VISION
A Healthier Africa

MISSION
AFENET is committed to ensuring effective prevention and control of epidemics and other priority public health problems in Africa.

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Courtesy photos: FELTP Residents and Program Staff
ACRONYMS AND ABBREVIATIONS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AFENET</td>
<td>African Field Epidemiology Network</td>
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<tr>
<td>AFRICHOL</td>
<td>Africa Cholera Surveillance Network</td>
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<tr>
<td>BL</td>
<td>Burkitt's Lymphoma</td>
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<tr>
<td>CDC</td>
<td>U.S. Centers for Disease Control and Prevention</td>
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<td>DTS</td>
<td>Dry Tube Specimen</td>
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<td>EIS</td>
<td>Epidemic Intelligence Service</td>
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<td>EMBLEM</td>
<td>Epidemiology of Burkitt's Lymphoma in East African Minors</td>
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<td>Epi</td>
<td>Epidemiology</td>
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<tr>
<td>EQA</td>
<td>External Quality Assurance</td>
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<td>ETP</td>
<td>East Africa Training Program</td>
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<tr>
<td>FELTP</td>
<td>Field Epidemiology and Laboratory Training Program</td>
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<td>FETP</td>
<td>Field Epidemiology Training Program</td>
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<tr>
<td>FMOH</td>
<td>Federal Ministry of Health</td>
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<td>HHS</td>
<td>Department of Health and Human Services</td>
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<td>IDSIR</td>
<td>Integrated Disease Surveillance and Response</td>
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<tr>
<td>Lab</td>
<td>Laboratory</td>
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<tr>
<td>NCD</td>
<td>Non Communicable Diseases</td>
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<tr>
<td>OGHA</td>
<td>Office of Global Health Affairs</td>
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<tr>
<td>PAMJ</td>
<td>Pan African Medical Journal</td>
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<tr>
<td>SLMTA</td>
<td>Strengthening Laboratory Management Towards Accreditation</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<tr>
<td>UCTI</td>
<td>Uganda Tobacco Control Initiative</td>
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<tr>
<td>UHVI</td>
<td>Uganda Helmet Vaccine Initiative</td>
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<tr>
<td>VHF</td>
<td>Viral Hemorrhagic Fever</td>
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Dear Reader,

We are delighted to present the African Field Epidemiology Network’s (AFENET) 2014 Annual Report that highlights the major achievements of the Network, a year short of its 10th anniversary.

We thank our partners who funded and provided technical support to the various Field Epidemiology and Laboratory Training Programs (FELTPs) and AFENET Secretariat. Through this support, FELTP residents have investigated and responded to at least 1,500 outbreak investigations and made over 180 presentations at various national, regional and international scientific conferences. Sixty residents successfully completed their training, bringing the total number of graduates in the network to over 750. Most of these graduates have been redeployed within the various ministries at national, regional and local levels while others are working as trainers, mentors and supervisors in their respective FELTPs. Zimbabwe FETP, a founder member of AFENET and the oldest FETP in Africa celebrated its 20th anniversary while Namibia FELTP joined AFENET raising the membership to 15 programs. About 205 manuscripts are working as trainers, mentors and supervisors in their respective FELTPs. Zimbabwe FETP, a founder member of AFENET and the oldest FETP in Africa celebrated its 20th anniversary while Namibia FELTP joined AFENET raising the membership to 15 programs. About 205 manuscripts were initiated. These and many other projects are part of AFENET’s strategy to enhance collaboration through training, research and other capacity building initiatives. We hope you enjoy reading these and many more stories in this annual report.

African Field Epidemiology Network

EXECUTIVE SUMMARY

This annual report highlights the achievements of the African Field Epidemiology Network (AFENET) in striving to improve the health of the people in Africa through development of field epidemiology and public health laboratory capacity in 2014. This year marks the ninth anniversary of the network that brings together Field Epidemiology and Laboratory Training Programs (FELTPs) in Africa.

Over 150 trainees were enrolled and over 50 graduated, bringing the total number of trainees who have enrolled and graduated to 1408 and 808 respectively. This latter represents over 10% increase in enrolment from the previous year. The Democratic Republic of Congo (DRC) FELTP which is the newest Program enrolled its second cohort of 15 trainees while the Zimbabwe FETP which celebrated 20 years of existence enrolled its 22nd cohort.

Trainees were involved in more than 50 major disease outbreak investigations and response, including those on anthrax, cholera, Ebola, wild polio virus and rabies among others. In Nigeria, the NFELTP residents and staff were instrumental in timely responding to the Ebola outbreak that was reported in Lagos, eventually helping the country be declared Ebola-free. In most of these outbreaks, trainees helped in contact tracing, community sensitization and identification of risk factors for the diseases.

At least 30 scientific articles were published in peer-reviewed journals, including the Pan African Medical Journal supplement. Trainees also attended numerous scientific conferences where they showcased over 100 poster and 50 oral presentations. One resident, Ms. Donwell Bangure, a resident from Zimbabwe FETP won the award for Most Outstanding Public Health Scientific Oral Presentation during the International Night at the 63rd Annual Epidemic Intelligence Service Scientific Conference in Atlanta, USA.

Through its AFENET-Lab initiative, AFENET continues to provide technical and logistical support to strengthen capacity of public health laboratories in Africa in their efforts to get accredited. These initiatives include Strengthening Laboratory Management towards Accreditation (SLMTA), Laboratory Bio safety training and cabinet certification as well as External Quality Assurance (EQA) for HIV rapid testing.

Several new projects including the One Health e-Surveillance Initiative that seeks to develop strategic plans for implementing One Health electronic surveillance in Africa and Data Improvement Teams Project, that seeks to improve routine immunization data in Uganda were initiated. These and many other projects are part of AFENET’s strategy to enhance collaboration through training, research and other capacity building initiatives. We hope you enjoy reading these and many more stories in this annual report.

Over 150 trainees were enrolled and over 50 graduated, bringing the total number of trainees who have enrolled and graduated to 1408 and 808 respectively.
Angola Field Epidemiology and Laboratory Training Program

The Angola Field Epidemiology and Laboratory Training Program (A-FELTP) was established in 2010 as a collaboration between the Angola Ministry of Health, Agostinho University (UAN) and Army Health Services. The program has enrolled two cohorts of 20 residents, 12 of whom are in the epidemiology track and 8 in the laboratory track.

Didactics and Short Courses

Biostatistics II module training
Cohort II residents of the A-FELTP participated in a Biostatistics II module training which took place from 11 – 22 August 2014 at the Centers for Disease Control and Prevention (CDC) offices in Angola. The training was conducted by Gibson Mandozana, a consultant from the CDC offices in Angola. The training was conducted by Gibson Mandozana, a consultant from the CDC offices in Angola. The residents were introduced both to theoretical presentations and practical lectures as well as practical sessions of live data analysis. Residents were introduced both to theoretical presentations and practical lectures as well as practical sessions of live data analysis. Examples were drawn from epidemiological areas that the students had experience in.

<table>
<thead>
<tr>
<th>Title</th>
<th>Name of Conference</th>
<th>Type</th>
<th>Date Presented</th>
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</thead>
<tbody>
<tr>
<td>Re-emergence of Chikungunya virus in Luanda</td>
<td>EPIMOL, Brasil</td>
<td>Poster</td>
<td>August 2014</td>
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<tr>
<td>Evaluation of the PMTCT surveillance system in Luanda, 2009-2012</td>
<td>EPIMOL, Brasil</td>
<td>Poster</td>
<td>August 2014</td>
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<tr>
<td>Prevalence of Precursor lesions of cervical cancer in Women aged 15 to 64 Years in Dande District</td>
<td>Gyrasol Health International Scientific Conference, Luanda</td>
<td>Oral</td>
<td>September 2014</td>
</tr>
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The program has enrolled two cohorts of 20 residents, 12 of whom are in the epidemiology track and 8 in the laboratory track.

Democratic Republic of Congo Field Epidemiology and Laboratory Training Program

The Democratic Republic of Congo FELTP was launched on 13 February 2013 as a partnership between the World Health Organization, the United States Centers for Disease Control and Prevention (CDC), the United States Agency for International Development (USAID), the University of Kinshasa and AFENET. The program has 12 Cohort I trainees who are in their final year and 20 Cohort II trainees who started classes from December 2013 to March 2014 and thereafter proceeded for field attachment in April 2014.

Outbreak Investigations and Response

Ebola in Boende, Province of Equateur
Following reports of unusual deaths in Boende, Ecuador Province, a team led by His Excellency, the Minister of Health – Dr. Felix Kabange Numbi travelled to Boende on 19 August 2014 to investigate the outbreak. Investigations confirmed Ebola and reported a total of 13 deaths. Eight samples tested positive for Ebola at the National Laboratory for Biomedical Research. The residents mobilized resources to control and stop the spread of Ebola virus, implemented preventative and general hygiene measures for hospital infection control, educated communities about preventive measures and conducted epidemiological surveillance for the detection of suspected cases and laboratory confirmation.

Ethiopia Field Epidemiology Training Program

The Ethiopia Field Epidemiology Training Program (EFETP) is a partnership between CDC Ethiopia, the Federal Ministry of Health, the Ethiopian Health and Nutrition Research Institute, Addis Ababa University School of Public Health, and the Ethiopian Public Health Association. The program has enrolled five cohorts of 83 residents since its inception in 2009.

