



Laboratory Network Optimization and All-inclusive Reagent Rental Strategies

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Photo: GHSC-PSM



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PEPFAR
U.S. President's Emergency Plan for AIDS Relief



Outline

- Background
- Challenges
- PEPFAR's new approaches
- Conclusions

Background

The UNAIDS 90-90-90 Targets

UNAIDS has set ambitious fast-track treatment targets known as the 90-90-90 targets to help end the AIDS epidemic

90%
of all



living with HIV will know
their HIV status

90%
of all



living with HIV will receive
antiretroviral therapy

90%
of all



receiving antiretroviral
therapy will have viral
suppression

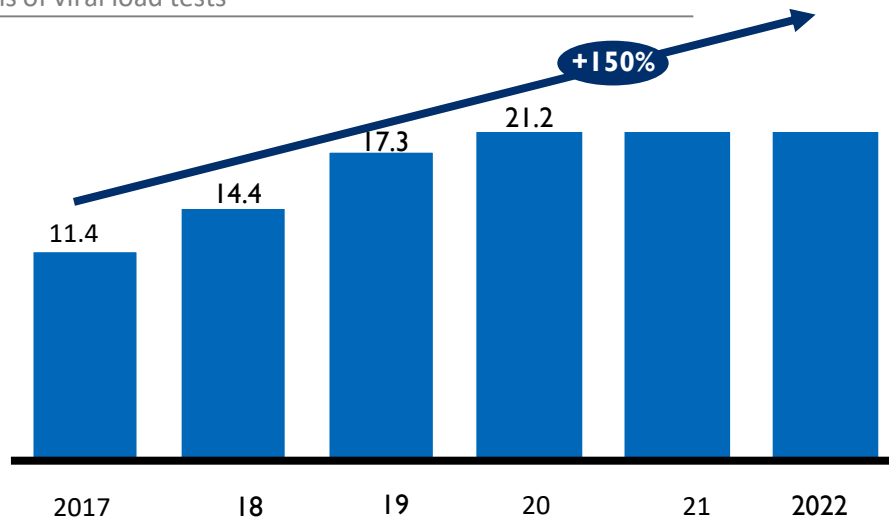
<https://www.avert.org/global-hiv-targets>

Global demand for tests increasing considerably

Global demand for viral load (VL) tests is expected to more than double over the next 5 years; the USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project is scaling up our procurement substantially

Forecasted demand for VL tests in broader public sector and GHSC-PSM within low and middle-income countries

Millions of viral load tests



Notes:

- In the long term, GHSC-PSM aims to support testing for 10 million patients
- Based on 90-90-90 targets and a recommended 1 test per year, this would require 7.2 million tests

SOURCE: WHO 2018 Annual Meeting with Manufacturers and Stakeholders Global Forecasts of Diagnostic Demand for 2017-2022

Approaches to provide VL and Early Infant Diagnosis (EID) testing services: Centralized vs. Decentralized

	Advantages	Disadvantages
<p>Decentralized</p> <p>Hybrid</p>	<ul style="list-style-type: none"> • Patients' timely access to diagnostics and results • Current focus on decentralization • Does not limit growth 	<ul style="list-style-type: none"> • Complexity of quality systems • Complexity of instrument service and support • Infrastructure challenges
Centralized	<ul style="list-style-type: none"> • Quality is maintained through less complicated means • High throughput, low cost instrumentation is utilized 	<ul style="list-style-type: none"> • Limits for growth • Specimen or patient transport • Complex information systems

Challenges



Countries face challenges with VL testing scale-up implementation

- Sub-optimal Laboratory and samples transport networks
- Frequent breakdown of test instruments
- Lack of or delays with technical support (servicing, maintenance)
- Break in cold chain during reagent delivery
- Reagents and supplies stock outs and expiration
- Instruments and reagents prices variations
- Changes in technologies
- Lack of liquid waste management solutions
- Human resources issues
- Backlog of work
- Long turnaround time to results

PEPFAR's new approaches



New approaches to address VL scale up challenges include...

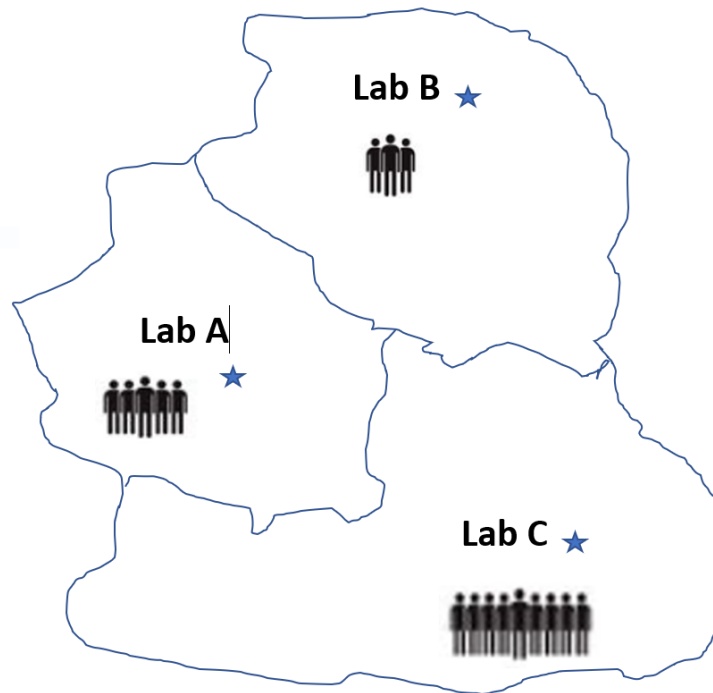
- 1. Laboratory and sample referral network optimization*
- 2. Strategic sourcing*
 - a) Long term agreements and Reagent Rental*
 - b) Supply Planning*
 - c) Supplier relations and production planning*

