



**African Field Epidemiology Network**



# 2008 Annual Report

African Field Epidemiology Network

# 2008 ANNUAL REPORT



# Contents

Foreword .....	iv
Acknowledgements .....	v
Background .....	1
Program Activities.....	2
Avian Influenza and other Zoonotic Infections Project (AIZIP) .....	2
AIZIP Meeting, Washington DC.....	2
National Focal Points .....	2
AIZIP Stakeholders' Meeting, Nairobi, Kenya .....	2
AIZIP Stakeholders' Meeting, Accra, Ghana .....	3
AIZIP Stakeholders' Meeting, Dar-es- Salaam, Tanzania .....	3
IDSR Strategic Plan for Uganda.....	4
Plague Investigation, West Nile, Uganda.....	4
Uganda Immunization Training Program .....	4
Stakeholders' Meeting.....	5
Curriculum Meeting, Kampala.....	5
National MLM Training, Jinja.....	6
Experience @ AFENET Fellowship Program.....	6
Report from Patrick Nguku-First recipient of Fellowship .....	6
Evaluation of the Fellowship.....	8
AFENET-L .....	9
What is AFENET-L? .....	9
Specific Objectives of AFENET-L.....	9
Non-Communicable Diseases Project .....	9
Trainings, Conferences, Workshops, and Meetings.....	10
57th Annual EIS Conference.....	10
Excellence in Reporting Science .....	10
Geographical Information Systems.....	11
National Focal Points Training Workshop.....	11
Fourth AFENET Board of Directors' Meeting.....	12
Public Health Code of Ethics for Pandemic Influenza Detection and Control in Africa Symposium.....	12
Strategic Meetings and Visits .....	13
Collaboration with Health Systems 20/20.....	13
Meeting with CDC, USAID and STOP-AI .....	13
Meeting with Global Health and Security Initiatives .....	13
Rwanda Assessment Visit .....	13
Visit to Southern Sudan .....	14
AFENET Supported Activities—IDSR and Resident Housing.....	14
IANPHI Regional Meeting, Johannesburg, South Africa.....	14
Visit to Abuja, Nigeria .....	15
Integrated Disease Surveillance and Response .....	15
Community-Based Disease Surveillance (CBDS) Maternal Health Implementation, Luwero and Kabarole Districts, February 2009, by Mr. Luswa Lukwago.....	15
Voice of AFENET Fellows .....	16

Ghana .....	17
Scientific Communication Course.....	17
Improving Management of Public Health Interventions Workshop.....	17
Kenya .....	17
<b>Country Reports.....</b>	<b>17</b>
Diarrhoea Outbreak Investigation, Mandera District.....	18
Typhoid Fever Outbreak Investigation, Bomet and Narok Districts.....	18
Nigeria.....	18
Nigeria Field Epidemiology and Laboratory Training Program.....	18
South Africa .....	19
57th Annual EIS Conference, Atlanta, USA .....	19
Short Courses on Field Epidemiology Training.....	19
Excellence in Reporting Science Training Course .....	19
Symposium on Public Health Code of Ethics for Pandemic Influenza Detection and Control in Africa .....	19
Fifth Global TEPHINET Conference .....	19
Southern Sudan.....	20
Tanzania.....	20
Tanzania Field Epidemiology and Laboratory Training Program.....	20
Epidemiology Short Course .....	20
Uganda.....	21
Marburg Virus Investigation.....	21
Hepatitis E outbreak, Kitgum .....	21
West Africa FELTP .....	22
WAFELTP Activities .....	22
Zimbabwe.....	22
Trainees' Projects on Disease Outbreaks.....	22
<b>Appendices.....</b>	<b>25</b>
AFENET Board of Directors.....	25
AFENET Secretariat Staff .....	26
Acronyms and Abbreviations .....	27



## Foreword

Since our last reporting year 2007, the African Field Epidemiology Network (AFENET) has undertaken a number of activities, bringing field epidemiology closer to end-beneficiaries across Africa. The year 2008 has been full of activities in all our member programs as underlined in this report.

At the onset, AFENET had projected to achieve a number of targets, among them: enhancing the capacity of Ministries of Health (MOHs) in member countries through placement of fellows, training of staff through our Field Epidemiology Training Programs (FETPs), outbreak management, direct technical assistance to MOHs, strengthening of Avian and Pandemic Influenza preparedness, and development of zoonotic disease response capacity.

In attempting to realize these projections, we have had to strengthen our own capacity as an organization to be able to achieve our goals and objectives. We have been more vigilant in reaching out to emergency situations including Ebola outbreak in Uganda, and Cholera in Southern Sudan and Zimbabwe. We further carried out a series of trainings, particularly in disease outbreak investigation and response, and held a number of strategic and stakeholder meetings.

Our training programs continue to train the finest epidemiologists and public health laboratory scientists on the continent. This year, we started two new programs: the

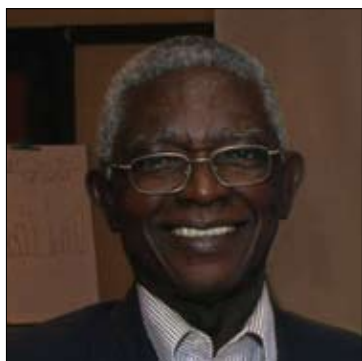
Tanzania and Nigeria Field Epidemiology and Laboratory Training Programs (FELTPs), taking the number of FETPs/FELTPs in our network to seven.

We wish to extend our sincere appreciation to the entire AFENET family for the strides taken this year towards achieving our goals. Without the individual and coordinated contributions of each one of you, we would not be where we currently are.

The growth we have achieved thus far can only be but a pointer to the immense challenge awaiting us, which in turn calls for us all to invest extra effort. Our major goal still remains to ensure improvement in the health of people on the entire African continent by strengthening and expanding field epidemiology and laboratory capacity.

To our esteemed partners and friends, we assure you that your knowledge of AFENET's activities across Africa will be greatly enriched by taking off time to carefully read all the contents of this report. Herein, you will find details about our activities, in-depth member country reports, and how AFENET has helped various countries to enhance their individual capacity. This report is also immensely helpful for researchers and students with specific interest in field epidemiology and laboratory training.

We wish you all a Fruitful, Prosperous and Happy 2009.



Dr. Frederick Wurapa  
Chair, AFENET Board of Directors



Prof. David Serwadda  
Principal Investigator-AFENET-CDC CoAg



Mr. David Mukanga  
Executive Director-AFENET

## Acknowledgements

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We wish to express heartfelt appreciation to our dear funders and esteemed partners without whose support we would perhaps not have realized the achievements registered during this year. We are particularly thankful to the Centers for Disease Control and Prevention (CDC), the United States Agency for International Development (USAID), and the Merck Company Foundation for their financial support.

We acknowledge the support of our ever-growing list of partners among others: the World Health Organization (WHO), the Global Outbreak Alert and Response Network (GOARN), the European Centers for Disease Control and Prevention (ECDC), the National Institutes of Health (NIH) of the U.S. Department of Health and

Human Services (HHS), the International Association of Public Health Institutes (IANPHI), Research Triangle Institute (RTI), the Task Force for Child Survival and Development (TFCSD), the Global Health and Security Initiative (GHSI), the Emory School of Medicine, the Emory School of Public Health, and the Training Programs in Epidemiology and Public Health Interventions NETwork (TEPHINET).

We further appreciate the important role played by our Financial Managers ACLAIM, our bankers Barclays Bank (Uganda, Tanzania, Zimbabwe, and Ghana), KCB-Uganda, and Ecobank-Burkina Faso.

AFENET is a non-profit organization that was established in 2005 with a mission to improve the health of people in Africa

## Background

through strengthening and expansion of field epidemiology and laboratory capacity. This is achieved in partnership with MOHs from member countries, NGOs, international agencies, the private sector, and other public health agencies.

AFENET evolved from national field epidemiology training programs and Public Health Schools without walls (PHSWOWs) established at different intervals between 1993 and 2004. The founding members of AFENET are Ghana, Kenya, Uganda, and Zimbabwe. South Africa is the fifth member program having joined in March 2007. The Network has associate members comprised of the MOH of Nigeria, Tanzania, Southern Sudan, and the Multi-disease Surveillance Center of Burkina Faso.

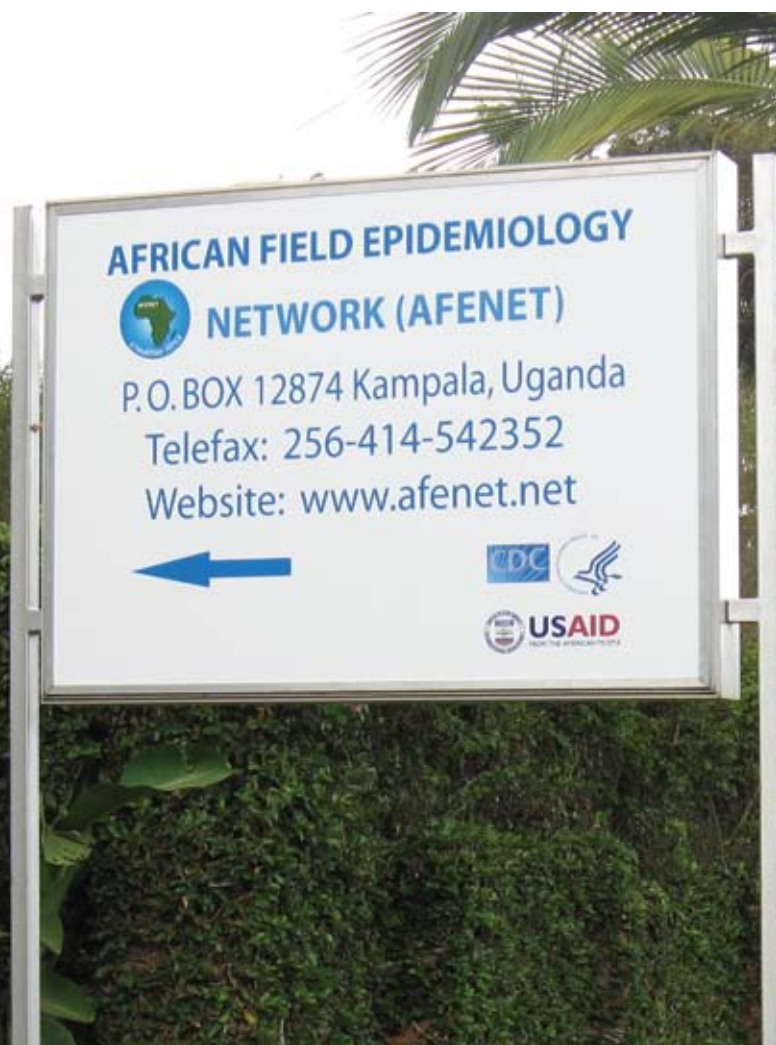
AFENET was established with the Vision of “A healthier Africa,” with the goal of ensuring effective prevention and control of epidemics and other priority public health problems on the continent.