Didactics and Short Courses

Strengthening the H1N1 Surveillance Systems

The PHEM basic level training was designed to strengthen the capacity of the PHEM system at woreda and zone level where there is a huge gap in implementing its activities. This cascaded intensive training was conducted in Assosa, Jigjiga and Gambella regions from 24 July-12 August 2014. The trainings in the three regions were attended by 151 trainees comprised of PHEM focal persons, surveillance focal persons and mobile health teams.

The main objective of the training was to strengthen capacity in recognizing and responding to public health emergencies, strengthen the early warning & surveillance system, conduct effective surveillance activities, provide guidance on how to implement the designed public health emergency management using the skills and knowledge of the basics of field epidemiology and to help the trainees to use the data collected from the system to detect and respond to priority diseases, risks, conditions and events, thereby contributing to the reduction of the burden of illness, death and
disability in the communities. The training was conducted in collaboration with Regional Health Bureau PHEM staff.

Trainees attending the basic level cascaded training in Elias Hotel, Jigjiga in August 2014

The modules focused on topics such as the importance and components of early warning, types of surveillance and its importance and measures of frequency.

**GHANA FIELD EPIDEMIOLOGY AND LABORATORY TRAINING PROGRAM**

The Ghana Field Epidemiology and Laboratory Training Program (GFELTP) evolved from an initial collaboration between CDC and the Ghana School of Public Health. The program aims to improve the health of the people in Ghana through strengthening public health capacity and contributing to research activities on priorities in public health problems. The program has so far enrolled 70 trainees in 8 cohorts.

**Cohort VIII orientation ceremony**

The GFELTP had an orientation ceremony for the newly admitted Cohort VIII residents on 8 October 2014 at the Noguchi Memorial Institute for Medical Research (NMIMR). A total of 13 residents from Ghana (7), Liberia (3) and Gambia (3) were admitted into the 2014/2015 academic year. The ceremony was attended by GFELTP alumni, Cohort VIII residents and dignitaries such as: Dr. Ebenezer Appiah-Denkyira – Director General, Ghana Health Service.

**Outbreak Investigations and Response**

**Cholera Outbreak Investigation in Greater Accra Region**

Five GFELTP residents in Cohorts VI and VII, together with the National Disease Surveillance Department and the Greater Accra Regional Health Directorate participated in a cholera outbreak investigation in the Greater Accra Region, Ghana from 24 July–3 August 2014. The outbreak occurred in the metropolitan areas of La Dadekotopon, Lodzokuku Kurowor, Ga South, Ga West and Tema Metropolis, all in Accra.

**Rabies Outbreak Investigation in Suhum Municipality and Ayensuano District, Eastern Region**

Two alumni and three residents from Cohorts II, III, V and VII of the GFELTP assisted the Suhum Municipality Health Management Team in a rabies outbreak investigation in the Suhum Municipality and Ayensuano District, Eastern Region from 4 -15 February 2014. This initiative was taken following information received by the Eastern Regional Disease Outbreak and Response Team on a case of suspected rabies at the Regional Hospital, Koforidua from the Suhum Municipality on 3 February 2014.

**KENYA FIELD EPIDEMIOLOGY AND LABORATORY TRAINING PROGRAM**

The Kenya Field Epidemiology and Laboratory Training Program (KFELTP) was established in 2004 to strengthen the epidemiologic and laboratory management capacity of Kenya and the East Africa region to meet the challenges of emerging infectious diseases and other public health problems. The program aims to assist Kenya's MOH in building a sustainable network of highly skilled field epidemiologists and laboratory managers.

**Signing of Memoranda of Understanding between Ministry of Health and Moi University**

The two institutions signed an MOU that defines the specific roles and responsibilities each partner and provides assurance of implementation of the FELTP training objectives as envisioned with the Ministry of Health. The contract award ceremony was held on 23rd June 2014. Moi University is the new partner that shall provide training service to MoH. Among those present at the function were; Principal Secretary MOH Prof. Segor, Moi University Prof. Mibeii, Head DPPHS, Dr. William Maina, CDC Director, Kevin De Cock, Ag Head FELTP program Waqo Boru, and Mr. David Njirunge, Director Training, MOH.

**Short Course Trainings**

**Basic Epidemiology Training, Nyeri**

Kenya FELTP residents together with Ministry of Health staff from Nyeri and Embu Counties took part in a Basic Epidemiology Training in Nyeri town from 29 September – 2 October 2014. The training involved 39 participants from Nyeri, Murang’a, Embu and Kiambu counties. Some of the topics covered included: introduction to epidemiology, biostatistics and surveillance. During the training, participants developed work plans to guide their field activities.
Hospital Acquired Infections (HAI) training conducted in Embu, Eastern Kenya
Kenya FELTP organized the first infection prevention training in Kenya targeting health workers at hospital level. The training was aimed at sensitizing the workers on hospital acquired infections (HAI) and the importance of infection prevention/control (IPC) committees. It aimed at advocating for hospitals to support IPC practices at health facility level and develop a plan of action to support implementation of IPC. Participants included hospital managers and health workers drawn from five hospitals in the region.

Outbreak Investigations and Response

Investigation of Suspected Aflatoxin Poisoning in Loitokitok District, Kajiado County, Kenya
The Program, alongside the DSRU conducted an investigation of a suspected outbreak of aflatoxicosis on 29 May 2014. The investigation was in response to a report of 10 cases of suspected aflatoxin poisoning; seven from Loitokitok District and three from Mbooni District between April and June 2014. Of the seven cases from Loitokitok, six (85.7%) cases had died. The seven cases were from two divisions, five (71.4%) cases from the same village and two cases from one family. The Program enrolled 13 new residents for the third Cohort which started in March 2014. Out of 11 Cohort I residents, 10 have so far graduated.

Short Courses

Two Cohort I residents participated in a scientific writing workshop held in Bilene City, Maputo Province, from 17 - 20 March 2014. The residents include: Cristolde Salomão from the epidemiology track and Odilia Tombe from the Laboratory Track.

IT Support to the Mozambique FETP
On 30 April 2014, AFENEts Web Systems Administrator, Michael Nkanika, travelled to Mozambique to help develop the FETP newsletter and to train on Scribus and Adobe In design document publishing software. The training was aimed at building capacity to enable Instituto Nacional de Saúde (INS) staff and FETP students to publish well designed documents. Mr. Nkanika also helped in the publication of several INS documents in Portuguese.

Outbreak Investigations and Response

Two Cohort II Epidemiology Track residents: Manília Munguambe and Geraldo Chambe participated in the investigation of Dengue fever outbreak, in Pemba City, Cabo Delgado, from 15 - 29 March 2014.

Cholera and Dengue Fever Outbreak Investigation in Nampula Province
Trainees participated in the investigation of a Cholera outbreak in Nampula City, Nampula Province, 24 February to 10 March and Dengue Outbreak, in Pemba City, Cabo Delgado, from 15 to 29 March 2014. One resident from Cohort II, Fernando Padama and another from Cohort III, Inácio Ceite participated in the investigation of a Dengue fever outbreak in Nampula City, Nampula Province, from 24 April to 8 May, 2014. Trainees also set up and implemented surveillance system during the Dengue fever outbreak in Pemba City, Cabo Delgado Province, in April and May.

Rotavirus Outbreak in Maputo City and Beira City
Cohort III residents; Claudio Mulanga from Epi Track and Fernanda Oliveira from the lab track participated in the investigation of Rotavirus outbreak in Maputo City in June and July 2014. Eziquias Silthe a Lab Track trainee together with Bruce Borges an Epi Track, trainee investigated the outbreak in Beira City from 17 to 31 July 2014.

Rabies outbreak and animal bite in Maputo City
Cristolde Salomão the FELTP Field Coordinator and graduate of Cohort I Epi Track participated in the investigation of a rabies outbreak and animal bites in Maputo city, from 9 to 23 July, 2014.

Other Field Activities

Data analyses and Surveillance System Evaluation
Cohort III residents conducted 14 database analyses and 14 surveillance evaluations. Evaluations were based on the topics: food, water, malaria, nutrition, entomology, water, mortality, accidents, cancer and lymphatic filariasis.

Meetings and conferences

Two of Cohort II residents, Arícia Munguambe a Lab Track resident and Jorge Jone an Epi Track resident participated in a workshop on Basic Statistics, held in Maputo at National Institute of Health, with Institute of Tropical Medicine in Antwerp, Belgium, from 03-10 June, 2014.

NIGERIA FIELD EPIDEMIOLOGY AND LABORATORY TRAINING PROGRAM

The Nigeria Field Epidemiology and Laboratory Training Program was established in October 2008 as a long-term program within the Federal Ministry of Health (FMoH) and Federal Ministry of Agriculture and Rural Development (FMARD). The Program aims at training field epidemiology, veterinary epidemiology and public health laboratory residents for leadership positions in both ministries. The Universities of Ibadan and Ahmadu Bello teach and accredit the academic qualifications of NFELTP graduates. A total of 207 trainees have so far been admitted in six cohorts.

Didactics and Short Courses

Census and Survey Processing System Training
As part of preparations to enter and analyze data from the ongoing routine immunization coverage survey, Centers of Diseases Control and Prevention (CDC) conducted a Census and Survey Processing System (CSPRO) training for data management staff and a selected number of residents from
22 – 23 May 2014. CSPRO is data management software distributed freely by the United States Census Bureau. It was recommended for use for the coverage survey because it has advanced features that reduce data entry errors, and is also free of charge just like Epi Info™.