I. Laboratory and sample transportation network optimization exercise

- Provides a dynamic understanding of the functionality of the national laboratory network and supportive systems

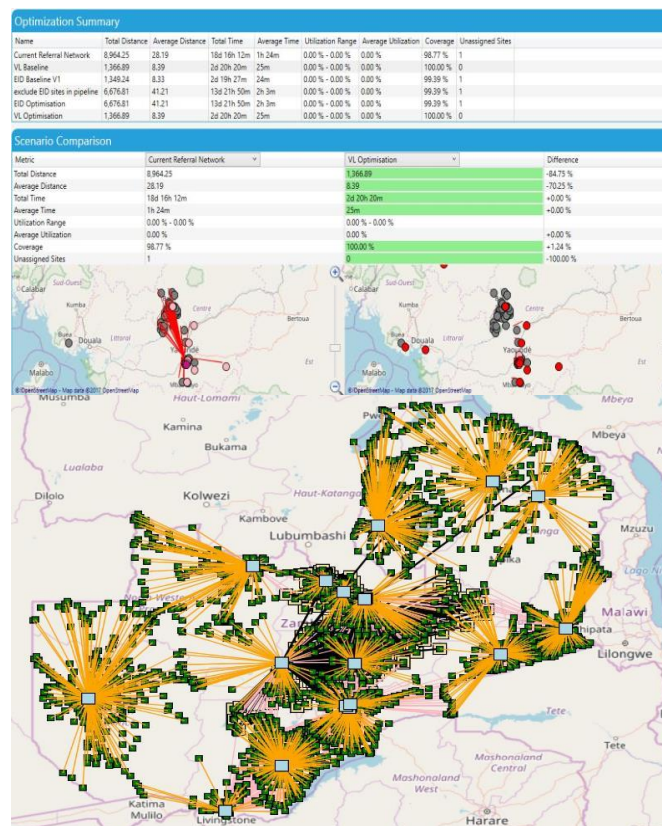
**which informs efficient and effective program growth and instrument expansion*

- Requires baseline mapping of the laboratory network and systems, identification of functional instruments, current utilization rates, and patient demand



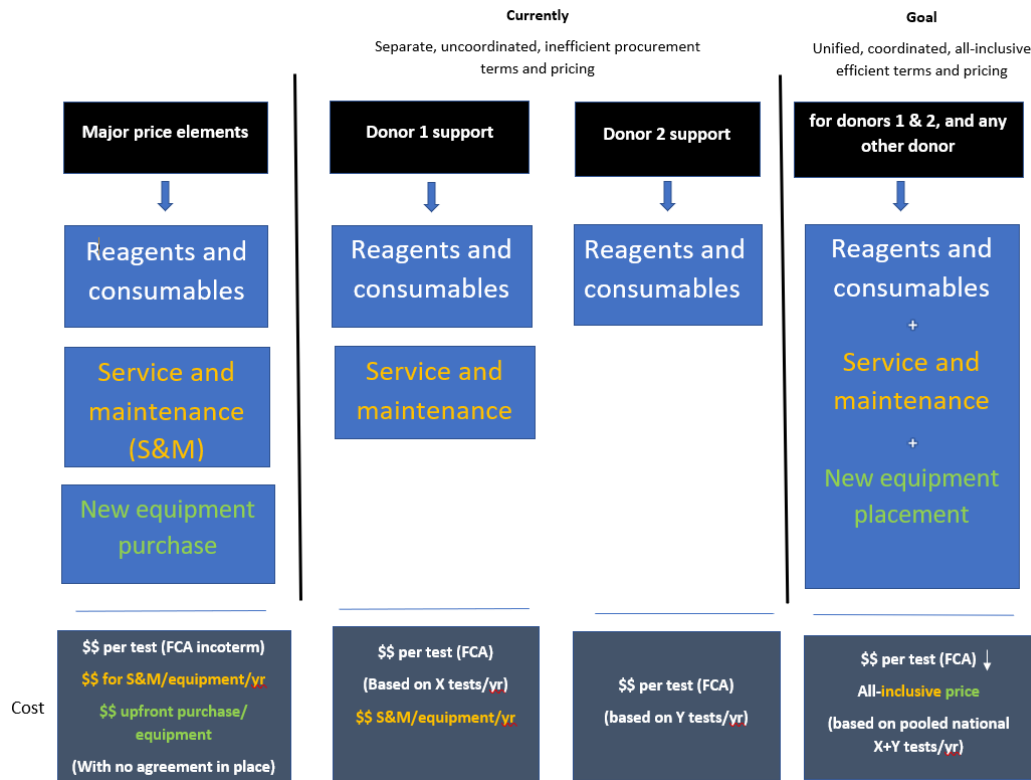
Considerations for Laboratory Network Design and optimization involves mapping to ensure laboratory instruments are placed “appropriately”

