2014

NATIONAL LABORATORY HUB COORDINATION MEETING MBARARA REPORT

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Ministry of Health
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NATIONAL LABORATORY SPECIMEN REFERRAL AND TRANSPORT NETWORK
Ministry of Health
Mbarara HUB Coordination Meeting Report

THE REPUBLIC OF UGANDA

A. Background

A Hub is a centralized health facility with a laboratory that performs the routine diagnostic services to patients and provides specialized services of collecting laboratory referral samples as well as testing some of them from other laboratories or health facilities within its catchment area. The different samples transported and processed within the referral network include Early Infant Diagnosis of HIV Dry Blood Spot, TB sputum, Histopathology, Surveillance, Outbreak Investigations, External Quality Control panels, Sickle cell, CD4, Viral load and many more.

Certain laboratory investigations are recommended as the absolute minimum to manage patients on ART. These should either be available on site or by transportation of specimens to a local reference laboratory (in which case results should rapidly be returned to the requesting clinician). Such tests are needed to identify potential toxic reactions e.g. anemia due to ZDV, and then to trigger changes in drug regimens according to recommended protocols; or as adjuncts to monitoring the effectiveness of ART. These investigations have been classified as absolute minimum tests (HIV antibodies, HB and Urinalysis); basic recommended tests (WBC total/Differential, CD4, LFTs/RFTs and Glucose); desirable tests (Bilirubin, Lipids, and Lactate and Hepatitis B antibodies) and optional tests (Viral load).

To effectively perform these laboratory functions, a Hub needs to have the right equipment, adequate competent and committed personnel, sufficiently good infrastructure, a functional laboratory quality management system and good management of commodities and logistics system.

A Hub Coordination meeting was convened in the West Central district of Mbarara from the 14th and 15th of April 2014, during which MJAP the Implementing partner, several top district officials and facility in charges and laboratory personnel exhaustively discussed the strengths and challenges with implementing the National laboratory specimen referral and transport network. In the two days, district officers, the implementing partner and laboratory focal persons were oriented through their roles and responsibilities in the system.

Venue: Board room

District of Venue: Mbarara RRH

Supporting Organization: MJAP Uganda

Start Date: 14th April, 2014 (32 Participants); **End Date** : 15th April, 2014 (50 Participants)

MOH Officers:

Mr. Bernard Baitwabaho

Mr. Awongo Chaiga Peter (NTLP).

B. Overall Goal

1. To access whether the selected Hub has the right facilities, systems and expertise to coordinates and provide high quality services.

C. Specific Objectives

1. Conduct physical supervision of the laboratory for renovation, infrastructure, equipment, staffing and quality assurance aspects
2. Collect information using self-administered tool on Health facility labs served by the Hub.
3. Provide update on EID and National Sample Referral and Transport Network (NSRTN).
4. Give brief summary on TB specimen Referral for Gene X-pert and Culture of specimens (TSRS).
5. Explain proper TB sample collection and packaging for NSRTN.
6. Explain the key responsibilities and operational procedures required in the NSRTN.
7. Conduct discussions with Implementing partners, district officials and facilities on strengths and challenges faced by Hubs and facilities in implementing NSRTN

D. Expected Outputs

1. Physical supervision of the laboratory infrastructure, equipment, staffing and quality assurance aspects conducted
2. Self-administered tool on Health facility labs served and filled by respective personnel.
3. Update on EID and National Sample Referral and Transport Network (NSRTN) done.
4. Categories of TB patients for Gene X-pert and samples for referral explained.
5. Proper TB sample collection and packaging explained.
6. Key responsibilities and operational procedures required in the NSRTN have been explained.
7. Feedback from Implementing partners, district officials and facilities on strengths and challenges faced in implementing NSRTN discussed

E. Physical Supervision of the laboratory

Fig 1: Moon

Fig 2: Sun Set in Mbarara

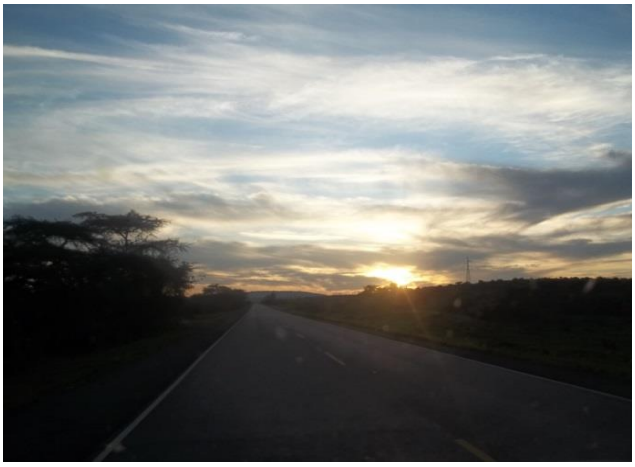


Fig 3: MCH Department

Fig 4: Young Child Clinic (YCC)

