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

Maintaining HIV and TB Testing in the Context of COVID-19

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16 YEARS OF SAVING LIVES THROUGH AMERICAN GENEROSITY AND PARTNERSHIPS

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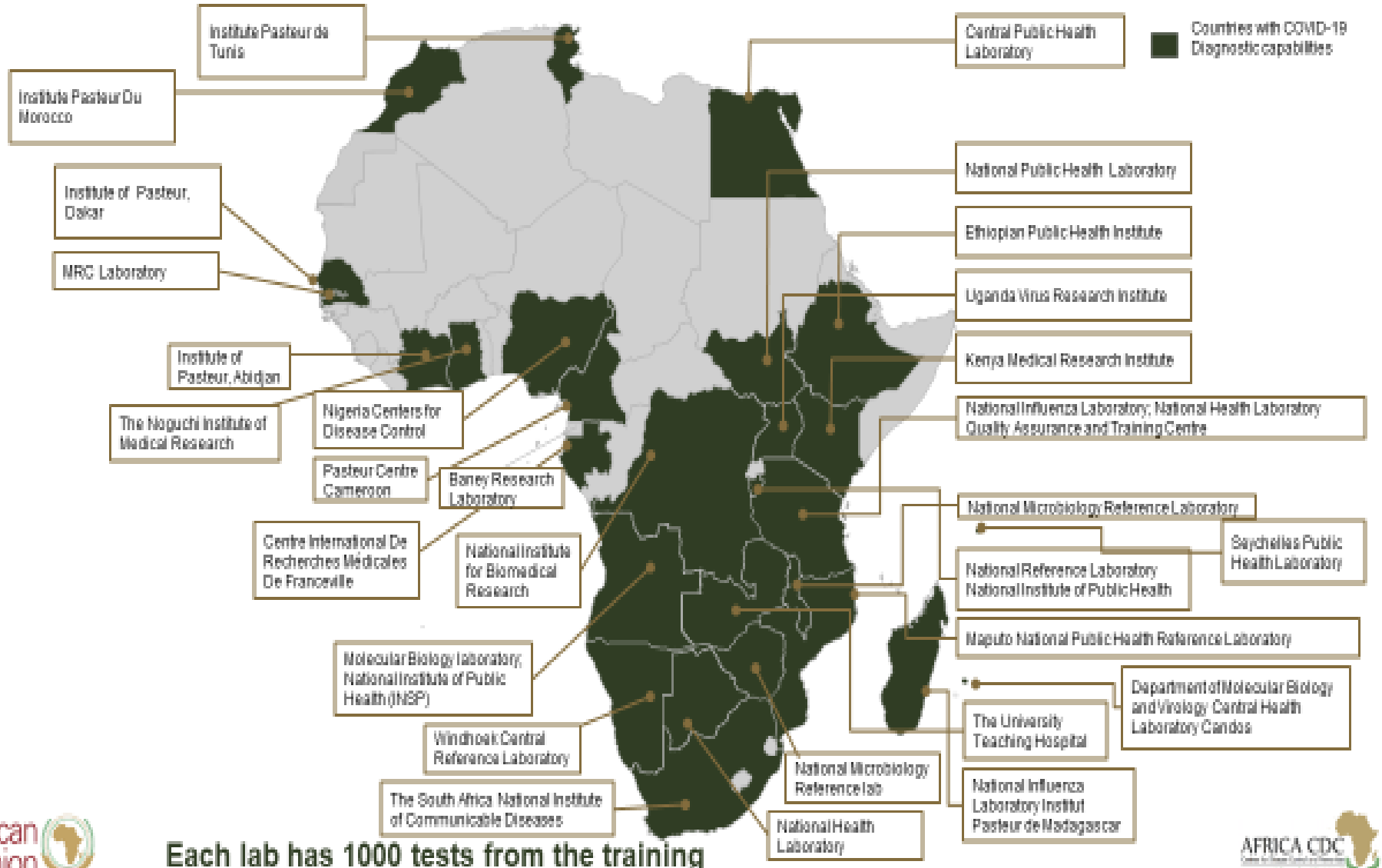
Potential Impact of COVID-19 on HIV and TB testing

COVID-19 pandemic presents several barriers and challenges to the HIV care continuum-(90-90-90)

- Quarantine, social distancing, community containment measures limit movement
- Timely linkage to HIV care could be hindered
- Hospital visits could be restricted because of implementation of city lockdowns or traffic controls
- HIV prevention (condoms, PreP, VMMC, DREAMS etc)
- HIV testing services (routine serology, self-testing etc)
- Molecular diagnostics (viral load, EID, HIVDR etc)
- TB testing
- Allocation of resources for HIV care could be diminished

