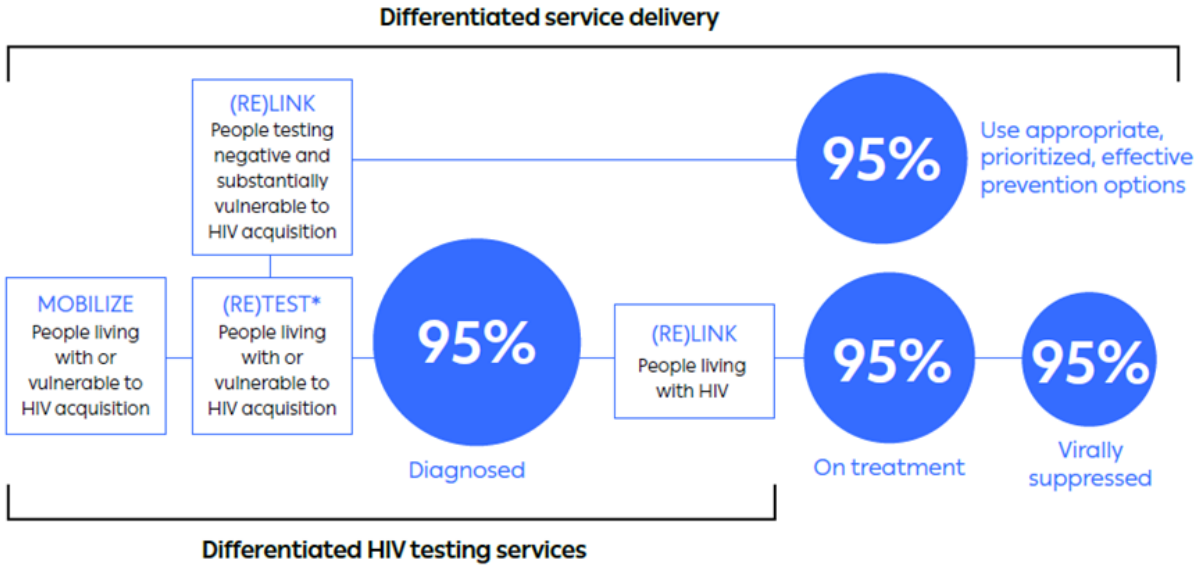
Determining a strategic mix of dHTS models amid funding cuts:

Applying the updated differentiated HTS decision framework

Lynne Wilkinson, IAS

The strategic mix road to sustainable HTS looks different for different contexts…

Figure 1: Differentiated service delivery is applicable across the HIV care continuum



HIV burden +

- **Close to or reaching 95s across populations**
- **Close to or reaching 95s but not in all populations**
- **Not close to reaching one or more 95s**

1. Extent of funding cuts for:
   - **HTS commodities (rapid/HIVST?)**
   - **HTS HR (which cadres?)**
   - **Other operational costs (transport etc)**

2. Available reductions in commodity costs

3. Replacement funding (if any) and timing

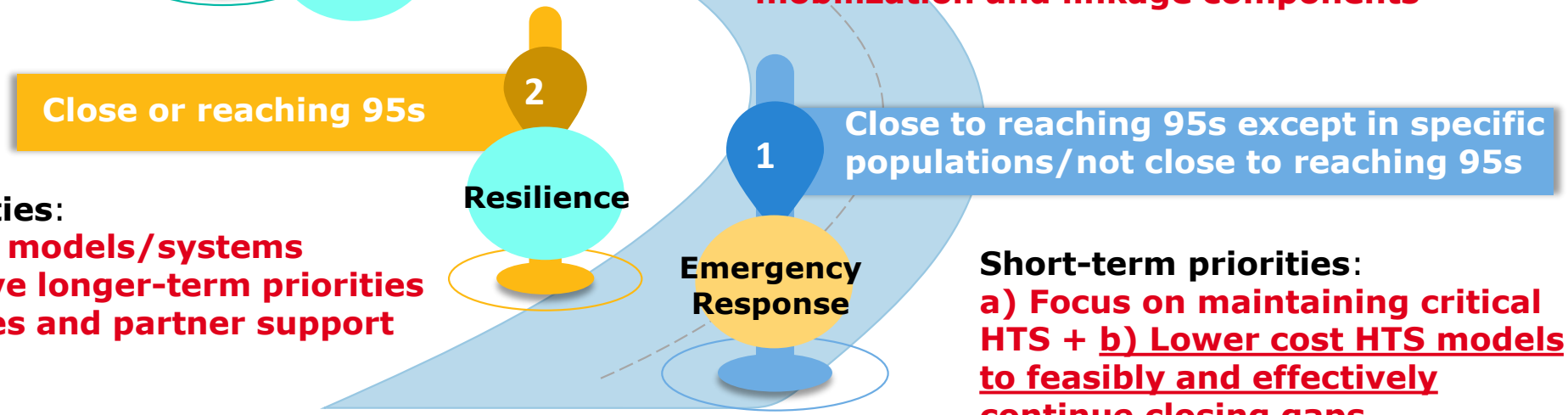
Focus on short and medium-term prioritization, with long-term prioritization in mind…

Longer-term priorities:

- **National access for those who want and need HTS (in facilities + communities)**
- **Surveillance through limited number of effective HTS models reaching higher-risk, newly infected or disengaged individuals for sustained impact post-gap closure**