Fig 5: Laboratory Store - Pediatric

Fig 6: Busy Day in YCC

Fig 7: History taking in ANC

Fig 8: Dispensing Medicines in ANC

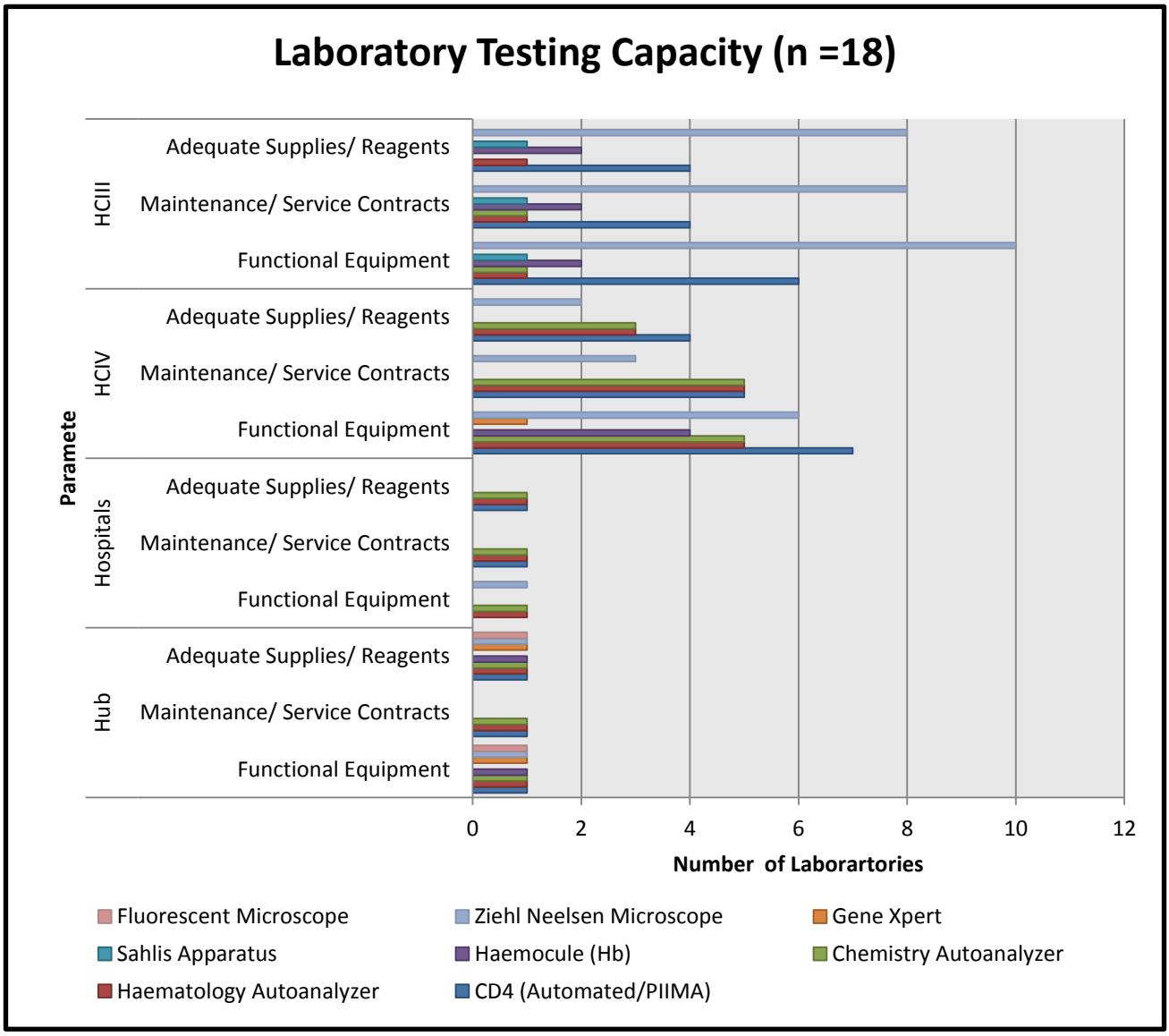
F. Sample Transport Network Statistics (Hub Indicators)