Outbreak Investigations and Response

Suspected cholera outbreak in Mpape, Abuja

A team which comprised of six Cohort V residents and the Resident Advisor- Prof. Gabriel Paggensee conducted a suspected cholera outbreak investigation in Abuja from 2 – 7 April 2014. The investigation followed a report of a cholera outbreak in Mpape, Abuja on 2 April 2014. They conducted an active case search, collected samples for rapid and water testing and conducted health education in the communities.

Wild Polio Virus Outbreak in Kano state

Dr Aboyowa Edukugho - NSTOP Field Coordinator was deployed to Kano state following the report of a confirmed wild polio virus in Cameroon. The overall objective was to boost immunity of children less than five years old to prevent WPV transmission and improve the sensitivity of acute flaccid paralysis (AFP) surveillance in 15 Local Government Areas (LGAs) of the two states. These LGAs share borders with Cameroon and often experience large volumes of human traffic across the borders.

NFELTP Involvement in Ebola Response in Nigeria

NFELTP Program was involved in the response of the Ebola outbreak response activities from July 2014 when the outbreak was confirmed in Nigeria. Twelve epidemiologists including two Resident Advisors, three graduates and seven residents from the program were actively involved in response. Their efforts were coordinated through an Emergency Operation Centre in Lagos with five working groups; Co-ordination, epidemiology and laboratory, social mobilisation and communication, surveillance at ports of entry and case management. A total of 100 residents and graduates participated in the response.

RWANDA FIELD EPIDEMIOLOGY AND LABORATORY TRAINING PROGRAM

The Rwanda Field Epidemiology and Laboratory Training Program (RFELTP) was established in 2010 with the objectives of strengthening response to acute public health problems, public health surveillance systems and communication of epidemiological information. The program is a collaboration between the Rwanda Ministry of Health (MOH), Ministry of Agriculture and Animal Resources (MoAA), University of Rwanda/College of Medicine and Health Sciences/ School of Public Health (UR/CMHS/SPH), Rwanda Biomedical Centre (RBC), the National Reference Laboratory (NRL) and CDC. The program has so far enrolled three cohorts of 45 residents since its inception.

Program Enrolment and Graduation

Fifteen residents were enrolled for the new academic year 2014 – 2015. They started in September 2014. Three students have graduated and six others have finished all the requirements and are waiting for the date of graduation.

Outbreak investigations and surveillance conducted

The school of Public Health in collaboration with RBC conducted outbreak investigations in different districts of the country. FELTP students and School of Public Health lecturers participated in the following outbreak investigations:

- Typhoid fever in Kigeme, Nyamagabe District
- Food poisoning at Nyunurama Health Center / Ruhango District Hospital
- Bloody diarrhea in a secondary school “Lycée de Nyanza”

Scientific Conferences and workshops attended by residents

Residents attended a number of local and international conferences where they made several oral and poster presentations as indicated in the table below.

<table>
<thead>
<tr>
<th>Date</th>
<th>Conference</th>
<th>Location</th>
<th>Type</th>
<th>Title of Presentation</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 June 2014</td>
<td>Lab Skills</td>
<td>Kigali, Rwanda</td>
<td>Oral</td>
<td>Food borne outbreak of salmonellosis at a church gathering, Rwanda, 2012</td>
<td>Innocent Nzabahimana</td>
</tr>
<tr>
<td>27 October 2014</td>
<td>8th Vaccine &amp; ISV Congress</td>
<td>Philadelphia, USA</td>
<td>Poster</td>
<td>Trends in meningitis hospitalizations before and after 7-Valent pneumococcal conjugate vaccine introduction in Rwanda, 2002-2012</td>
<td>Maurice Gatere</td>
</tr>
<tr>
<td>9 September 2014</td>
<td>ASLM Conference</td>
<td>Johannesburg, South Africa</td>
<td>Oral*</td>
<td>Improvement of Laboratory Quality System through Strengthening Laboratory Management towards accreditation in Rwanda</td>
<td>Innocent Nzabahimana</td>
</tr>
<tr>
<td>November 2014</td>
<td>ASTMH Conference</td>
<td>New Orleans, USA</td>
<td>Poster</td>
<td>Characterization and outcomes of severe malaria among hospitalized Patients in Rwanda, 2012-2013</td>
<td>Alphonse Rukundo</td>
</tr>
</tbody>
</table>
**SOUTH AFRICA FIELD EPIDEMIOLOGY AND LABORATORY TRAINING PROGRAM**

The South Africa Field Epidemiology and Laboratory Training Program (SAFELTP) was established in May 2006 and was developed as a joint collaboration between the National Department of Health (NDOH), the National Health Laboratory Service (NHLS), National Institute of Communicable Disease (NICD), University of Pretoria (UP) and the US CDC – South Africa Office. The program has enrolled 80 residents in eight cohorts to date.

**Didactics and Graduation**

All the five residents in the 2012 cohort received their Master in Public Health from the University of Pretoria, School of Public Health on 25 April 2014. This brings the overall graduation rate to 89% (46/52). One of the trainees from Liberia, Dr Phillip Sahr was unable to attend the function as he had been deployed to Liberia, West Africa to participate in the Ebola response efforts.

**Trainings and Short Courses**

- **Basic Applied Epidemiology short course**
  The SAFELTP conducted a two week short course in Basic Applied Epidemiology for medical personnel from HIV, STI and TB Management Programs in North West Province of South Africa. The training which took place from 20 - 29 August 2014 was facilitated by SAFELTP faculty: Dr Lazarus Kuumza, Ntsieni Ramaleva and Andronica Rakgantso and Mr. Alfred Musekiwa, a statistician for the SAFELTP.

- **Scientific Writing Workshop**
  Six Cohort VII residents and three alumni attended a program sponsored writing workshop from 1.1-15 August 2014 to develop/refine drafts of their manuscript for MPH thesis/journal submission. Dorothy Southern- scientific writer/editor and Alfred Musekiwa- biostatistician, both with the SA Global Diseases Detection Program were the lead facilitators for the workshop.

**Meetings and Conferences**

- **PHASA Conference South Africa**
  Three SAFELTP residents presented abstracts at the 10th Conference of the Public Health Association of South Africa (PHASA) which took place in Polokwane, South Africa from 3 – 6 September 2014. Dr Carl Reddy – Program Director SAFELTP made a poster presentation titled: South Africa Field Epidemiology and Laboratory Training Programme (SAFELTP), Ensuring Occupational Health and Safety (OHS) for trainees. Other presentations done are shown in the table below.

<table>
<thead>
<tr>
<th>Name of Resident</th>
<th>Cohort</th>
<th>Title</th>
<th>Type</th>
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<tbody>
<tr>
<td>Ms Moira Berry</td>
<td>VII</td>
<td>Cancer Among Female Domestic Workers: Analysis of The Johannesburg Cancer Case Control Study, South Africa 1995-2009</td>
<td>Oral</td>
</tr>
<tr>
<td>Dr Nicola Page</td>
<td>VIII</td>
<td>Outbreak Investigation of Diarrheal Disease In Worcester, South Africa Between February and March 2014</td>
<td>Poster</td>
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<tr>
<td>Ms Akhona Tshangela</td>
<td>VIII</td>
<td>Salmonella enteritidis Outbreak at a Lodge in Mokopane, Limpopo Province, January 2014</td>
<td>Poster</td>
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</table>

**Outbreak Investigations and Response**

- **Ebola Outbreak Response**

- **Investigation of a Cholera Outbreak in Diepsloot, Gauteng Province**
  Ms Eva Mathatha Cohort VIII (2014) was involved in a suspected cholera outbreak investigation in Diepsloot, Gauteng Province from 3 to 8 September 2014. The trainee was involved in contact tracing, conducting interviews with individuals at risk and ensuring specimen collection and environmental assessment of the place where the index case resided.

**SOUTH SUDAN IMMUNIZATION & FIELD EPIDEMIOLOGY TRAINING PROJECT**

The South Sudan Immunization & Field Epidemiology Training Project (IFETP) is a nine-month practice-based training partnership between the CDC and the South Sudan Ministry of Health. The Project focuses on enhancing Expanded Program on Immunization/Routine Immunization (EPI/RI) management, surveillance and reporting, outbreak response and management and data analysis and management. The objective is to increase the number of Ministry of Health staff cross-trained in EPI/RI and surveillance competencies, strengthen cadre of officers serving within the ministry and improve systems for surveillance, response, and EPI service delivery.

Cohort III residents completed their final course from 11-14 June 2014 at the National Health Training Institute (NHTI)/Midwifery School in Wau. Participants also completed their comprehensive and demonstration examinations from 16 -17 June 2014.

Cohort III Field Project Training

Residents undertook a field project training in September 2014. The residents produced field project reports as part of their outputs. These output documents were distributed to Ministry of Health, State Ministry of Health, County Health Departments, and partners in September 2014. The training was facilitated by: Muki Johnson – IFETP Project Director, Eugino Longar – IFETP Alumni, Cohort 1 (WBGZ EPI Manager), David Deng – IFETP Alumni, Cohort 1 (Northern Bahr el Ghazal State Surveillance Officer),
The Program conducted two scientific writing workshops in Tanzania FELTP Scientific Writing Workshops. Lecturers from Muhimbili University of Health and Allied Sciences (MUHAS) listed below:

- Elias Munda presents his draft manuscript “Predictors of male partner involvement in PMTCT in Mwanza Region”
- Antonina Odema – Principal, NHTI/International Medical Corps and James Ransom – IFETP Resident Advisor, South Sudan.

