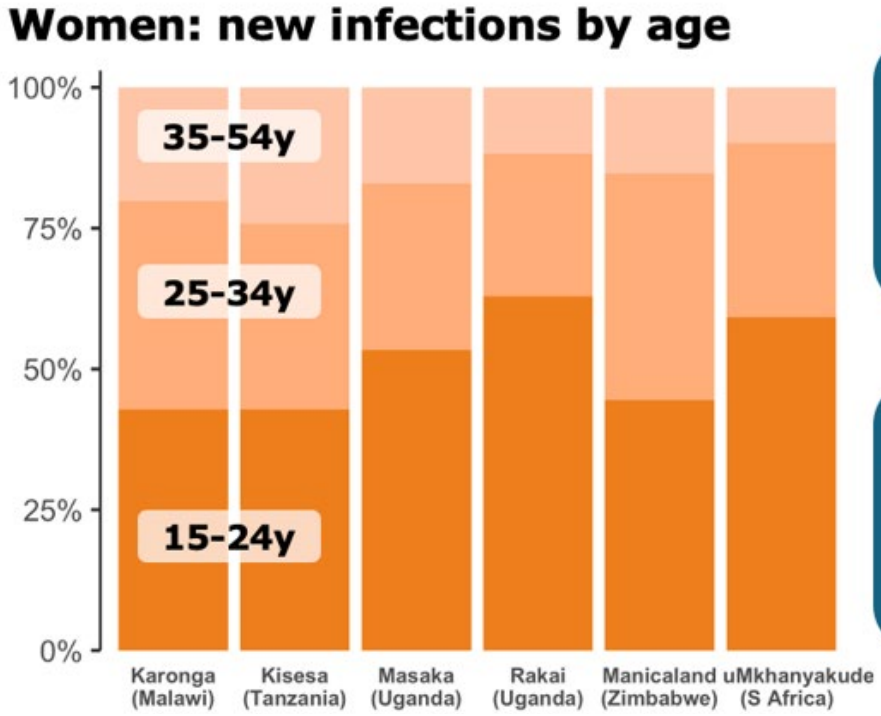
Numbers in parentheses correspond to 95% credible intervals.
Some small discrepancies could be observed between sub-Saharan Africa estimate and the sum of Western, Central, Eastern, and Southern regions estimates because each region-specific estimate is based on independent draws of posterior estimates.

Table only reflects undiagnosed – Also high number of women **especially 15-25 years old**

Giguère K, Eaton JW…Maheu-Giroux M. Trends in knowledge of HIV status and efficiency of HIV testing services in sub-Saharan Africa, 2000-20: a modelling study using survey and HIV testing programme data. Lancet HIV. 2021 May;8(5):e284-e293.

Which population/s contribute the largest number of people at risk of HIV acquisition?

Disproportionate risk among women 15-24 years – but infections across all ages



Share of new infections among women vs. men increasing (Joshi *et al. J Int AIDS Soc* 2021; 24:e25818)

Share of new infections among older adults vs. younger increasing (Akullian *et al. PNAS* 2021; 118:e2013164118)

Jeff Eaton AIDS 2022 Plenary presentation

CHAI: Consideration for driving efficiencies within facilities in Malawi

CLINTON HEALTH ACCESS INITIATIVE

1 Reaching Priority Populations

In collaboration, PIH and CHAI sought to examine under-reached populations' use of facility-based health services.

The survey found that, contrary to popular belief, under-reached populations visit facilities, but are not regularly offered HTS

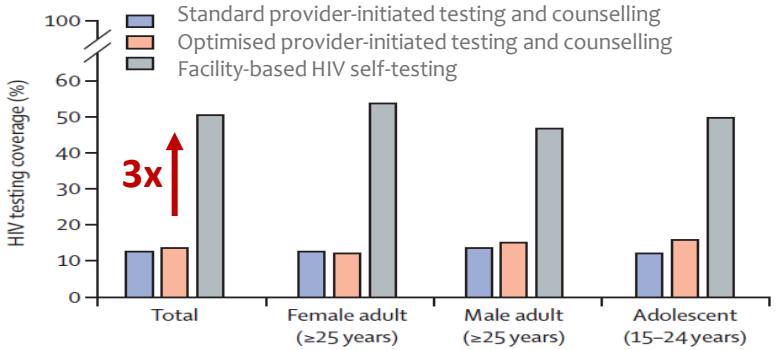
42% of youths and men surveyed had either never been tested or had not tested in the last two years

Even though 80% of those youth and men reported attending a health facility in the last two years

2 Testing Uptake

PIH's initial study found that HIVST in facilities is acceptable, increases testing uptake, results in similar positivity rates to standard HTS, and increases new identifications.