CQUIN 2.0 Pivot

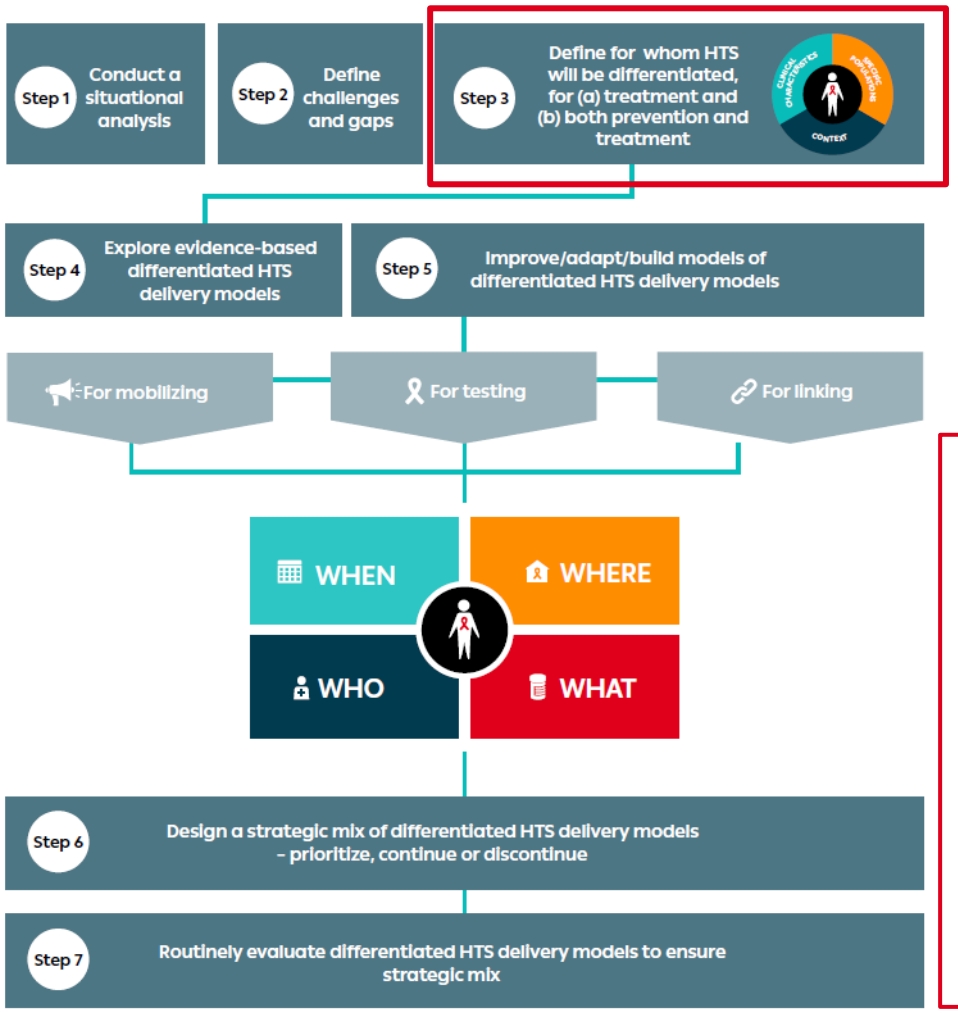
Medium-term priorities:
Invest in HTS models/systems required to achieve longer-term priorities including mobilization and linkage components



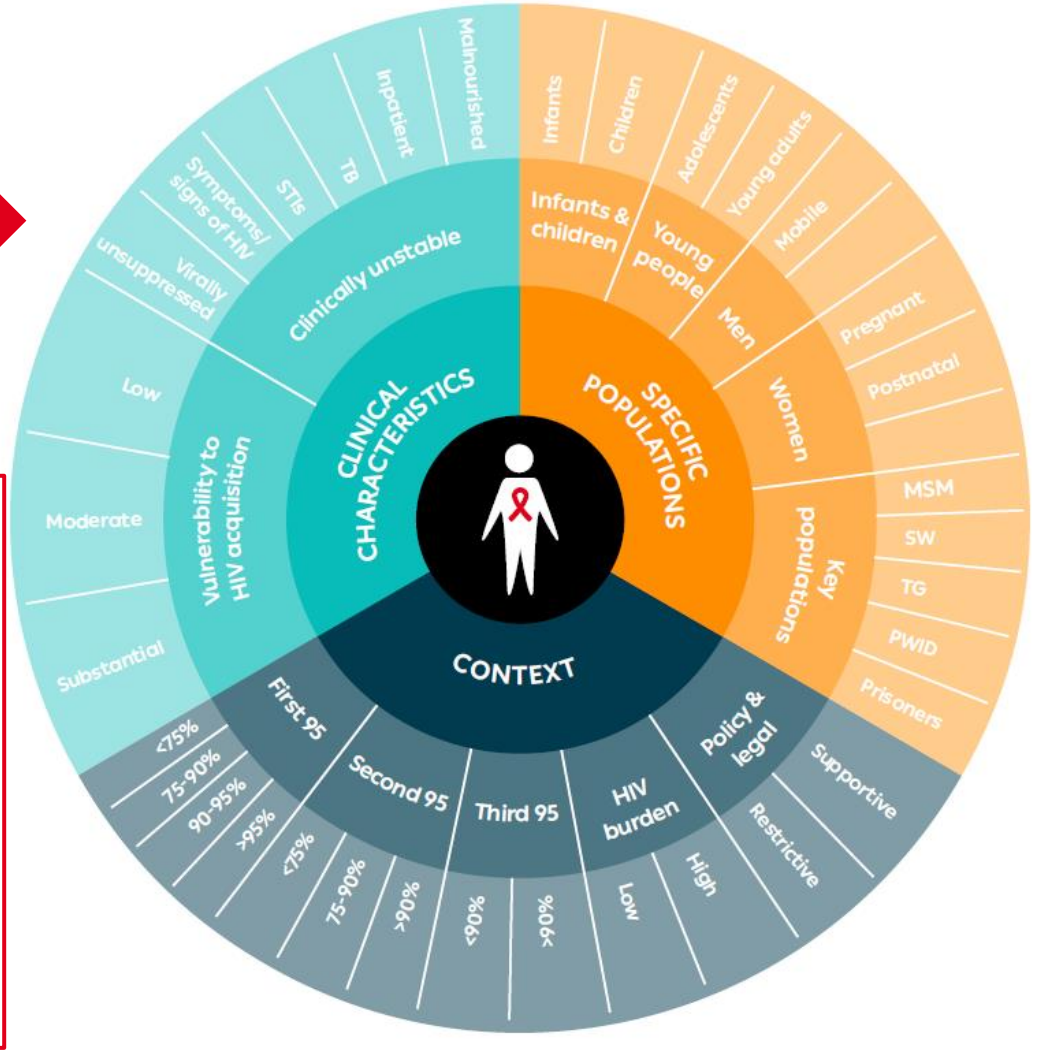
Short-term priorities:
c) Determine HTS models/systems required to achieve longer-term priorities with less resources and partner support