TANZANIA FIELD EPIDEMIOLOGY AND LABORATORY TRAINING PROGRAM

The Tanzania Field Epidemiology and Laboratory Training Program (TFELTP) was established in October 2008 with funding from the Global AIDS Program (GAP), CDC Tanzania, the Presidential Malaria Initiative (PMI) and USAID Global Bureau. The program is managed by the Tanzania Ministry of Health and Social Welfare (MoHSW), in collaboration with Muhimbili University of Health and Allied Sciences (MUHAS), National Institute of Medical Research (NIMR) and other partners.

Didactics

Thirteen Cohort V residents undertook a management and leadership course from 12 - 29 May 2014 at the National Institute for Medical Research (NIMR) building where FELTP office is located. The residents thereafter sat for a continuous assessment test on 22 May 2014, as well as end of module examination. The course was facilitated by continuous assessment test on 22 May 2014, as well as end of module examination. The course was facilitated by lecturers from Muhimbili University of Health and Allied Sciences (MUHAS) listed below:

- Dr Susan Rumisha (standing) takes participants through a session on how to write the results section of their manuscripts

Trainings and Other Related Activities

Tanzania FELTP Scientific Writing Workshops

The Program conducted two scientific writing workshops for alumni and cohort V residents of the program in April and October 2014 respectively. These trainings were in response to a need to increase the number of publications among residents and graduates of the program. The workshop aimed to develop manuscripts from resident and program alumni research reports for submission to peer-reviewed journals.

Dengue Entomological Survey in Dar es Salaam

The Program residents conducted several outbreak investigations and response in 2014. These include investigations on dengue fever in Dar es Salaam in May 2014 and Rift Valley Fever in Morogoro Region. A summary of the outbreaks is shown in the appendix.

UGANDA FIELD EPIDEMIOLOGY TRAINING PROGRAM

The Master of Public Health (MPH) Program started in 1994 and is hosted by the Department of Health Policy Planning Management (HPPM) in Makerere University School of Public Health (MakSPH). The MPH program is one of the Public Health Schools without Walls (PHSWO) Programs in Africa supported by CDC to enhance epidemiology, surveillance, outbreak investigation and other skills among trainees in which 60% of the program is field based. Currently, 43 trainees are enrolled in the program; 26 in Year II (cohort 2012/13) and 17 in Year I (cohort 2013/14).

Didactics and Related Activities

Twenty students were enrolled into MPH year one (cohort 2014/15) and oriented on the MPH curriculum. They undertook a set of core courses including Applied Epidemiology and Biostatistics, Health Planning and management and Health Education Promotion and Behaviour Change Communication.

Cohort II trainees were guided and supported to select field sites and the researchable health problems within the different field sites. Seventeen of the current MPH year two students (cohort 2013/14) completed their field placement during the recent term (June – August 2014), during which they were supported to conduct field studies. They are also developing proposals for their dissertations. Trainees were involved in the following activities: conducting seminar series, writing manuscripts out of their research projects, presenting their dissertation proposal to Institutional Review Boards for scientific and ethical clearance.

Outbreak Investigations and Response

Meningitis outbreak investigation in Adjumani and Arua Districts

Three trainees from the 2012/13 cohort participated in the meningitis outbreak response activities in Adjumani and Arua districts in March 2014. These were: Mbabazi Gladys, Kyirungi reinald and Mwambenzi Moses. They were supported and mentored by the FETP course coordinator, Field Coordinator from MakSPH and an epidemiologist and Lab specialist from Ministry of Health. The trainees carried out an epidemiological investigation to describe the outbreak as well as determine the possible risk factors. They also supported the district in the outbreak response plan/activities such as case finding, vaccination, community mobilization and health education, logistics and supplies planning and coordination.

NSTOP Activities

Six of the residents participated in National Stop Polio Surveillance activities in northern Uganda with support from WHO, AFENET and Ministry of Health. They carried out the following activities: Training primary health workers in identification of cases of Acute Flaccid Paralysis, training the laboratory personnel in collection and transportation of stool specimen, training village health team members in identification and referral of suspected cases of acute flaccid paralysis, actively looking for cases of Acute Flaccid Paralysis in communities.

Cholera Outbreak in Arua

Two students (cohort 2013/14) whose field attachment was in Arua district investigated a cholera outbreak that occurred in the district July 2014. They participated in contacting tracing, reviewing patient line lists, identification of risk factors, environment and water quality assessments, supporting response activities by the District Health Teams.

Program Evaluation of immunization activities in Eastern Uganda

Four trainees from the 2012/13 cohort took part in the evaluation of immunization activities in eastern Uganda. The trainees are: Kunya Henry, Maiteki Robert, Tumwebaze Racheal and Aanyu Christine.

Meetings and Conferences

Trainees submit abstracts to 63rd EIS conference

The program supported 14 MPH students to write abstracts for the 63rd EIS conference that took place 28 April-1 May 2014 in which 17 abstracts were submitted. All abstracts covered investigations and project undertaken by trainees.

African Field Epidemiology Network
during their placements and mainly included, outbreak investigations and evaluation of public health programs and surveillance systems.

Twelve completing MPH students (cohort 2011/2012 and 2012/2013) were supported to make oral presentations of their studies at the Makerere University College of Health Sciences Joint Annual Scientific Conference held in Kampala, September 2014.

Other Program Activities

Scientific and Grants writing

Two of MPH year two trainees (cohort 2012/13) who won the TEPHINET non-research grant in maternal and child health completed their project during this reporting period.

- Mwetembezi Moses: “Increasing awareness and uptake of family planning among commercial motorcycle riders in Kabwohe town council, Sheema district, Uganda”
- Atim Pamela: “Using community initiatives to improve maternal and newborn outcomes in Lira district, Uganda”

ZIMBABWE FIELD EPIDEMIOLOGY TRAINING PROGRAM

The Zimbabwe Masters in Public Health Program is a two-year competency based training that was initiated in 1993 with the aim of assisting the Ministry of Health and Child Welfare (MOHCW) create a permanent capacity to recruit, train, and employ public health practitioners to sustain the public health infrastructure. The MPH program is operated with the TEPHINET non-research grant in maternal and child health.

The program has enrolled 221 trainees in 22 cohorts to date.

Didactics and Graduation

Cohort XX Graduation

Sixteen Cohort XX residents of the Zimbabwe Field Epidemiology Training Program (FETP) graduated on 12 September 2014 at the University of Zimbabwe main campus in Harare. The residents from various professional backgrounds were awarded a Masters of Public Health degree.

Meetings and conferences

Resident wins William Foege Award at 63rd EIS Conference

Mr. Donewell Bangure, Cohort XXI resident from Zimbabwe FETP won the award for Most Outstanding Public Health Scientific Oral Presentation during the International Night at the 63rd Annual EIS conference held 28 April - 02 May 2014 in Atlanta, Georgia, USA. His paper was titled: “Effectiveness of Short Message Service Reminders on Childhood Immunization Programme in Kadoma, Zimbabwe, 2013 - A Randomized Controlled Trial”. Mr. Bangure who received the 2014 William Foege award becomes the 2nd African to win this award after Dr. Luka Bangure who received the 2014 William Foege award at 63rd EIS Conference 2014.

Zimbabwe FETP 20th Anniversary Celebration

The Zimbabwe Field Epidemiology Training Program (FETP) celebrated its 20th Anniversary on 26 June 2014 at the Harare International Conference Center, Zimbabwe. The event was themed 20 years of Public Service: Looking back and inspiring the future. It was a day of reflection on the program’s achievements since its establishment in 1993.

Being the first public FETP in Africa, the Program provided the foundation that lead to the growth and expansion of similar training programs in Africa. The Zimbabwe FETP is also one of the four founding member programs of the African Field Epidemiology Network (AFENET), and AFENET among others.

The event was graced by the Minister of Health and Child Care, Honorable Dr. David Parirenyatwa and other dignitaries such as Prof. Dionisio Herrera - TEPHINET Executive Director, Prof. Elizeus Rutemberebwa - AFENET Board Chair, Dr. Sheba N. Gitta - AFENET Ag. Executive Director, Dr. Peter Kilmarx - CDC Zimbabwe Director, Mr. Vengai Mugabe - representative of the University of Zimbabwe’s Vice Chancellor and Prof S. Rusakaniko, Chair Department of Community Medicine, University of Zimbabwe. Also from the AFENET secretariat were: Dr. Peter Wasswa – Scientific Writer and Mrs. Agnes Namugaya – Administrator.

The celebration drew over 150 guests that included residents and graduates from Zimbabwe FETP, and Program Directors from seven African FELTPs: Kenya, Tanzania, Uganda, Rwanda, Ghana and South Africa. The event also attracted delegates from partnering organizations such as: Zimbabwe Ministry of Health and Child Welfare, CDC Zimbabwe, Rockefeller Foundation, Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET), and AFENET among others.

