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Bulletin
Kenya Chapter
The East Africa Public Health Lab Network Newsletter
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Alarm over Zoonotic Disease Out breaks

Focus shifts to the One Health approach

Health Officials investigate Ebola outbreak in Kibaale District, Uganda in July 2012. Ebola is a deadly zoonotic disease and highly infectious

In the past one year, countries in the East Africa region have experienced deadly outbreaks of Viral Haemorrhagic fevers that have led to several deaths. Recent outbreaks of Ebola (Uganda, DRC), Marburg (Uganda), Yellow Fever (Sudan) have been reported and quite likely others may have occurred and went unreported due to weak surveillance systems. In 2006/7 Kenya experienced an outbreak of Rift Valley fever in North Eastern Province which was initially confused for malaria. The outbreak also affected Tanzania, Somalia and Sudan. In the past one year, Kenya has also had to deal with outbreaks of Dengue fever in Mandera, Rabies in Kisumu, Anthrax in Turkana and Human African Trypanosomiasis (Sleeping sickness) in Narok Counties. All these disease outbreaks have one thing in common. They are Zoonotic. Zoonotic diseases are a group of diseases which are spread from animals to humans and vice versa. In fact, 60% of all human infections and about 75% of newly emerging diseases originate from animals. It is curious that some of the diseases causing pathogens are related. The viral infection called Canine Distemper which causes measles like disease in animals is related to the measles virus which afflicts humans; and has been observed that when humans are suffering from measles, Distemper cases in animals has also been observed to be on the rise.

> *"The East African Public Health Laboratory Networking Project could not have come to Malindi at a better time. The project has seen increased access to quality health services, not just in the District Hospital as evidenced by the increased workload in the Laboratory, but also in the hard to reach indigenous communities who have benefited from the continuous integrated outreaches supported by the project."*
>
> *Dr. Joan Karanja, the Malindi DMOH on the impact of the project*

The biggest concern which is causing alarm in the region is that some of these diseases like Ebola and Marburg have no known cure or vaccine; they cause many human deaths and their reservoirs are as yet not fully understood. Others like Anthrax and Rabies are preventable yet they continue to cause many deaths in humans and animals.

The other area of concern is huge socioeconomic impact of zoonotic diseases. Large proportions (80%) of populations in east Africa rely on agriculture and pastrolism for their livelihoods. Some zoonotic diseases like anthrax and Rift Valley Fever are known to kill livestock and reduce animal production and has thus push many households into poverty. Viral haemorrhagic fevers and sleeping sickness have a negative impact on tourism which is a major economic driver in all East African countries. Some of these diseases like Foot and Mouth Disease and Bovine Tuberculosis have rendered weak export capacity of animal and animal by-products. On the other hand, a disease like brucellosis which normally is considered a herd disease causes minimal deaths in both animals and humans. It results to abortions/ still births, significant reduction in milk production in

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Editor's Note

This edition marks yet another projects advancement towards improving the delivery of laboratory services in Kenya, and indeed the East Africa region.

The EAPHLN bulletin has enjoyed increasing levels of readership, thereby increasing its contents and coverage with each and every new release. I would like to acknowledge all those who contributed to the release of this pullout and do encourage more partners to join the team in the future. Whether this bulletin should gain a regional outlook is an idea worth considering for the next release.

This newsletter carries a wealth of information ranging from research articles aimed at informing policy, technological innovations in the health sector among other interesting reads. Of particular note is the One Health concept which I consider the flag bearer for this release.

Finally, I would like to wish all our esteemed readership happy holidays and a fruitful electioneering year. I leave you with the conviction that:

"Together we can control the spread of communicable diseases in East Africa through improved diagnostic and surveillance capacities"

Edward T.

IN THIS ISSUE

The EAPHLN Newsletter is produced by the Department of Disease Prevention andControl and is a quarterly production

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Outbreak of Ebola; The Uganda Story

By Dr. Kalyesubula-Kibuuka Simon – M&E Specialist EAPHLNP, MoH

Background:

This was the third outbreak in Uganda and the eighth in the region. The outbreak started in the Kibaale district, a forested area ±170 km west of the Ugandan capital, Kampala. Kibaale is close to Uganda's border with the Democratic Republic of Congo, where the virus was first documented in 1976. The outbreak was confined to Kibaale district (Figure 1).

Starting from July 12, 2012, reports of a strange and highly fatal illness were received from Kibaale district, Western Uganda. The Ministry of Health promptly deployed rapid response teams to investigate the illness. The outbreak was eventually confirmed by the Uganda Virus Research Institute as Sudan Ebola hemorrhagic fever. The Ministry of Health officially declared an outbreak of Ebola in Kibaale district on July 28, 2012.

Epidemiological Findings:

The initial case was a 16 year old female from Kikaara village, Buchuhya Parish, Bubango sub-county. The village is located 55 km from Kagadi Town Council, close to the border with Kyegegwa district. Her illness started on June 12, 2012 and was characterized by high grade fever, diarrhea, vomiting, body weakness, and bled from the nose and mouth prior to death.

She was initially treated in Hapuyo HCIII in Kyegegwa district on June 12, 2012 and eventually in EMESCO Health Centre (a private health facility) from 13th to 17th June . She passed away seven days after the onset of the illness and was buried in Kibbaali on June 21, 2012. There was no history of exposure to cases with similar illness, no history of travel, no history consumption of game meat prior to the onset of illness. The initial case and her husband being peasant farmers had been involved in opening up Forest land for cultivation. The forest is reported to harbor non-human primates, bats and other wild animals. Several caves that harbor bats were also reported in the vicinity of the forest.

The community however reported no history of deaths in wild animals and the practice of eating of game meat was reportedly not practiced. During her illness, she travelled to her brother in-law's home in Nyanswiga on June 17, 2012 but her illness worsened and she was returned to hospital after one day. Following her death, her mother subsequently contracted the disease and died from an illness with similar manifestations. A pastor who came in to pray for the initial case also contracted the disease and died of similar disease manifestations. Her in-laws in Nyanswiga also contracted the disease with nine (9) of them succumbing to the illness. The subsequent clusters of transmission linked to these patients were reported in Nyanswiga (the most affected); in Kagadi hospital and Muhoro health centre (where the patients came in for treatment); Muhoro Town Council; Kibbaali; and Kisindizi.

During this outbreak, a total of 24 probable and confirmed cases were recorded, of which 11 were laboratory confirmed by the Uganda Virus Research Institute (UVRI) in Entebbe. A total of 17 deaths were reported in this outbreak giving a case fatality rate of 70.8%.

The Outbreak Response

The Government of Uganda worked with a number of partners to control the outbreak. A Ministerial Task Force, chaired by the Minister of Health was established to facilitate and coordinate the outbreak response. These partners included; WHO, Centers for Disease Control and Prevention, the Uganda Red Cross Society (URCS), African Field Epidemiology Network (AFENET) and Médecins Sans Frontières (MSF). WHO deployed epidemiologists, infection control specialist, logisticians and supplies, including personal protective equipment (PPE) to the outbreak control efforts in the country. ECSA-HC also supported deployment of a Regional Rapid Response Team (RRT) and provided essential supplies to the country.