AFENET set off the 2008 Financial Year with a number of strategic projections, many of which have largely been accomplished. Among them were continued building on inter-institutional partnerships that would help in implementing programming based on FELTP in African countries, providing leadership and technical assistance to MOHs and existing FELTP programs, facilitating the establishment of new FELTPs in other African countries,

developing a critical mass of public health leaders in Africa, and developing an evaluation plan for applied field epidemiology activities in Africa.

During this year, AFENET envisioned developing a Centre of Excellence for Management to serve as a hub for the Management Capacity Building Program, continue supporting IDSR activities, including the publication of epidemiological bulletins, supporting MOHs in member countries in implementing the International Health Regulations, implementing the Avian Influenza and other Zoonotic Infections Project (AIZIP), and implementing the Uganda Immunization Training Program (UITP).

This report therefore provides details of activities and achievements realized during the year, including but not limited to strengthening of inter-institutional relationships between HHS/CDC and AFENET, support for MOHs and existing FELTPs, establishment and facilitation of new programs, technical assistance to MOHs, and outbreak investigation trainings. During the course of the year, AFENET also held a number of strategic meetings with various stakeholders.



### AFENET's Strategic Priorities

- Field epidemiology capacity development
- Public health laboratory capacity development
- Public health disease surveillance and effective response
- Networking and collaboration
- Institutional development



## Program Activities

### Avian Influenza and other Zoonotic Infections Project (AIZIP)

The risk of Avian Influenza and other zoonotic diseases has increased in Africa imposing a significant burden on the already sub-optimal public health system. While some diseases like bovine tuberculosis, brucellosis, rabies, plague, anthrax, listeriosis, salmonellosis, trypanosomiasis, schistosomiasis, leishmaniasis, and colibacillosis have been known for years, over the past 2 decades there has been increased emergence of new pathogens of animal origin with serious human health impact. These include: Nipah virus, SARS, West Nile virus, Rift Valley Fever, Hepatitis E, Ebola virus, Marburg virus and Avian Influenza.

#### AIZIP Objectives

- Strengthen national surveillance capacity for Avian Influenza (AI), and other emerging and re-emerging zoonotic diseases
- Enhance the capacity for effective AI and other zoonotic diseases investigation in both humans and animals
- Develop national Pandemic Influenza (PI)/Zoonotic Infections humanitarian response plans in the countries supported by AFENET
- Support FETP/FELTP trainees to undertake evaluations that will enhance national preparedness for AI and PI outbreak response using non-pharmaceutical interventions
- Support community awareness and education about the transmission of AI and other zoonotic diseases from animal to human populations

#### *AIZIP Meeting, Washington DC*

AFENET, in collaboration with CDC, and funded by USAID, developed the AIZIP to help MOHs in member countries strengthen their capacity in prevention and control of AI and other zoonotic infections. Prior to the project implementation, meetings were organized (March 2008) in Washington DC between the key partners to discuss the work plan.

The meetings which were attended by AFENET Executive Director David Mukanga and AIZIP Project Officer Monica Musenero, provided a platform for discussion of the project

as well as AFENET's future plans. Project implementation started in April 2008.

The project started with the selection and training of National Focal Points (NFPs) from all program countries. Currently AFENET has received situation analysis reports from Ghana, Kenya, Uganda, Southern Sudan, Tanzania, and Zimbabwe. These reports comprise of existing National plans of action for AI and other zoonoses, supporting legislation, key stakeholders, resource mobilization plans, and humanitarian response plans, among others.

#### *National Focal Points*



From left to right and top to bottom: Dr. Sheba Gitta—Uganda, Dr. David Mutonga—Kenya, Dr. Mohamed Mohamed—Tanzania, Dr. Simon Antara—Ghana, Mr. Ndlovu Nqobile—Zimbabwe, Dr. Allan Mpairwe—Southern Sudan

#### *AIZIP Stakeholders' Meeting, Nairobi, Kenya*

AFENET held a 2-day AI and other Zoonotic Infections national stakeholders' meeting in Nairobi, Kenya, on August 19–20, 2008. The meeting was organized to review the



progress of implementing the national AIZIP work plan for Kenya, by identifying gaps, reviewing surveillance and response activities to other zoonotic diseases in animals and humans, and developing mechanisms of enhancing collaboration between human and animal health sectors. Prior to the meeting, a draft work plan had been developed by the NFP pending input and approval.

At least 40 participants attended, drawn from the MOH and partner organizations including WHO Country Office, CDC-Kenya, FAO, Kenya Medical Research Institute (KEMRI), International Livestock Research Institute (ILRI), FELTP, AFENET, National Disaster Operation Centre (NOC), and USAID.

The meeting was co-opened by the Director of Veterinary Services and the acting Director of Public Health and Sanitation. They noted that enhanced collaboration between the human and animal health ministries would be imperative in addressing the challenge facing the joint animal-human health surveillance and response in Kenya.

The meeting provided an opportunity for participants to update the stakeholders on the implementation of International Health Regulation 2005 and its integration into IDSR. Participants also identified a number of gaps in joint animal-human health surveillance and response including poor communication channels, lack of a structural framework to jointly address surveillance and response issues, different priority zoonotic diseases in the MOH, and uncoordinated investigations in outbreak situations.

At the end of the meeting, participants resolved to form a 16-member technical zoonotic disease working committee termed AIZIP-Team comprising of members from AFENET, Ministry of Public Health and Sanitation (MOPHS), Ministry of Medical Services (MMS), Ministry of Livestock Development (MoLD), Kenya Wildlife Services (KWS), WHO, CDC, FAO, ILRI, KEMRI, National Public Health Laboratory Services (NPHLS), International Centre of Insect Physiology and Ecology (ICIPE), University of Nairobi (UON), Walter Reed, NOC and the National Museums of Kenya. These organizations nominated technical experts to participate in surveillance and response activities. It was observed that Kenya was progressing albeit slowly in the implementation of the IHR 2005 and there was urgent need for an all-inclusive stakeholders' forum to discuss IHR 2005 and build consensus on the implementation plan.

WHO was also requested to actively engage the MOPHS on the process of IHR 2005 implementation in the country. Participants adopted the AIZIP work plan with amendments on the basis of workshop discussions.

#### *AIZIP Stakeholders' Meeting, Accra, Ghana*

The Ghana FELTP/FELTP through the NFP, organized a 2-day stakeholders' meeting held at Nugouchi Conference Hall, University of Ghana on October 1–2, 2008. AFENET was invited to give technical assistance to the Ghana NFP in a bid to improve on their animal-human health surveillance and response capacity. Dr. Musenero facilitated the strategic

meeting which aimed at obtaining stakeholders' input into the draft AIZIP work plan for Ghana. It was attended by participants from the Ghana Health Service, the Veterinary Service Department, Wildlife Department, National Disaster Management Organization, School of Public Health, and the Nugouchi Memorial Institute for Medical Research of the University of Ghana.

*Having started from very little awareness, it can be concluded that this was a very successful and fruitful meeting. The recommendations were clear and feasible, and fall within AIZIP's mandate.*

*Progress was made in breaking down barriers between sectors. Most of the technical people and team leaders of the key ministries attended and I believe this will enhance the project implementation. This meeting served as the first sensitization of stakeholders on IHR 2005 in the country, and with this kind of spirit, I believe the AIZIP will succeed in Ghana.*

*Monica Musenero*

Participants revised the Ghana National AIZIP work plan on the basis of the identified gaps and challenges, and formed a technical multi-disciplinary AIZIP team to be part of regional teams including human and animal health. The meeting observed the following:

- General concern about fragmented investigations and response to zoonotic diseases, and a need to bring stakeholders together
- The IHR 2005 implementation in Ghana is facing great challenges with virtually no awareness among the key stakeholders
- Stakeholders are eager to see this “one health” concept tested on the ground and are willing to collaborate with AFENET
- A need for more advocacy and publicity about AFENET
- National Focal Person to do a lot of prior mobilization and advocacy and involve as many stakeholders in the preparations

#### *AIZIP Stakeholders' Meeting, Dar-es-Salaam, Tanzania*

AFENET, in coordination with the epidemiology section of the Ministry of Health and Social Welfare (MOHSW) of Tanzania, organized and facilitated a 2-day AIZIP stakeholders' meeting in Dar-es-Salaam on December 1–2, 2008. The meeting, which was sponsored by USAID, drew participants from the Ministry of Livestock Development and Fisheries (MLD&F), Ministry of Natural Resources and Tourism, and from development partners including WHO and CDC. It aimed at sensitizing relevant stakeholders and

strengthening their collaboration in consensus building on AIZIP, introducing the role of IHR, and discussing integrated disease surveillance and response.

During the meeting, Dr. Mmbuji, Mr. Sallu, and Dr. Musenero made presentations. Others who made presentations were Dr. Mohamed, Dr. Vida, Dr. Janneth, and Mr. Mwasekaga. Among the issues discussed included the AIZIP plan, funding, and implementation strategy, many of which were found to be lacking.

Participants resolved to review the work plan by identifying and involving all stakeholders, soliciting funds from the Prime Minister's Office, and empowering the National Task Force. A calendar of activities to be carried out in the short term was designed and approved by the members for immediate implementation.

### *IDSR Strategic Plan for Uganda*

The national IDSR strategic plan for Uganda expired in 2005 and since then the MOH has been operating without a formal guiding plan of action. AIZIP has therefore supported Uganda in the process of developing an IDSR strategic plan by providing both technical and financial support. The project also organized a stakeholders' consultation workshop, which drew participants from various sectors including animal health, veterinary, districts, private sector and wildlife.

The final plan has now been completed and is in the final stages of approval in the government system. Joint animal-human surveillance and response and IHR issues received particular attention and have been incorporated.

For more details on AIZIP activities for 2008, please visit [www.afenet.net/downloads/aizip\\_report-2008.pdf](http://www.afenet.net/downloads/aizip_report-2008.pdf); [www.afenet.net/downloads/uganda\\_report-2008.pdf](http://www.afenet.net/downloads/uganda_report-2008.pdf)

### *Plague Investigation, West Nile, Uganda*

The West Nile region in Uganda has been experiencing repeated plague outbreaks for the past 20 years. In November 2008, AFENET, under the auspices of AIZIP, supported a multidisciplinary team to investigate the ongoing plague outbreak in the region. It included officials from the MOH, Ministry of Agriculture Animal Industry and Fisheries (MAAIF), Uganda Wild Life Authority (UWA), AFENET, Makerere University, and Kyambogo University. This was the first AIZIP team joint investigation of a zoonotic infection, in line with the "One world, one health" approach.

The investigation activities consisted of a series of meetings with political and administrative leaders in Arua and Nebbi districts, meetings with staff of Uganda Virus Research Institute (UVRI)/CDC plague diagnostics laboratory in Arua, a joint stakeholders' meeting, group discussions, community assessment, and active case finding. The field activities included health education, case management, review of treatment protocols with health center staff, epizootic field investigations, and general health education sessions among the affected communities.