Assessed Parameter	Statistics/Comments
Number of sites served by Hub	26
Hub bike Rider	01
Back up Rider	00
Other systems for delivering samples include:	Health facility staffs
Samples received include:	
• Chemistry	Samples received
• Haematology	Samples received
• CD4	Samples received
• Histology	Sample received
• TB	Samples received
• Outbreak	Not yet
• EQA	Samples received
Workload/per day:	
• Haematology (CBC)	250
• CD4	250
• Chemistry (RFTs and LFTs)	100
• Gene X-pert	15
• TB Microscopy (Zn/Auramine)	40
Availability of Cold Boxes	>10
Functional Fridge[1]	07
Functional Freezer[2]	01 (temperature -20^{o}C)
Functional Centrifuge[3]	08
Current physical state of lab (walls, floor, ventilation, drainages)	Fairly Good infrastructure
Renovation in the last 3 years	Renovation not done
Worktop material:	
• Wooden with Formica Finishing	Municipal council
• Tile	MCH lab,
• Terrazzo	Main laboratory structure
• Ceramic	Municipal Council
• Granite stone	ϕ
• Epoxy	ϕ

[1]Fridge – 3 laboratory fridges non-functional, not boarded off; [2]Freezer – 1 non-functional (temperature -80^{0}C)
[3]Centrifuges – not calibrated