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UPCOMING EVENTS:

- Laboratory peer assessment exercise combined with monitoring and evaluation verification of the Results Framework exercise, December 2nd -12th 2012
- EAPHLN Steering committee meeting on Dec 4th and 5th 2012 at the ASLM Conference
- The recently hired ICT officers will report to the satellite laboratories in December 2012
- Training Needs Assessment will be conducted in January 2013

PAST EVENTS:

- Regional Research Methodology training was held in Arusha, Tanzania in November 2012
- Had a Technical Review Forum that was led by the World Bank and Ministry in early October 2012
- Procurement clinic for the project was led by the Bank's Procurement specialist on November 21st and 22nd
- Technical evaluation of bids for consultancy to develop a regional mobile phone and web based reporting of surveillance and lab data- November 21-22
- The project supported the Marburg virus Outbreak in Uganda by sending two epidemiologists to support the response.
- ESAMI Procurement procedures training- trained 4 officers from the National level
- Lab assessors training conducted -1st- 5th October in Dar es Salaam. Two new assessors trained, two refreshed.
- The project supported the Cholera outbreak in Northeastern province in November 2012. The FELTP residents participated

By Christabel Misiko

"Establishing a malaria drug resistance research forum in Eastern Africa"

By Rachel Ochola & Ambrose Talisuna (WWARN)

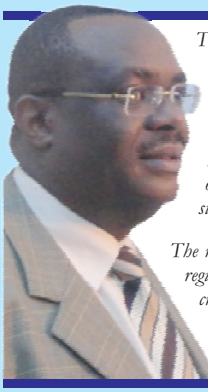
Participants to the first Eastern Africa Antimalarial Drug Resistance Stakeholders Meeting in Nairobi pledged to put aside national interests and bureaucratic barriers to tackle the potential threat of artemisinin resistant malaria in Africa.

"To the best of our knowledge, there are no confirmed cases of artemisinin resistance on the African continent," said Professor T. K. Mutabingwa of the Hubert Kairuki Memorial University, Tanzania and WWARN Board member. *"This is not an excuse for complacency."*

The forum agreed that effective surveillance demands good quality clinical trials. Although difficult to achieve, a standardized study design will allow data from different places to be more easily combined to form an accurate, comprehensive picture of any emerging threat. WWARN proposed a mechanism to generate a more detailed understanding of how people respond to antimalarials as a baseline against which to spot apparent loss of efficacy. Moreover, all agreed that countries should equally strive to implement broad surveillance studies backed up by cross border surveillance and strengthened routine health information systems.

The May meeting was convened by WWARN, Roll Back Malaria-Eastern Africa Regional Network (RBM-EARN) and the East Africa Consortium for Clinical Research (EACCR) and was attended by malaria experts from Burundi, the Republic of Congo, Kenya, Sudan, the United Republic of Tanzania and Uganda.

The region cannot afford to lose ACTs. Everything should be done to reduce the risk of resistance emerging in Eastern Africa. WWARN will support the WHO Global Plan for Artemisinin Resistance Containment and advocate for improved diagnostic capacity, access to high quality ACTs and capacity building. Our collaborative platform engages all stakeholders. We hope that the Eastern Africa research community will join this initiative and work with us to map an action plan to protect our region!



The year 2010 shall be remembered as the year when East Africa took a bold step to lay the path of truly transforming laboratory services through the EAPHLN initiative. The last two years has seen remarkable progress which has catapulted the capacities of laboratories to offer solutions in disease outbreak responses not only in Kenya but across the East African states. The unique concept of countries taking lead in a specific strategic objective is a powerful public health knowledge sharing tool. Kenya's able leadership in operational research has lead to the finalization of three multi-country research protocols. The researches will inform much needed policies and strategies to strengthen diagnostic services across sub Saharan Africa.

The regional nature of this project has come at opportune time and will provide useful lessons with regional collaborations and partnerships. Advocacy through the Kenya EAPHLN bulletins has created a lot of interest and will go a long in promoting knowledge sharing in Kenya and the region.

Dr. Willis Akhwale, PhD, MBS
Project Manager – EAPHLNP Kenya Chapter

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Outbreak of Ebola

Laboratory Investigations

Uganda Virus Research Institute (UVRI) provided diagnostic services for confirming Ebola suspect cases.124 specimens (blood and skin snips) were collected. Of the 124 specimens 11(8.8 %) were positive either by PCR or antibody test; 5/11 (45.4%) positive by antibody tests and 6/11 (54.5) positive PCR (acute). 113/124 (91.2 %) were negative for Ebola virus.

How the Neighbouring countries responded to the situation

A number of countries neighbouring Uganda took proactive steps to enhance their surveillance to detect and respond to cases of Ebola haemorrhagic fever. The neighbouring countries of Kenya, Rwanda South Sudan and Tanzania investigated rumours of suspected cases. Both Kenya and Rwanda investigated the rumours and ruled out Ebola. The governments of Kenya and South Sudan issued guidance to the general public and also activated their national task force to undertake enhanced surveillance. The suspected cases (Alerts) in Tanzania (Kagera) and Kenya (Siaya) tested negative for Ebola.

Containing the Outbreak

During the outbreak period there was enhanced surveillance for early case detection and contact tracing, reinforcement of infection prevention and control including case management in isolation facilities using barrier nursing and conducting supervised safe burials, reinforcement of standard precautions in health care settings and enhancing communication interventions at the national and community levels.

The last case of the Ebola outbreak was confirmed on 3rd August 2012 and was discharged from the hospital on 24th August 2012. On Thursday October 4th 2012, at Kagadi General Hospital in Kibaale district, the Ministry of Health (MoH), declared the end of the Ebola haemorrhagic fever (EHF) outbreak in Kibaale district. This declaration followed completion of the mandatory 42 days of the Post Ebola Surveillance countdown period, a prerequisite of the WHO for any country to monitor the Ebola situation, before finally declaring an end of Ebola outbreaks.

Verify the diagnosis related to the outbreak by getting the right, quality patient sample.

EAPHLN Laboratories in Kenya now aim for ISO 15189 Accreditation

By Dr. Amayo, Wakaria and Yvonne (MSH Lab team)

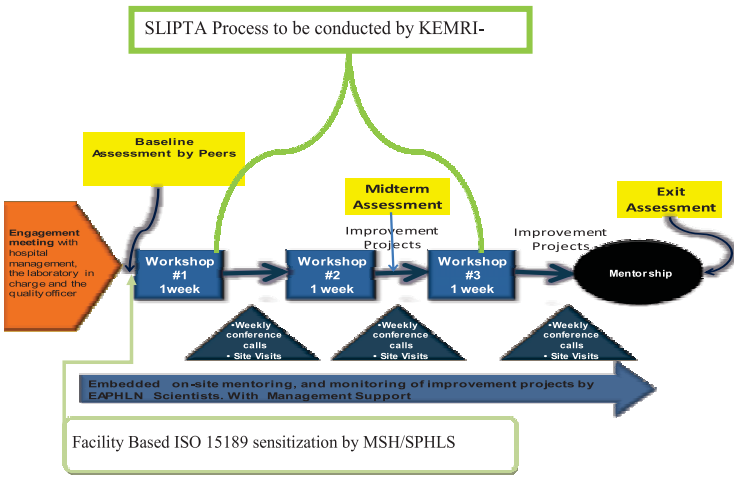
In order to enhance the quality of laboratory testing for diagnosis and surveillance, and the transferability of results across the laboratories within and between countries in the EAPHL Network, the project has supported various laboratory continual improvement initiatives. These have included training of laboratory workers in biosafety, internal audits, mentorship among others, and providing supportive mentorship. Significant improvements in analytical quality and safety have been realised through these initiatives which have laid the ground for a structured process towards implementing ISO 15189 quality management system requirements in order to attain laboratory accreditation.

The WHO step wise approach (Stepwise Laboratory Improvement Process Towards Accreditation (SLIPTA)) has been accepted regionally as an effective structured approach for implementation of requirements of ISO 15189 with graduated recognition of laboratory quality improvement. The quantification of quality laboratory services enables progress to be measured and recognition of improvements motivates laboratories to continue on the stepwise ladder.