Initial Efforts by African CDC/WHO to Strengthen COVID-19 Diagnostics in Africa

Africa CDC's trainings for laboratory diagnosis of COVID-19 by country



Each lab has 1000 tests from the training

African Union

AFRICA CDC

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Among the assays published by WHO, Africa CDC is using the TIB Molbiol kit

Country	Institute	Gene targets	Commercialized
China	China CDC	ORF1ab and N	
Germany	**Charité**	**RdRP, E**	**TIB Molbiol**
Hong Kong	**HKU**	**ORF1b-nsp14, N**	
Japan	**National Institute of Infectious Diseases, Department of Virology III**	**Pancorona and multiple targets, Spike protein**	
Thailand	National Institute of Health	N	
US	**US CDC**	**Three N primers**	**IDT**

Bold indicates protocols that have known cross-reactivity with SARS-CoV

Thermo Fisher targets orf1a, N gene and S gene
Seegene targets E, N and RdRp – used in UAE
BGI kit only has one non-disclosed target

African Union

AFRICA CDC

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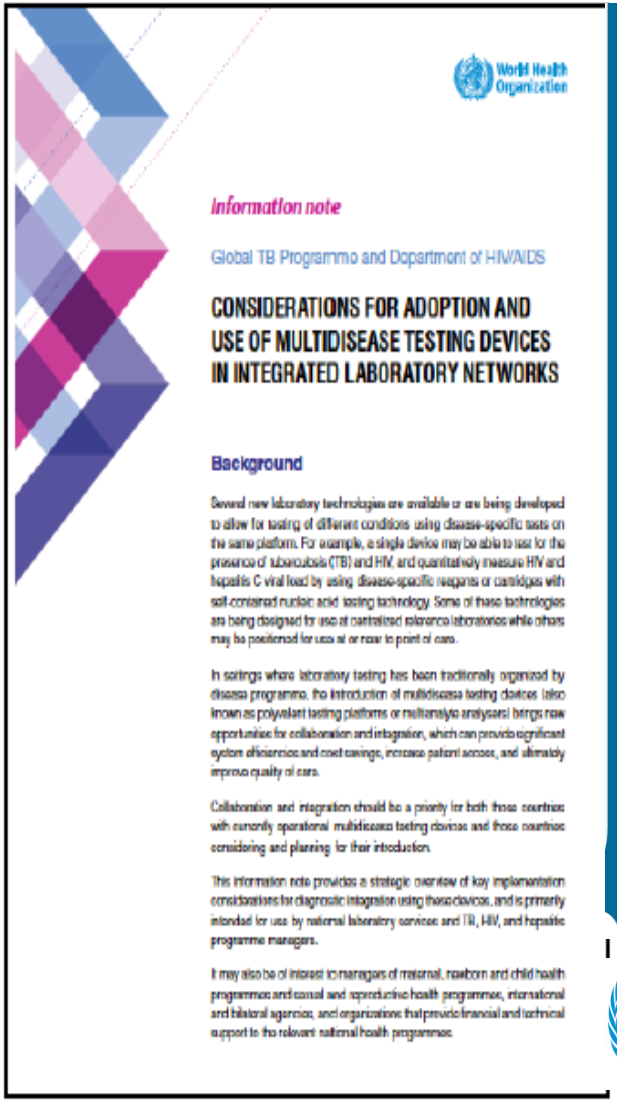
Ensuring Coordinated HIV, TB and COVID-19 Testing

Leverage Existing Global Health Investments (some examples)

- WHO International Health Regulation (IHR)
- Global Health Security Agenda (GHSA)
- President's Emergency Plan for AIDS Relief (PEPFAR)
- Global Fund to fight Malaria, HIV, TB
- Global TB initiatives from many organizations
- WHO Influenza Programs
- Unitaid – POC investments

Use Diagnostic Integration Approaches


World Health Organization

Information note

Global TB Programme and Department of HIV/AIDS

CONSIDERATIONS FOR ADOPTION AND USE OF MULTIDISEASE TESTING DEVICES IN INTEGRATED LABORATORY NETWORKS

Background

Several new laboratory technologies are available or are being developed to allow for testing of different conditions using disease-specific tests on the same platform. For example, a single device may be able to test for the presence of tuberculosis (TB) and HIV, and quantitatively measure HIV and hepatitis C viral load by using disease-specific reagents or cartridges with self-contained nucleic acid testing technology. Some of these technologies are being designed for use at centralized reference laboratories while others may be positioned for use at or near to point of care.