Short-term priorities:
a) Focus on maintaining critical HTS + b) Lower cost HTS models to feasibly and effectively continue closing gaps

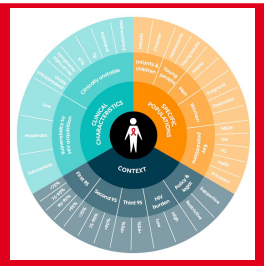
1. Identify the testing and linkage gaps and determine for whom we are differentiating HTS?



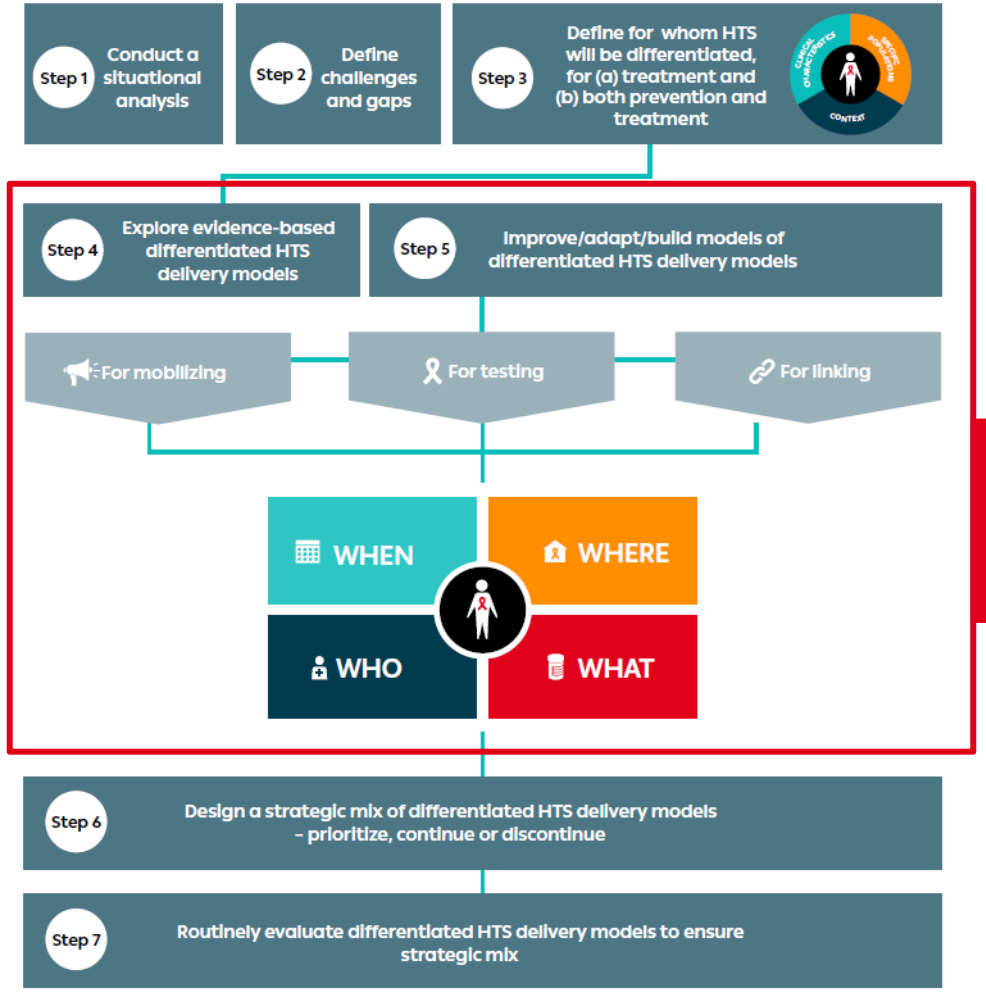
Where are the gaps now and where are the gaps likely to continue?



IAS Three most common scenario contexts

GAPS on the wheel		Clinical characteristics	Populations
Context	Close to reaching 95s across all populations	Limited gaps (possibly in unsuppressed ART clients and harder to reach sub-segments of specific populations)	
	Close but not in all populations		AGYW KPs Possibly men
	Not close to one or more 95s	Clinically unstable/ symptomatic	Across population groups

2. Which optimized models and building blocks can address these gaps?



For biggest impact at lowest cost

Which HTS models to optimize?
Facility-based/network-based/ community-based

Focus building blocks:
WHEN (reduced frequency?)
WHERE (facility/virtual services?)
WHO (task shifting to client i.e., HIVST?)
WHAT (integration opportunities?)