G. Report on Self-Administered Questionnaire[1]

Table 1: Laboratory Testing Capacity

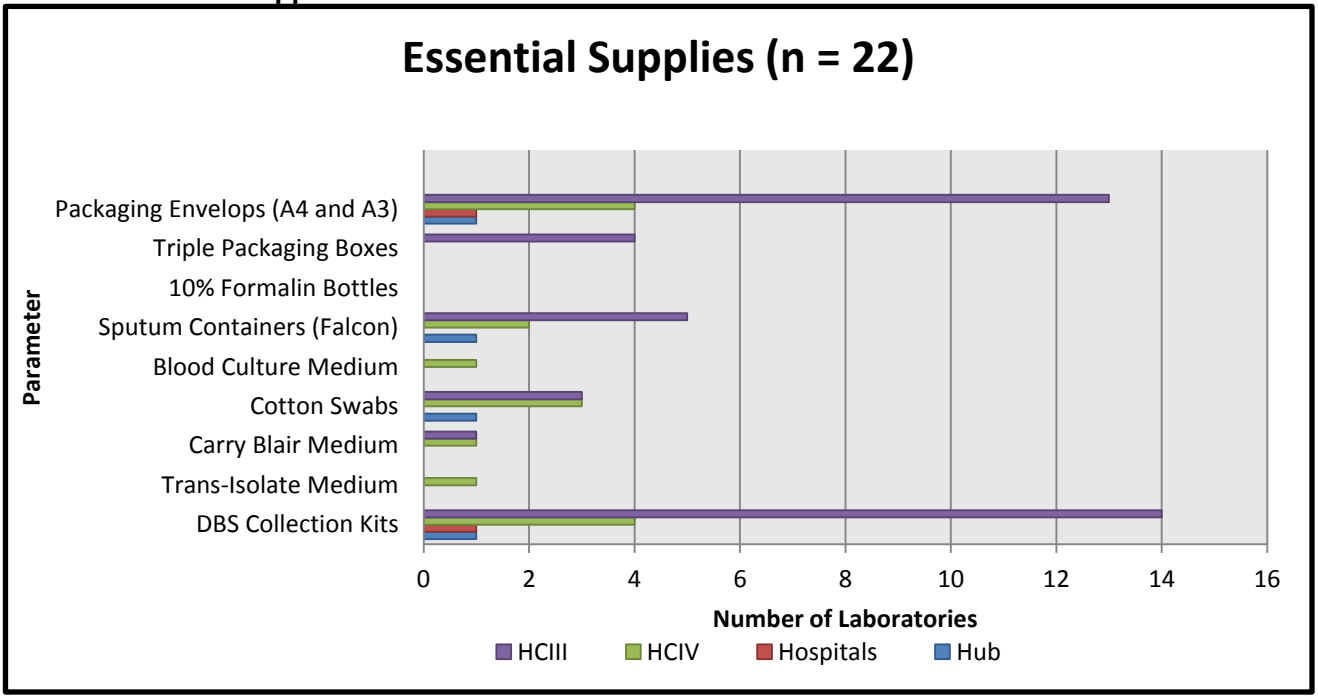


! Precision laboratory Equipment should be adequately maintained by ensuring that there is inclusion of maintenance agreements in purchase contracts, training programs for users in usage and maintenance and availability of adequate reagents and supplies.

! Facilities that did not submit data on Testing capacity included: Bizibwera HCIV, Kakoba HCIII, Ruharo Hospital and St. Franciska HCIII.

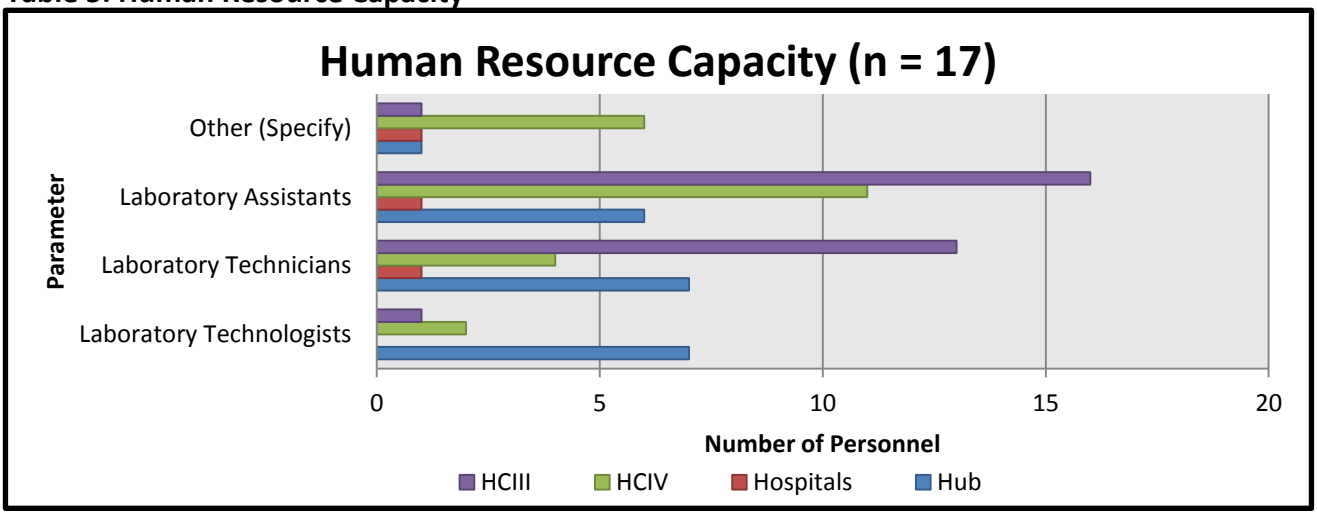
[1] *When answer is No or inadequate the score = 0; Yes or adequate or satisfactory score = 1*

Table 2: Essential Supplies[2]



! The laboratory Hub should have proper logistics management system in place.