HIV testing coverage by sex and age across trial groups *(n=5,885)*



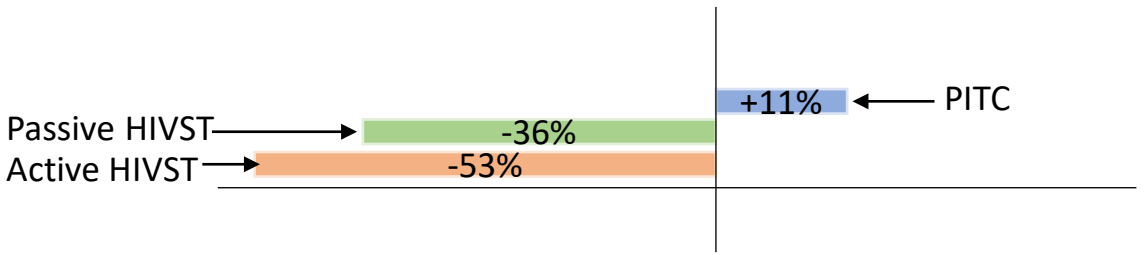
HIVST lead to a 3x increase in overall testing uptake among priority populations, including men & young people

3 Program Efficiency

PIH recently conducted a second study on HIVST distribution in facilities, which had a secondary outcome focused on HCW time required per test completed.

Both HIVST arms required significantly less HCW time than provider-initiated testing and counseling

Percentage time saved/gained per test completed, per arm



Source: Dovel, K, Shaba, F, et. al. Effect of facility-based HIV self-testing on uptake of testing among outpatients in Malawi: cluster randomized control trail, *Lancet Global Health.* 2020; Dovel, Balakasi, et al. Missing men or missed opportunity? Men's frequent use of health services in Malawi. IAS. 2020

**Active HIVST differed from Passive HIVST in that providers initiated the distribution of HIVST 1:1 in a private area, not in a group.*

Example: Facility-based testing services/s to consider for status neutral testing approach implementation

Most contexts have already started here

HTS services	OPD	Only STI service (within OPD)	ANC	Implementation examples will be presented of starting in these services	Facility/ community key population HIV services
Can it reach men (25-49 years)?	**Yes** *Requires active mobilize + reach those accompanying*	**Yes (limited #)** *Could expand reach through improved STI contacts management + HIVST secondary distribution*	**Possible** *If capacity improves for index/couples testing + leveraging HIVST secondary distribution*	South Africa ←	**Yes** *Yes, depending on target populations*
Can it reach AGYW?	**Yes**		**Yes**	Zimbabwe →	**Yes** *Depending on target populations*
Is it feasible to scale?	High burden facilities' OPDs only? HIVST for screening/ increase index reach?	Already scaled HIVST to increase index reach?	Already scaled HIVST to scale partner testing		**Yes** Already in place – expand reach: social network approach using HIVST
Is it feasible to co-locate PrEP service?	Possibly only initiation and early follow-up?	Possibly only initiation and early follow-up?	Until delivery		Yes mostly existing

1.2 Design status neutral approach within identified service/s

a) mobilizing within service/from service into community
b) testing approaches utilized within service
c) linking to prevention/treatment services

	MOBILIZING	TESTING	LINKING
WHEN	Time of day and frequency	Time of day and frequency	Time period for linking and frequency of tracing
WHERE	Location of mobilization activities	Health facility Non-health facility Community	Location of linkage activities
WHO	Who does the mobilization?	Who does the HIV testing?	Who supports linkage to prevention? Who supports linkage to ART initiation?
WHAT	For HIV testing alone or with other services	For HIV testing alone or with other services	PrEP initiation services ART initiation services

