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

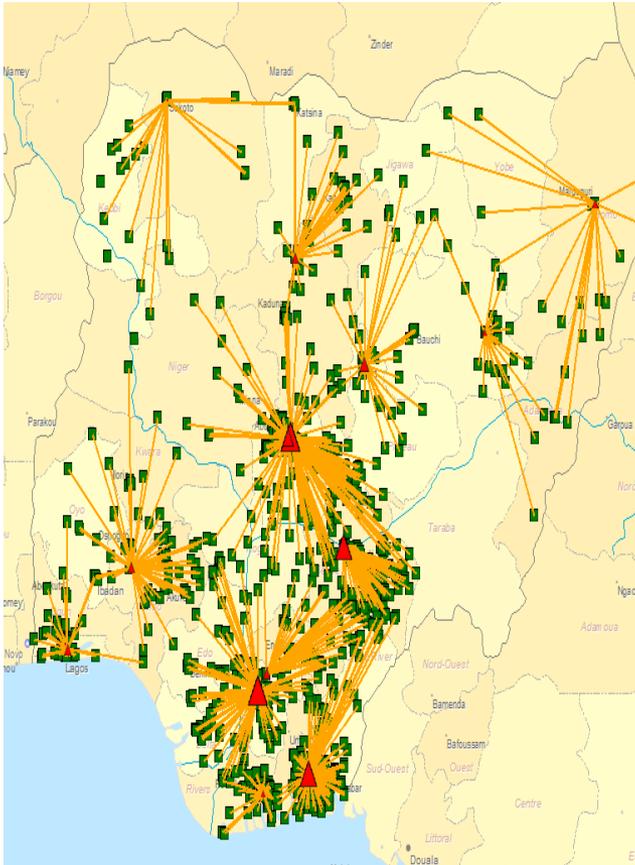
Leveraging Investments in Diagnostic Network Optimization to Expedite Planning and Implementation of SARS COV-2 Laboratory Testing- Nigeria Country Experience

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Background



- Timely access to quality laboratory services is key to successful treatment of a disease condition.
- A sample referral system is an avenue of providing access to lab services for all despite location and ability to pay
- In 2017 Nigeria embarked on the roll-out of a National Integrated Sample Referral Network (**NiSRN**) for viral load, EID, CD4, and TB services
- The overall goal is for this to serve as the main sample referral network for all clinical and public health samples for laboratory testing and return of results.