HTS model impact considerations

	Facility-based	Network-based	Community	
			Virtual	In-person
Number of people tested	**###** Dependent on selected entry points/ coverage/testing frequency	**#**	**?** Depends on effective demand generation/ any restrictions	**##**
Number of PLHIV not on ART identified	**###** Dependent on selected entry points/ coverage/testing frequency	**#**	**?** Dependent on reach & coverage, but ensures access/equity beyond facilities	**#** Dependent on targeting accuracy
Positivity rate	Low	High	Likely Low	Low-Moderate

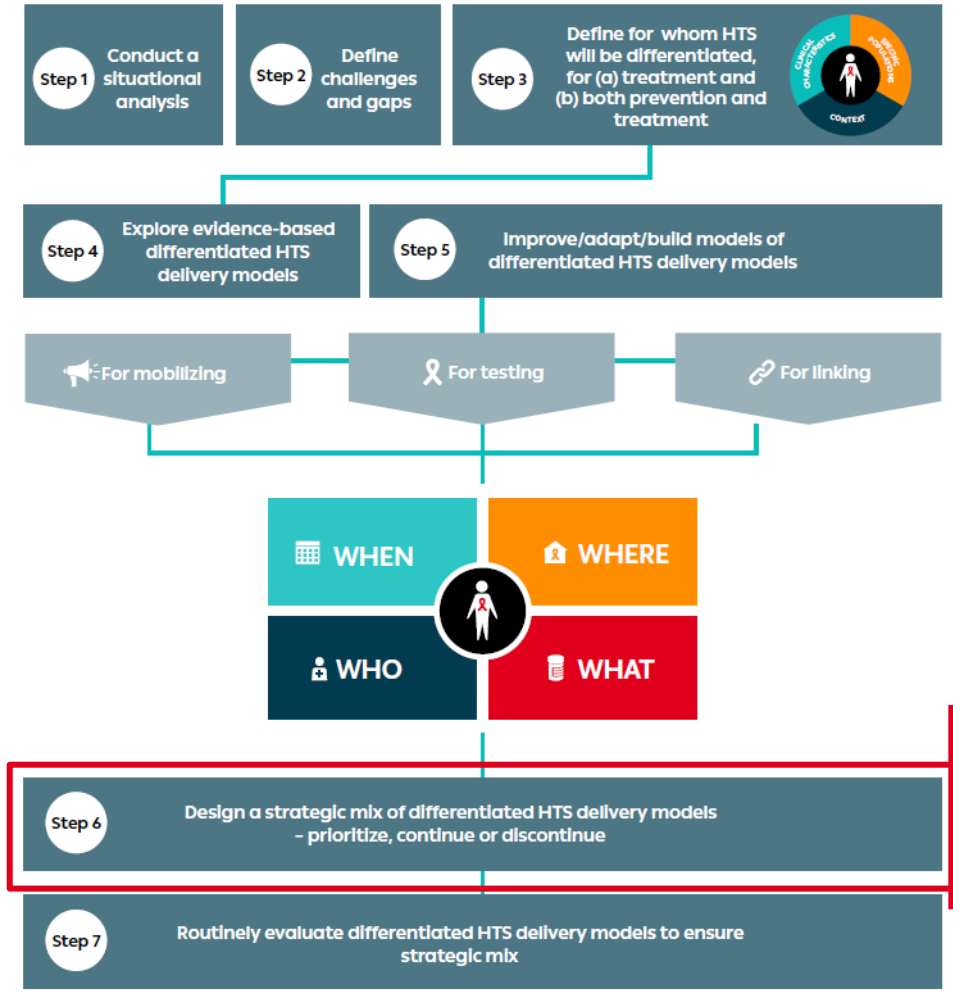
Cost & feasibility considerations

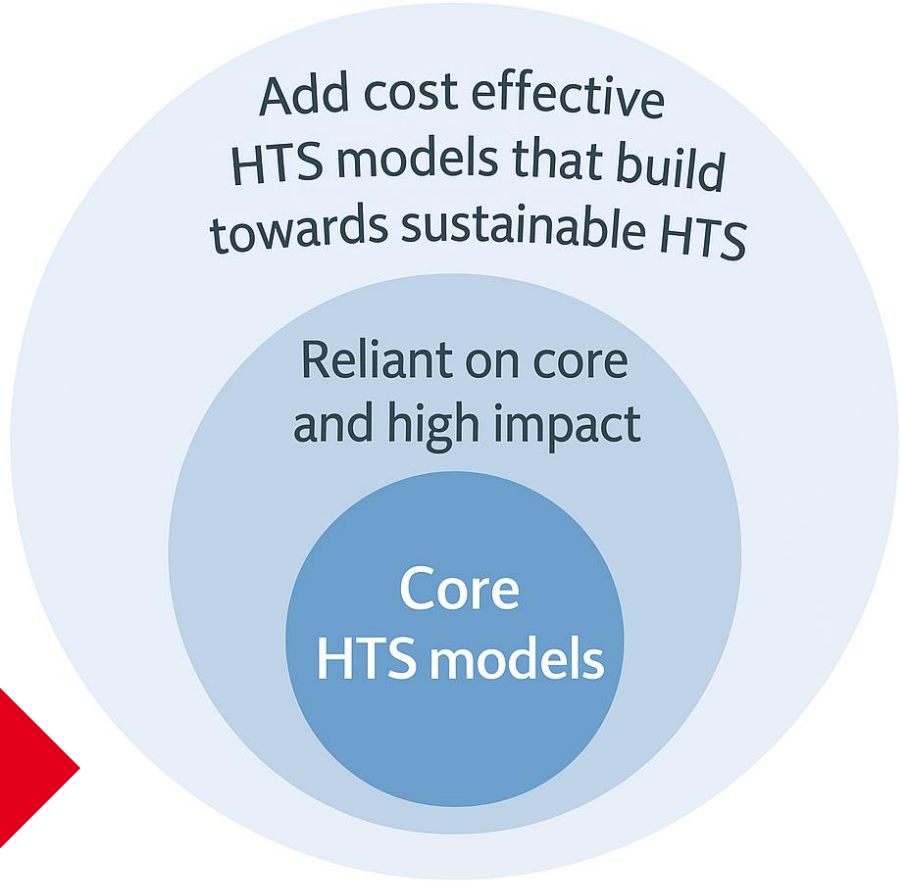
Costs	Facility-based	Network-based	Community	
			Virtual	In-person
Commodities Depends on cost of A1 test - lower cost WHO options are available	**$$-$$$** Depends on entry point attendee coverage and testing frequency	**$**	**$-$$** Depends on demand and uptake	**$-$$** Depends on extent of targeting
HR	**$-$$** Depends on coverage/frequency of testing and use of HIVST-for-triage	**$$** Time consuming but low numbers	**$** Depends on extent of centralization/ partnerships/AI support	**$$** Requires dedicated outreach staff/funded community partnerships
Operational	**$** Existing infrastructure	**$$** Depends on notification method and if provider assisted in-person notification/testing	**$**	**$$$** Targeting/transport/ infrastructure etc