Table 5: Human Resource Capacity

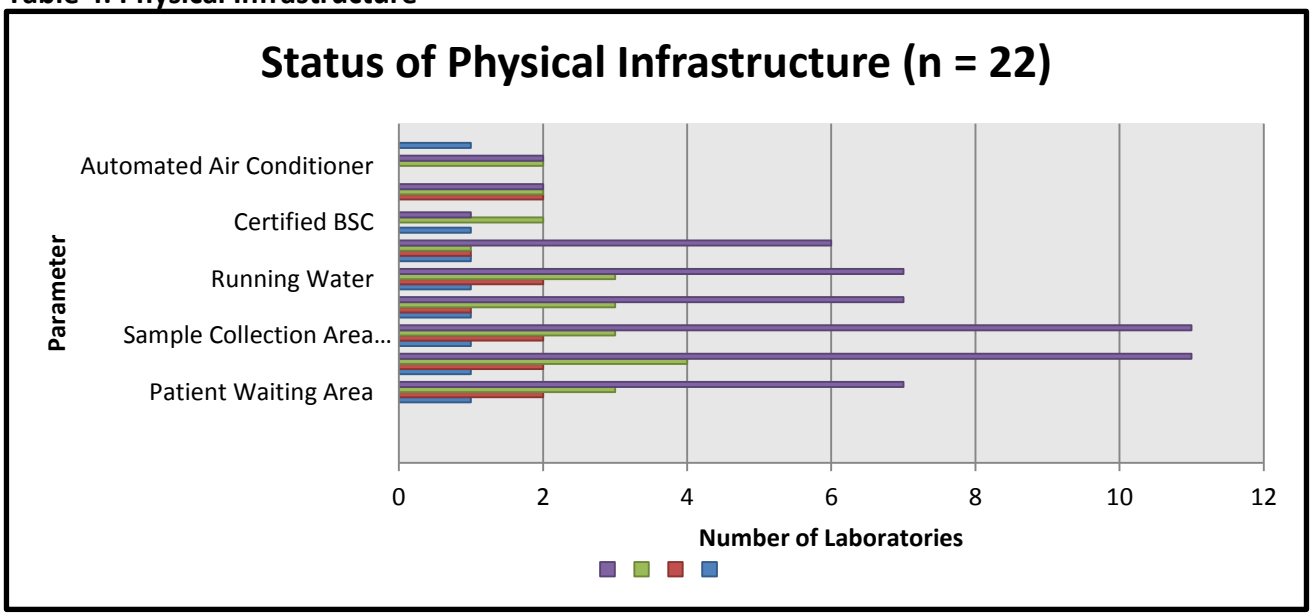


! Amidst the mushrooming training institutions which send out many laboratory cadres, constraints in deploying, recruiting and retention in public sector exists, especially in rural areas. Hence the minimum staffing norms is not subscribed to.

! Facilities that did not submit data on Human Resource Capacity included: Mbarara Community Hospital, Rubaya HCIII, Biharwe HCIII, Ruharo Hospital and St. Franciscka HCIII.

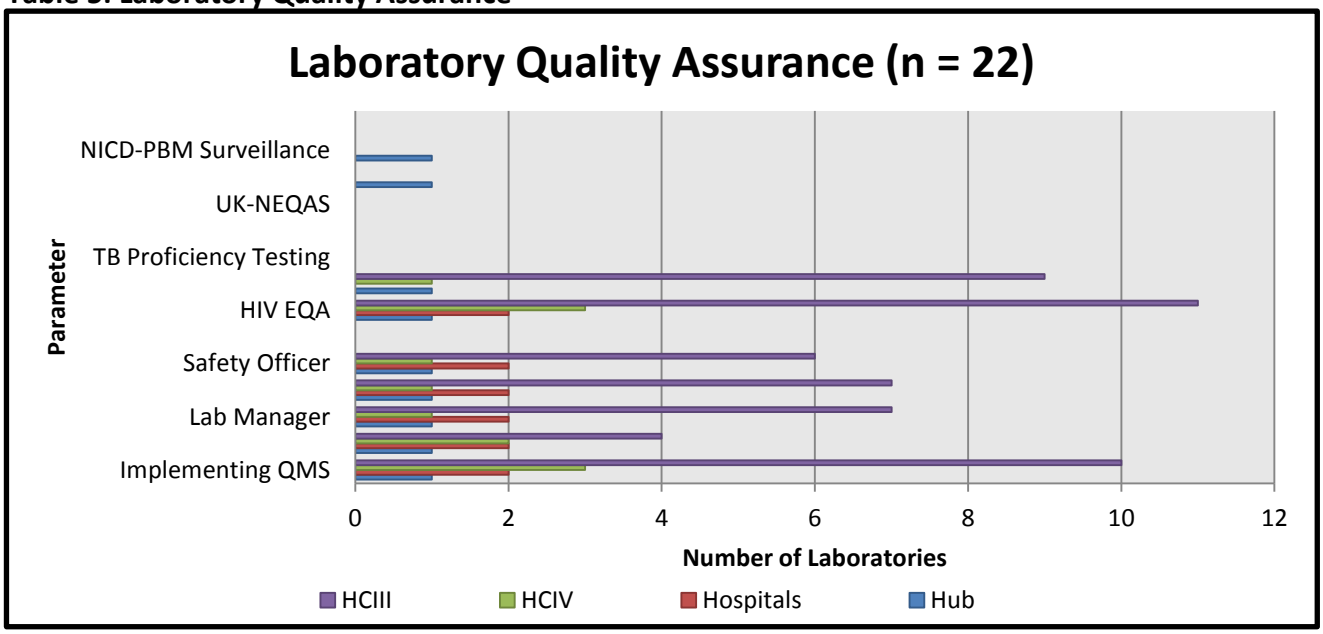
[2] *When answer is No or inadequate the score = 0; Yes or adequate or satisfactory score = 1*