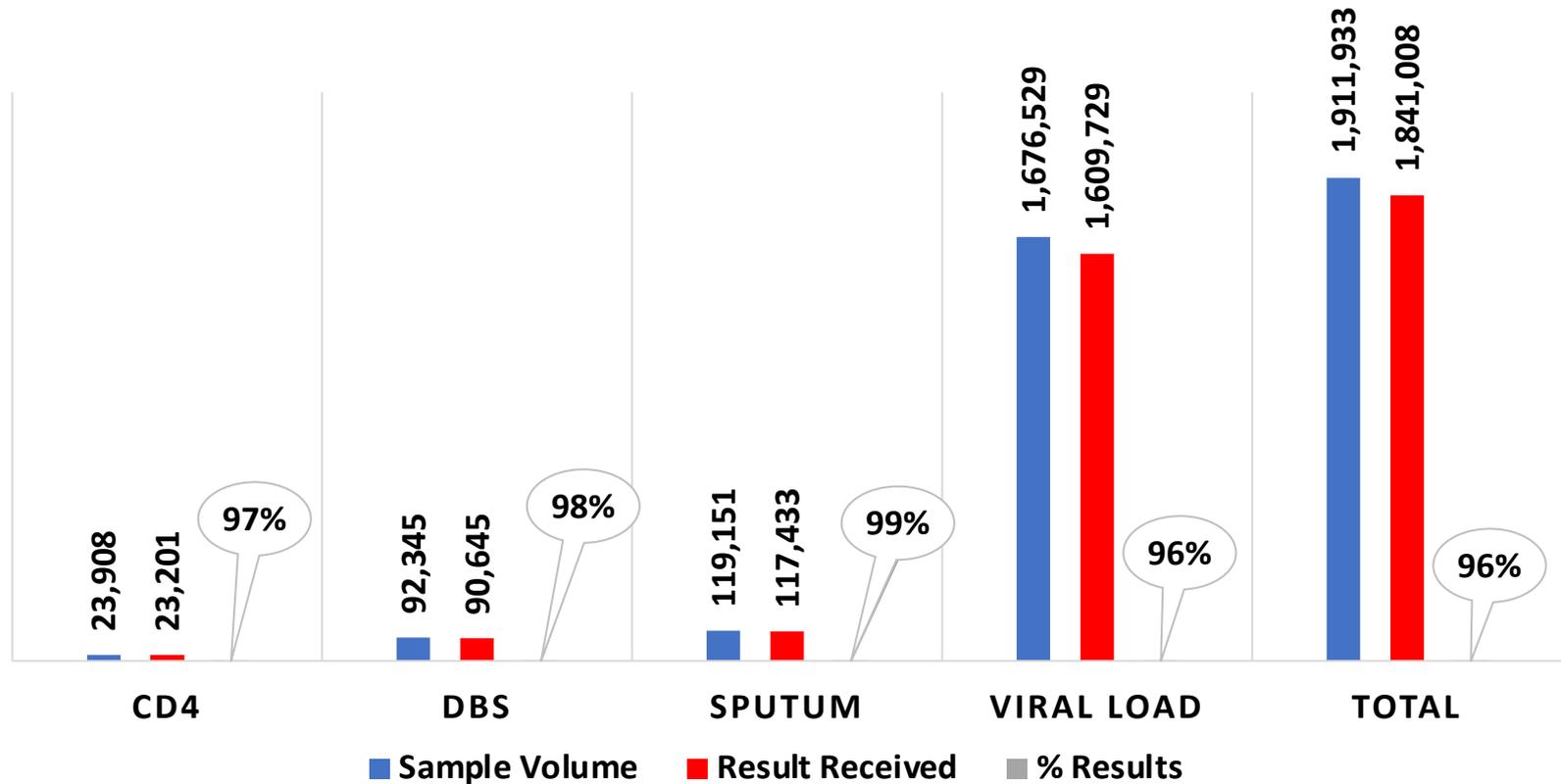
Background -2



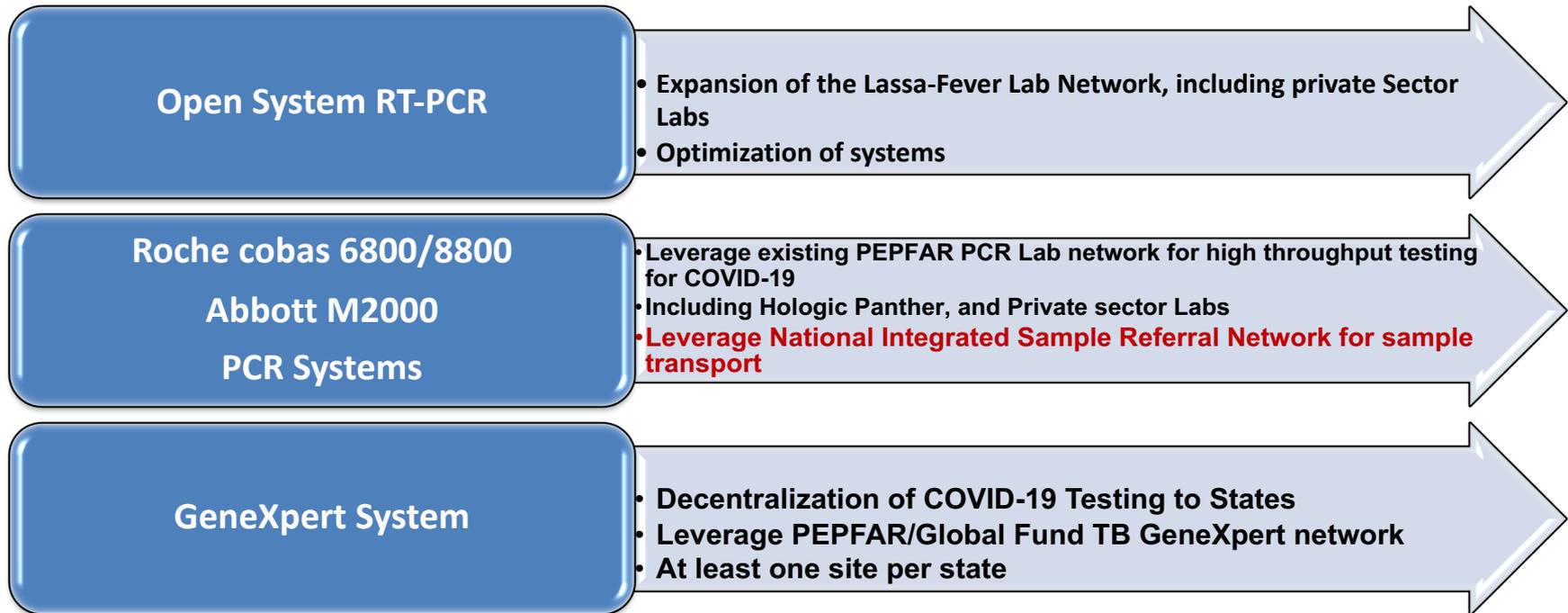
- Implementation of NiSRN led to:
 - Increased access to lab testing for HIV & TB services
 - Increased network effectiveness and efficiency
 - Reduction of number of HIV molecular labs from 27 to 17
- The COVID-19 pandemic in Nigeria provides an opportunity