In settings where laboratory testing has been traditionally organized by disease programme, the introduction of multidisease testing devices (also known as polyvalent testing platforms or multianalyte analysers) brings new opportunities for collaboration and integration, which can provide significant system efficiencies and cost savings, increase patient access, and ultimately improve quality of care.

Collaboration and integration should be a priority for both those countries with currently operational multidisease testing devices and those countries considering and planning for their introduction.

This information note provides a strategic overview of key implementation considerations for diagnostic integration using these devices, and is primarily intended for use by national laboratory services and TB, HIV, and hepatitis programme managers.

It may also be of interest to managers of maternal, newborn and child health programmes and sexual and reproductive health programmes, international and bilateral agencies, and organizations that provide financial and technical support to the relevant national health programmes.


MOLECULAR DIAGNOSTICS INTEGRATION GLOBAL MEETING REPORT

10–12 JULY 2019, GENEVA, SWITZERLAND

World Health Organization

ASLM
AFRICAN SOCIETY FOR LABORATORY MEDICINE

Multiplex Use of Platforms for HIV, TB and COVID-19 Testing (FDA EUA)

	Viral Load	EID	TB	COVID-19	HIV serology	COVID-19 serology
	✓	✓	✗	✓		
	✓	✓	✗	✓		
	✓	✗	✗	✓		
	✓	✓	✓	✓		
Serology (Antibody)					✓	✓

Current WHO laboratory guidance suggests that COVID-19 testing should be conducted in appropriately equipped **laboratories with BSL-2 facilities**. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/laboratory-

Use Integrated sample transport system for HIV, TB, COVID-19

Use Integrated Data systems

- Avoid setting parallel data collection systems
- Dashboards
- Improve Laboratory Surveillance System
- Cross border surveillance systems

Address Biosafety and Waste Management Needs

- WHO- about 10% West Africa Ebola deaths were healthcare workers
- Infections moved from healthcare workers infected on the job (nosocomial transmission) to their families
- Already reports of many healthcare workers deaths from COVID-19
- Collecting, processing, testing, and disposal of waste all pose risk to the laboratory health care worker
- Systems for management and disposal of routine laboratory waste should be in place
- All PPE (gloves, mask, gowns, N95mask, waste disposal material, incinerators etc) must be in place.

COVID-19 Mitigation Strategies

- Consider options for timing and collection of specimens that allow for social distancing such as:
  - Reduce wait times for sample collection
  - Avoid crowded waiting rooms
  - Schedule and stagger appointments

- Streamline clinic flow so that patients for sample collection do not interact with multiple clinic providers

- If mobile testing or point of care services are available at the community level please consider expanding those options

Address Huge Supply Chain Issues

- There is lockdown in both production and receiving countries
- Disruption in air travel and border closure
  - Example, China and India – no production or product can't move
- In receiving countries:
  - Lockdown, airport and warehouses closed, limited access to movement for lab and supply chain staff
- No PPE, limited access to reagents and consumables
- Consider the notion of ESSENTIAL workers to have additional support for transportation, accommodation etc:
  - Laboratory and supply chain staff are essential workers

Strengthen Collaboration Among Stakeholders

- Coordination with MOH other stakeholders
- Encourage formation of national task force to :
  - Coordinate discussions with diagnostic manufacturer
  - Quantification
  - Procurement and delivery
  - Unit cost negotiations (reagent rental/all-inclusive pricing)
  - In country testing
  - HR and instrument use

Prioritization of Patients for VL testing

- Pregnant and breastfeeding women
- Infants, children, and adolescents
- Viral load testing for people living with advanced HIV disease
- Those suspected of failing treatment
- VL not needed for transition to TLD

Prioritization of clinical-based HTS for those most in need

- Testing in ANC
- Diagnostic testing for individuals presenting (or admitted) to facilities with illness suspicious for HIV infection (Diagnostic testing)
- Individuals with TB, STIs, malnutrition
- Early infant diagnosis (EID) detection
- Partner/index/family testing may be offered for individuals presenting at facilities (passive testing)
- Testing in KP programs if ongoing and not facility based.

Take home Messages

- Take all measures to ensure increase COVID-19 testing does not negatively impact existing HIV and TB testing
- Develop SOPS to guide HIV and TB testing in the context of COVID-19
- Expect increase or common use of instruments, consumables, PPE, space and personnel and address accordingly
- Adjust staff time management (work shift, extended hours, overtime etc)
- Consider Integrated diagnostic approaches
- Anticipate supply chain delays and disruption and put necessary measures in place
- Consider lab and supply chain staff as ESSENTIAL WORKERS
- Strengthen coordination with MOH and other stakeholders

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Thank You!

Question and Answer

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