Table 4: Physical Infrastructure[3]



! Many health laboratories built decades ago are dilapidated and need renovating and upgrading to meet the recommended infrastructural standards. Certified BSC located in hospitals.

Table 5: Laboratory Quality Assurance



! Strengthening Laboratory Management Towards Accreditation (SLMTA) is implemented through three workshops, site visits and quality improvement projects. Laboratories which have not been enrolled into SLMTA prepare and benefit by Laboratory Quality Management Systems (LQMS) trainings. All laboratories are expected to participate in EQA schemes and have designated positions for Quality Management.

! National External Quality Assurance Scheme (NEQAS) is coordinated by CPHL for TB, malaria, HIV and Bacteriology surveys. EA-REQAS is an AMREF initiative coordinated by AMREF offices in Kenya/Uganda.

[3] *When answer is No or inadequate the score = 0; Yes or adequate or satisfactory score = 1*

H. Update on EID and NSRTN

EID update

Facilitators reported that the national EID program has rapidly scaled up since its start in 2007, providing services at 2099 sites to date. In order to improve efficiency, lower operational costs and improve MOH oversight and coordination, a decision was taken to consolidate the 8 partner run EID labs into one run by MOH, now located at CPHL. Notable in this intervention was the steadily declining positivity rate amongst infants. To improve program monitoring EID data base has been made web based and posts a web dashboard, www.cphluganda.org/dashboard/.

It was also reported that the MoH and Partners have scaled up Hubs from 19 to 66 and an additional 17 have been launched in the past four 4 weeks. It is assumed that the 66 Hubs launched will increase facility coverage to at least 90%. To complement the Hub launches and coverage, certain innovations have been added: SMS Messaging, GSM Printers, viral load testing and Sickle Cell screening for neonatal.

I. Comments from District Officials

District Health Officer (DHO)

Welcoming the visitors from MoH to Mbarara, he expressed the need for regular review meetings between the offices of the DHO, hospital management and facility staff; and the Implementing partner. If possible these review meetings should take place every two months. The Implementing partner should step in to support the Hub biker in regular servicing and repair of the Hub motorcycle. The district has observed that the motorcycle lacks good tires. The rider himself is not adequately protected with riding gears (overall, shoes and sample bag). He concluded his remarks by calling upon the CPHL in collaboration with the Implementing partner to organize EID refresher courses.

MJAP (Implementing Partner)

Welcoming the visitors to Mbarara MJAP offices, the Clinical in charge said Hub strengthening activities were handed by MoH CPHL to MJAP a year ago. Even though there is one Hub rider, the TAT of EID results have tremendously improved over time, however challenges do exist. One rider for such a big district is not sufficient. A second rider needs to be recruited to collect emergency specimens. As MoH, we informed them that this task falls squarely in their lap and they should be able to handle it well. Having been earlier informed about the commencement of viral load testing by CPHL, MJAP staffs we met also wanted to know when this activity would commence. Communication about this will follow soon.

Director of Mbarara RRH

Since Central Public Health Laboratories handed over the responsibilities of running the finances and technical details of Mbarara Hub to the Implementing partner, several challenges have come up.

There is a glaring communication breakdown between the Implementing partner and the hospital especially when it comes to the care of the hub bike and other aspects of coordination. This and other issues arising may curtail in the breakdown of the Hub activities. Visibly clear is the poor support accorded the Hub rider who like any human being requires protection from the torments of weather? He needs riding gears and a bag for carrying samples.

Hub Coordinator and DLFP

Although Mbarara Hub has reduced on the TAT for client results, many challenges have been envisaged over the past year. Previously there was Hub facilitation by CPHL but this has dwindled out and stopped all together. Although the Hub biker is availed with a phone and air time, these amenities are a necessity and not enough. As mentioned earlier, the bike requires regular servicing and repairs. The usage of a biohazard bag for sample transportation is not appropriate. Previous bag was worn out. A second bike rider was required to support the current person.