The AIZIP team observed that 68 plague cases with 14 deaths had been reported to the MOH between January



**Dr. Ndumu, a member of Uganda AIZIP team and a veterinarian sets traps to study the behavior of rats in and around the households in Arua-Uganda, December 2008**

2008 and 14 November 2008, 75% of the cases were between 4 and 20 years old, and all cases were from Vurra County in Arua and neighboring Okoro County in Nebbi. They observed among others that case management was poor in some health centers, especially those located in areas that were experiencing plague for the first time, lack of multi-sectoral approach to plague control, ad hoc manner of spraying houses, that various stakeholders had inadequate knowledge of plague transmission dynamics and control, presence of community and ecological risk factors such as poaching, animals sharing housing with humans, and diversity of rodents in the environment which are potential reservoirs of plague-causing bacteria.

The team made the following recommendations:

- Need to educate stakeholders about plague transmission dynamics
- Development and distribution of appropriate IEC materials
- Capacity building in identifying plague transmission dynamics and interventions
- Integrating plague control activities into existing programs and projects in affected districts

## Uganda Immunization Training Program

AFENET, in collaboration with the Task Force for Child Survival and Development (TFCS&D), the Emory University School of Medicine, the Uganda MOH, and Makerere University School of Public Health (MUSPH) received a 4- year grant from the Merck Company Foundation to implement the Uganda Immunization Training Program (UITP). This program was designed

The following table lists the members of Uganda AIZIP who investigated the plague outbreak.

Names	Affiliation	Specialization
Prof. Kaddu John	Makerere University Faculty of Science	Zoologist, specialist in ecology of zoonoses of wild animal origin
Dr. Ndumu Deo	Ministry of Agriculture Animal Industry and Fisheries Diagnostics	Veterinary Epidemiology and diagnostics, geneticist
Mr. Kidega K Eugene	Ministry of Agriculture Animal Industry and Fisheries Diagnostics	Senior Laboratory Technician
Dr. Mafigiri K David	Makerere University Faculty of Social Sciences	Medical Anthropologist
Mr. Malimbo Mugagga	Ministry of Health Epidemiology and Surveillance Division	Biostatistician
Dr. Atimnedi Patrick	Uganda Wildlife Authority	Wildlife Veterinary Medicine
Dr. Musenero Monica	AFENET	Epidemiology, Microbiology, Zoonotic infectious diseases
Dr. Gitta N Sheba	Makerere University School of Public Health (AIZIP NFP)	Epidemiologist
Mr. Amatre Gerald	Kyambogo University	Entomologist

to equip Mid-Level Managers in Uganda with skills in immunization service delivery and vaccine management.

In 2008, UITP successfully organized a stakeholders' meeting, a curriculum meeting, and a national training as described below.

#### *Stakeholders' Meeting*

In February 2008, the UITP organized a stakeholders' meeting attended by 25 participants including senior staff from the Uganda National Experimental Program on Immunisation (UNEPI), representatives of Nursing/Medical training institutions, district health officers, and members from WHO, the Red Cross, AMREF, USAID, and PATH.

During the meeting, presentations were made on the current status of UNEPI, training needs assessment, and general characteristics of the mid-level management (MLM) training modules. Primary discussions focused on the use of the MLM modules, although there were also discussions about the need to complete development of the curriculum for Nurse/Midwifery and medical schools.

The Director General of Medical Services Dr. Zaramba Sam welcomed the UITP and hoped that it would address

the training needs in Uganda and result in improved immunization coverage, and reduction in dropout levels.

Before the meeting, persons mostly from UNEPI and WHO were asked to review the existing 14 core WHO/AFRO modules for MLM training based on their areas of expertise. Each presented the general objectives, current relevance, and their personal/professional suggestions for use/adaptation. Based on the reviews, it was agreed that all modules be adapted to suit the Uganda settings including local statistics and checklists.

#### *Curriculum Meeting, Kampala*

In August 2008, the UITP organized a curriculum meeting aimed at mapping strategies to address pre-service immunization training in Uganda. It was attended by representatives from the Ministry of Education and Sports, UITP, WHO, TFCSD, MUSPH, MOH, Human Resources Development, Mulago Hospital Department of Pediatrics, Health Tutors, UNEPI, Mbarara University of Science and Technology, Emory University, Makerere University Department of Nursing and Mulago School of Nursing and Midwifery.



This year, we (UITP) are starting on district Mid-Level Management (MLM) trainings beginning with the Northern region in Lira (May 2009). This will be preceded by a workshop to finalize the training materials.

Last year we conducted a national course for 30 trainers from the Ministry of Health, Nursing training Schools, WHO and other multilateral agencies. Trainers will be drawn from this pool for all the districts courses. We also arranged a meeting of all stakeholders involved in Immunization in Uganda. This meeting was useful in soliciting support and informing the program.

We work closely with the Uganda National Expanded Program on Immunization (UNEPI). Last year we participated in the Sub-National Polio immunisation campaigns following a confirmed case of Wild Polio in DRC near the Uganda border. This year we have co-facilitated in UNEPI organized Cold Chain and Operational level health worker trainings and have been invited to participate in the national Polio and Measles campaigns due April 2009.

*Dr. Ayebazibwe Nicholas*  
*UITP Program Officer*

Presentations made during the meeting included the Training Needs Assessment (TNA) carried out in Uganda in 2004, curricula development for medical schools and Nursing/Midwifery schools, and the need for additional training materials to be distributed, including a boxed set of references from WHO and the recently revised UNEPI policy statement.

#### *National MLM Training, Jinja*

The UITP organized a workshop for MLM Trainers-of-Trainees (TOT) held at Hotel Triangle in Jinja from August 18–23, 2008. A total of 32 participants attended the course. They included UNEPI program staff, MUSPH faculty, WHO, regional and district EPI managers, and nursing school tutors. Ten MLM/UNEPI modules were taught over the 6-day course: problem-solving approach to immunization service management, planning immunization activities, communication, supportive supervision, role of EPI manager, monitoring immunization and data management, logistics, immunization safety and waste management, new vaccine introduction, and integrated disease surveillance.

The training was also attended by Dr. Alan Hinman from the Taskforce for Child Survival who is also the Program

Director, Mr. Kris Natarajan from the Merck Company Foundation, and Dr. Mutale Mumba from WHO/AFRO.

## Experience @ AFENET Fellowship Program

AFENET's strong presence and collaboration with MOHs across Africa provides a unique platform for the development of field epidemiology capacity on the African continent. The linkages created offer AFENET trainees unparalleled opportunities to address challenging public health emergencies, in turn learning by doing.

Epidemiologists and public health professionals continue to benefit from, among others, training in disease outbreak response, review of surveillance systems, research, monitoring and evaluation of intervention programs, capacity building for the health system, mentorship, and direct provision of logistics and supplies.

Through a new fellowship program, AFENET would like to leverage this platform and provide opportunities for young scientists from within and outside Africa to develop their skills and competencies in field epidemiology and public health.

Beginning in June 2008, AFENET established a fellowship program named "Experience at AFENET" that provides opportunities for public health trainees worldwide to work with the AFENET Secretariat and gain special skills in the development and sustenance of field epidemiology capacity development initiatives. Fellowships generally last 3 to 12 months, but may be extended to a maximum of 24 months.

The fellows have the opportunity to work with and be supervised by the AFENET Executive Director and senior program staff. The core activities include participation in a disease outbreak response in Africa, evaluation of disease surveillance systems, designing and conducting analytical studies, teaching epidemiology to undergraduate and/or graduate trainees, and manuscript publication.

#### *Report from Patrick Nguku-First recipient of Fellowship*

Dr. Patrick Nguku, the current Resident Advisor for the Nigeria FELTP, was the first recipient of the Experience @ AFENET Fellowship (June 3–August 31, 2008).

Among his activities, Dr. Nguku was charged with supporting the MOHs in Uganda and Southern Sudan in the production and dissemination of Integrated Disease Surveillance and Response (IDSR) bulletins, reviewing draft Requests for Applications (RFA) for trainee projects, coordinating publication of manuscripts including the 2007 Ebola Outbreak, coordinating and convening a scientific writing workshop for AFENET trainees and graduates, reviewing and establishing a database for Non-Communicable Diseases (NCD) at two new AFENET collaborating centers in Uganda, and coordinating meetings for the development of Pandemic Influenza Public Health Codes of Ethics in Africa.



Dr. Patrick Nguku

Dr. Nguku registered the following achievements during his fellowship program:

- Coordinated and convened expert meetings for the development of Pandemic Influenza Public Health Codes of Ethics in Africa
- Reviewed and established a database for NCD
- Coordinated and convened a scientific writing workshop for AFENET trainees and graduates
- Supported the MOHs in Uganda and Southern Sudan in the production and dissemination of IDSR bulletins
- Reviewed the draft RFA for trainee projects, and supported trainees to submit competitive proposals. He also coordinated co-authors, and submitted manuscripts for publication including the 2007 Ebola Outbreak.

Other activities included participation in AFENET Board of Directors meeting held in Kampala in June 2008, facilitating linkages of AFENET with other regional bodies such as the East Africa Community (EAC) Health Secretariat, and supporting the Nigeria FELTP.

## Program Activities

### Evaluation of the Fellowship

Dr. Nguku evaluated the program, as described below. (A Excellent/Strongly agree: B Good/Agree: C Fair/OK: D Poor/ I don't agree)

Was the experience @ AFENET fellowship useful in your career progression pathway?	A
Was required administrative and logistical support timely?	B
Did you get the necessary supervision	A
Were the fellowships' expectations achievable?	B
How do you rate your achievements in the fellowship	B
Was the allocated time adequate?	C
Was the working environment conducive?	A
Would you recommend another person for the fellowship?	A

What was the best part of the fellowship?	International experience, being identified as the first recipient of the fellowship
Worst part of the fellowship?	Delays in logistical support
What improvements would you recommend?	<ul style="list-style-type: none"><li>• Increase duration of fellowship</li><li>• Increase interaction with ministries of health in various countries</li><li>• Provide tangible services to own country i.e. supporting fellow's home country in solving some of the public health issues</li><li>• Decentralize the fellowship; activities at multiple country level</li><li>• Multiple supervisors to gain variant competencies</li><li>• Stronger linkage to publishing</li><li>• Increase living allowance</li></ul>

More information: [www.afenet.net/downloads/experience\\_@\\_afenet\\_program.pdf](http://www.afenet.net/downloads/experience_@_afenet_program.pdf)

Experience at AFENET is an innovative fellowship that will help in involving graduates of various FELTPs in AFENET Secretariat work and various activities in member countries. It is an avenue, which will help FELTP graduates get the necessary international exposure that is so crucial in the training of an epidemiologist. The mark of an effective epidemiologist is the ability to participate and influence activities within his /her immediate environment and beyond. I was exposed to various countries and AFENET activities. I acquired plenty of skills including further epidemiological, managerial and organizational skills. Public health ethics is an area that I had limited exposure to and the fellowship not only gave me an opportunity to organize a symposium to discuss ethics but also provided with me a chance to meet and interact with world renowned experts on the subject.