- Appropriate site selection & placement
- POCT integration
- Utilization rates and equipment throughput



2. Strategic sourcing: “Reagent Rental” approach

An all-inclusive per test cost structure spread across all instruments of the same brand within the network and available to all stakeholders features

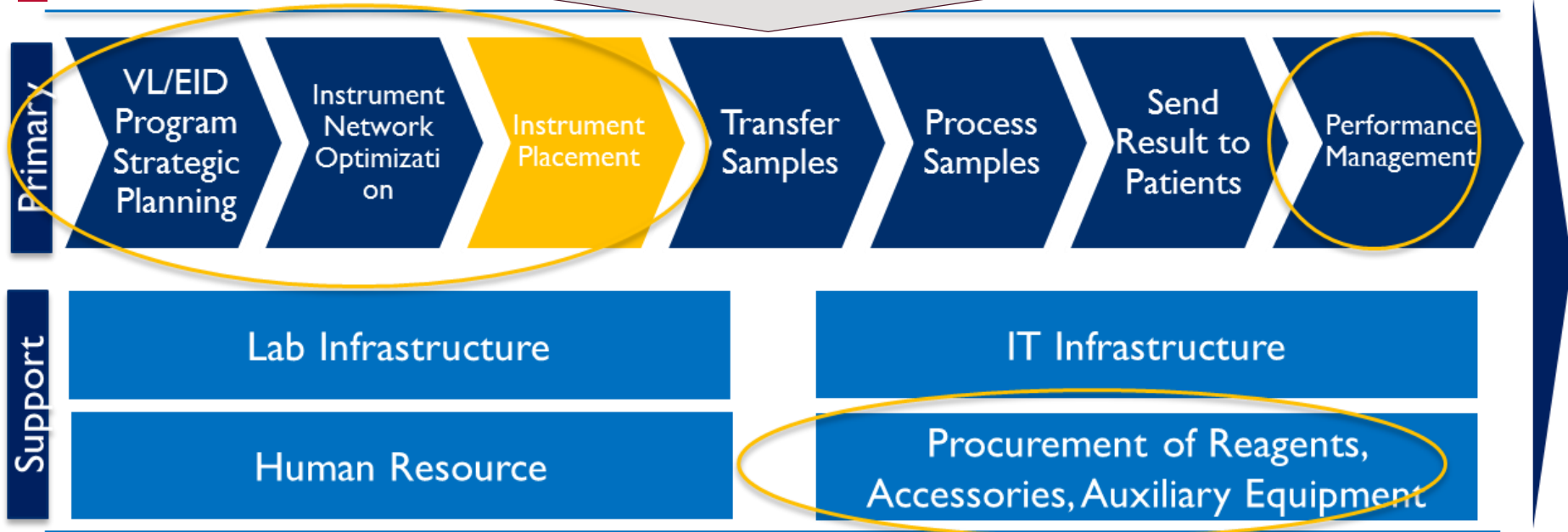


Understanding price:

- Significant variation in commodity pricing (comparing apples to apples);
- Global access pricing vs. Local vendor procurement;
- Demand – volume of testing;
- Amortization of instruments included in price;
- Reagent bundling (inclusive service and maintenance);
- Single brand platform use limits price negotiations;
- **A need to focus on an ‘all-in’ cost;**
- **Revisit and renegotiate agreements.**

How it all comes together to create a lab value chain that works

Lab network approach looks at the whole value chain – this requires each partner to add value



Instrument placement, preferably through all-inclusive /reagent rental model is a primary activity that adds tremendous value to the lab network.

Conclusions

Approach Leads to Better Health Outcomes

1. Lab network optimization
2. Forecasting and supply planning
3. Strategic sourcing (LTA, RRA)
 - Global RFP
4. Supplier relations & performance management (KPIs)



- Optimized laboratory network
- Cost efficiencies and savings
- Healthier supplier market
- Managing/sharing risk with suppliers
- Elimination of stock outs and delays in the supply chain
- Reduce equipment down-time
- Higher utilization of VL machines



- Improved patient management
- More patients accessing VL testing
- Uninterrupted supply chain and testing services




3rd 90 goal

Thank you.

Questions?





The USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project is funded under USAID Contract No.AID-OAA-I-15-0004. GHSC-PSM connects technical solutions and proven commercial processes to promote efficient and cost-effective health supply chains worldwide. Our goal is to ensure uninterrupted supplies of health commodities to save lives and create a healthier future for all. The project purchases and delivers health commodities, offers comprehensive technical assistance to strengthen national supply chain systems, and provides global supply chain leadership. For more information, visit ghsupplychain.org.

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