Sample transportation from Rubindi HCIII and Makonge HCII was affected by selfish interests and routing hiccups. Many times the Hub rider upon reaching these facilities was informed of no samples but immediately upon his departure samples were collected and delivered by other health workers who expected transport reimbursement. The Hub rider seemed not to know some of his roles and whom to answer to. Because he was paid by MJAP he probably thought he must be answerable to the Implementing partner but not the Hub administration.

J. Discussions and Reaction

1. Laboratory personnel should endeavor to practice quality management through practicing EQA for effective service delivery.
2. Participants appreciated the presence of Hub in Mbarara and hope it will improve service delivery and the clients and community will use it to their benefit. The Executive Director and DHO should work together to ensure functionality of Mbarara Hub.
3. Laboratory personnel should endeavor to proactively seek out for new information by updating their knowledge on new policies, knowledge in the dynamic changing world.
4. There is need to conduct refresher training on testing algorithm, tools, drug regimens and test types when funds are available.
5. Establish a system for accounting for the resources of the laboratory – supplies, reagents, sundries, by meticulously documenting them on respective source documents.
6. There is inadequate supervision of laboratories by Ministry top laboratory management.
7. Thorough advocacy for facilitation of Hub coordination activities – supplies for bike rider, repair and servicing of bike, facilitation of Hub officials and procurement of necessary equipment and supplies for the laboratory.

K. Action Points

Issues	Recommendations	Responsible	Tentative Dates
Communication breakup between Hub and IP	Sensitization of stakeholders on their role	MoH CPHL	Immediately
Absence of regular review meetings	Review meetings every two months	Director, Hub Coordinator, MJAP	By June 2014
Facilitation of Hub coordination activities	Avail facilitation to Hub	Director, MJAP	Immediately
Irregular servicing and repair of the Hub motorcycle	Regular servicing and repair of Hub cycle	MJAP	Immediately
Lack of protective gear for Hub rider and bag	Procure overall, shoes and sample bag	MJAP, MoH CPHL	Immediately
EID refresher courses	Organize refresher courses	MoH CPHL	By June 2014
Lack of second rider for emergency specimens	Recruit	MJAP	Immediately
Inadequate communication on Viral Load testing	Communicate about commencement of testing	MoH CPHL	Immediately
Rubindi HCIII and Makonge HCII unaware of routing timetable	Sensitization on routing	Hub Coordinator	Immediately
Rider unaware of reporting structure	Sensitization on reporting structure	MoH CPHL Hub Coordinator	Immediately
Lack of Air Conditioning in Main laboratory	Provide t Air Conditioning to prolong reagent & equipment self-life	Director	By Aug 2014
No Backup machines Chemistry or Haematology	Procurement of Backup Equipment	Director	By Aug 2014
Humalyte for Electrolytes lacks replacement electrodes	Electrode replacement	Director	Immediately
Inadequate fridges, waste bins	Procure fridges	Director	By June 2014
Inadequate Furniture	Procure furniture	Director	Immediately
GSM Printer non-functional	Sign contract between MTN and CPHL	MoH CPHL	Immediately
Lack Hub Register	Provide Hub Register	MoH CPHL' MJAP	Immediately
Training on DBS Collection and packaging	Train new staffs	Hub coordinator	By June 2014
FSG meetings not taking place	FSG meetings	PMTCT Coordinator	Immediately
Follow up of Clients	Facilitate follow up	MJAP	Immediately

L. Physical Infrastructure in Pictures

Fig 9: Laboratory Signage

Fig 10: Appropriate Waste Management

Fig 11: Client Management in PMTCT lab

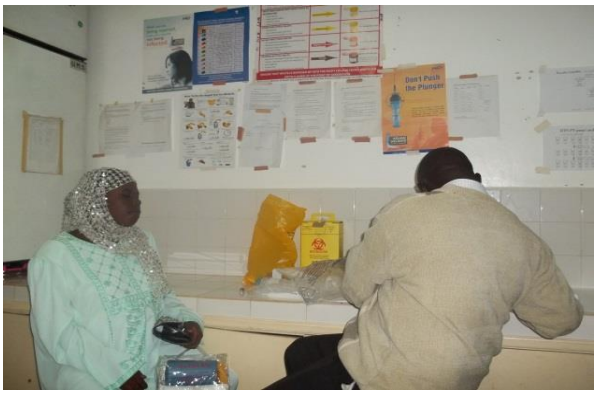


Fig 12: Centrifuge

Fig 13: Fridge on top of Worktop

Fig 14: Reception and Office

Fig 15: Bike Rider with Problems

Fig 16: Torn Biohazard Bag used instead of Bag

Fig 17: GSM Printer – non-functional

Fig 18: Location of Main Laboratory

Fig 19: HUMALYTE Machine for electrolytes[4]