To enhance managers' understanding on the broad requirements of the ISO 15189 Standard and the WHO-AFRO stepwise approach, the EAPHLN project supported a one day engagement meeting with District and facility managers from the five EAPHLN Laboratories in Kenya. MSH led Strengthening Public Health Laboratory Systems in Kenya Project (SPHLS) and KEMRI-CDC provided technical support for the meeting that was also meant to help the managers identify joint and individual roles in the successful implementation of the quality standards which the 5 laboratories were embarking on. Thirty five participants comprising District Medical Officers of Health (DMOH), Medical Superintendents, Pathologist, District Medical Laboratory technologists and Laboratory In-charges attended.

A road map for the structured step-wise process was agreed upon with a goal of each laboratory attaining 5 star rating by 2014. The role of each player in the partnership was defined. MSH/SPHLS project will conduct facility based ISO 15189 sensitization for all workers. This is to foster a facility wide quality culture with possible benefits of quality improvements beyond the laboratory as the management requirements of the standard are applicable in all areas. The SLIPTA process will follow thereafter conducted by KEMRI-CDC. Onsite continuous mentorship of the facilities will be provided by scientists from the EAPHLN Project and the Ministry of Health. Facility managers will handle the logistics of trainings and will provide necessary support throughout the process.

Fig. 1: EAPHLN Kenya Laboratory Improvement plan:



This leveraging of expertise and resources from the various partners will provide lessons that will inform the Kenya Laboratory sector on effective and efficient approaches that can be employed to achieve laboratory accreditation.

EBOLA EMERGENCY PREPAREDNESS: Lessons learnt from a border district

By Busia Team

Busia District borders to the west Uganda, the town is the Major frontier in East Africa. The District Hospital serves as a County Referral Hospital which has also attracted the travelers seeking health care services. This has been attributed to the harmonization of East African Community (EAC) policies. The East African Public Health Laboratory Networking Project (EAPHLNP) is supporting Busia district hospital laboratory to establish a network of efficient high quality accessible health services in the region.

The EAPHLN project was initiated to address some of the common health problems affecting the East Africa Region i.e. Elevated threats of Epidemic prone diseases i.e. Cholera in April 2012 at Mbale Uganda, RVF, Global Pandemic Diseases H1N1, Ebola, Marburg and emergence of MDR-TB access the urgent meet to improve Disease Surveillance in the Region.

Busia Satellite laboratory received support from the EAPHLNP towards strengthening surveillance and response during the outbreak period which lasted slightly over 30 days. The DHMT Busia in collaboration with the District Disaster Management Committee ,chaired by the then Ag DC, Mr. John Maingi, developed an action plan and measures for implementation to avert the outbreak at the Border, considering Busia is an entry point and many travelers from Uganda's traverse through the Border. There was also virtual sharing of information across the border amongst health personnel, while working in consultation with the immigration department at the border.

Some of the committee's agreed interventions and which were thereafter implemented included:

- Establishment of Sub Committee on Rapid Response Team Members
- Setting up of an isolation ward at Busia District Hospital, which was executed with the wing being the hospital's old theatre with a capacity of six beds?
- Availing of PPEs for use in cases of reported case. To this end, a total of 40 sets of PPE kits were received from the Division of Disease Surveillance and Response and were distributed to major facilities within the county including the Malaba border point Frontier office.
- Intensify 24-hour screening (based on the location of origin) with availability of a tent which was availed at the frontier for the travelers from the affected region and its surrounding to be screened to capture the origin of the

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Zoonotic Disease Out breaks

animals and causes severe consequences in humans like arthritis, blurred vision and importantly lost productivity time and money used for treatment.

Medics and scientists in the region too have raised concern over increasing antimicrobial resistance. Abuse in the use of antibiotics in animals leaves drug residues in the food products from the animals contributing to drug resistance. Monitoring and quantifying drug concentration (residues) in meat during meat inspection is therefore a crucial public health concern.

"Zoonotic diseases continue to cause many deaths and significant disability. Rabies causes three deaths daily yet it is 100% preventable. With the one health approach adopted by the government, the deaths from zoonotic diseases will significantly reduce."

Dr Eric Osoro, Medical Epidemiologist, ZDU

One way of addressing zoonotic disease outbreaks and other public health concerns is to adopt the One Health approach. The One Health approach is based on the fact that human, animal and ecosystems health are irrevocably intertwined hence the need for close collaboration between these health sectors. Kenya recently established a unit within the Department of Disease Prevention and Control (MoPHS) and the Department of Veterinary Services (MoLD) which has been tasked to address zoonotic disease control as a matter of priority. The unit has two technical staff seconded from the respective Ministries; Dr. Eric Osoro, a Medical Epidemiologist (MoPHS) and Dr Stella Kiambi, a Veterinary Epidemiologist (MoLD). This Unit was officially launched on 3rd October 2012 by the Minster of Livestock Development and Minister of Public Health and Sanitation with a vision of building a country with reduced burden of zoonotic diseases and better able to respond to the epidemics of emerging infectious diseases. The mission is to establish and maintain active collaboration at the animal, human, and ecosystem interface towards better prevention and control of zoonotic diseases.

"Prevention and control of diseases that spread among humans and animals is a global public good with benefits which extend to all countries, people and generations. Wide spread laboratory capacity building across the country and maintenance of acurate diagnosis will result to timely diagnosis and detection of these diseases and will aid in targeted accurate treatment among humans and animals as well as detection of undesirable qualities in the food and/ food chain."

Dr Stella Kiambi, Epidemiologist, Min. of Livestock Development

One immediate challenge the unit has had to address is the weak laboratory services in the livestock and public health sectors. Kenya has only six regional Veterinary Investigation laboratories and whose capacity is weak in terms of equipment and supplies. There is also lack of effective diagnostic services for endemic diseases like brucellosis and anthrax especially in the public health laboratories. This has resulted in people getting treated or not getting treatment for the diseases at great expense. For example, a person diagnosed as having brucellosis while he is not will have to undergo the traumatizing, painful intramuscular injections for 21 days and the oral treatment that follow for several weeks! This means a lot of resources are wasted in the treatment of these false positives both at the government and individual level. On the other hand, since brucellosis does not kill quickly, the person marked as false negative will actually continue suffering with the disease, is unproductive at work and also spends a lot of time and money hoping to get well one day! Therefore, there is an urgent need to have effective rapid diagnostic kits to address the situation.

This has recently been addressed with the equipping of Laboratories with PCR capabilities under the World Bank funded East Africa Public Health Laboratory Networking Project. In Kenya, a new molecular laboratory has been set up at the National Public Health Laboratory Services with advanced new diagnostic technologies being introduced like sequencing and DNA molecular identification which is applicable in the hemorrhagic fever viruses. This regional initiative will be useful in the strengthening surveillance, immediate diagnosis and research of zoonotic diseases. This will not only be critical in the prevention and control of these diseases but also in allaying growing fears across the region.

By Dr. Willis Akhwale, PhD MBS, Project Manager

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EBOLA EMERGENCY PREPAREDNESS

traveler and the history of stay from, and to his destination. This active screening started on the 29th of August and concluded on 30th September of which a total of 24,396 persons were successfully screened with no reported suspected case. A database on the same was established and forwarded and daily basis to the Chief Public Health Officer, Nairobi.

From the EAPHLNP support, the committee through the DMOHs office managed to sensitize over 200 personnel from the whole County. This mostly involved the vulnerable groups including health workers, government departmental heads, traders, border point brokers and truck drivers. However, more emphasis was laid on the Fishmongers who export dried salted fish to DR Congo and frequently traverse through the affected District in their course of business. The DPHO Busia managed to have a series of meetings with the representatives of the Fishmongers Association, the business community and they appreciated and promised to heed by the guidance provided to them on this menace

Those trained received fact sheets on Ebola which they were to use to further create awareness on this disease.

The District Disaster and Response Committee were indeed grateful for the continued support from the EAPHLNP and hoped that this support would continue well into the future to enable the district effectively handle threats and incidences of disease outbreaks.