Finally I wish to thank the Secretariat for the opportunity and support accorded to me during the fellowship period.

*Patrick M. Nguku, 1st recipient-Experience @ AFENET Fellowship.*

\*Currently Mr. Ngobile Ndlovu from the Zimbabwe FELTP is undergoing the Fellowship program.



## AFENET-L

### *What is AFENET-L?*

AFENET-L is a network alliance dedicated to helping MOHs in Africa build stronger, effective, and sustainable laboratory services to improve public health systems. It involves networking of district public health laboratories within Africa and linking them with support services that will enhance effective and timely detection, confirmation and monitoring of public health threats. The primary focus of AFENET-L is to facilitate information sharing and enable rural districts access technical support from any part of the world.

The program initially covers the East African countries of Uganda, Kenya, Tanzania, and Rwanda due to their history of collaboration. The implementation process has been phased beginning in Uganda.

### *Specific Objectives of AFENET-L*

- Coordinate labs to ensure delivery of quality services
- Facilitate sharing of best practices among member labs
- Strengthen technical capacity of labs at different levels
- Strengthen laboratory quality management system at all levels

So far AFENET-L has consulted various stakeholders in relation to the program's formation in Uganda. These include officials from Ministries of Health, Agriculture Animal Industry and Fisheries, Foundation for Innovative New Diagnostics (FIND), African Medical and Research Foundations (AMREF), and Makerere University Faculty of Veterinary Medicine. Plans are also underway to visit WHO and CDC country offices, and other stakeholders for further discussions on the implementation process, and funding.

## Non-Communicable Diseases Project

Non-Communicable Diseases (NCDs) are diseases which are non-infectious and result from genetic or lifestyle factors.

Although the epidemiology burden and risk factors for these diseases have not been extensively studied, NCD trends are on the rise on the African continent. They have latency periods that may run into many years, making their diagnosis challenging. Examples of NCDs include hypertension, diabetes mellitus, cardiovascular diseases, cancer, ophthalmic disorders, mental disorders, obesity, and asthma.

In October 2008, AFENET in collaboration with the Uganda Heart Institute (UHI) and the Mbarara Referral Hospital (MRH) established a surveillance system for NCDs at these two institutions; serving as collaborating centers for training, surveillance and research. The goal of the project is to generate strategic information on NCDs that will improve patient care and better treatment outcomes.

### Project objectives

- Review current data collection tools available at UHI and MRH, and design and set up a functional database
- Establish the burden of NCDs and trend of their risk factors
- Establish the patient presentation and stage at presentation at the hospital
- Ensure correct and complete information capturing from patients by the health workers
- Compile and analyze specific data concerning health system performance
- Establish a network for information sharing, collaboration and technical support between partners in the project and provide opportunities for young scientist to carry out research.

\*AFENET has so far established coordination offices at the UHI and MRH and recruited project staff. Dr. Peter Mukasa is heading the MRH office assisted by Mr. Paul Turinawe, while Dr. Enock Musoke manages the office at the UHI. AFENET is currently in the process of setting up an electronic data filing system in both units.

# Trainings, Conferences, Workshops, and Meetings

## 57th Annual EIS Conference

CDC organized their 57th Annual Epidemiology Intelligence Service (EIS) conference, which was held at the Crowne Plaza Atlanta-Ravinia Hotel, on April 14–18, 2008. Its primary purpose is providing a forum for EIS officers to enhance their knowledge of recent investigations and their significance to public health. The conference was further intended to increase participants' skills in determining the appropriate epidemiological methods, presenting and interpreting results, and developing appropriate conclusions and recommendations.

Among the themes presented were immunization, Methicillin-resistant *Staphylococcus aureus*, injury, recreational water, reproductive health, preventable diseases, obesity, and activities in monitoring child and adolescent health, occupational health, sexually transmitted diseases, chronic illnesses and vector borne/ zoonotic diseases.

This year's conference was organized with the aim of achieving the following goals: to provide a forum for EIS officers and alumni to engage in scientific exchange on current epidemiological topics, highlight the breadths of epidemiologic investigations at CDC, and to provide an avenue for recruitment of EIS graduates into leadership positions at CDC, state, and local departments.

One of the major events at the conference was the international night sponsored by the Office of Global Health, Office of Workforce and Career Development (OWCD), and the Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). The event provided an opportunity for trainees from field epidemiology training programs and other epidemiologists from around the world to share their research findings.

*Dr. Namusisi Olivia*

[www.afenet.net/downloads/ebola\\_report\\_2007.pdf](http://www.afenet.net/downloads/ebola_report_2007.pdf)

The AFENET Secretariat supported trainees and faculty members from Burkina Faso (2), South Africa (5), Tanzania (2), and Uganda (2) to attend the conference in Atlanta.

During the international night, Dr. Wamala made a presentation on the Ebola outbreak in Uganda, while Dr. Namusisi reported on the progress of AFENET's

participation in the TEPHINET meeting organized at the same venue.

## Excellence in Reporting Science

AFENET is a networking alliance dedicated to helping MOHs in Africa build strong, effective, sustainable programs and capacity to improve public health systems on the African continent. One way it does this, is by encouraging and supporting trainees and graduates to disseminate their research work through presentations at scientific meetings and through publications.

In view of this, AFENET organized writing workshops for the team that investigated the Ebola and Marburg outbreaks in Bundibugyo and Kamwenge Districts in November and December 2007, and FELTP trainees who gave the best presentations at the TEPHINET–AFENET Regional Scientific Conference that was held in Kampala in December 2007.

The other areas of focus for the workshops were outbreaks investigated with support from AFENET, CDC Uganda, WHO, and MOH, including meningitis, plague, anthrax and cholera; AFENET genesis, retention of FELTP graduates in the country, and AIZIP.

In addition, through the AFENET trainee grants program, three trainees were supported to conduct research on immunization programs in their countries. These trainees were among the participants at the workshop and were encouraged to write and submit manuscripts on how to improve immunization coverage in their countries (Uganda, Kenya, and Zimbabwe). They were assisted by experienced writers from CDC Atlanta and the Makerere University School of Public Health (MUSPH).

The workshop in Kampala was attended by participants from the Uganda MOH, WHO, and AFENET. Dr. Nsubuga Peter, Dr. Luman Elizabeth from CDC Atlanta, Dr. Njenga Kariuki from CDC Kenya, Prof. Wabwire-Mangen Fred from MUSPH, and Dr. Lwanga Steven from Uganda facilitated the workshop.

AFENET supported six FELTP graduates and one Secretariat staff to participate in the South Africa workshop. The graduates included Dr. Ayeabazibwe Nicholas and Dr. Namazzi Gertrude from the Uganda FELTP, Dr. Masha Fausta and Dr. Mohammed Ally Mohamed from the Kenya FELTP, Dr. Mberikunashe Joseph, and Dr. Magauzi Regis from the Zimbabwe FELTP.

### Winning papers at the TEPHINET–AFENET conference

- Rift Valley Fever Outbreak in Tanzania, 2007, by Dr. Fausta Moshia FELTP Kenya/MOHSW, Tanzania
- Effect of Reminder/Recall Systems on Immunization Drop Out in Rural Settings in Rakai District, Uganda by Dr. Ayebazibwe Nicholas
- Assessment of the Health Effects of Agro-chemicals in Farm Workers in Commercial Farms in Kwekwe District, Zimbabwe, 2006, by Dr. Magamuzi Reggies
- Obstructive Respiratory Conditions among Textile Workers in Zimbabwe, 2006, by Dr. Mberikunashe Joseph, FELTP Zimbabwe
- Improving Immunization Coverage in Siaya District, Kenya. A Case for Innovative Strategies, by Dr. Omolo Jared, MOH, Kenya
- Factors Affecting Utilization of Postnatal Care in Nyarushanje Sub County, Rukungiri District, by Dr. Namazzi Gertrude FELTP, Uganda
- Risk Factors for Plasmodium falciparum in Pregnant Women in Dar es Salaam, Tanzania, 2006, by Dr. Mohamed Mohamed, FELTP Kenya

### Geographical Information Systems

A 3-day course on Geographic Information Systems (GIS). The training was conducted at the AFENET Secretariat in March 2008, facilitated by Mr. Carl Kinkade, a leading GIS expert working with the National Center for Public Health Informatics at CDC. The aim of the training was to equip public health practitioners and researchers with special skills in applying GIS in disease outbreak investigation, surveillance, and other areas of public health practice.

At the end of the workshop, participants developed their national AIZIP work plans and budgets, and an advocacy work plan as an indication of attainment of skills and knowledge to support them in their field responsibilities.

Twenty participants including 8 AFENET National Focal Points from member countries, 5 AFENET Secretariat staff, and 7 privately funded persons attended the training. They were introduced to the use of GIS software developed by the Environmental Systems Research Institute (ESRI). Topics that were covered included an overview of the GIS concept, data display, working with spatial data and tables, and editing and presentation of data. At the end of the training, each participant received a GPS machine for their practical application of the knowledge attained.

### National Focal Points Training Workshop

Dr. Nicholas Ayebazibwe from Uganda presents his paper at the TEPHINET conference in Malaysia

A research carried out by TEPHINET in 2004, revealed a shortage of public health leaders and managers. To address this, the CDC's Sustainable Management Development Program (SMDP) assisted the Secretariat to train its National Focal Points (NFPs) to strengthen their capacity in public health leadership and management. The training was conducted between March and April 2008 under the theme Managing Programs, Managing People. Areas covered included project





management, manuscript writing, performance management, mentoring, training techniques for adults, advocacy, and leadership. Seven National Focal Point persons from Burkina Faso, Ghana, Kenya, Southern Sudan, Uganda, Zimbabwe, and Tanzania were trained.

### Fourth AFENET Board of Directors' Meeting

In June 2008, AFENET held its Fourth Board of Directors' meeting. Among the issues discussed were an update on the progress of AFENET planned activities for the year, a report on new FELTP programs, update on collaboration with professional organizations and partners, presentation of audit report for FY 2006/2007, presentation of draft Year 3 work plan, and review and ratification of the new draft constitution.

AFENET Board Chairman, Dr. Wurapa Frederick, reported that all programs had performed reasonably well, with support from all partners, noting continued support to the FETPs/FELTPs and MOHs within member countries.

Dr. Nguku Patrick, the 1st Experience @ AFENET Fellow, presented the Year 3 work plan. The proposed activities include field epidemiology capacity development, public health laboratory capacity development, public health disease surveillance and effective response, networking and collaboration with key stakeholders, and institutional development.

Also during the meeting, members received and discussed the revised constitution. This and other governance documents were ratified in a later Board meeting held on November 4, 2008 in Kuala-Lumpur, Malaysia.

### Public Health Code of Ethics for Pandemic Influenza Detection and Control in Africa Symposium

AFENET recognizes the importance of bringing public health ethics to the forefront of interventions and identifying gaps that exist in Pandemic Influenza detection and control in Africa. With support from CDC, WHO, leading experts in public health ethics, scientists and Avian Influenza/Pandemic Influenza (AI/PI) surveillance and response implementers and stakeholders from a number of African countries, AFENET embarked on a process to identify Pandemic Influenza ethical challenges and consensus building on how best to address them. This process is expected to lead to an improvement in the already existing AI and PI preparedness plans in African countries.