Fig 20: Humastar 80 Machine

[4] Electrodes of Humalyte machine need replacement

Fig 21: Single Fridge Full

Fig 22: Clutter - inappropriate

Fig 23: Microscopy Station

Fig 24: Data Management

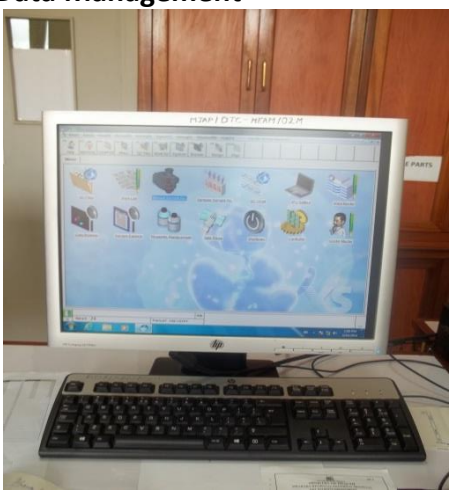


Fig 25: Staining Station

Fig 26: TB Isolation Ward

Fig 27: Blood Transfusion – Cross matching

Fig 28: Blood Transfusion

Fig 29: Gene X-pert using borrowed Stabilizer

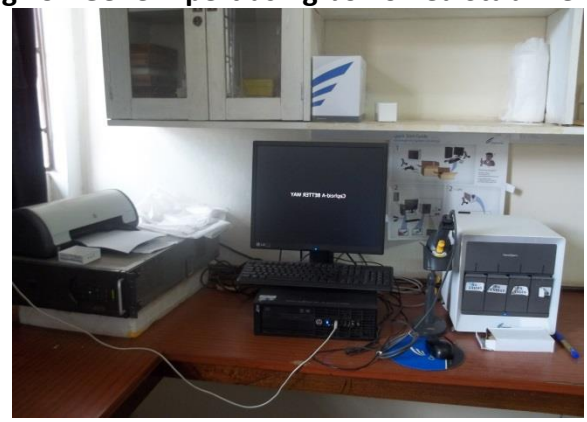


Fig 30: Certified BSC

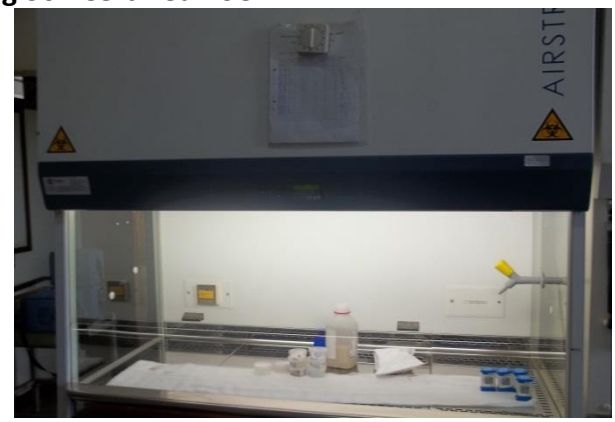


Fig 31: Non-functional BSC[5]

Fig 32: Obsolete Equipment[5]

[5] Non-functioning equipment appropriately labeled and removed from the laboratory & storage areas

Fig 33: Municipal Health Facility - OPD

Fig 34: MJAP Laboratory

Fig 35: PIIMA Machines - Research

Fig 36: BSC – DBS Drying point

Fig 37: Automated Machines - CBC

Fig 38: Chemistry Analyzer – non-functional

Fig 39: Waste Management[6]

Fig 40: Cluttered MJAP Store

Fig 41: ISS Laboratory - Clutter

Fig 42: PIIMA CD4 Machines - Research

Fig 43: ISS Store

Fig 44: Return Leg

[6] Segregation, packaging and disposal of laboratory waste should be according to national guidelines.