Strengthening Laboratory Systems:
Management trained on Laboratory Quality Management Systems

By Waqo G. Boru, Laboratory Epidemiologist
FELTP Field Coordinator, laboratory Track

Certificate award ceremony: from left; Dr. Chris Masila - EAPHLN Project Cordinator, Mr. Benjamin Wandera (Lab manager Busia), Dr.Arvelo Wences (Resident Advisor FELTP-Kenya) and Waqo G. Boru - FELTP Field coordinator, Laboratory Track

Field Epidemiology and Laboratory Training Program (FELTP), Kenya Program seeks to strengthen laboratory systems by supporting the development of competent local cadre of laboratory managers and leaders. The Program aims to achieve this objective through a sustained, measurable transfer of public health laboratory quality management and systems (QMS) knowledge combined with specific technical training.

It is in this regard that FELTP program, embarked on an initiative to train laboratory managers on quality management systems in the laboratory. Five satellite laboratory managers from Machakos, Kitale, Busia, Wajir and Malindi were taken through a five day training at FELTP Program on a rigorous lectures focused on quality management essential components in the laboratory. This initiative was jointly facilitated by the East African Public Health Laboratory Network project (EAPHLNP) and FELTP, Kenya Program.

Scope of training

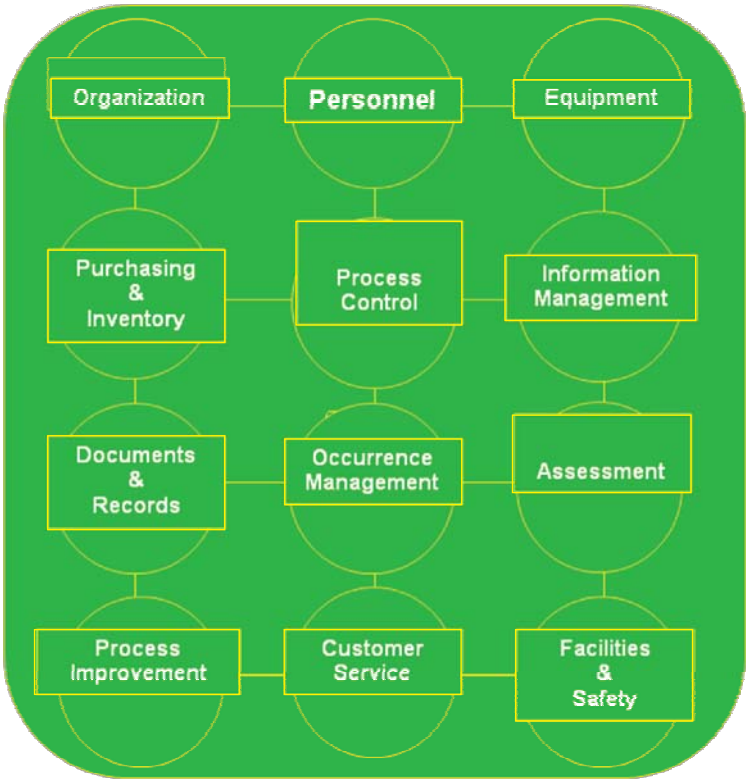
Five day training was organized from15th October through 19th October 2012, at FELTP, the training focussed on the following key areas;

- The twelve Quality Management System components
- Plenary session on case studies and typical scenarios in the laboratory working environment
- Benchmarking visit to the CDC laboratory in Nairobi
- Follow-up projects

The facilitators for the training were drawn from various entities e.g FELTP program team, Scientists/researchers from CDC laboratory and laboratory Epidemiologists who are FELTP allumni.

Quality management Systems

Twelve Quality management Systems essentials were covered during the training; they include the following components;



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Disease Outbreak is a term used to describe an occurrence of disease greater than would otherwise be expected at a particular time and place.

HAZARDOUS WASTE:

WHAT WE DON'T KNOW CAN HURT US

Clinical laboratories are major contributors to the total medical waste stream produced by any health facility. Most of the waste from clinical laboratories is non-infectious or routine, but a smaller proportion, known as clinical biological waste, can endanger populations. Clinical waste includes human tissue, body fluids, chemicals, pathogenic organisms, and used injection products such as needles and syringes. Improper management of such waste is widespread, and poses a threat to public health.

Many countries in Africa have incorporated the issue of medical waste management and disposal into their agendas; the Ministries of Health in both Rwanda and Tanzania have recently developed detailed national waste management plans, with the goal of achieving proper management of waste disposal at all levels of healthcare service. Individual labs at some institutions use guidelines created internally or by outside non-governmental accrediting organizations like the South African National Accreditation System (SANAS). The international community has also weighed in, with a series of Hazardous Chemicals & Wastes Conventions that resulted in legally binding agreements about how to deal with dangerous chemicals. These conventions, ratified by a majority of African nations, include technical guidelines for dealing with healthcare waste, which can be viewed at http://www.basel.int/TheConvention/Publications/TechnicalGuidelines/tabid/2362/Default.aspx.

An example of the common, hazardous practice of open-air burning. Photo reproduced with the permission of Dr. Francesco Marinucci.

Unfortunately, due to insufficient funding, staffing and awareness of the health hazards presented by laboratory waste, guidelines for disposal are not always followed. A variety of waste disposal practices are currently in use, ranging from the safest, where routine and biological waste are segregated and the hazardous portion is disinfected, to the most hazardous, where no segregation system is applied and all the waste is simply dumped near lab facilities. Careless disposal of infectious wastes may lead to serious, difficult-to-treat disease outbreaks. Hazardous chemicals can also do substantial harm to the public and the environment.

The best practice for biological waste, and equipment that has come into contact with such waste, is steam sterilization (autoclaving), followed by incineration. An alternative is chemical disinfection, often using bleach. Both procedures require quality control measures that assure adequate inactivation of infectious materials. For example, steam sterilizers require periodic testing using biological indicators and high quality chemical indicators of sterility (autoclave tape is insufficient) must be included at strategically-placed areas with every batch of material.

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The cartoonist is Alberto Sabat, the cartoon was published in La Nacionin Argentina. The title of the cartoon is "African Tsunami." He won a Nobel Peace Prize for his cartoons that promoted peace and understanding. (Competition supported by the United Nations Correspondents Association)

Epidemiology in Action: The Disease Investigation Course in Kenya

The U.S. Centers for Disease Control and Prevention (CDC) and Emory University, led by eminent professor Dr. Philip S. Brachman, recently conducted a two-week applied epidemiology training course for staff from the Ministry of Public Health and Sanitation, the Ministry of Medical Services, the Kenya Medical Research Institute, and Kenyan CDC staff.

The Epidemiology in Action course provides participants with the skills to investigate diseases, collect and analyze public health data, and use the data to make decisions that protect the health of Kenyans. "Applied epidemiology is critical for any country. Epidemiology is a must for investigating acute and chronic diseases. If not, control and prevention cannot be addressed," said Dr. Brachman, who worked at CDC from 1954 to 1986 before becoming a professor at Emory University.

An important aspect of the training is making it immediately applicable to the participant's work. Every afternoon the students engaged in case study exercises that allowed them the chance to put into practice what they learned. Dr. Richard Dicker, a medical epidemiologist at CDC who assisted Dr. Brachman said, "The case studies allow the participants to have a lot of interaction. People bring their own unique experience and are able to communicate with each other."

Even those who do not directly work on outbreak investigation or develop disease surveillance systems benefit from a course in applied epidemiology. According to Dr. Brachman, "Some of the students in this course may have a role in reviewing epidemiology research protocols, or they work in administration and need to be able to use epidemiologic data to make decisions."

