LEVERAGING INVESTMENTS IN DIAGNOSTIC NETWORKS OPTIMISATION TO EPIEDITE PLANNING AND IMPLEMENTATION OF SARS-CoV-2 LABORATORY TESTING

COUNTRY EXPERIENCE

Charles Atem

OPTIMISED DIAGNOSTIC NETWORKS KEY TO RESPONDING TO COVID-19

- The impact of optimised diagnostics networks in responding to the COVID-19 pandemic
- How diagnostic capacity mapping, data management, sample transport, and waste management have helped drive uptake of SARS-CoV-2 testing
- Experiences from Nigeria, Cameroon and Zimbabwe

PANELISTS:
- GEORGE ALEMNJI, U.S. President’s Emergency Plan For AIDS Relief
- SMILJKA DE LUSSIGNY, Unitaid
- CHARLES ATEM, Clinton Health Access Initiative, Cameroon
- UGHWEROOGHENE OMO-EMMANUEL, USAID, Nigeria
- RAIWA SIMBI, Ministry of Health, Zimbabwe
- LARA VOJNOV, World Health Organization

CONNECT WITH ZOOM https://us02web.zoom.us/j/84622761531

JOIN US ON 13 AUG 2020 16:00 TO 17:00 EAST AFRICA TIME
LEVERAGING INVESTMENTS IN DIAGNOSTIC NETWORKS
OPTIMISATION TO EXPEDITE PLANNING AND IMPLEMENTATION OF
SARS COV-2 LABORATORY TESTING - CAMEROON COUNTRY EXPERIENCE

Charles Atem, CHAI
Cameroon Country Team
Outline

- Overview of molecular diagnostics in Cameroon
- Progress of DNO work and testing strategy for COVID-19
- Data management solutions – thought process / strategies to expedite result return
- Key take-aways
- Key challenges
Overview of molecular diagnostics in Cameroon

Molecular diagnostic testing exists in a mix

Organization of molecular Dx testing in Cameroon

CONVENTIONAL PLATFORMS - 18

POC PLATFORMS - 55

OPP – ABI 7500 - 07
CLOSED – ABBOTT - 11
TRUE POC (m-PIMA 25)/NEAR POC – GeneXpert - 30

Device foot print

HF distribution > 5000 HFs
Strong engagement from the Government alongside partners (Global Fund, CDC/PEPFAR, Unitaid), with MoH as the main driver – Yaounde 2018

Above - First DNO workshop in Cameroon
Below - Regional Training on labEQIP attended by MoH (NPHL, CNLS, GHSC-PSM, EGPAF, CHAI) – Uganda 2017

Progress of DNO work in Cameroon

Before DNO

Optimization analysis in Adamawa Region presents a scenario to improve quality and timely access of integrated testing services through addition of 3 POC devices

Optimization results:

- A minimum of 3 additional POC/real POC devices are needed to improve quality and timely access to integrated diagnostic testing services in Adamawa region.
COVID-19 testing strategy in Cameroon – coordinated by the NPHL and CPC

1. Phase 1 – Centralized testing on OPP 2 sites
2. Phase 2 – Decentralized testing to 8 OPP sites
3. Phase 3 – Decentralized testing – GeneXpert 2 sites
4. Phase 4 – further decentralization to 3 new Abbott sites

Currently there are 14 COVID-19 molecular testing sites in country use both OPP and Abbott platforms
COVID-19 testing strategy in Cameroon – aligning testing to COVID epidemiology
Data management solution – thought process including strategies to expedite return of results

1. COVID-19 Testing Labs
   - POC Sites
   - Installed Desktop APP
   - Conventional referral sites
   - Standardized GET APIs
   - Connectivity Proposed flow diagram

2. Covid-19 Dashboard
   - National Dashboard
   - SMTP
   - SMS Gateway

3. Clinics/Hotspots
   - Track Sample status
   - Result Information
Data management solution – dashboard screen shots from PLACARD (Short term solution → LIMSLite software for long term solution (in development)

Tracking labs submitting data

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Timeliness to submit data

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63,488 samples tested
Commodity monitoring solution – thought process to include stock level reporting across all testing labs including management of PPE

Call center set up at NPHL to facilitate coordination and reporting across labs

OpenLMIS tool for monitoring commodity stock levels for real time reporting
Key challenges

- Delayed procurement – commodities arrive in parts and this affects device throughput and the TAT
- Limited HR capacity (in quantity) – some staff have been reassigned to support COVID testing
- Few labs have put in place a 24/7 workflow strategy
- Data management system pending full scale implementation – this limits real time data visibility
key take-aways

- No upfront procurement or additional investments in equipment were needed to activate testing
- Rapid decentralization of COVID-19 testing on the existing OPP network (scaling up from 2 to 15)
- Flexibility of switching reagents on the OPP platforms ensured limited interruption in testing
- Knowledge on existing lab capacity (personnel and device spare capacity) informed mapping exercise
- Leveraging on existing LIMS for HIV (EID/VL) to include a module for COVID for real-time visibility
- Centralized systems for managing commodities – coordinated by the NPHL (with optimal cold storage capacity)
- Leveraging on existing coordination platforms for improved communication and experience sharing
Thank you!
Merci!