to leverage the sample referral network for COVID-19 sample referral needs

NISRN Operations March 2018 Till Date

VOLUME OF SAMPLES AND RESULTS MOVED

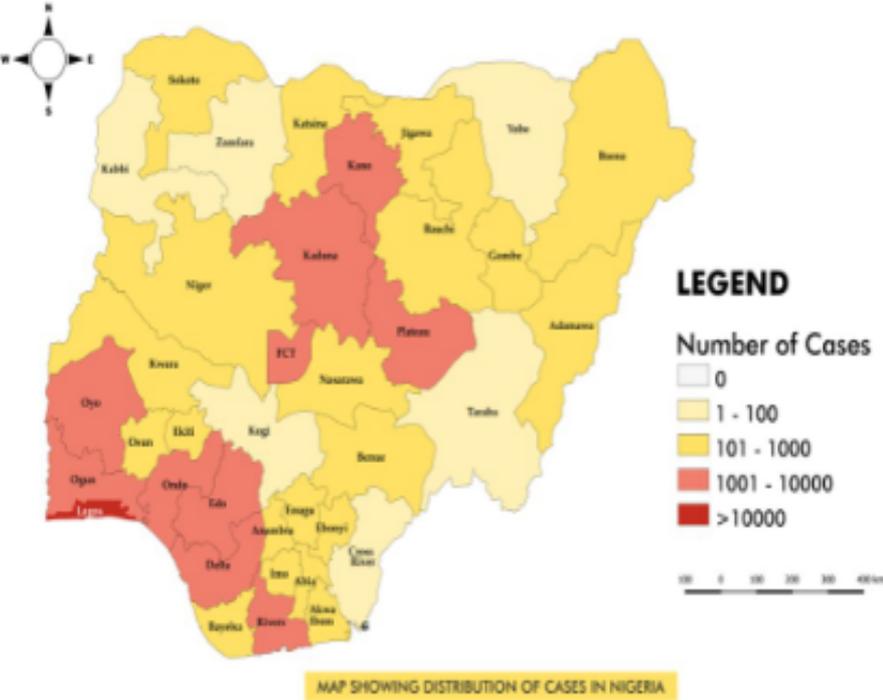


National Laboratory Strategy for Scaling Up COVID-19 Testing in Nigeria



➤ *Planned integration of Antibody/Antigen testing for surveillance and learning*