One of the participants was Dr. Joel K. Edalia, Senior Assistant Director of Medical Services, Hamisi District, Vihiga County, Western Province. "The course has been very, very good. It gives us the knowledge that we can apply in analyzing data. We always collect data in the field, and we must be able to analyze it for decision-making. With this course, we have gained knowledge that can help us strengthen our surveillance systems. The course is also showing us how to develop survey designs and approaches to research."

An understanding of epidemiology is critical for laboratory managers. Dr. Jane Mwangi, Chief of CDC's Laboratory, Blood Safety, and Infection Control Branch in its Division of Global HIV/AIDS in Kenya, attended the course. "The exercises and recommended readings enabled laboratory professionals to understand the application of laboratory findings to public health disease control and surveillance. The contribution of quality and timely laboratory test results in the successful control of disease outbreaks became clear to all the participants," she said. "It will be good for more laboratory personnel from across the country to benefit from similar training."

CDC began offering courses to public health professionals in 1949. Since the late 1980's Emory University has held these courses in collaboration with CDC for both U.S. and international students, and travels to countries like Kenya to provide opportunities to develop the skills of public health staff. The Kenya course was sponsored by the CDC's Division of Global HIV/AIDS, which implements CDC's U.S. President's Emergency Plan for AIDS Relief (PEPFAR) activities.

By Nadine Sunderland - Health Comm. Specialist -CDC, Kenya

EAPHLN (Kenya Chapter) Technical Review Forum

A technical review of the Kenyan chapter of the East Africa Public Health Laboratory Networking project was held from October 1st -3rd, 2012 which was very successful in trying to discuss specific issue related to project implementation at country and partially at regional level. The Kenya review has the pleasure of having the new World Bank Sector Manager Health, Nutrition and Population (HNP), Eastern and Southern Africa, Dr. Oluseji Adeyi.

In addition this was the first time in the missions that the Kenyan project included satellite laboratories representation and also development partners like Centers for Disease Control (CDC) and African Medical Research Foundation (AMREF) who have played at a pivotal role in some of the components of the project. Some of the key discussions reflected on:

1. The Kenyan EAPHL network was commended for the good leadership and team work in moving this regional initiative and good implementation in the three components and this will be important as we approach the mid-term review of the project. The Kenya team also providing key support in assisting Burundi to move to project inception with support also from the Bank, ECSA and EAC.
2. The proposed establishment of a national public health institute in the Ministry of Public Health and Sanitation. The World Bank team noted its general support for strengthening coordination and oversight of public health functions.
3. The issue of devolution and how the health system will be restructured was discussed as well as the implications for the project. In this regard, it was noted that the grant blocks provided to hospitals for their laboratory improvement plans are in line with the new devolution policy.
4. The option of public private partnerships needs to be further explored in collaboration with all key stakeholders, particularly as there may be important opportunities for the private sector to assume greater responsibility for the procurement and maintenance of laboratory equipment under contractual arrangements with the Ministries of Health.

By Dr. Masila

CAPTIONS

1: Among the Dignitaries who attended the ZDU launch (Senior GoK Ministry officials, WHO, OIE, AU-IBAR, US Embassy)
2: A reporting workstation at the National Reference Laboratories, Nairobi
3: Dr. Sharif, the Director MoPHS During the Launch of Malaria rapid diagnostic test kits
4: Minister for Livestock and PS for Public Health and Sanitation unveiling the plaque at the ZDU office block
5: Dr. Maureen Nafula gives a brief of the findings of the HRH Study at Hotel Intercontinental, Nairobi
6: Some of the services beng offered by the National Public Health Laboratories

Identify the existence of the outbreak with selective isolation of bacterial DNA from Specimens (e.g. blood specimens) and sensitive detection of the clinically most important bacteria and their resistance genes: BacExtract and GenoType® Bac-IDent

PEPFAR Support for Sustainable and Scalable Laboratory Accreditation in Kenya

By E. Makokha and J. Mwangi - CDC, DGHA, Kenya

Guided by the U.S, President's Emergency Plan for AIDS Relief's (PEPFAR) increased focus on strengthening health systems, the U.S. Centers for Disease Control and Prevention in Kenya (CDC-Kenya) continues to collaborate with diverse stakeholders in bolstering the quality of laboratory services. Working with the ministries of Medical Services (MOMS) and Public Health& Sanitation (MOPHS), a two-year SLMTA roadmap was developed in 2009. The road map serves to guide country-wide resource allocation by implementing partners.

Starting in 2010, the first cohort of 12 public health laboratories was enrolled in the WHO-AFRO Stepwise Laboratory Improvements Towards Accreditation (SLIPTA) approach through a task-based, hands-on training program called Strengthening Laboratory Management Towards Accreditation (SLMTA). SLMTA is a do-it-yourself approach that strengthens laboratory management while establishing an effective quality management system for medical laboratory testing based on proven quality improvement principles. A laboratory's progress is evaluated periodically and a star awarded on a scale of zero to five. Objective assessments are conducted by Kenya Accreditation Service (KENAS). SLMTA aims to strengthen laboratory management and accelerate the process toward ISO 15189 accreditation. To date 27 Kenyan laboratories, are enrolled in SLMTA. The ten SLMTA implementing partners are coordinated by the Ministries of Health through the National Laboratory Accreditation Steering Committee (NLASC).

Table I demonstrates the measurable improvements observed in the 3 cohorts of laboratories implementing SLMTA.

Additionally, over 1,300 laboratory staff have been trained in laboratory Quality Systems Management through a SLIPTA-specific series of trainings. Subjects covered include: Laboratory Leadership and Management, Biosafety, Internal Audits, Laboratory Assessor Training, Proficiency testing, ISO 15189 Orientation, Quality assurance and Quality Management Systems.

Operations at the HIV Reference Lab being supported by PEPFAR, Nairobi

Partners Engaged in SLMTA Implementation

- American Society for Clinical Pathology (ASCP)
- American Society for Microbiology (ASM)
- A Global Health Public Foundation (AGHPF)
- African Medical Research Foundation (AMREF)
- Management Sciences for Health (MSH)
- Kenya Medical Research Institute (KEMRI)
- Academic Model Providing Access to Healthcare (AMPATH)
- University of Nairobi
- Walter Reed Program(WRP)

Implementing partners are coordinated by the Ministries of Health through the National Laboratory Accreditation Steering Committee (NLASC).

By participating in the SLMTA related assessments, KENAS has acquired expertise in laboratory assessments which will contribute to their achieving full affiliate status with the International Laboratory Accreditation Commission (ILAC) for ISO 15189 accreditation. This will facilitate local sustainability of the laboratory accreditation initiative.

In the process of implementing SLMTA, challenges and useful lessons have emerged. A positive challenge is the ever-increasing demand for national scale up of SLMTA. This will require SLMTA mentors who can devote sufficient time to support the now preferred embedded mentorship approach in contrast to the previous supervisory mentorship approach. Kenya also needs to invest in improved laboratory infrastructure and equipment maintenance to comply with ISO standards. To achieve the paradigm shift to quality systems, MoH should consider dedicated budgetary allocation to support laboratory quality systems and accreditation.

Two key lessons learnt are that:

- Strong MOH leadership and commitment by facility management are essential for sustained laboratory quality system changes.
- SLMTA is indeed a stepping stone towards achieving international laboratory accreditation.

Acknowledgements: MOMS- DDFS, MOPHS-NPHLS, MOMS-DSR, KENAS, KEMRI, ASCP, ASM, AGHPF, MSH, AMREF, AMPATH, UON, WRP, CDC-DGHA Lab Branch.

SLMTA Cohort	STAR RATING	
	Baseline	Number of Labs Awarded Stars (=1) as at 2012
I (2010) n=12	0	12
II (2011) n=8	0	8
III (2012) n=7	0	4

n= number of laboratories per Cohort

Table I: Mean SLIPTA Star ranking of laboratories by KENAS at different stages of implementation.