In August 2008, leading experts including philosophers, epidemiologists, program

implementers, and ethicists from a number of African countries attended a symposium in Kampala, Uganda, to develop strategies on how to move the process of public health codes of ethics for PI detection and control in various countries, under the theme, "Identifying African Perspectives on Pandemic Influenza Ethics and Building Consensus on Ethical Challenges."

The symposium was opened by the Uganda Health Minister Dr. Malinga Stephen, who applauded AFENET's important contribution to the health sector not only in Uganda but Africa at large. "I appreciate that this workshop has been organized in Uganda; perhaps this is not by mere coincidence, because for some reasons yet unknown to us, we have suffered from a number of epidemic threats recently, the most memorable being the Ebola outbreak which occurred in Bundibugyo in the Western part of our country, just last year (2007). During that outbreak, we came face to face with ethical challenges for which we did not have readily prepared answers. I am therefore grateful that this conference has come to initiate standardization, and probably protocols that will ease our work in such attacks in future."

Experts at the symposium were drawn from WHO, representatives from 12 African countries, the East African Community Health Secretariat, the South African Development Community Secretariat, African Union (AU), Washington and Uganda USAID Country offices, leading academic and research institutions, the Red Cross, and representatives from Uganda Health Workers' Union.

The symposium aimed at identifying Africa-specific ethical challenges in pandemic influenza detection and control, building consensus on the process of addressing the ethical challenges, developing draft country/regional guidelines on addressing pandemic influenza ethical challenges, and



U.S. Ambassador to Uganda, Steven Browning gives a speech at the closing ceremony of the Pandemic Influenza symposium in Kampala

developing regional/country implementation strategies for the drafted guidelines.

Delegates worked around the broad principles that may be considered in strengthening their PI response plans, though they did not lay down prescriptive actions for the various countries. They prepared country-specific ethical considerations for presentation to various stakeholders in their respective countries.

The symposium was closed by the U.S. Ambassador, H.E. Steve Browning.

Together with leading experts in the field of public health ethics in Africa and beyond, AFENET has started offering support to a number of member countries to develop comprehensive procedural and substantive ethical guidelines aimed at addressing the ethical challenges identified as key in PI detection and control.

## Strategic Meetings and Visits

### *Collaboration with Health Systems 20/20*

In 2007, a USAID-funded Consortium Health Systems 20/20 (HS 20/20) supported AFENET with a number of institutional development activities:

- Developing administrative and financial procedures
- Improving AFENET's ICT capacity
- Developing a resource mobilization plan and strengthening of AFENET's business development capacity to implement it
- Revision of AFENET's constitution and governance documents for Board consideration and approval

Following the above activities, AFENET held a strategic meeting with HS 20/20 to discuss issues of organizational development and mapping out areas for further cooperation. The meeting held at Associates Abt, in Washington D.C, was attended by David Mukanga (AFENET), Monica Musenero (AFENET), Angela Weaver (USAID), Fred Rosensweig (HS 20/20), and Margaret Morehouse (HS 20/20). The meeting noted the need to urgently develop a strategic plan for AFENET, which would include creation of norms within member organizations and an advocacy strategy for the Network.

The outcome of the meeting was that HS 20/20 came up with a set of activities based on the impact assessment of the first year including development of AFENET's strategic plan, building the Secretariat team, implementation of the resource mobilization plan, development of a human resources plan, development of a communications/marketing plan, and a Board retreat to manage growth.

### *Meeting with CDC, USAID and STOP-AI*

During this meeting attended by AFENET, STOP-AI, CDC, and USAID, the STOP-AI team presented their activities and possible areas of collaboration. These included training specifically in the areas of logistics, commodities, development of SOPs, incident command system, risk

assessment, zoonotic diseases, biosafety, biosecurity, and decontamination.

### Potential areas of collaboration with CDC, USAID and STOP-AI

- Funding Avian Influenza projects for long and short courses
- Providing materials and instruction for both the veterinary and human side of zoonotic training
- Using AFENET alumni to implement aspects of their program in the countries where there is overlap
- Providing logistical training for participants within AFENET
- Assisting in the establishment of incident command system training within AFENET and peer networks
- Effective use of funds by the West African program

### *Meeting with Global Health and Security Initiatives*

The meeting was held at the Global Health and Security Initiatives (GHSI) offices in Pennsylvania, and was attended by AFENET, CDC, USAID, and GHSI. Areas of collaboration identified included development of laboratory capacity, FELTPs and the IHR. Members at the meeting explored the possibility of establishing an African Center for Integrated Laboratory Training.

They identified areas of joint grant writing, cross-border communication, diagnostics, and IHR kits, among others.

### *Rwanda Assessment Visit*

At the request of the Government of Rwanda (GOR), CDC is in the process of implementing an FELTP. One of the first steps in this process was to conduct an assessment of the public health system to identify focus areas for the FELTP, as well as identify field sites and their capabilities for the program. Other key areas analyzed in the assessment included public health workforce, laboratory capacity, public health response, public health surveillance, MOH organizational structure, and the disease burden.

The assessment team comprised of AFENET, CDC–Rwanda, MOH of Rwanda, Ministry of Agriculture and Animals (MOAA) Rwanda, TRAC Plus–CIDC, National Reference Laboratory (NRL), Universities, Kigali Health Institute, CHUB, CHUK and Institut Supérieur D'Agriculture et D'Elevage (ISAE).

It was observed that the GOR has a well structured public health system, with a motivated workforce that has many of the fundamental skills required to monitor and respond to public health incidents. Building upon this foundation, the FELTP will develop a cadre of field epidemiologists both medical and veterinary to spearhead the investigation of



Dr. Allan Mpairwe, AFENET epidemiologist, and Ms. Sarah Nakendo, AFENET Administrator, in front of the AFENET office in Juba, Southern Sudan.

outbreaks and other acute health conditions, and guide the health services in Rwanda.

The overall impression of the assessment team was positive. The team will be available to provide technical assistance to the government in realizing its cause. It was generally agreed that the FELTP long course starts in January 2010. In the meantime, a curriculum is being developed and short courses are being conducted.

#### *Visit to Southern Sudan*

In July 2008, the Executive Director of AFENET David Mukanga made a trip to Southern Sudan to review the status of CDC-supported activities in the country.

Together with Dr. Nsubuga Peter from CDC, and Dr. Patrick Nguku, the team met with key stakeholders including representation from the MOH of the GoSS. They reviewed their expectations of the MOH of the GoSS and areas of further collaboration, the status of the FELTP, the IDSR activities, and also met with USAID Southern Sudan as well as WHO on collaborative activities.

The team observed that 13 trainees (batches 2006, 2007, 2008) have been admitted into the Southern Sudan program, which holds its didactic sessions jointly with the Kenya FELTP in Nairobi. Four of the trainees from the 2006 batch

have completed the training. The 2007 and 2008 batches have public health laboratory trainees currently conducting most of their training in Kenya as the MOH prepares to re-open its public health laboratory.

#### **AFENET Supported Activities—IDSR and Resident Housing**

AFENET recruited and posted a medical epidemiologist Dr. Allan Mpairwe to support the MOH in implementation of IDSR. AFENET has completed and handed over to the MOH a 10-person office and rented housing for the FELTP residents in Juba.

The team concluded that given the difficulties and constraints in starting such a project in Southern Sudan, the program had achieved several outputs that will be instrumental in improving public health in the country. They called upon the MOH and its partners to mobilize funds to ensure the success of the program.

#### *IANPHI Regional Meeting, Johannesburg, South Africa*

AFENET Executive Director David Mukanga participated in the 1st Regional IANPHI leadership meeting held



in Johannesburg, South Africa on April 2–4, 2008, also attended by representatives from 11 African countries.

The meeting was hosted by Prof. Barry Schoub and his colleagues at the National Institute for Communicable Diseases in Johannesburg, South Africa. It provided a forum for learning and interaction among representatives from IANPHI member NPHIs, prospective members, and other regional public health champions. The event was facilitated by two leadership development consultants from Triangle Training, Inc.

The two main goals for the meeting were to offer instruction and coaching in leadership development, strategic planning and conflict management, and to provide opportunities for formal and informal interaction and networking among the participants.

Funded by The Bill and Melinda Gates Foundation, IANPHI is a peer-assistance organization dedicated to strengthening global public health capacity by strengthening and linking National NPHIs. IANPHI assists NPHIs, particularly those in low-resource countries, through grant programs targeted at critical NPHI needs, and is also a professional association for NPHI directors, providing a platform for advocacy and collective action in addressing public health challenges.

#### *Visit to Abuja, Nigeria*

AFENET is working with the CDC and the Global AIDS program in Nigeria to assist the Federal MOH in establishing an FELTP.

In August 2008, the Executive Director AFENET Mr. David Mukanga traveled to Abuja, Nigeria, for a meeting with Federal officials, and CDC staff to formally brief them about AFENET and introduce Dr. Nguku Patrick, the Resident Advisor to the program.

A couple of meetings with stakeholders were held in which the need for AFENET to assist the FELTP with operational support was discussed. The other issue highlighted, was the need to support the program with opening up a local bank account. The meetings were attended by Dr. Nsubuga Peter (CDC Atlanta), Dr. Nguku Patrick, Dr. Jinadu from the Epidemiology Unit Federal MOH who is interim Program

Director for the Nigeria FELTP, and CDC Nigeria Director, Dr. Nancy Knight.

## Integrated Disease Surveillance and Response

### *Community-Based Disease Surveillance (CBDS) Maternal Health Implementation, Luwero and Kabarole Districts, February 2009, by Mr. Luswa Lukwago*

The Epidemiology Surveillance Division of the Uganda MOH, in collaboration with AFENET, initiated the CBDS maternal health program in 2007 in the districts of Luwero and Kabarole. The coordination process included capacity building, support supervision, setting standards, and providing feedback to the districts and other stakeholders.

The rationale of the CBDS maternal health program is to empower communities to play a bigger role in disease surveillance and maternal health issues and hence develop a sense of responsibility for improving health in their communities. The initial activities involved identifying and training district trainers who in turn trained the Village Health Team (VHT) members on the organization of the CBDS–maternal health program, identification of priority diseases in the district, developing community case definitions in local languages, and orientation on the tools to be used for the program.

Although most of the activities were implemented between 2007 and 2008, follow-up activities are needed to ensure continuity and sustainability of the implementation plan. A follow-up of the CBDS–maternal health activities is planned for the year 2009-2010.

The central team continues to conduct CBDS/maternal health activities involving baseline assessment of maternal health indicators to pave the way for increased involvement of mothers in health issues affecting them during the motherhood period.