Using building blocks flexibility to further reduce costs

Costs	Facility-based	Network-based	Community	
			Virtual	In-person
Commodities	**$-$$** Focus entry points Reduced testing frequency	**$**	**$** Integrate pre-self risk assessments?	**$-$$** Depends on extent of targeting
HR	**$** Self-testing for triage replacing HR heavy A1 RDT screening (enabled with AI facilitation?)	**$** Dependent on notification method: Enhanced passive or provider-assisted (centralized/AI supported?)	**$** Self-testing facilitated by lay staff/peers (or AI over time?)	**$-$$** Leveraging other services cadres/task-sharing with virtual/ increasing no cost partnerships including PLHIV/private sector?
Operational		**$** Built into virtual HTS platform?	**$** High set-up initially Depends on delivery costs to collection sites – leverage ART DSD sites?	**$-$$** Improving integration - leveraging other health services outreach

3. Design strategic mix: Short-term to cover critical HTS needs building toward longer-term sustainable strategic mix

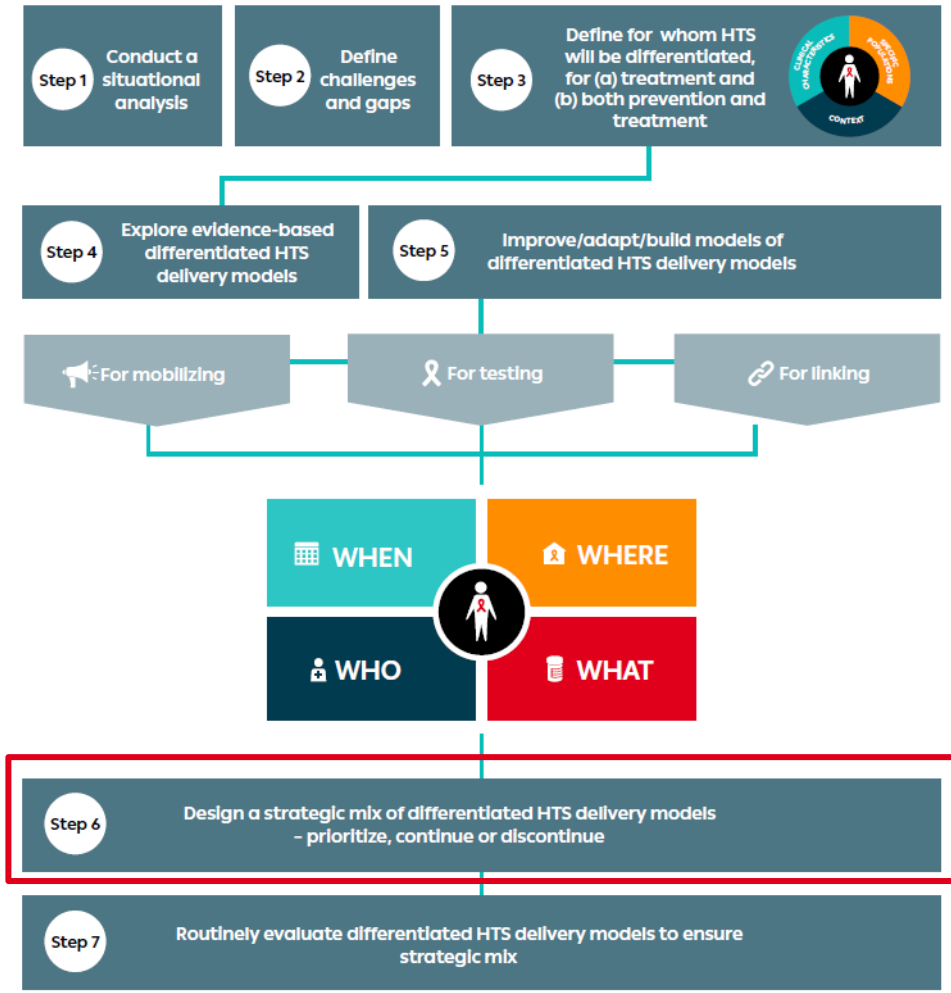


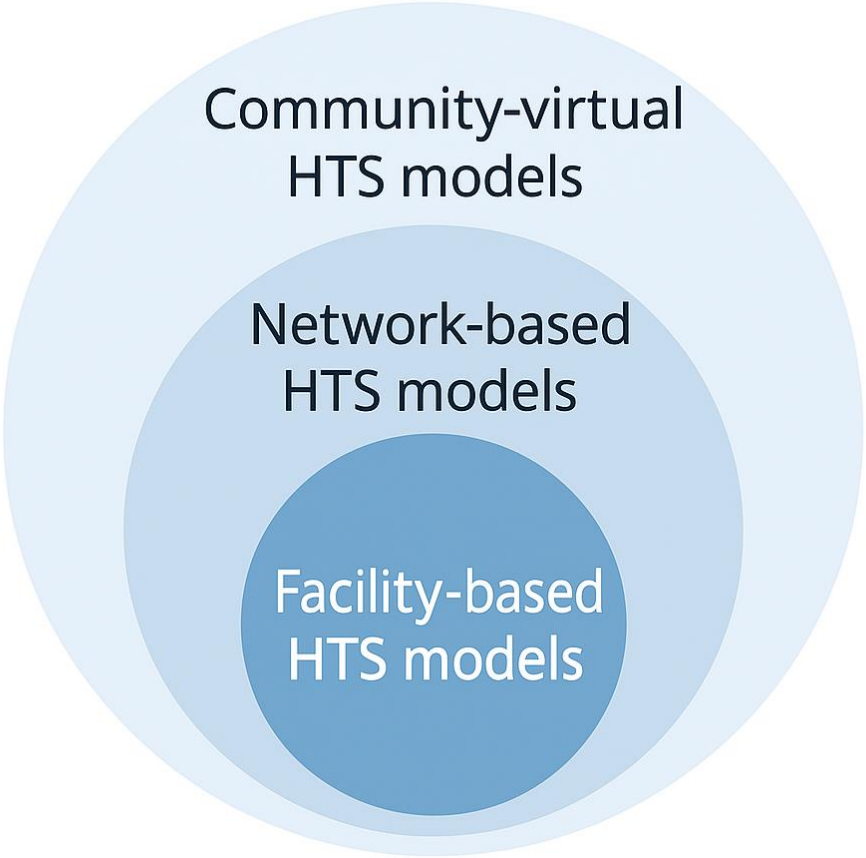


Balancing effectiveness, efficiency and equity to shape the strategic mix: EFFICIENCY OF HTS MODELS AND STRATEGIC MIX

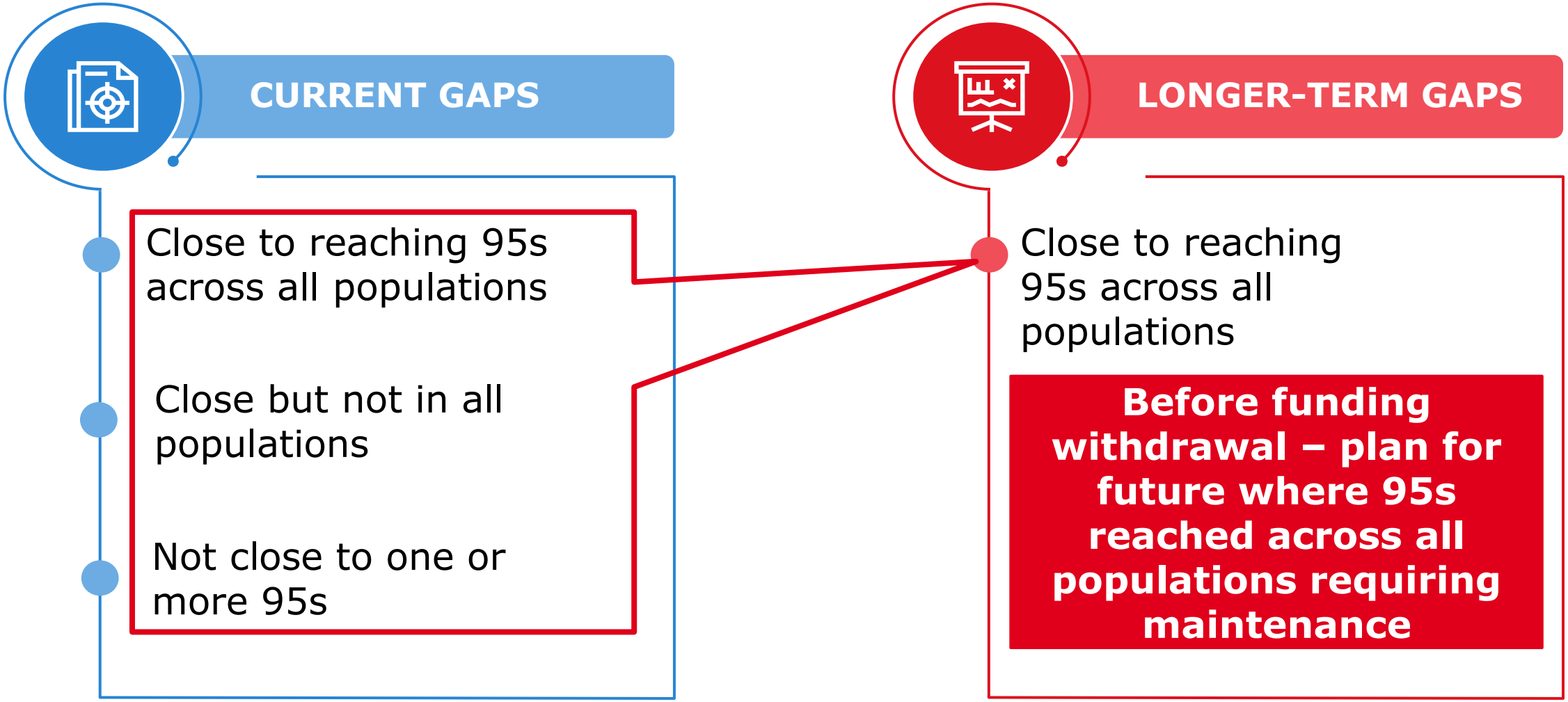
- **Cost per test**
- **Cost per positive diagnosis, cost per linkage to treatment, cost per linkage to prioritized prevention service**
- **Resource allocation:** appropriate distribution of financial and human resource costs **across strategic mix HTS models**
- **Integration of other screening or services: multi-disease testing, combining services**
- **Time to diagnosis and/or treatment linkage:** speed and ease with which a person can access testing and treatment **reducing future client and health system costs**
- **Operational efficiency:** How quickly and smoothly HTS is delivered
- **Scalability:** How rapidly models can close coverage gaps, allowing for discontinuation or continuation (if remains cost-effective and feasible at larger scales), **reducing reliance on more resource-intensive approaches**
- **Potential for further rationalization:** Opportunities to **reduce costs** by using more affordable tests, increasing self-testing, or combining testing strategies such as network-based approaches to better reach high-risk populations
- **Implementation feasibility: Practicality of rolling out the model**, considering available infrastructure, workforce capacity, regulatory environment, and community acceptance
- **Sustainability: Long-term feasibility of maintaining the model** with existing or foreseeable resources without overburdening the health system