Case Identification with supporting information – documentation, data, forms….. which Public Health Professionals will include in disease outbreak investigation

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HAZARDOUS WASTE:

An incinerator that has fallen into disuse. Photo copyright GSSHealth 2012.

A good incinerator with a padlock. Photo reproduced with the permission of Dr. Francesco Marinucci.

A far more common method of waste disposal is incineration, practiced both in contained burns using an incinerator, and open-air burns. Incineration of bleached wastes and halogenated plastics such as PVC can produce toxins such as dioxin and furan; fumes may also contain other harmful gases and heavy metals. In general, open-air burning is more hazardous than use of an incinerator, because open-air fires offer no emissions control and tend to reach lower temperatures, preventing complete sterilization. When using an incinerator to disinfect wastes, it is important to ensure that the equipment is built according to appropriate specifications and well-maintained (incinerator ash must be removed frequently), and to operate it as directed, at a hot enough temperature and for long enough to destroy any pathogens.

Burial in pits, dry boreholes, or landfills is another common outcome for laboratory waste. When biological waste has been properly inactivated beforehand, this can be a safe "grave." However, when toxic chemicals are included, there is a risk that they may leach into groundwater and contaminate wells; waterproof lining of waste pits minimizes this risk.

The most dangerous disposal method currently practiced is the open dump of untreated clinical wastes. Dumping leaves pathogens and chemicals accessible to the general population, and poses an even greater risk of contaminating the water supply than improper burial. Open dumping usually takes place near the lab facility, motivated by limited resources. However, some laboratories contract companies to dispose of untreated waste expecting that the waste will be disposed of correctly; this is not always the case. Once dumped, untreated waste is accessible to children and people who make a living by salvaging materials, who are put at risk of infectious disease through injuries with contaminated sharps or contact with infected waste. There have also been cases when counterfeiters have salvaged improperly disposed containers to deceive buyers.

"It is important to ensure that companies that are contracted to dispose of waste are licensed and actually comply with the required standards," says Juliana Hagembe, MSc, MPH, formerly of the Institute for Human Virology at the University of Maryland. "We are all accountable to make sure that we follow proper guidelines and protocols."

Laboratory personnel can take responsibility to protect the public by separating hazardous from non-hazardous waste at the time it is generated. This is an inexpensive way to reduce the volume of hazardous waste and the cost of managing it. Another important step is to ensure that the person appointed to manage and dispose of laboratory waste, oftentimes an untrained cleaner or lab assistant, understands the personal and public risks and the proper precautions to take when handling clinical waste.

There are many additional resources available for dealing with chemical and infectious wastes in developing countries. A good place to start is www.healthcarewaste.org. The World Health Organization publishes a technical manual at http://www.who.int/water_sanitation_health/en/. For information on groundwater safety, try http://www.watersanitationhygiene.org, and for more information on what wastes should be treated with which method way, please consult http://www.nyayahealth.org/Library/alternativeswastemanagement.pdf.

A good burial pit. Photo reproduced courtesy of Dr. Francesco Marinucci.

By: Laurel Oldach (Editorial Team), Francesco Marinucci, PhD, MSc (IHV) and Juliana Hagembe, MSc, MPH

Moving from Research to Policy:

A case study of Human Resources for Health

By:(Dr. Chris Masila and Dr. Maureen Nafula)

Operational research in a context of public health is described asany research producing practically-usable knowledge (evidence, findings, information, etc) which can improve program implementation (e.g. effectiveness, efficiency, quality, access, scale-up, sustainability) regardless of the type of research.

This regional project has been applying this in various studies which are being implemented at regional and country level. An initial finding from a relevant study attests this to the concept of moving from Research to policy practice.

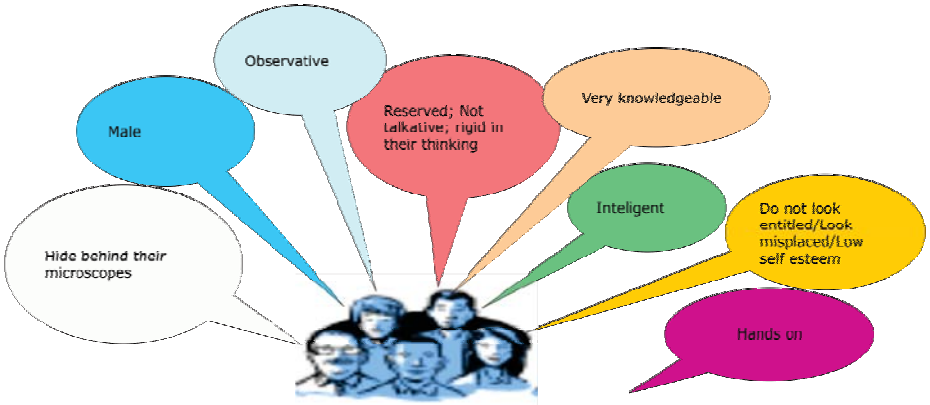
The study in review is the Human resources for Health (HRH)for medical laboratory personnel in Kenya. Human resources are the backbone of quality laboratory services; yet numerous studies have shown that a shortage of laboratory staff is one of the key problems in the implementation of quality laboratory services. The availability of adequately qualified and motivated human resources for health (HRH) may be one of the most challenging obstacles to achieving the Millenium development goals in poor countries.

The study on "Human Resource for Health issues in relation to Medical Laboratory Personnel" had three objectives:

- To assess the current status (training, employment, regulation and retention) and roles of medical laboratory personnel in the health services delivery
- To evaluate the roles of the governments and non-state actors professionalizing the various medical laboratory cadres
- To provide recommendations for enhancing professional status of the laboratory personnel

The study was conducted in the second quarter of the year and the findings and recommendations were disseminated recently and I would like to summarize some key recommendations which have implications for policy in this HRH study and are currently being packaged for this audience:

a. Improvement of the capacity of laboratory professionals by increasing the staffing of laboratories, especially in the public sector; New staffing levels should be guided by defined skill mix and levels of automation in target facilities.
b. Community-public partnerships should be explored as a strategy to co-finance the hiring of the required laboratory professional; development and implementation of a human resource development plan to improve the skill mix of laboratory professionals. Coaching and mentoring should be one of the strategies for capacity building.
c. Build the capacity of lecturers, including training on modern teaching methods.
d. Improve the human resource management of laboratory professional by developing and implementing a competency framework; Remuneration and appointment to management and leadership positions should be based on this framework and not on professional cadres.
e. Separate professional responsibilities from administrative and support issues such as procurement and human resource development.
f. Review the Medical Laboratory Technicians and Technologists Act to focus the Kenya Medical Laboratory Technicians and Technologists Board on regulatory issues. Review should also make provision for the regulation of mono-discipline Laboratory Scientific Officers.
g. Increase the credibility of Kenya Medical Laboratory Technicians and Technologists Board (KMLTTB) by revising the criteria for board members and staff should appointments to ensure they have the right competencies to effectively execute the board's re-defined functions. To further the effectiveness, it would be necessary to reduce the number of board members



Perception of Lab personnel

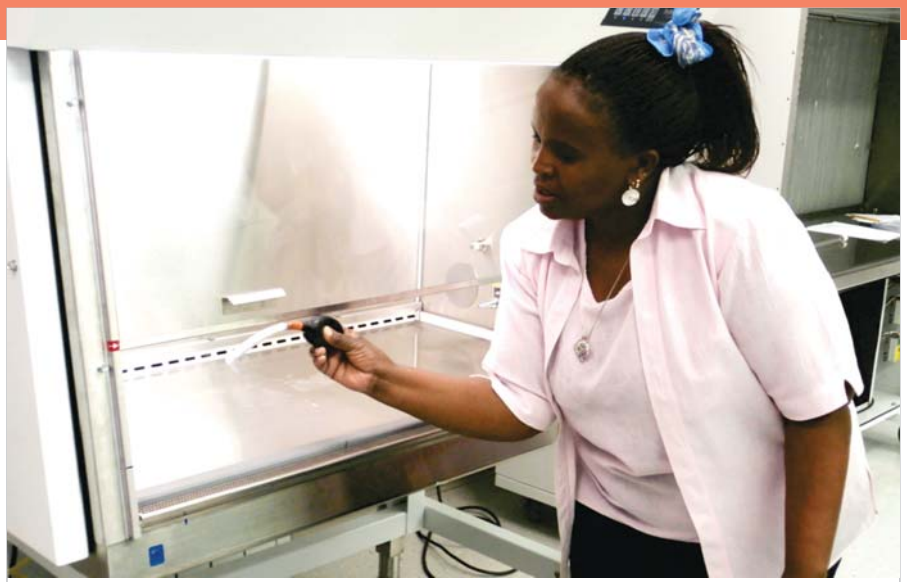
This study offers best practices in this sector and can be used to transform laboratory human resources practices especially in the public and private health sectors.