A full report can be found at [www.afenet.net/downloads/CBDS\\_report.pdf](http://www.afenet.net/downloads/CBDS_report.pdf)

## Voice of AFENET Fellows

As part of exchanging experiences in the African Region in Field Epidemiology, I was invited in 2008 to attend the SAFELTP field supervisors' meeting. The purpose of the meeting was to orientate the field supervisors, mentors and university supervisors regarding the scope of work of FELTP residents, and the role and responsibilities of various stakeholders.

I also reviewed concept papers for the Master of Public Health (MPH), reviewed holiday reports and study designs and critiques of articles, guided MPH students on their abstracts for the TEPHINET conference in Malaysia, and guided students on their proposals and dissertations.

*Dr. Elizeus Rutebemberwa, Research Fellow  
CDC/AFENET, MPH Field Coordinator,  
Uganda FETP*

As Editor of AFENET Newsletter, two editions were published in 2008. Another edition will be released at the end of February 2009. I would like to encourage Residents in all programs to write articles for the newsletter. Such articles could be on any topic that seeks to promote the practice of public health.

There were four AFENET Ghana Advisory Committee meetings in 2008. Updates were made on the Master of Philosophy (Applied Epidemiology and Disease Control) course at the Ghana School of Public Health, and briefs on Ghana's preparedness for Avian Influenza Surveillance, by Dr. Lawson Ahadzic, Deputy Director (Public Health) and Head of Disease Surveillance Department (DSD) of Ghana Health Service. Other issues discussed were on Short courses.

I played a major role in the production of the report on Surveillance Review Meetings which discussed reports on indicators, trends, cases and deaths resulting from various outbreaks.

I would say that 2008 was a very challenging, yet highly rewarding year.

*Simon Quist Yaw Kwadje, Managing Editor,  
AFENET Newsletter*

We are continuing with the implementation of Community Based Disease Surveillance (CBDS) Maternal Health Programs. The activities conducted so far in this area involve baseline assessment of maternal health indicators. These will pave the way for increased involvement of mothers in health issues affecting them during motherhood period. These baseline activities were based on the following objectives:

- To establish the prevalence of events affecting maternal health at community level in Luwero and Arua districts.
- To determine the potential of community structures in delivering maternal health education and services.
- To establish the capacity of district structures to support community based delivery of maternal health services, (maternal health education, child spacing, health facility deliveries, and to design a model for community based delivery of maternal health Services

*Mr. Luswa Lukwago  
CDC/AFENET Fellow, ESD,  
Uganda MOH*

I coordinate the regular reviews of the field based training curriculum, guidelines for supervisors, evaluation methodologies, and methods of training.

I facilitate trainees to get attached to field training sites by introducing them to these sites, and work closely with the field supervisors to enable the trainees achieve their attachment objectives.

I also assist the trainees in identifying research problems, proposal writing, data collection, analysis, report writing and dissemination of the results of both the field reports and dissertations.

*Dr. Nalwadda Christine Kayemba,  
Research Fellow CDC/AFENET, MPH (Full  
Time) Field Coordinator, Uganda FETP*

## Country Reports

The following section highlights the activities carried out by the various programs in AFENET member countries. It covers investigations, trainings, stakeholders meetings, as well as disease outbreaks managed during the year under review.

Number of graduates of AFENET's FELTPs

Enrollment Year	Ghana	Zimbabwe	Uganda	Kenya
1993	–	4	–	–
1994	–	4	5	–
1995	12	5	12	–
1996	20	7	12	–
1997	26	6	14	–
1998	23	5	7	–
1999	30	8	12	–
2000	27	5	19	–
2001	26	6	13	–
2002	28	9	31	–
2003	34	15	23	–
2004	26	8	23	7
2005	39	11	18	7
2006	34	8	20	13
2007	–	11	14	13
<b>TOTAL</b>	<b>325</b>	<b>112</b>	<b>223</b>	<b>40</b>

AFENET member countries include Ghana, Kenya, South Africa, Uganda, and Zimbabwe. The network also comprises of associate member programs including Nigeria, Tanzania, Southern Sudan and Francophone countries (Togo, Mali, Niger and Burkina Faso). The Francophone members' Headquarter is located in Burkina Faso.

The current classes are as follows:

- Year 1 (2008/09): Ghana (13), Kenya (9), Nigeria (13), South Africa (9), Sudan (5), Tanzania (11), Uganda (12), and Zimbabwe (11)
- Year 2 (2007/08): Ghana (5), Kenya (9), South Africa (10), Sudan (4), Uganda (14) and Zimbabwe (12)

### Ghana

#### *Scientific Communication Course*

The Ghana FELTP/FELTP organized a workshop on scientific communication in May 2008 attended by residents of the programs, students of the Ghana College of Physicians and Surgeons, and faculty members of the School of Public

Health. It was organized in collaboration with Ghana Health Service Department, the School of Public Health, AFENET and CDC, and was facilitated by Dr. Pascale Krumm from CDC Atlanta.

Topics covered were effective communication of scientific findings, reviewing and appraising scientific literature, and advocacy skills. At the end of the workshop, all FELTP residents and the other participants were able to make oral presentations and wrote abstracts and manuscripts which were reviewed for submission to the TEPHINET conference in Malaysia.

#### *Improving Management of Public Health Interventions Workshop*

Improving Management in Public Health Intervention Ghanaian FELTP investigators observed inadequacy in effectively managing public health interventions in many health systems in Africa. In some instances, problem analysis was found to be faulty, and inappropriate techniques were applied in the management of interventions.

In order to bridge this gap, AFENET's Centre of Excellence in Ghana, organized a 2-week workshop on "Improving Management of Public Health Interventions" from June to 23–July 4, 2008. The objective of the workshop was to build the capacity of senior public health managers to improve management of the various interventions and programs they are handling.

Full details of Ghana report are at [www.afenet.net/downloads/Ghana\\_report\\_2008.pdf](http://www.afenet.net/downloads/Ghana_report_2008.pdf)

### Kenya

The residents and staff of the Kenya FELTP participated in a number of activities in 2008 including outbreak investigations and field studies, evaluation of IDSR implementation and training, and participation in international conferences. Three residents from Kenya made presentations during the global TEPHINET Scientific Conference in Malaysia in November 2008.

Among the key activities, the residents with the support of field coordinators carried out two key outbreak investigations: diarrhoea in Mandera district, North Eastern Province and typhoid fever outbreak in Bomet and Narok districts, in Rift valley Province Kenya. Other investigations include cholera outbreak in Kibera and Mukuru Kayiaba in Nairobi, and Rift Valley fever in Swaziland.

All cohort 4 residents had an opportunity to participate in an outbreak investigation or a field study. Field studies carried out in 2008 include risk factors for cholera mortality in Nyanza Province Kenya, 2008; knowledge, attitude, and practice towards cholera in affected districts; health and



nutritional needs assessment among internally displaced persons, central and south Rift Valley, Kenya 2008; impact of post-election violence on health in Kenya; and client and provider satisfaction survey, Mbagathi District Hospital and Riruta Health Center, Nairobi West District.

The major challenge noticed was the fact that the current IDSR guidelines define typhoid as “laboratory confirmed cultures of either blood or stool,” yet a DMS circular of 2002 outlaws use of a single widal for diagnosis of typhoid and instead advocates for use of rising titers demonstrated by two widals tests undertaken at least seven days apart.

### *Diarrhoea Outbreak Investigation, Mandera District*

A diarrhoea outbreak was reported in Mandera district in November 2008, with about 226 cases line-listed. However, following investigations, a total of 1,046 cases and 12 deaths (CFR 1.1) were reported, mainly blamed on the flash floods due to heavy rains in neighboring Ethiopia and Somalia at the time.

More floods occurred in Mandera Central in November 2008, leading to the destruction of approximately 600 hectares of farmland and displacement of more people.

The investigation team cultured stool samples and detected *Vibrio Cholerae* (serotype Inaba). They treated the patients, and supported the district’s efforts in public health education on safe water and sanitation. They recommended urgent training for laboratory personnel on isolation and identification of enteric pathogen.

Among other deficiencies noted was the fact that the district hospital was inadequately equipped to deal with outbreaks of such magnitude, and case management and facility supplies were greatly lacking.

The team comprised of Dr. Njeru James, Cohort 4 FELTP residents, Dr. Mbithi Agneta, and Ahmed Abade, Field Coordinator. The investigation was sponsored by the Kenya FELTP and CDC.

### *Typhoid Fever Outbreak Investigation, Bomet and Narok Districts*

Following the typhoid fever outbreak in October 2008, the FELTP team carried out investigations aimed at determining the magnitude of the outbreak, identifying the source of infection, identifying risk factors, and assisting the district

team in responding. They detected *Salmonella Typhi*, confirming eight cases, though with no direct fatalities by then.

The team was led by Dr. Kimanga Davies and Dr. Shikanga O-tipo, Cohort 4 FELTP residents. FELTP and CDC sponsored the investigations.

They visited all health facilities and laboratories, and common eating places in the district to assess their hygiene status. Data collected included demographic and clinical information [for cases only], and exposure history. It was noted that generally drinking water was unhygienic, and most eating places did not meet basic health standards.

## Nigeria

### *Nigeria Field Epidemiology and Laboratory Training Program*

The Nigeria Field Epidemiology and Laboratory Training Program (NFELTP) is a Federal Ministry of Health (FMOH)-sponsored competency based training program in applied epidemiology, veterinary epidemiology, and laboratory management. The goal of the program is to strengthen public health systems including disease surveillance, outbreak response, and program evaluation through training and service provision.



The first Nigeria FELTP cohort, with Dr. Patrick Nguku, Resident Advisor (far right)

The program is a multi-agency collaborative effort and its partners include CDC Nigeria, CDC, AFENET, WHO Nigeria, Nigeria Federal Ministry of Agriculture and Water Resources (FMAWR) and the two participating universities (Ahmadu Bello University and the University of Ibadan). The NFELTP is the first FELTP to have a veterinary specific track whose goal is to increase the collaboration between the health and animal health sectors in addressing zoonotic diseases.

The NFELTP is a competency-based training and service program in applied epidemiology and public health that

builds public health systems capacity. It is involved in recruiting capable young health workers and building their competencies through on-the-job mentorship and training.

AFENET is working with CDC Atlanta and CDC's Global HIV/AIDS program in Nigeria to assist the FMOH in establishing a field epidemiology and laboratory training program. Dr. Patrick Nguku was appointed as a Temporary Resident Advisor (TRA) to the program on a Temporary Duty Assignment (TDY).

In August 2008, David Mukanga traveled to Abuja to meet with officials from the Federal Ministries of Health and Agriculture, and the CDC Nigeria Country Director, to formally brief them about AFENET and the role of the TRA. The meeting was attended by Professor Nasidi, the Director of Public Health FMOH, Divisional Heads in his department, Dr. Nsubuga, Dr. Nancy Knight, and Samuel Ngobua the training coordinator of CDC Nigeria. Productive deliberations on important aspects and timelines of the NFELTP were discussed and agreed upon. They included the nature of the NFELTP, and a 2-year competency-based training.