3. Design strategic mix: Short-term to cover critical HTS need building toward longer-term sustainable strategic mix

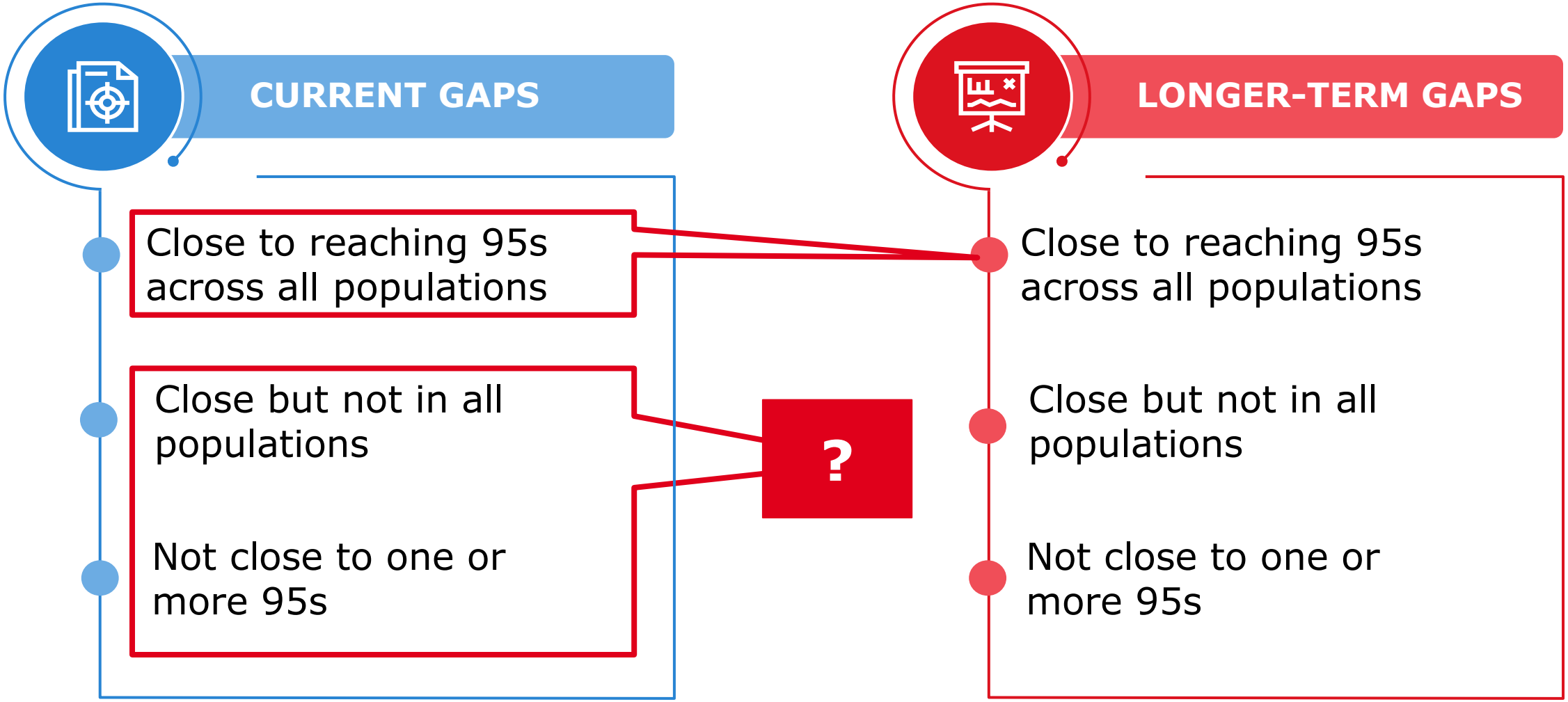




IAS High or low HIV burden context scenarios:



High or low HIV burden context scenarios:



Current status: High HIV burden context - Close to reaching 95s across ALL populations

→ **National HTS access for individuals who self-assess need for HTS (in facilities + communities)**

→ **Surveillance through limited number of effective HTS models reaching higher-risk, newly infected or disengaged individuals for sustained impact post-gap closure**

Facility-based	Network-based	Community	
		Virtual	In-person
• All HIV symptomatic • ANC: 1st ANC visit only • Exposed infant testing: 6-weeks, 6 & 18 months • TB/STI/inpatient: New • VCT/HIVST collection available: Once per year • PrEP retesting: 6-monthly	Using enhanced passive notification with HIVST provision to: • New HIV positive diagnosis		

Current status: High HIV burden context - Close to reaching 95s across ALL populations

→ National HTS access for individuals who self-assess need for HTS (in facilities + communities)

→ Surveillance through limited number of effective HTS models reaching higher-risk, newly infected or disengaged individuals for sustained impact post-gap closure

Short-term priorities: *Possible longer-term HTS models to plan for/invest in*

Facility-based	Network-based	Community	
		Virtual	In-person
• All HIV symptomatic • ANC: 1st ANC visit only • Exposed infant testing: All • TB/STI/inpatient: New • VCT/HIVST collection available: Once per year • PrEP retesting: 6-monthly • FP attendees: Initiation + every 2nd year	Using enhanced passive notification with HIVST provision + provider-assisted notification utilizing virtual platform: • Person with new HIV+ diagnosis • ART clients: if re-engage >3m or VL>1000	National centralized (towards AI supported) utilizing:	
		HIVST collection points	
		Referred after virtual registration	Walk-in (required to register with virtual site)

Current status: High HIV burden contexts - Close BUT NOT in all populations i.e. GAP POPULATIONS

→ **National HTS access for individuals who self-assess need for HTS (in facilities + communities)**

→ **Feasible, cost-effective HTS models aimed at the gap populations to close gaps**

→ **Surveillance among non-gap populations through limited number of effective HTS models reaching higher-risk, newly infected or disengaged individuals for sustained impact post-gap closure**

SAME AS

High HIV burden context - **Close to reaching 95s across ALL populations**

+

	Facility-based	Network-based	Community	
			Virtual	In-person
AGYW gap	• **ANC:** Add if <25 years 3rd trimester/ delivery • VCT/HIVST available • **FP:** Once per annum	Using enhanced passive notification with HIVST provision to: • Person with new HIV+ diagnosis		
KP gap	• HIV symptomatic • VCT/HIVST available • STI/inpatient new			CBO provided selected high volume DIC or outreach locations (where resources allow)
Men gap	• HIV symptomatic • VCT/HIVST available • TB/STI/Inpatient new	FP + ANC partner notification: using enhanced passive notification		

*light grey already covered but noted as key for these population groups

IAS

2

Short-term priorities: Possible longer-term HTS models to plan for/invest in

Resilience

	Facility-based	Network-based	Community	
			Virtual	In-person
AGYW gap	• **ANC:** Add if <25 years 3rd trimester/ delivery • VCT/HIVST available • **FP:** Once per annum	Using enhanced passive notification with HIVST provision + provider-assisted notification utilizing virtual platform: • Person with new HIV+ diagnosis • STI new irrespective of HIV test result Expanding to social network based HIVST linked to virtual platform	• National centralized with collection points + Targeted segmented social media + Advertising at previous AGYW & KP & men focused outreach points/services	
KP gap	• HIV symptomatic • VCT/HIVST available • STI/inpatient new			CBO provided selected high volume DIC or outreach locations (where resources allow) + prioritize virtual HTS demand generation
Men gap	• HIV symptomatic • VCT/HIVST available • TB/STI/Inpatient new			
		FP + ANC partner notification: using enhanced passive notification		

*light grey already covered but noted as key for these population groups

Current status: High HIV burden contexts - Not close to one or more 95s

4 Longer-term priorities

→ **National HTS access for individuals who self-assess need for HTS (in facilities + communities)**

→ **Feasible, cost-effective HTS models aimed at reaching the highest number of people living with HIV ensuring HTS for those with the at the highest risk of morbidity and mortality**

Sustainability

1 Short-term priorities: *Critical to maintain*

Emergency Response

Facility-based	Network-based	Community	
		Virtual	In-person
All HIV symptomatic • ANC: 1st ANC visit and 3rd trimester/delivery • Exposed infant testing: 6-weeks, 6 & 18 months • TB/STI/inpatient: New • VCT/HIVST collection available: Once per year • PrEP retesting: 6-monthly	Using enhanced passive notification with HIVST provision to: • New HIV positive diagnosis		
		HIVST collection points	

Current status: High HIV burden contexts - Not close to one or more 95s

2

Short-term priorities: *Possible longer-term HTS models to plan for/invest in*

Facility-based	Network-based	Community	
		Virtual	In-person
• All HIV symptomatic • ANC: 1st ANC visit and 3rd trimester/delivery • Exposed infant testing: All • TB/STI/inpatient/ malnutrition: New • VCT/HIVST collection available: Once per year • PrEP retesting: 6-monthly • FP attendees: Initiation and once per year	Using enhanced passive notification with HIVST provision + provider-assisted notification utilizing virtual platform: • Person with new HIV+ diagnosis • ART clients: if re-engage >3m or VL>1000 • STI new irrespective of HIV test result • FP + ANC partners irrespective of HIV test result	National centralized (towards AI supported) utilizing:	
		HIVST collection points	
		Referred after virtual registration	Walk-in (required to register with virtual site)

QR code to download

Thank you