NB: To get a full report for the above study you can contact the Editor or email cmasila@eaphln.or.ke

Map the spread of the disease outbreak, using Customized technology as diagnosis is reported into a common system (Laboratory Management Information System)…

Strengthening Biosafety and Biosecurity in Laboratories

CERTIFICATION/CALIBRATION OF BIOLOGICAL SAFETY CABINETS (BSCs)



An engineer performing a Smoke Pattern Test

What is a BSC?

A Biological Safety Cabinet is an enclosed, ventilated laboratory workspace for safely working with materials contaminated with pathogens requiring a defined biosafety level. It uses unidirectional airflow and HEPA Filters to provide personnel protection, environmental protection and most cabinets offer product protection.

In our day to day laboratory practice, aerosols with particulates are created by processes such as pipetting, vortexing and centrifuging of infectious material. In line with Laboratory safety regulations, BSCs are installed to ensure a safe working environment for the laboratory staff.

Elements of Biocontainment

When choosing a BSC for your use, one ought to consider issues such as practices and procedures, facility design and safety equipment.

The proper mix of the three elements is assessed by the needs and specific hazards a facility. It is important to note that each BSC has its own constructional design, inflow and downflow velocity rates.

BSC Certification

To ensure a BSC is safe to work with, it is important to ensure that all its parameters are checked as often as required.

The product and personnel protection is achieved by having the correct inflow and downflow velocities

The environmental protection is achieved by ensuring the Exhaust HEPA (High Efficient Particulate Air) filter is not clogged or leaking.

The tests carried out as part of the certification exercise and the time they should be carried out is as shown in the table below:

The are two International Standards used when certifying a BSC namely: NSF and EN standards. The standard to be used in a particular BSC is usually indicated on that specific BSC's data plate.

Its important to note that a BSC should be deconterminated prior to filter change, if access to contaminated area is required and if its moved or its to be disposed.

To achieve the best and safe results in a BSC, the following points are to be put into consideration and observed:

- Locate the BSC away from the doors, air supply vents and heavy traffic areas
- Keep the doors and windows closed when working on BSC to prevent drafts
- Clean the surface area with disinfectant
- Allow cabinet to run for 10mins before use
- Place the equipments to be used in a BSC and don't overcrowd them
- Monitor the magneheric gauge
- Keep the back and front grills clear
- Segregate dirty and clean items to avoid cross contamination within the BSC.
- Avoid constant in & out motion at the face of cabinet as this will draw air out of cabinet
- Don't use a bunsen burner or open flames as this is a fire hazard and can damage the HEPA Filter. Micro-incinerators are preferred
- Practice good aseptic technique to ensure safe use
- Take care of spills immediately

Safety is everybody's responsibility and its starts with you, 'BE SAFE'. Every cadre needs capacity building.

By Beth Njaramba
BioMedical Engineer - NPHLS

"This has been an exciting journey for me seeing firsthand and spearheading an initiative which is actually bringing results on the ground as far as laboratory services is concerned and changing lives for the better for laboratory personnel by capacity building and introducing cutting edge diagnostic equipment and solutions. The World Bank support is a catalyst to all the gains achieved in this niche area of having good diagnostic services in Kenya and the region. "

We are now moving through the mid life of the project and it gives me great enthusiasm to laud the achievements and challenges. Being our 6th Kenya Bulletin release it can't get better than this. My favorite quote from Steve Jobs which is applicable in everything we do is "You can't connect the dots looking forward, you can only connect them looking backwards. So you have to trust that the dots will somehow connect in your future… and that's makes all the difference".

Dr. Chris Masila – EAPHLN Project Coordinator

During outbreak investigation, develop a hypothesis (What appears to be causing the disease outbreak?)

KENYA NATIONAL ACCREDITATION SERVICE

Kenya National Accreditation Service (KENAS), the sole National Accreditation Body (NAB) of Kenya, was formally re-established vide a legal notice 55/2009. It is an Associate member of International Laboratory Accreditation Cooperation (ILAC) and a key player in the East African Accreditation Board (EAAB).

KENAS provides accreditation services:

- Test and Calibration Laboratories (ISO/IEC 17025:2005)
- Medical Laboratories (ISO 15189:2007)
- Veterinary Laboratories (ISO/IEC 17025 & OIE 2008 Quality standard and Guidelines for Veterinary laboratories)
- Reference Medical Laboratories- (ISO 15195:2003)
- Certification Bodies (ISO/IEC 17021: 2006)
- Inspection Bodies (ISO/IEC 17020:1998)
- Proficiency Test providers (ISO/IEC 17043) etc.

What does medical laboratory accreditation mean?

It means that the medical laboratory has subjected itself to scrutiny and received third party attestation (evidence) of particular requirements of quality and competence in carrying out their activities. These activities include metrology (the science of measurement) which is crucial in medical laboratories, For example:

1. The measurement of the amount of drug required is important to determine the effectiveness of dosage and thus successful treatment of the patient.
2. Accurate measurement of blood sugar is important for diabetes diagnosis as well as treatment and management of the condition.
3. In HIV care, CD4 count, viral load, liver and renal function tests are other examples of important measurements in medical/clinical laboratories that impact on the successful treatment.

Benefits of Accreditation to Various Stakeholders

1. For businesses that use accredited services,

a) Minimize Risk: private medical laboratories have the reassurance that the test results they produce meet the expectations of the clinicians.

b) Deliver confidence to your customers: Confidence in your medical testing services is assured if clients know it has been thoroughly evaluated by an independent accreditation body.

2. For accredited organizations,

a) Formal Recognition of testing confidence:

b) Market Access:

c) A benchmark for performance:

d) International recognition

3. For the General Public,

a) Public Confidence:

b) Minimize recalls of medical test results:

By Doris Mueni Mengo
Assistant Director- Health and Safety
Kenya Accreditation Service (KENAS)

TELEMEDICINE: The Malindi District Hospital Experience

By Dr. Morris Buni - Medical Superitendant Malindi District Hospital

Malindi District Hospital (MDH) is one of the major hospitals In coast province and is situated at Malindi town in the north coast of Kenya. It has a bed capacity of 200 beds with an occupancy rate of 130%. It caters for most referrals of the northern coast of Kenya which includes Magarini District, Tana Delta, Tana River and Lamu districts. The hospital has been expanding rapidly through the support of the government and various other stakeholders. With this expansion, the demand for specializations in different fields has risen and hence the challenge of the shortage of personnel. One way to curb this challenge was to set up a telemedicine centre within the hospital.

Digital dermatoscope dental lens and auroscope with USB connectivity at malindi hospital.

Telemedicine is an application of clinical medicine where medical information is transferred through the phone or internet for the purpose of consulting and at times to perform medical procedures and examinations. The various types are store and forward, remote monitoring and real time.