Full details of Nigeria report are available at [www.afenet.net/downloads/nigeria\\_report\\_2008.pdf](http://www.afenet.net/downloads/nigeria_report_2008.pdf)

## South Africa

The South Africa Field Epidemiology and Laboratory Training Programme (SAFELTP) participated in a number of trainings and conferences in 2008. Below are some highlights.

### *57th Annual EIS Conference, Atlanta, USA*

The SAFELTP participated actively in the annual EIS conference that took place in Atlanta, Georgia in April 2008. SAFELTP's participation aimed at information sharing with staff from other FELTPs in Africa and the CDC staff, acquaintance to the style of presentations, and discussions with key stakeholders.

### *Short Courses on Field Epidemiology Training*

This on-the-job capacity building training was conducted between October and December 2008 by SAFELTP in collaboration with the department of health (DOH).

The first course held in October 2008 focused on the second part of field epidemiology (Principles and Interactive Practice), and was attended by 50 participants from provincial, district, and sub-district health departments as well as from the NHLS and NICD, while the second short course on Epidemiology, Research Methodology and Monitoring and Evaluation, attended by 30 participants from the Provincial DOH, was conducted in December 2008.

Full details of the South Africa Report can be found at [www.afenet.net/downloads/south\\_africa\\_report\\_2008.pdf](http://www.afenet.net/downloads/south_africa_report_2008.pdf)

### *Excellence in Reporting Science Training Course*

This training course aimed at enhancing the ability and confidence of health professionals to write, package, and present result-oriented science information.

AFENET funded seven participants from Uganda, Kenya, and Tanzania to participate in the training. A total of 22 participants attended the course: 9 from SAFELTP, 7 from AFENET, and 6 senior researchers from NICD. The course was interactive, and emphasized practical exercises. At the end of the day, every participant made an oral presentation to the invited audience.

### *Symposium on Public Health Code of Ethics for Pandemic Influenza Detection and Control in Africa*

The symposium was organized from August 11–15, 2008, in Kampala, Uganda, with the intention of developing comprehensive procedural and substantive guidelines to address ethical challenges related to Pandemic Influenza detection and control in Africa. Dr. Elizabeth Prentice attended on behalf of SAFELTP.

With representation from 12 African countries, the symposium identified key ethical challenges that may arise in preparedness or during an influenza pandemic. These include prioritization of access to medication, vaccines and intensive care; obligations to and of healthcare workers given the risks to their own and families' health in times of pandemics; surveillance, isolation, quarantine and social-distancing measures that may be undertaken during pandemic Influenza control; and country-to-country obligations in respect of Pandemic Influenza planning and response efforts.

### *Fifth Global TEPHINET Conference*

The conference was attended by seven residents from SAFELTP whose abstracts had been approved, and Dr. Nwanyanwu Okey, CDC-South Africa. The two site supervisors from the Provincial Department of Health also attended. Two oral papers and five posters were presented. The oral presentations were "Investigation of an Outbreak of Rift Valley Fever Affecting Veterinarians and Farmers in South Africa, 2008," presented by Brett Archer and "Outbreak of Novel Arenavirus infection, South Africa, 2008," presented by Dorothy Nteo and Miriam Malotle. Brett Archer scooped the John Snow Award for outbreak investigation and the Best Poster Presentation Award went to Tebogo Mamahlodi.

Other poster presentations included "The Appraisal for Quality of Expanded Program on Immunization (EPI) data in Mpumalanga, South Africa," by Dinah L. Khumalo; "Analysis of Cervical Screening in Limpopo Province, South Africa, January–September 2007," by Tebogo Mamahlodi; "Readiness of the Port Elizabeth Notifiable Disease Surveillance System for the 2010 World Cup, Eastern Cape, South Africa," by Kavindhran Velen; "Forecast of Notifiable Medical Conditions to enable better resource management in Port Elizabeth ahead of the 2010 World Cup, Eastern Cape, South Africa," by Kavindhran Velen; and "Legionnaire's

Disease Outbreak among factory workers, Mpumalanga, South Africa 2007,” by Charlotte B. Zondo.

### Southern Sudan

AFENET continues to offer assistance to the Directorate of Preventive Medicine in the MOH, Government of Southern Sudan, in the areas of disease control, and technical support through strengthening of field epidemiology, communicable disease surveillance and improving disease outbreak response.

Dr. Allan Mpairwe, a medical epidemiologist, was hired in 2007 to work with the MOH to provide technical support in integrated disease surveillance and response, outbreak investigation, and training of health workers in IDSR.

The AFENET epidemiologist has so far participated in the investigation and control of suspected meningitis and malaria outbreaks in Eastern Equatorial State (EES), suspected viral hemorrhagic fever in Central Equatorial State, measles in EES, CES, and hepatitis E in EES. Other activities involved in are training of health workers in IDSR in 10 states, reviewing of technical guidelines for IDSR, and mentoring of FELTP residents in field epidemiology.

AFENET is a member of the National Epidemic Preparedness and Response crisis committee that is responsible for coordination and guidance in the management of epidemics and health emergencies in Southern Sudan.

The FELTP resident students have responded to outbreaks including cholera in Torit Payam, cholera in Yei and Central Equatorial State, cholera in Terekeka County and hepatitis E in Ikotos County, Eastern Equatorial State.

Full report can be found at [www.afenet.net/downloads/southern\\_sudan\\_report\\_2008.pdf](http://www.afenet.net/downloads/southern_sudan_report_2008.pdf)

### Tanzania

#### *Tanzania Field Epidemiology and Laboratory Training Program*

At the request of the Tanzania Ministry of Health and Social Welfare (MOHSW), AFENET together with CDC, USAID, and other partners, conducted an assessment for an FELTP in 2007. Following the assessment, it was recommended that Tanzania could start its own FELTP. The TzFELTP later started in October 2008, and is being run and managed by the MOHSW, Muhimbili University of Health and Applied Sciences (MUHAS), National Institute of Medical Research (NIMR), and their partners including CDC-Tanzania, CDC-Atlanta, USAID, and AFENET.

Each of these organizations/bodies plays a different role: MOHSW owns and manages the program; MUHAS provides academic courses, awards the degree and provides academic supervision; NIMR provides expertise in research and field and lab student placement; CDC provides technical and financial support; and AFENET provides technical



Dr. John Vertefeuille, CDC-Tanzania Director, speaks at the inauguration of the Tanzania FELTP

support, manages the fund on behalf of CDC, and links TzFELTP to the other FELTPs in Africa.

The TzFELTP Steering Committee which comprises of the different organizations/stakeholders including AFENET, meets regularly and oversees the activities of the TzFELTP. The first of such meetings was held on March 27–28, 2008.

Full details of the Tanzania Report can be found at [www.afenet.net/downloads/tanzania\\_report\\_2008.pdf](http://www.afenet.net/downloads/tanzania_report_2008.pdf)

#### *Epidemiology Short Course*

AFENET, with funding from CDC and USAID, conducted an Epidemiology short course in Tanzania in November 2007. The students of this course were largely MOHSW employees and district health managers.

The trainees received training on the following topics: Surveillance in Tanzania, Principles of Outbreak Investigation, Detection and Reporting, Response to Suspected Outbreaks, Setting thresholds, Case Definitions and Line-listing, Descriptive Epidemiology, Hypothesis Generation, Questionnaire Design and Composition, Introduction to Analytical Studies, Reporting Systems, Biosafety, Sensitivity and Specificity in HIV Testing, Introduction to Epi Info in Outbreak Investigation, Introduction to Scientific Report Writing, and Introduction to Data Analysis using Epi Info projects, among others.



In line with the principles of FELTPs, after the 2-week classroom facilitation, students were sent back to their places of work to implement their field projects. The course organizers reconvened the students in February 2008 to present their projects.

AFENET, CDC, and USAID were invited to attend this meeting and also to hand over certificates of completion of the short course.

From the meeting, members noted the need to engage all the major institutions involved in public health in starting an FELTP. They recommended that short courses should always be carried out before the 2-year FELTP course, and should include field projects.

A working document detailing all the information on the TzFELTP including stakeholders and well spelled-out roles/responsibilities also needed to be formulated. The FELTP became functional effective October 2008.

## Uganda

### *Marburg Virus Investigation*

The MOH received information from WHO about a 40 year-old Dutch tourist who died on July 11, 2008, following a visit to the 'Python Caves' in Maramagambo Forest, Bushenyi District between Queen Elizabeth National Park and Kabale District. Studies done by CDC in similar caves in Kitaka mines, Kamwenge District, the previous year revealed that 5% of cave dwelling bats had tested positive for Marburg virus.

The MOH with assistance from WHO, CDC, and AFENET undertook investigations so that the findings would inform the initiation of appropriate response to prevent further exposure of the local population and tourists to the presumed source of the infection.

The team visited Maramagambo Forest and the 'Python Caves' where the local tour guides were identified and screened for evidence of exposure to bats and any symptoms suggestive of Marburg Viral Hemorrhagic Fever, and exposure history in the recent past. They carried out key informant interviews with local leaders, traditional leaders, and traditional healers in the communities surrounding the National Park.

Though the team did not identify any other cases from the investigation, they confirmed that some bats in the areas under study indeed carried the Marburg virus.

The full report can be found at [www.afenet.net/downloads/Marburg\\_investigation\\_Report\\_in\\_Bunshenyi.pdf](http://www.afenet.net/downloads/Marburg_investigation_Report_in_Bunshenyi.pdf)

The investigators made a series of precautionary recommendations:

- The DHO needs to organize ME on Marburg surveillance, investigation, infection control, and response
- Case definitions, case investigation forms, and infection control guidelines should be printed and distributed to all the health facilities in the district

- Display the case definitions and infection control guidelines at all the service delivery points in the health facilities
- A need to establish and maintain systems for infection control in the health facilities to prevent nosocomial transmission and health facility amplification of outbreaks
- Provide adequate supplies to enable all the health facilities meet the minimum standards for basic infection control
- Active surveillance and notification of suspected VHF cases needs to be initiated with assistance of the Community Medicine Distributors
- Networking with the wildlife authorities to report animal deaths in the park and prevent people from entering the caves
- Develop a plan for key activities including radio talk shows, surveillance and distribution of IEC materials and surveillance tools and forward it to the MOH by August 6, 2008.

The investigation team consisted of the following:

Name	Organization
Dr. Wamala Joseph	Ministry of Health
Mr. Atek Kagirita	Ministry of Health
Mr. Matthew Cummings	Ministry of Health/ Siena College
Mr. Mutungi Pantaleo	DSFP Bushenyi
Dr. Namukose Esther	MPH Officer, Uganda FETP
Dr. Mbabazi William	World Health Organization
Dr. Ndungutse David	AFENET
Dr. Kziazek Tom	CDC, Atlanta

### *Hepatitis E outbreak, Kitgum*

Uganda experienced its first Hepatitis E outbreak in June 2008, with cases reported in the district of Kitgum. The investigations done in the district indicated that the notification of cases started on November 22, 2007, and causative organism was confirmed as Hepatitis E.