1.2 Design status neutral approach within identified service/s

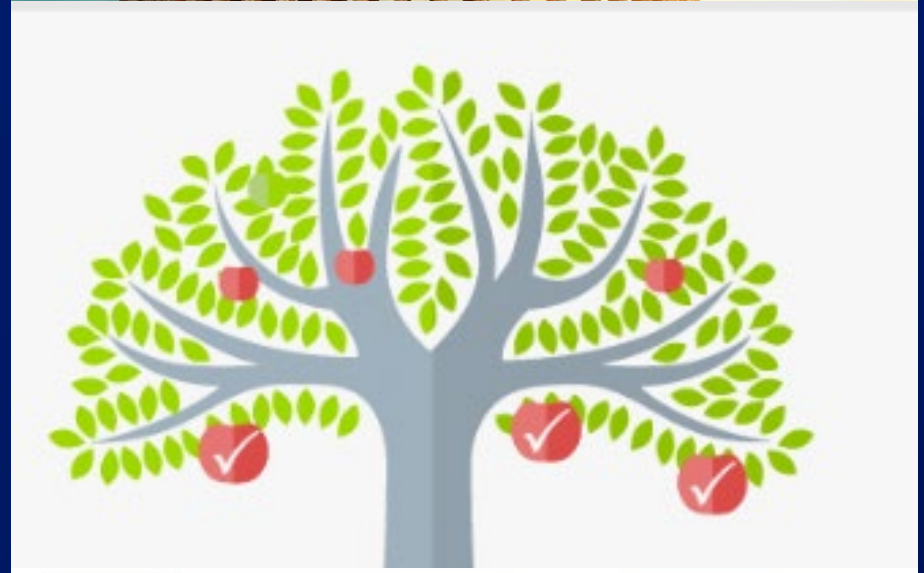
a) mobilizing within service/from service into community
b) testing approaches utilized within service
c) linking to prevention/treatment services

- Linkage to ART services remains a priority – *we know how to do this*
- Status neutral approach only effective if linkage to prevention services (PrEP focus) is realised
- **Can PrEP be integrated into identified service/s?** Possibly only for initiation and early follow-up phase

	PrEP assessment, initiation (re-initiation) and early follow-up (0-3 months)			PrEP continuation (>3 months)	
	Assessment (after negative HIV test result)	**PrEP initiation/ re-initiation***	**Initial clinical follow-up**	**PrEP refill (or injection) only**	**Clinical consultation**
WHEN Service frequency	Timing of PrEP assessment and offer	Timing of PrEP initiation or re-initiation*	Frequency of initial follow-up	Frequency of PrEP refill collection/injection administration visits (length of PrEP product supply)	Frequency of maintenance clinical consultations
WHERE Service location	Locations for PrEP assessment and offer	Locations for PrEP initiation or re-initiation*	Locations for initial follow-up visit/s (including virtual)	Locations where PrEP refills can be collected/injections administered (no clinical consultation required)	Locations where maintenance clinical consultations can be provided
WHO Service provider	Service provider/s who can assess for and offer PrEP	Service provider/s authorized to initiate or re-initiate* PrEP	Service providers who can carry out initial follow-up visit/s	Service provider/s who can distribute PrEP refills/administer injection (considering HIV testing requirements and method)	Service provider/s who may conduct PrEP maintenance clinical consultations
WHAT Service package**	Service package for PrEP assessment and offer	Service package for PrEP initiation or re-initiation*	Service package at initial follow-up visit/s	Service package at PrEP refill collection/ injection administration visit/s	Maintenance clinical consultation service package

Take aways

1. Start by **identifying priority facility service/s** for status neutral approach implementation
   - Optimized reach
   - Rationalized costs
   - Ensure sufficient resourcing
2. **Use differentiated service delivery testing framework to build/adapt** the identified service into a status neutral approach – remember this also means building/adapting associated PrEP services
3. **Operationalizing** requires revision of targets, budgets and supply chain
4. **Monitoring** (and adapting) implementation will be critical



Thank you!

Acknowledgements

Presentation inputs:
IAS – Anna Grimsrud
CHAI – Katherine Guerra, Megan Ginivan, Christian Stillson

Slide contributions:
CHAI
Boston University – Brooke Nichols
Imperial College - Jeff Eaton