The idea of having telemedicine services at MDH started about 3 years ago when the hospital went into a collaboration programme with San Matteo hospital of Parvia, Italy. The collaboration entailed setting up a teleconference and tele-diagnosis centre.

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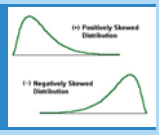
Map the spread of the disease outbreak, using Customized technology as diagnosis is reported into a common system (Laboratory Management Information System)…



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TELEMEDICINE: The Malindi District Hospital Experience

This was made true through the effort of the Coast Provincial Director of Medical Services, Dr Maurice Siminyu who convinced the dealers of Video Conferencing Equipment (Polycom) about the necessity of the service and entered into a agreement to set up telemedicine services between MDH and coast provincial General hospital (CPGH). This consisted of (real-time) interactive services between CPGH and MDH. This service was aimed at improving patient care by:

- Eliminating distance barriers in making a diagnosis.
- Improve access to medical services that would not be available in a district hospital.

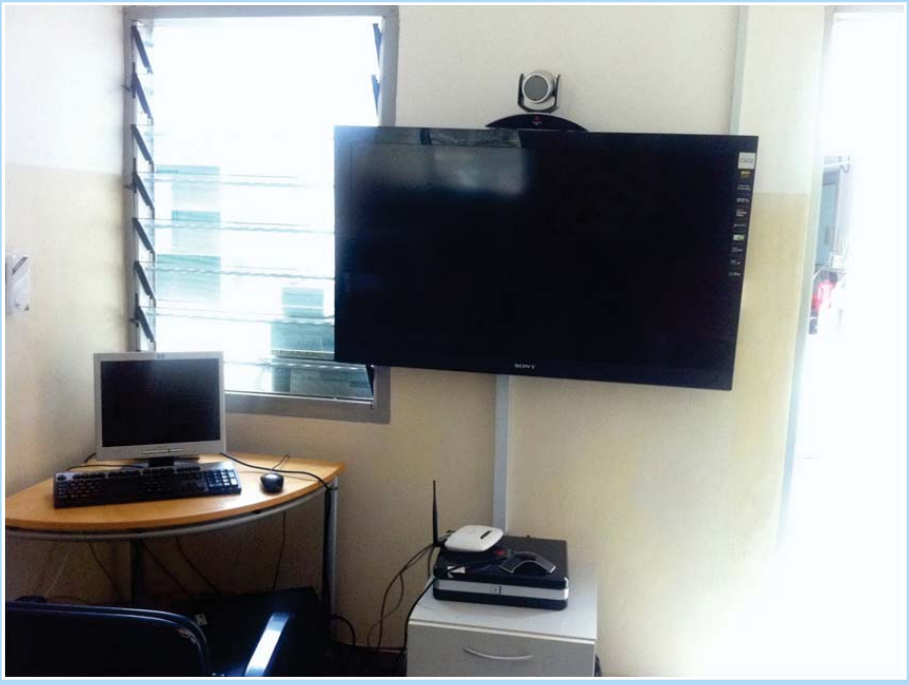
The point person at CPGH was Physician, Dr Esther Getambu while at MDH it was Dr Morris Buni Medical Superintendent and Surgeon.

The first step was to set up a room which would be use for the service, the ideal room would be a quite room, good lighting, echo proof with good illuminating colors. This was done for the two hospitals and connection between the two hospitals established through different internet providers. Orientation of the service to the different specialities was done and the service started.

At the moment a number of services can be offered through telemedicine which improve consultations in the departments of dermatology through use of digital dermatoscope, the ENT department through use of Digital Auroscope, dental department and opthalmolgy department through use of digital opthalmoscope.

The future of the project is to roll-out the programme to include:

- The laboratory so as to be able to perform most of the investigations within the hospital. This is targeting mainly the microbiology and histology department by installing a digital microscope to rely slides to a centralized pathologist in Mombasa, this can be collaborated in the East African Public Health Laboratory Network Project(EAPHLP).
- The radiology department to install a digital ultrasound scanner and xray scanner.
- The cardiology department by acquiring a digital echocardiogram and ECG.



Teleconference room at Malindi hospital

This has been made possible through the support of the ministry of medical services through the coast provincial PDMS Dr Maurice Siminyu, Polycom Kenya through Mr Fred Gachokia who set up the equipments and worked on technicalities, San matteo Hospital of Parvia Italy(prof. Allesandro Moneta and Prof .Gian Battista Pariggi) who purchased the initial equipments and the EAPHLN together with all the specialists who participate in the routine telediagnosis.

The biggest challenge in setting up the centre was internet connectivity. We hope that with the inauguration of fibre optics cables it will improve on the speeds , reliability and costs of the internet.

Develop and implement control and prevention systems; *include the team in the strategy and play as one…*

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Laboratory System

Plenary session and case studies in the training

Typical scenarios in the Public Health and clinical laboratory were discussed; these are case studies which were achieved from scenarios encountered in laboratories in resource limited countries. The lecture participants provided a good mix of many professionals who are FELTP residents, cohort 9 and the satellite laboratory managers. Most notably the FELTP residents are composed of professionals like; Medical doctors some having served as District Medical Officers of Health (DMOH's), Laboratory Technologists with bachelor degree, Nurses and Veterinarians. This mix of professionals with different background provides a good platform to ventilate on issues in Public Hospital Laboratory

Benchmarking – Visit to CDC laboratory

The CDC laboratory in Nairobi, Kenya is a regional laboratory which serves many countries in the region for specialized laboratory testing. The laboratory is currently undergoing and fast tracking processes towards ISO 15189 accreditation. By virtue of undergoing the accreditation process the laboratory is focussed on addressing the quality management systems, and it is thus best suited to provide an opportunity for benchmarking. This visit was also deemed to provide the satellite laboratory managers with an opportunity to appreciate and feel the evolvement of a laboratory as it addresses the twelve quality management systems.

Follow up projects

The satellite laboratory managers were assigned follow up projects based on the need. One on one discussion were made with the individual laboratory mangers to help address areas of concern. Most of the laboratory managers had difficulties in documentation among other areas of concern. As a guide to the step wise approach we agreed the laboratory managers to do process mapping of the laboratory processes. Mapping of the processes in the laboratory is very critical for ensuring smooth flow of specimen in the laboratory, and also provides an opportunity to unmask gaps in the laboratory organization.

EAPHLN Project launches a common web portal

By Edward Tuitoek

Web portals are organized gateways that help to structure the access to information found on the Internet. Much more than a simple search engine, the web portal usually includes customizable access to data such as reports, local, regional, and national news, and email services. Most of the better-known portals are commonly identified as search engines, although they offer much more than simply the ability to search the Internet.

Building on its strong ICT base and well recognized successes, Rwanda has helped develop a common portal hosted by ECSA ***(http://www.eaphln-ecsahc.org/)*** for sharing information and supporting e-learning. The portal has a common main page including links to the general project information, calls for research papers, results of research, and overall data on the project and its results. Each country has the opportunity to contribute to the specific country pages, with exclusive data from each country as generated by the project and any other appropriate information or links. Additional information on the site include (but not be limited to): bibliographies of relevant internationally peer reviewed research, links to books and other important websites, an online library of full texts and abstracts, links to the E-learning modules, results of research activities and reports on the indicators of the project. Additional functionalities being developed include the following;

Surveys - the survey module allows portal users to complete online surveys Survey results are rendered as a bar chart and includes the number of individual responses

Document management - The Document Management module provides users with a Windows Explorer type interface to manage documents on the web.

It is hoped that this will go a long way in promoting e-learning and knowledge sharing across the East African Countries. All participants within the project are encouraged to visit and contribute to this portal.

Release findings to greater communities: *Shade a bright light to the National Public Health and develop the good ideas…*