The epidemic started in Madi-Opei Sub County and spread to 12 others by June 9, 2008; by June 17 a total of 3,062 cases and 64 deaths (CFR 2.1%) had been reported.

While a number of health centers confirmed to have received Hepatitis E cases, the team noticed a lot of deficiencies in disease outbreak management: case definitions and treatment protocol were not displayed in some health facilities, health education was not conducted regularly in some, and there was general lack of some equipment for management of severe cases. They also observed high fatality among pregnant women, anecdotal reports of re-infection of some patients after several months, stock out of drugs, and lack of latrines for staff houses.

The team made a series of recommendations to be adhered to by the various stakeholders in the outbreak:

- Avoid fragmented implementation of control interventions
- Rapid development of a comprehensive plan for response
- Need to coordinate inputs and activities of the different partners to ensure coherence and avoid duplication
- Regular strategic meetings to monitor progress
- Case definitions, IEC materials should be translated into local language
- Health workers should conduct health education sessions on the outbreak
- Provision of basic case management equipment for severe cases (e.g., suction machine)
- The district should endeavor to recruit health workers to improve the staffing situation in the district

Epidemic control measures are being implemented by the district and MOH with support from partners including the UN, WHO, UNICEF, OCHR, UNHCR, WFP, and several NGOs.

The full report can be found at [www.afenet.net/downloads/Kitgum\\_Hep\\_%20E\\_report\\_June\\_2008.pdf](http://www.afenet.net/downloads/Kitgum_Hep_%20E_report_June_2008.pdf)

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## West Africa FELTP

The West Africa Field Epidemiology and Laboratory Training Program (WAFELTP) was established in 2007 as an affiliate program of AFENET covering French-speaking countries of Burkina Faso, Mali, Niger, and Togo, with a vision to progressively include all French-speaking countries in West-Africa. The WAFELTP is a result of a cooperative agreement between AFENET and the WHO-Multi-Disease Surveillance Centre (MDSC).

### *WAFELTP Activities*

One of the key technical activities in the first year’s work plan was to run short courses on outbreak investigation. A total of 22 participants drawn from Burkina Faso, Mali, Niger, Togo, and Burundi were trained in the first short course held in Ouagadougou, Burkina Faso, May 23–June 6, 2008.

The short courses were supported by the National Centre for Infectious and Respiratory Diseases (NCIRD) at the CDC. The facilitators were drawn from all WAFELTP participating countries (Burkina Faso, Mali, Niger, Togo), Universities, Research Centers, MOHs, WHO and CDC. They received laboratory trainings, which were held in the two National Teaching Hospitals in Ouagadougou (CHU YO, Hôpital Pédiatrique Charles De Gaulle) and the Molecular Biology laboratory of WHO-MDSC.

Other topics covered included proposal and report writing, scientific communication, and oral presentation.

WA-FELTP has been successfully launched and is operational. This first year’s key activities were the recruitment of an Interim Coordinator and an Administrative Assistant, setting up of program Bank account, the organization of two short courses on outbreak investigation, and the organization of scientific literature search training for librarians, scientists and decision makers.

*Prof. M. Kader. Konde, Director Multi-Disease Surveillance Centre (MDSC)*

The second short course on outbreak investigation occurred between October 21–31, 2008 and was attended by 20 participants from the four participating countries: Burkina Faso (8), Mali (4), Niger (4) and Togo (4).

Full details of the West Africa Report are at [www.afenet.net/downloads/west\\_africa\\_report\\_2008.pdf](http://www.afenet.net/downloads/west_africa_report_2008.pdf)

## Zimbabwe

Despite the challenging political landscape in Zimbabwe, AFENET has been able to carry out activities in outbreak investigation, documentation, and treatment of diseases in various areas.

### *Trainees’ Projects on Disease Outbreaks*

Twelve final year students sat for and passed their final examinations between September and December 2008. Among the outbreaks they investigated are cholera outbreak in Harare, Shamva, Mashonaland Central province, Neganda, Mola, Siakovu and Mazoe. Others are anthrax in Nyama area, Lower Gweru; malaria in Makakavhule, Beitbridge District and Villa Nyanga; epidemic trends of human rabies in the Harare; malaria outbreak in Sanyathi, Mashonaland West province; and anthrax outbreak in Mazowe District.

The graduates also carried out surveillance projects on the factors associated with contracting malaria at Mbembeswana rural area, Bubi District; maternal mortality surveillance system in Mashonaland East province; and Rapid Disease Notification System in Gweru City.

Other projects included the national routine monthly (T5) surveillance system at the Ministry of Health and Child Welfare (MOHCW), maternal mortality surveillance system at Gweru provincial hospital, events following immunization surveillance system in Harare, TB surveillance system in Harare, and acute flaccid paralysis surveillance system in Mazowe.

There was also an outbreak of salmonella in Budidiro suburb where 714 cases were reported. The investigators noted that vendors selling raw meat, fruits, vegetables and

non perishable items like cooking oil, created a much risky environment for the continued spread of the outbreak.

Another project dealt with the cholera outbreak in Mudzi district, and Harare, where over 200 cases were recorded. The outbreak started in Kotwa hospital where staff, their dependants were the first victims. Preliminary investigations indicated contaminated water from the hospital borehole as the main cause while other cases at local clinics were associated with attending funerals of cholera victims.

Zimbabwe FETP students participated in the Fourth TEPHINET Global Conference held in Malaysia. They presented 14 manuscripts (listed on the next page).

Zimbabwe FETP received a number of items from AFENET to assist the MOHCW in the control of cholera. The items included Oral Rehydration Salts, gumboots, face

masks, aprons, surgical gloves, and Laboratory Antimicrobial Sensitivity Testing Discs. These donations distributed to different health centers and cholera treatment centers.

In all outbreaks investigated, the National Task Force immediately embarked on implementing control measures, and cases from different suburbs were treated. A treatment camp was set up at the Waterfalls Transit Camp with the involvement of different stakeholders. Health education campaigns were also reinforced and hygiene improved in affected areas. In some cases, affected persons and families were facilitated with clean water storage containers, water treatment tablets and toilet cleaners. In addition, toilets were erected at different camps, and follow up efforts of various case are ongoing.

A nurse washing her hands after attending cholera patients in Harare clinic, Zimbabwe





## Country Reports

Manuscript presented	Type
Anthrax outbreak in Nyama area, lower Gweru	O
Factors associated with non institutional deliveries –Mashonaland Central province	O
Comparative evaluation of Direct sputum smear and sodium concentration methods for the detection of Acid Fast Bacilli, Mashonaland West, Zimbabwe	O
Health effects of agrochemicals on Farm workers in commercial farms –Kwekwe district	O
Integrated Management of Childhood Illness (IMCI) Strategy implementation, Bulawayo	O
Schistosoma haematobium infection among Primary School children	P
Intermittent Presumptive Treatment strategy Implementation in Mudzi district	P
Obstructive respiratory conditions among textile industry workers in Zimbabwe	P
Sexually Transmitted Infections among patients, Zvishabane district	P
Risk factors for contracting anthrax	P
Intermittent Presumptive Treatment strategy in Mutasa district	P
Risk factors associated malaria outbreak in Makakavhule, Beitbridge district	P
Determinants of first sexual encounters of senior secondary school girls and boys, Tsholotsho	P
Drug stock management in rural districts, Midlands district	P

O=Oral; P=Poster

Project	Area affected	Student
Cholera investigation	Harare City	Dr. A. Kone
Cholera investigation	Chitungwiza	Dr. W. Mashumba
Cholera investigation	Beitbridge	Mr. E. Dembedza
Anthrax investigation	Mashonaland Central	Dr. M. Mwazha
Anthrax outbreak	Matebeleland North	Mr. S. Sekenhamo
Case management of Cholera outbreak	Norton	Mrs. L. Mangwanya
Cholera outbreak response	Midlands	Ms. Mzengi
Risk factors for contracting cholera	Chinhoyi	Dr. P. Mucheto

# Appendices

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## Acronyms and Abbreviations

AFENET	African Field Epidemiology Network	GoSS	Government of Southern Sudan
AIZIP	Avian Influenza and other Zoonotic Infections Project	HHS	Human and Health Services
AMREF	African Medical and Research Foundation	ICIPE	International Center of Insect Physiology and Ecology
APOC	African Program for Onchocerciasis Control	IANPHI	International Association of National Public Health Institutes
GIS	Geographical Information Systems	IDSR	Integrated Disease Surveillance and Response
CBDS	Community Based Disease Surveillance	ILRI	International Livestock Research Institute
CDC	Centers for Disease Control and Prevention	IHR	International Health Regulations
CES	Central Equatorial State	KEMRI	Kenya Medical Research Institute
CoAg	Cooperative Agreement	KWS	Kenya Wildlife Services
DGPHCD	Division of Global Public Health Capacity Development	MDR (TB)	Multi-Drug Resistant Tuberculosis
ECDC	European Centers for Disease Control and Prevention	MDSC	Multi-Disease Surveillance Centre
EES	Eastern Equatorial State	MLM	Mid-Level Managers
EIS	Epidemic Intelligence Service	MMS	Ministry of Medical Services
EPI	Expanded Program on Immunization	MOH	Ministry of Health
ESRI	Environmental Systems Research Institute	MOHSW	Ministry of Health and Social Welfare
FAO	Food and Agriculture Organization	MoLD& F	Ministry of Livestock Development and Fisheries
FELTP	Field Epidemiology and Laboratory Training Program	MOPHS	Ministry of Public Health and Sanitation
FETP	Field Epidemiology Training Program	MOU	Memorandum of Understanding
FIND	Foundation for Innovative New Diagnostics	MPH	Master of Public Health
FMOH	Federal Ministry of Health	MRH	Mbarara Referral Hospital
GHSI	Global Health and Security Initiative	NCIRD	National Center for Infectious Respiratory Diseases
GOARN	Global Outbreak Alert and Response Network	NCZVBEN	National Centre for Zoonotic and Vector Borne Enteric Diseases
		NDOC	National Disaster Operation Centre
		NGOs	Non Governmental Organizations



## Appendices

NFELTP	Nigerian Field Epidemiology and Laboratory Training Program	TFCS&D	Task Force for Child Survival and Development
NFP	National Focal Point	TNA	Training Needs Assessment
NIH	National Institute of Health	TDY	Temporary Duty Assignment
NPHLS	National Public Health Laboratory Services	TRA	Temporary Resident Adviser
PHSWOW	Public Health Schools Without Walls	UHI	Uganda Heart Institute
PPE	Personal Protection Equipment	UITP	Uganda Immunization Training Program
PCR	Polymerase Chain Reaction	UNEPI	Uganda National Expanded Program on Immunization
SAFELTP	South African Field Epidemiology and Laboratory Training Program	UON	University of Nairobi
SMDP	Sustainable Management Development Program	UVRI	Uganda Virus Research Institute
STOP-AI	Stamping Out Pandemic and Avian Influenza	USAID	United States Agency for International Development
TEPHINET	Training Program in Epidemiology and Public Health Interventions Network	WHO	World Health Organization

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