During the event, Dr. Peter Kilmarx - CDC Zimbabwe Director delivering his speech during the Zimbabwe FETP 20th Anniversary celebrations held at the Rainbow Towers in Harare, Zimbabwe, 26 June 2014.
The AFENET MINI GRANTS PROGRAM

The AFENET Minigrants Program is an initiative that provides competitive grants to FETP trainees and graduates to support them to conduct short field projects. Trainees work collaboratively with district or provincial health authorities and receive technical support from their respective program supervisors. Each of the award recipients is expected to disseminate their study findings so that public health action is taken.

In 2013/2014 financial year, AFENET received funding from the Bill and Melinda Gates Foundation (BMGF) through CDC’s Global Immunisation Division (GID) and the US Presidential Malaria Initiative (PMI) to support trainees from the Ethiopian Field Epidemiology and Laboratory Training Program (EFETP) to conduct immunisation and malaria-related short studies respectively.

AFENET received funding from the Bill and Melinda Gates Foundation (BMGF) through CDC’s Global Immunisation Division (GID) and the US Presidential Malaria Initiative (PMI) to support trainees from the Ethiopian Field Epidemiology and Laboratory Training Program (EFETP) to conduct immunisation and malaria-related short studies respectively.

List of EFETP residents and graduates who received PMI Minigrants in 2013/2014

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
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<tbody>
<tr>
<td>Abyot Bekele</td>
<td>Assessment of factors affecting utilization of bed nets at investment area, Ethiopia, 2014</td>
</tr>
<tr>
<td>Adamu Addisae</td>
<td>Malaria Morbidity And Mortality Trend Analysis. Ten Years Malaria Program Data Of Kedida Gamela District, Southern Ethiopia</td>
</tr>
<tr>
<td>Belay Bezabih</td>
<td>Evaluation of RDT and Giemsa light microscopy diagnosis of malaria in high malarious districts of Amhara region, Ethiopia, 2014</td>
</tr>
<tr>
<td>Birhanu K. Sori</td>
<td>Assessment of proportion of Insecticide Treated Nets ownership, utilization and factors affecting ITNs utilization among households</td>
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<tr>
<td>Daba M. Feyissa</td>
<td>Assessment of Factors Associated with low Measles Vaccine Effectiveness in Honkilo-Wabe district, Ethiopia</td>
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<tr>
<td>Desalegn D. Heleno</td>
<td>Insecticide Treated Bed Nets Ownership, Utilization And Associated Factors In Kacha Bira District, Southern Ethiopia.</td>
</tr>
<tr>
<td>Haftom T. Desta</td>
<td>The Endemicity of Malaria in AkakiKality sub-city, Addis Ababa Ethiopia</td>
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<td>Masterwal Worku</td>
<td>Assessment of long lasting Insecticide Treated Nets utilization among high-risk groups for Malaria Control in Mecha District, Amhara. Altitudes vs. utilization</td>
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<tr>
<td>Nigatu A. Tarekegn</td>
<td>Prevalence and associated risk factors of malaria among workers, Kuraz sugar factory project, Salamago district, South Omo zone, SNNPR, Ethiopia</td>
</tr>
<tr>
<td>Tigabu Hiluf</td>
<td>Prevalence and risk factors of Malaria among workers of Welkayt Sugar factory, Tigray Region, Ethiopia from June 2013 to June 2014</td>
</tr>
<tr>
<td>Zayeda Gidey</td>
<td>Practices of malaria in traditional miners in Asegede Tsembella District, Tigray Regional State, Ethiopia, 2014</td>
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ONE HEALTH E-SURVEILLANCE INITIATIVE (OHSI) PROJECT

The One Health e-Surveillance Initiative aims to develop strategic plans for implementing One Health electronic surveillance within the context of Integrated Disease Surveillance and Response (IDSR) and the International Health Regulations (IHR) 2005. The project is implemented in five pilot countries, Burkina Faso, Cameroon, Kenya, Nigeria and Uganda and is funded by the Defense Threat Reduction Agency (DTRA) of the US Department of Defense. The project is implemented by Public Health Practice (PHP) LLC in collaboration with AFENET, CDC, WHO-AFRO and the ministries of Ministries of Health, Agriculture, Livestock, and Wildlife among others.

Achievements

One Health e-Surveillance Initiative Kick off meeting in Kampala

The project held a project kick-off and assessment training workshop in Kampala, Uganda from 21-25 July 2014. This meeting brought together 59 stakeholders and participants from the five implementing countries, and all the key partners. The meeting aimed to orient stakeholders on the initiative and to discuss the roles and responsibilities of each. By the end of the training, all CLWG members had a good understanding of the assessment protocol and tools, and also provided input into the assessment tools.

Participants of the One Health e-Surveillance Initiative Kick off meeting held in Kampala in July 2014
AFRICAN PROGRAM FOR ADVANCED RESEARCH EPIDEMIOLOGY TRAINING (APARET)

The Africa Programme for Advanced Research Epidemiology Training (APARET) is a four year program that supports independent research activities by FELTP graduates in Africa. The program was initiated so as to combine the training of qualified professionals while providing an opportunity for host training institutions to obtain highly remunerated research grants that will promote self-driven research. Since establishment, the program has recruited three cohorts of fellows from Ghana, Nigeria, Tanzania, Uganda, West Africa and Zimbabwe FELTPs.

APARET Proposal Writing and Project Planning Workshop, Zanzibar

Cohort III fellows participated in a proposal writing & project planning workshop from 31 March – 4 April 2014 at Sea Cliff Resort, Zanzibar. During the workshop, fellows acquired knowledge in: the initial concepts on planning a project, designing a work breakdown structure by use of responsibility matrix, planning work schedules, budgeting, risk management, project communication and team management among others. The workshop was a follow up to the two-week initiation course from 13 – 24 January 2014 at Hotel Africana in Kampala, Uganda.

APARET Cohort III Final seminar in South Africa

The programme held a final seminar for Cohort III fellows on 3 September 2014. The seminar was embedded into the 10th Conference of the Public Health Association of South Africa (PHASA) which took place in Polokwane, South Africa from 3 – 6 September 2014. The seminar focused on the progress of the fellowship activities and gave fellows an opportunity to meet their mentors and supervisors to review their concepts for grant proposals. Two of the eight fellows had the opportunity to present their abstracts at the student’s symposium on 6 September 2014.

UGANDA TOBACCO CONTROL INITIATIVE (UTCI)

The Uganda Tobacco Control Initiative aims at strengthening the capacity of Ministry of Health to promote tobacco control policies and programs and to provide a multi-sectoral model for other NCD initiatives in sub Saharan Africa. The 3-year initiative is collaboration among CDC, AFENET, WHO and Ministry of Health (MoH) and supports a post-Field Epidemiology Training Program (FETP) fellow positioned at the MoH.

Uganda Releases results of the Global Adult Tobacco Survey (GATS)

The Ministry of Health in partnership with Uganda Bureau of Statistics (UBOS), Centers of Disease Control (CDC) and World Health Organization (WHO) successfully released the Global Adult Tobacco Survey (GATS) at a colourful breakfast meeting at Imperial Royal Hotel in Kampala on 4 July 2014. The launch of the executive summary and the fact sheet provided a glimpse into the tobacco use and control situation in Uganda. This provides critical information on tobacco use and key tobacco control indicators by important socio-demographic characteristics for policy makers and tobacco control community for effective tobacco control.
As part of the Global Health Security Initiative, AFENET was involved in the establishment on an Emergency Operating Centre (EOC) to support early detection and response to Public Health Emergencies (PHEs). The centre helps to prepare and facilitate national task force decision making and actions, coordinate, document and share data to inform policy for future reference among others. The centre was established with support from CDC at the Uganda Ministry of Health’s request.

Achievements

GHS Training and Site Activation in Uganda
In April, June and July 2014, the PHEOC team travelled to Western, Northern and Eastern Uganda to activate and participate in the National Specimen Referral Network “Hub System”. The team took part in the training and equipping of district staff with skills for prevention, detection and response of infectious disease outbreaks.

Ebola Surveillance at Entebbe International Airport Uganda
The Uganda Ministry of Health, WHO and AFENET conducted a sensitization meeting of health desk staff at Entebbe International Airport Uganda and Entebbe hospital to enhance the ongoing Ebola screening exercise at the airport in August 2014. The screening exercise which started in July 2014 was aimed at identifying and following up any person who was suspected of having Ebola, especially persons those from or who had transited through West Africa.

SAVING MOTHERS GIVING LIFE (SMGL)

MOTHERS GIVING LIFE INITIATIVE IN UGANDA
The Reproductive Maternal and Child Health (MCH) project aims at supporting the Uganda MOH to implement activities focused on strengthening maternal and child health services. This includes providing technical assistance on monitoring and evaluation for MCH programs at the district level, supporting maternal mortality reduction activities in Uganda related to the Saving Mothers Giving Life (SMGL) initiative and Maternal Death Surveillance and Response. The project has a fellow-Ms. Emily Atuheire and a consultant – Dr. Frank Kaharuza.