Distribution of Covid Cases and Mapping of SARS-COV-2 Molecular Lab Testing in Nigeria



NCDC MOLECULAR LABORATORY NETWORK

As at 5th AUGUST, 2020



COVID-19 Sample Referral

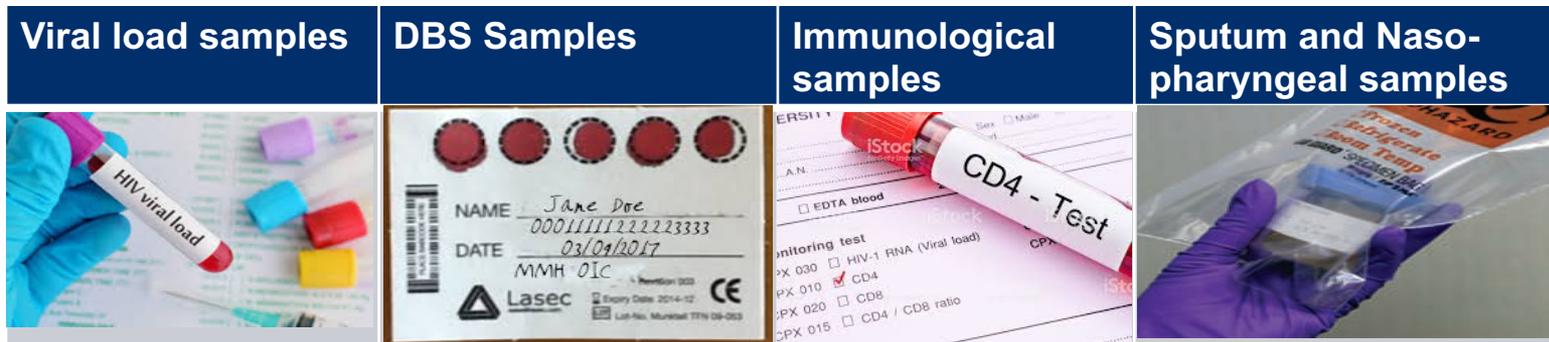
- One of the Major challenges in the current response is increasing sample collection and referral to the testing labs across the country.
- NCDC has an on-going inter-state sample referral system with a 3rd-party logistics system – TRANEX; this is however limited to some states
- In the wake of the COVID Pandemic State Governments have initiated their respective intra- and inter state sample referral for COVID-19 to complement TRANEX or to fill in where TRANEX does not exist – however the funding and logistics to support these across all state has been very erratic
- With funding support from USAID, the country is now leveraging the Integrated Sample Referral Network (NISRN) to support intra-state COVID-19 sample transport in select states.

Expected Outcomes

The optimized referral services was expected to accomplish the following;

- ❖ Reduced cost of sample movement
- ❖ Quicker testing/result turnaround time
- ❖ Safe and secure specimen referral and transport
- ❖ Facilitate Rapid expansion of COVID testing as well as other infectious diseases moving forward