Saving Mothers, Giving Life was launched in 2012 to accelerate the reduction of maternal and newborn deaths in sub-Saharan African countries. The objective of the project is to test an integrated health systems approach that addresses the “three delays” associated with maternal and newborn deaths: delays in, 1) seeking appropriate care, 2) reaching care in a timely manner and 3) receiving high-quality care at a health facility. This five-year Initiative aims to accelerate reductions in maternal and newborn mortality. Its main partners include the governments of Uganda, Zambia and the United States. In Uganda, SMGL began with four districts that had high rates of maternal and newborn mortality and HIV prevalence and has expanded to 10 districts in its 2nd phase. The Phase II kickoff meeting was held from 5-8 May 2014 in Lusaka, Zambia with the aim of reviewing Phase I and identifying the key lessons learned to inform Phase II. Phase II focuses on increased attention to newborns, monitoring and evaluation, streamlined implementation, enhance customer focus, expand partnership and contribute to a Global Movement. Participants included CDC Uganda and Zambia. Phase 1 implementing partners from Zambia and Uganda, USAID Washington, Uganda and Zambia, and some SMGL staff including Dr. Frank Kaharuza – Country Lead for the SMGL Phase II Monitoring and Evaluation, attended the meeting. A dissemination meeting was also held in Uganda on 16-17 July 2014 to share the phase 1 results and plan for Phase 2.

With regard to maternal mortality surveillance and response activities, the team supported compiling of the National MPDR report and in training districts in conducting MPDR. The Ministry of Health with support from Uganda National Health Consumers Organization conducted an initial Maternal Death Surveillance and Response (MPDR) training in 10 districts from 30 March to 2 April 2014. Training teams went to Hoima, Mayuge, Mityana, and Mubende districts to initiate District MPDR committees and Facility MPDR committees.
Epidemiology of Burkitt’s Lymphoma in East African Children and Minors (EMBLEM)

EMBLEM is a five-year multi-country, multi-site collaborative research study being conducted by the US National Cancer Institute (NCI/NIH) to find out the association of malaria resistance with Burkitt’s lymphoma (BL). The main field work is coordinated by AFENET in Uganda and WESTAT in USA. The study enrols cases and controls in Kenya (Nyanza and Western Provinces), Tanzania (Mwanza and North Mara Regions), and Uganda (North central and northwest regions).

Matched Population Control Enrolment in West Nile Region, Uganda

The project conducted a routine matched population control enrolment in 17 districts in the West Nile Region of Uganda. The exercise which was conducted in July and August 2014 registered over 100 controls. In Uganda, EMBLEM has increased its catchment area to increase the accrual rate of cases for enrolment by adding two new districts: Kiryandongo and Masindi. Matched Population Control Enrolment began in July 2013 and continued through November 2014. Plans are underway to begin control enrolment in both Kenya and Tanzania.

Second EMBLEM Update and Scientific Meeting in Kenya

AFENET in collaboration with the Kenya Medical Research Institute (KEMRI) organized a scientific meeting for EMBLEM at the KEMRI campus in Kisumu, Kenya from 22 – 26 September 2014. The first two days of the meeting comprised of scientific sessions on the latest discoveries about causes and mechanisms of developing Burkitt’s lymphoma. Participants included plenary speakers, EMBLEM site-Principal Investigators, senior researchers at the EMBLEM-affiliated in-country institutions, and representatives from Ministries of Health from Kenya, Tanzania, and Uganda.

On 24 September 2014, a Principal Investigator’s Workshop was held to orient African researchers on roles, responsibilities and opportunities of a principal or co-principal investigator. Dr. Ofosu-Barko was selected onto the steering committee for the consortium of African Principal Investigators. Dr. Olivia Namusisi – AFENET Head of Programs, Mr. Erisa Sunday – Senior Administrator in charge of EMBLEM and Rachael Chelimo – Editor and Public Affairs Officer also participated in the meeting.

More information about EMBLEM can be found on the project website http://www.emblem.cancer.gov/.

EAST AFRICAN TRAINING PROJECT (ETP)

The East African Training Project (ETP) is collaboration between AFENET, the Uganda Ministry of Health, CDC and WHO to strengthen routine immunization and Integrated Disease Surveillance and Response in 10 Districts in Western region and 10 Districts in Central region of Uganda. The project focuses on building capacity of district Mid-Level Managers (MLMs) that is, EPI Focal Persons, Surveillance Officers and Health Management Information System (HMIS) focal persons through on job mentorship and training.

Routine Technical Mentorship Sessions

Central Supervision

In April 2014, supervisory visits were conducted in South West region aimed at complementing the training and routine mentorship visits by the Project Mentors. Districts visited included Mbarara, Mitooma, Isingiro, Rubirizi, Arua,tc...
OBJECTIVES AND ACTIVITIES

African Field Epidemiology Network (AFENET) secretariat editorial office meeting from 27-29 March 2014 in Kampala, Uganda.

AFENET-Lab

Through its AFENET-Lab initiative, AFENET with funding from the Presidential Emergency Plan for AIDS Relief (PEPFAR) provided technical and logistical support to laboratory Quality Management Systems (QMS) in seven African countries and eleven Caribbean countries. These projects included expanded External Quality Assurance for HIV rapid testing (EQA); bio safety training; laboratory capacity development; and other laboratory management strengthening activities, most of which are aimed at accrediting the respective laboratories.

ANGOLA

Strengthening Laboratory Management Towards Accreditation (SLMTA)

In Angola, AFENET supported laboratory accreditation through Strengthening Laboratory Management Towards Accreditation (SLMTA). Mentorship visits were conducted to the eight SLMTA laboratories. AFENET facilitated a SLMTA workshop and laboratory audits (internal and external) within the eight supported laboratories to carry out an interim assessment using the WHO-AFRO checklist. A second SLMTA workshop was held in May 2014, during which 20 participants from Cohort I and II laboratories attended.

On 10th July 2014, AFENET also facilitated three staff to attend PenLab/Patners meeting between Implementing Partners, AFENET, MOH and laboratory directorate. An additional partner contacts list was established following the PenLab/Patners meeting. The Ministry of Health – Angola approved the PenLab 2014-2017 report, which officially recognized the inclusion of SLMTA in this project. This will create a synergy in the improvements efforts within laboratories, to achieve accreditation.

HIV External Quality Assurance (HIV/EQA)

Through the HIV External Quality Assurance (HIV/EQA) Scheme, AFENET continued production and distribution of Dry Tube Specimen (DTS) to existing 50 HIV sites in Luanda three times a year hence improving the quality of HIV testing.

PAN AFRICAN MEDICAL JOURNAL (PAMJ)

The Pan African Medical Journal (PAMJ) published three volumes and 1078 articles in 2014, which also marks the journal’s eighth year. All three volumes set new records for the number of articles in a volume; volume 17 had 324, volume 18 had 353 and volume 19 had 400. PAMJ is a peer-reviewed, bilingual (English and French) Open Access biomedical journal published in electronic format in Kampala. The journal’s eighth year. All three volumes set new records for the number of articles in a volume; volume 17 had 324, volume 18 had 353 and volume 19 had 400. PAMJ is a peer-reviewed, bilingual (English and French) Open Access biomedical journal published in electronic format in collaboration with the African Field Epidemiology Network (AFENET).
AFENET conducted a training of personnel in 59 HIV testing sites on the use of the DTS and enrolled 9 additional HIV testing sites in Luanda into the HIV/EQA program.

BOTSWANA
Surveillance, Outbreak Investigation and Response in Botswana Short Course
A total of 40 participants were facilitated to attend a short course on surveillance, outbreak investigation and response in Botswana from 11 - 21 February 2014. The short course was geared towards initiation of the two year FELTP training in Botswana.

The workshop aimed at equipping the participants with skills to ably respond to routine public health work or public health emergencies. Participants were drawn from the following districts: Lobatse, Goodhope, Kweneng and other. AFENET facilitated the training alongside CDC Botswana and MOH who hosted the training.

KENYA
SLMTA 1 Training in Kenya
AFENET in collaboration with Ministry of Health of Kenya and CDC organized training on Strengthening Laboratory Management Towards Accreditation (SLMTA) for Cohort II Kenyan hospital laboratories. The five - day training held on 19 – 23 May 2014 aimed at equipping laboratory technicians and other hospital staff in the laboratory management with ISO 15189 standards using the SLMTA toolkit that is incorporated in the use of the WHO/AFRO SLIPTA checklist. The training also aimed at empowering and strengthening laboratory management to achieve immediate laboratory improvement in order to accelerate preparedness towards achieving accreditation. Participants were introduced to the concept of SLMTA, the identification of improvement projects and quality indicators pertinent to the achievement of laboratory accreditation.

The SLMTA 1 training was facilitated by CDC Kenya representatives, Ministry of Health Provincial General Hospital Laboratory Representatives from Nyeri and Embu, representatives from AMREF and AFENET Mentors. A number of trainings were conducted in support of SLMTA laboratory quality systems improvements process in collaboration with CDC, MOH and other in-country partners.

AFENET facilitated building of local capacity for institutionalization of SLIPTA within MOH and establishment of mechanisms for sustainability. Through this, AFENET facilitated SLIPTA laboratory assessments, staffed six laboratories with embedded mentors and facilitated local human resources capacity through supplemental trainings.

Systems strengthening for Kenya FELTP
Support to the Kenya FELTP included facilitation of residents’ attachment to six health facilities which strengthened data collection efforts for decision making for the benefit of laboratory technicians and clinicians. AFENET also facilitated onsite mentorship at four laboratories on SLMTA quality improvement processes and facilitated routine FELTP training activities such as outbreak investigation and surveillance and data management.

SYSTEMS STRENGTHENING FOR KENYA FELTP
Support to the Kenya FELTP included facilitation of residents’ attachment to six health facilities which strengthened data collection efforts for decision making for the benefit of laboratory technicians and clinicians. AFENET also facilitated onsite mentorship at four laboratories on SLMTA quality improvement processes and facilitated routine FELTP training activities such as outbreak investigation and surveillance and data management.