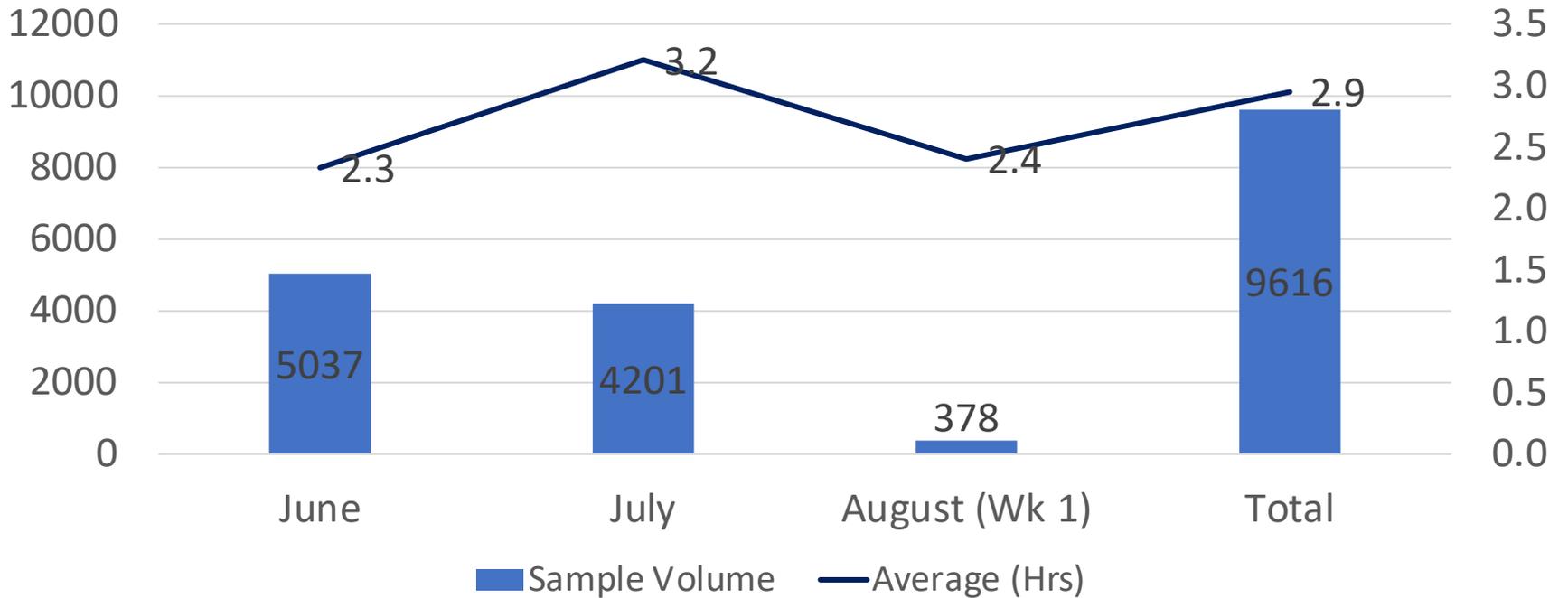
Types of samples transported include:



Results

- ❖ 9,616 COVID-19 samples moved between June to First week of August by NISRN 3PLs.
- ❖ Zero reported cases of sample transport related infections among 3PL staff
- ❖ Average overall TAT of 2.95 hours maintained for sample movement.
- ❖ Zero Sample rejection rates for COVID-19 samples
- ❖ Sustainable low-cost hub and spoke models developed for sample referral across 6 states.
- ❖ Minimal disruption of testing services for other diagnostic specimen; HIV, TB, etc.
- ❖ Effective clustering of collection sites for efficient sample pickup and cost utilization

COVID-19 Sample Movement



Limitations

- ❖ Multiple forms of sample transfer mechanisms- state, Tranex, and NISRN
- ❖ States implementing independent plans for COVID-19 diagnosis and management.
- ❖ Selection of COVID-19 sample collection sites is not aligned with existing health facilities on the National sample referral Network.
- ❖ High cost of intra-state and inter-state sample movement using conventional transport mechanisms
- ❖ Inefficient mapping of COVID-19 sample collection sites to hub facilities across states.
- ❖ Low sample volumes at designated NIRN pick up hubs in some states.

Recommendations

- ❖ Align the selection of COVID-19 sample collection sites with pre-existing health facilities on the National Integrated Sample Referral Network.
- ❖ Expand NISRN coverage to other states
- ❖ Work with the states to fully integrate COVID-19 testing into existing service delivery framework to ensure sustainability.



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Thank you!