AFENET partnered with the department of Disease Control and Prevention in Ministry of Health (MOH) and Directorate of Occupational Safety and Health (DSOH) in the Ministry of Labor to: support the prevention of HIV medical transmission through strengthening occupational health and safety services in healthcare settings in Kenya, support interventions that protect the health workers from exposure to blood and body fluids, respiratory pathogens such as TB and other workplace hazards and supported development and implementation of post-exposure prophylaxis (PEP) and occupational safety policies and guidelines for health workers. Also among the activities was the integration of Injection Safety and Infection Prevention and Control (IPC) as well as bio-safety and safe medical waste management practices into HIV services and other existing health programs.

TANZANIA
Bio-safety certification
AFENET facilitated the training of two Biomedical Engineers/Technicians on BSC certification leading to National Sanitation Foundation (NSF) accreditation as BSC field certifiers. AFENET also facilitated the certification of eight bio-safety cabinets in Bagamoyo, Kilaka, Mkuara, Lindi, Mtwarra, St. Benedict’s Mission hospital (Ntanda), and Kisarawe in Tanzania.

Two sets of Bio-safety Cabinets Certification Tools / Equipment were procured and a Bio-safety Certification program was established. Out of the 89 BSCs in the country, 38 (43%) have been attended to. Of these, 28 (74%) were deemed to be in satisfactory condition, whereas, 10 (26%) were found to be defective. BSCs pending service and certification were 51 (57%).

HIV/ EQA Proficiency Testing
AFENET continued the production and distribution of DTS for HIV/EQA to 500 HIV testing sites in Tanzania. An additional 100 HIV testing sites were enrolled and trained onto HIV External Quality Assurance Scheme (DTS and logbook). Several meeting were held to discuss modalities of the National HIV logbook and as a result, new modalities were designed and the way forward discussed during a stakeholder meeting.

SWAZILAND
HIV/ EQA and HIV Testing and Counseling (HTC)
In Swaziland, a training of trainers for HIV rapid testing, HIV testing and Counseling (HTC) was conducted from 26 - 29 August 2014. A total of five trainer of Trainers (TOTs) selected from the four regions of Manzini, Shiselweni, Lobombo and Hhohho were trained and Post-training Support to the Kenya FELTP included facilitation of residents' attachment to six health facilities which strengthened data collection efforts for decision making for the benefit of laboratory technicians and clinicians. AFENET also facilitated onsite mentorship at four laboratories on SLMTA quality improvement processes and facilitated routine FELTP training activities such as outbreak investigation and surveillance and data management.

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mentorship began thereafter. AFENET also facilitated and participated in the revision of the training curriculum to incorporate new testing guidelines and algorithms and also participated in the review and development of training materials and job aids for HIV rapid testing. A revised training curriculum that incorporated new testing guidelines and algorithms was developed and shared with the Swaziland Ministry of Health.

**CARIBBEAN REGION**

**Laboratory Accreditation in the Caribbean Region**

Laboratory accreditation was conducted in 10 countries: Antigua, Bahamas, Barbados, Grenada, Jamaica, St. Kitts, St. Vincent, Suriname, Trinidad and Dominica Republic in the Caribbean region. The activities included: Improvement of service contracts and equipment calibration (Antigua, Grenada, Jamaica, St. Kitts, St. Vincent, Dominica), development of National Laboratory Strategic plans (Antigua, St. Kitts, St. Lucia), implementation of the Lab Information System (Antigua, St. Kitts, St. Lucia), Molecular testing reagents (Jamaica), and algorithms was developed and shared with the training curriculum that incorporated new testing guidelines and algorithms and served as members of the SLIPTA assessment process. The training aimed at equipping the professionals with skills professionals towards achieving the WHO-SLIPTA accreditation efforts. The SLIPTA bio-safety curriculum was administered to local bio-safety associations to provide a sustainable train-the-trainer model for local MoH’s to utilize. An improved action plan was developed and a summary report was provided to the MOH in each country.

**External Quality Assurance (EQA)**

AFENET supported the registration of all the 11 countries to participate in the Digital PT program and retraining of participants on the system, as necessary. AFENET facilitated the approval of educational materials and job aides for HIV rapid testing sites. Standardized logbooks were also printed and distributed for use at all HIV testing sites.

**Development of National Laboratory Strategic plans in Antigua, St. Kitts and St. Lucia**

AFENET facilitated the setup of the National Laboratory Strategic Plan Working Group (LSPWG), in collaboration with the MOH and the Secretariat of the Caribbean Regional Coordinating Laboratory, regional laboratory database, a functional referral network and implemented the EQA – SIP.

**Post SLMTA Evaluation Assessments of SLMTA Cohort 2**

A post SLMTA Evaluation Assessments of SLMTA Cohort 2 was conducted in which a review of the improvement and non-conformance was done in each laboratory. A specific SLIPTA bio-safety curriculum was developed and a total of 25 Bio-safety professionals trained to serve as members of the SLIPTA assessment process. The training aimed at equipping the professionals with skills professionals towards achieving the WHO-SLIPTA accreditation efforts. The SLIPTA bio-safety curriculum was administered to local bio-safety associations to provide a sustainable train-the-trainer model for local MoH’s to utilize. An improved action plan was developed and a summary report was provided to the MOH in each country.

**Laboratory Quality Management System - Stepwise Improvement Process Development (Collaboration with CARICOM Regional Organization for Standards and Quality (CROSQ))**

AFENET facilitated the set up of the National Laboratory Strategic Plan Working Group (LSPWG), in collaboration with the MOH and facilitated the identification of source documents and information to be included in the NLSP according to the WHO-CDC guidance document, in collaboration with the CROSQ. A draft National Laboratory Strategic Plan (NLSP) was developed and the LSPWG, reviewed and produced final NLSP. AFENET coordinated with the governments on the approval and adoption of the NLSP. The NLSPs for the public and private laboratories were developed to provide a comprehensive structure for building laboratory capacity within the five (5)-year plan period (2013/2014 through 2017/2018). The team developed and submitted the final copy of the NLSP to the country governments.

**Post SLMTA Evaluation Assessments of Cohort 2**

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<table>
<thead>
<tr>
<th>Country</th>
<th>Status of the NLSP</th>
<th>Initial meeting with MOH</th>
<th>1st 5 day NLSP Meeting</th>
<th>2nd 5 day NLSP Meeting</th>
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<tbody>
<tr>
<td>Dominica</td>
<td>In progress</td>
<td>TBA</td>
<td>TBA</td>
<td>7–11 Apr 2014</td>
</tr>
<tr>
<td>St. Vincent</td>
<td>Submission of draft to country for final review</td>
<td>22 July 2013</td>
<td>23–26 Jul 2013</td>
<td>16–18 Sept 2013</td>
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<tr>
<td>Grenada</td>
<td>Submission of draft to country for final review</td>
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<td>9–12 Jul 2013</td>
<td>2–6 Sept 2013</td>
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<td>28–31 Jan 2014</td>
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<tr>
<td>St. Kitts</td>
<td>In progress</td>
<td>31 March 2014</td>
<td>1–4 Apr 2014</td>
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<td>5 May 2014</td>
<td>6–9 May 2014</td>
<td>8–10 Sep, 2014</td>
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</tbody>
</table>

**Mentoring Training Program**

A mentoring training program was established, tailored to the needs of the region. This program was used to train laboratory mentors at country level. National laboratories of all eleven (11) PEPFAR supported countries were also enrolled in the SLMTA training program. The Bahamas HIV Reference Laboratory was accredited through this program and three (3) other laboratories have applied for accreditation. Eight other laboratories are in the process of improving their quality systems and preparing for accreditation through SLMTA.

**External Quality Assurance (EQA)**

AFENET facilitated the revision of the NLSP. AFENET Coordinated with the MOH and facilitated the identification of source documents and information to be included in the NLSP according to the WHO-CDC guidance document, in collaboration with the CROSQ. A draft National Laboratory Strategic Plan (NLSP) was developed and the LSPWG, reviewed and produced final NLSP. AFENET coordinated with the governments on the approval and adoption of the NLSP. The NLSPs for the public and private laboratories were developed to provide a comprehensive structure for building laboratory capacity within the five (5)-year plan period (2013/2014 through 2017/2018). The team developed and submitted the final copy of the NLSP to the country governments.

**Progress made towards National Laboratory Strategic Plan Development in The Caribbean**

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<th>Date of Assessment</th>
<th>Assessors</th>
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<tr>
<td>Antigua</td>
<td>2–3 February 2014</td>
<td>Giselle Guenva – Quality Assurance Officer CDC/CRO Floris Gordon – Laboratory Coordinator AFENET</td>
</tr>
<tr>
<td>St. Kitts</td>
<td>16–17 February 2014</td>
<td>Giselle Guenva – Quality Assurance Officer CDC/CRO Floris Gordon – Laboratory Coordinator AFENET</td>
</tr>
<tr>
<td>Grenada</td>
<td>10–11 November 2014</td>
<td>Yvette Irving Quality Officer AFENET Keith Paris CDC/CRO</td>
</tr>
<tr>
<td>St. Vincent</td>
<td>24–25 February 2014</td>
<td>Yvette Irving Quality Officer AFENET Gordon – Laboratory Coordinator AFENET</td>
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<td>Dominica</td>
<td>10–11 March 2014</td>
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UGANDA

Biosafety Cabinet Mentorship
AFENET participated in a two week biosafety cabinet mentorship for three biomedical engineers in Uganda from 1 – 14 June 2014. Two of the three engineers were from Uganda Ministry of Health and one from Rwanda Ministry of Health. They were mentored successfully on the certification of biosafety cabinets. AFENET procured the supplies to facilitate the certification and biosafety cabinet mentorship exercise.

ETHIOPIA

In Ethiopia, AFENET facilitated and participated in the calibration of selected laboratory equipments in different regional health facilities/hospitals in Ethiopia between February and March 2014. Among other activities was the facilitation of certification engineers from Clean Room Maintenance Services, South Africa to carry out the certification and servicing of biosafety cabinets located in different regions of Ethiopia from February – March 2014. AFENET also assisted in the procurement of supplies to support the biosafety cabinet mentorship exercise which saw the procurement of supplies (HEPA filters, fluorescent tubes to facilitate the certification and servicing of biosafety cabinet in Ethiopia.

CAMEROON

Systems strengthening for Cameroon FELTP
In Cameroon AFENET facilitated the translation of training materials from English into French. In addition, abstracts and manuscripts written by the residents were also translated into English from French. FELTP residents were facilitated to make domestic travels to conduct baseline surveys for Polio, Measles and Ebola prevention in Cameroon. AFENET also procured supplies such as training manuals, six laptops and six GPS machines for the FELTP.

RESEARCH ACTIVITIES

ONCHOCERCIASIS STUDY IN UGANDA

The study in Uganda commenced in June 2014 after IRB approval had been obtained from the Uganda National Council for Science and Technology. An advance team from the MOH visited Wambabya, Hoima district, Western Uganda to make initial contact with the communities and families where the study will be conducted. The objective of the Wambabya study was to evaluate the longevity of serological responses in people living in areas where transmission of onchocerciasis was previously eliminated. This work was conducted in the Wambabya-Rwamagongo focus, Hoima District. The field activities for this case control study were successfully accomplished. Locating cases (people with previous positive serology results from 2008) posed a significant challenge that was successfully addressed by a joint team of MOH (Vector control division), Hoima district local government, AFENET and CDC. In collaboration with CDC, the study was successfully conducted, with an enrolment of 60 study participants: 22 cases (of 27 reportedly still living in the area) and 38 controls. All specimens collected were processed in the Regional Hospital in Hoima and eventually shipped to CDC Atlanta.

CDC in collaboration with Ministries of Health in Uganda plans to conduct several studies which include:
1. Evolution of biological markers of Onchocerca volvulus infections after Interruption of Transmission to be conducted in Hoima Uganda
2. Detection of analytes and biomarkers associated with live/viable stages of Onchocerca volvulus post-ivermectin administration
3. African Onchocerciasis Specimen Bank Collection and Evaluation of the OV-16 Serologic Test for Onchocerca volvulus Infection
4. Evaluation of the OV-16 Serologic Tests in Areas Hypoendemic for Onchocerciasis

Dr. Vitaliano A. Cama - Supervisory Microbiologist CDC, taking samples during the onchocerciasis study in Hoima, Uganda
ONCHOCERCIASIS STUDY IN DRC

This study was designed to collect well-characterized bank of specimens from DRC that will be used to assess the OV-16 serologic test for onchocerciasis and that can be used to evaluate any new diagnostic tests that may be developed in the future. The identification of an appropriate diagnostic is critical to support the shift in focus in Africa from the control of onchocerciasis to the elimination of onchocerciasis. Development of a point of use test for the rapid diagnosis of onchocerciasis that could be performed in the field would be the optimal outcome of the use of the African Onchocerciasis Specimen Bank.

The Democratic Republic of Congo’s National Program for Onchocerciasis Control decided to change its objective from onchocerciasis control to onchocerciasis elimination. DRC will need a diagnostic tool that can effectively evaluate the status on onchocerciasis transmission, particularly in CDTI project areas that have co-endemic filarial infections. The currently available OV-16 antibody test has not been tested in populations with co-endemic areas including areas with co-endemic loiasis. A rapid diagnostic test that could differentiate onchocercal infections from other filarial infections would meet a key need of the elimination programs in DRC.

Training and Data collection

Dr Nicholas Ayebazibwe – Senior Epidemiologist AFENET, travelled to DRC together with CDC’s Drs: Paul Cantey and Nana Wilson to conduct this study. The team worked with Dr Ndakani Yassa (CDC Kinshasa) and Sara Dilu, the DRC FETP Administrator. Prior to data collection, the research team of 25 including laboratorians, ophthalmologists, interviewers and supervisors were trained for the three days in Kisangani. The 2 days of the training included class work while the last day was used for pre-testing.

After the training the team moved to Banalia, set up a field lab at Banalia zonal health centre and started collecting samples from the nearby villages which had been mobilized for the study before hand. A maximum of 50 samples were collected per day. Each study participant enrolled was consented, a questionnaire was filled out, 5-10 mls of blood were collected, a skin snip was done. In the lab, for each sample, the blood was centrifuged, Dry blood spots were made, the skin snip was examined under a microscope, the a thin blood film was done, dried and stained for examination under a microscope for loa loa and mansonella. The blood was examined with ICT card for LF as well.
AFENET Finance Team Meeting, Kampala
The AFENET Secretariat finance team together accountants and administrators from all member programs met in Kampala from 28 July to 2 August 2014. The 5-day meeting aimed at training participants on how to implement AFENET’s financial policy and prepare periodical financial reports using AFENET accounting software, guide on accounting, reporting and grants management, and sharing experiences on how to overcome the major challenges of accountability as well as internal and external audit requirements.

AFENET Welcomes New Executive Director
On 1 August 2014, AFENET received a new Executive Director, Dr Kenneth Ofosu-Barko to replace Dr. David Mukanga who left in January 2013. Dr. Ofosu-Barko received the instrument of office from Dr. Sheba N. Gitta – Deputy Executive Director, and the Head of Science and Public Affairs at the AFENET Secretariat. Present at the handover ceremony was Dr. Rutebemberwa Elizeus - AFENET Board Chairman, and members of the management team.

AFENET Secretariat Progress Review and Training Retreat
AFENET Secretariat staff took part in a Progress Review and Training Retreat from 24 – 28 November 2014. The broad objective of this retreat is to reflect on AFENET’s progress in the year 2013/14 and to identify areas for improvement, set new targets and strategies on better service delivery. Staff attended training sessions and also participated in games that encouraged team building and better working relations with partners and clients.
#### FETP/FELTP Established

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<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Cohorts enrolled</th>
<th>Residents enrolled since inception</th>
<th>Year 1 residents</th>
<th>Year 2 residents</th>
<th>Total no. of residents/alumni by track</th>
<th>Total No. of Graduates</th>
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* Program suspended

* Not a fully-fledged FETP

### Outbreaks investigated in the Field Epidemiology and Laboratory Training Programs in 2014

<table>
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<tr>
<th>Country</th>
<th>Outbreak Investigated</th>
<th>Date</th>
<th>Place</th>
<th>Trainees Involved</th>
<th>Key Findings and Public Health Action</th>
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</thead>
<tbody>
<tr>
<td>Angola</td>
<td>Chikungunya, dengue fever, hemorrhagic gastroenteritis, rabies, hemorrhagic gastroenteritis</td>
<td>March-April 2014</td>
<td>Luanda</td>
<td>10</td>
<td>Developed guidelines for patient management, health education, and the distribution of sodium hypochlorite to treat the water.</td>
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<tr>
<td>Ethiopia</td>
<td>Anthrax, post flood assessment</td>
<td>July 2014</td>
<td>Setema Woreda, Jima Zone, Oromia</td>
<td>Determined the extent of the outbreak, confirmed its existence, characterized cases, and determined levels of poison in household food samples. Conducted health education on proper food storage.</td>
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<tr>
<td>Ghana</td>
<td>Cholera, diarrhoea, Ebola, measles, rabies, rabies</td>
<td>February 2014</td>
<td>Suhum Municipality and Ayensuano District</td>
<td>Investigation team conducted health education on rabies, linked dog bite victims to the Suhum Hospital for Post-Exposure Prophylaxis (PEP).</td>
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<tr>
<td>Kenya</td>
<td>Aflatoxicosis, anthrax, lead and methanol poisoning, leishmaniasis (Kala-azar), meningitis, Rift Valley fever</td>
<td>May 2014</td>
<td>Loitokitok District</td>
<td>Conducted health education on aflatoxicosis, linked patients to the Suhum Hospital for Post-Exposure Prophylaxis (PEP).</td>
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<tr>
<td>Mozambique</td>
<td>Rotavirus, dengue fever</td>
<td>April-May 2014</td>
<td>Nampula</td>
<td>Conducted health education on rotavirus, linked patients to the Suhum Hospital for Post-Exposure Prophylaxis (PEP).</td>
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### APPENDIX

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Selected Articles Published from the Field Epidemiology and Laboratory Training Programs in 2014


9. Fidele Ngabo, Maurice Gatera et al. Can Routinely Collected National Data on Childhood Morbidity and Mortality from Diarrhea be used to monitor Health Impact of Rotavirus Vaccination in Africa ? Examination of Pre-Vaccine Baseline Data from Rwanda. The Pediatric Infectious Disease Journal. Vol 33, Number 1, Supp 1, Jan 2014

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