



INFORMATION BULLETIN

**Ethiopia Field Epidemiology
Training Program (EFETP)**

September 2012
Addis Ababa, Ethiopia

Ethiopia Field Epidemiology Training Program (EFETP) Information Bulletin

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Program Partners

1. Federal Ministry of Health, Ethiopia
2. Ethiopian Health and Nutrition Research Institute
3. Addis Ababa University School of Public Health
4. Ethiopian Public Health Association
5. The US Centers for Disease Control and Prevention

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Acronyms and Abbreviations

AAU	Addis Ababa University
AC	Advisory Council
AIDS	Acquired Immune Deficiency Syndrome
BPR	Business Process Re-engineering
CDC	Centers for Disease and Control and Prevention
ECTS	Ethiopian Credit Transfer System
EDHS	Ethiopian Demographic Health Survey
EFETP	Ethiopia Field Epidemiology Training Program
EHNRI	Ethiopian Health and Nutrition Research Institute
EPHA	Ethiopian Public Health Association
FDRE	Federal Democratic Republic of Ethiopia
HIV	Human Immunodeficiency Virus
IMR	Infant Mortality Rate
MMR	Maternal Mortality Ratio
MOH	Ministry of Health
PHEM	Public Health Emergency Management
SOP	Standard Operating Procedure
SPH	School of Public Health
US	United States

1. Introduction

Country Background

Despite major health improvements in the last fifteen years, the population in Ethiopia still faces high morbidity and mortality rates and the overall health status remains relatively poorⁱ. For example, life expectancy in Ethiopia is 54 yearsⁱⁱ, and, although the maternal mortality ratio (MMR) has declined (590/100,000), it is still one the highest rates in the world. Similarly, both the under-five mortality rate (88/1000) and the infant mortality rate (59/1000) have dropped, but those rates still are markedly above global averagesⁱⁱⁱ.

Most health problems in Ethiopia can be attributed to communicable diseases and nutritional disorders; more than 90% of child deaths are caused by pneumonia, diarrhea, malaria, neonatal problems, malnutrition, and/or HIV/AIDS. Additionally, there has been an increase in non-communicable diseases and injuries, and natural disasters such as flooding, landslides and drought remain formidable threats. Public health surveillance systems are clearly needed in Ethiopia but have been, until now, limited in scope.

Public Health Emergency Management (PHEM)

The Government of the Federal Democratic Republic of Ethiopia has launched a bold initiative to improve effectiveness and efficiency using Business Process Reengineering (BPR)^{iv}. Using BPR the Federal Ministry of Health and Agencies under the ministry have identified seven core processes for reengineering – including the ability to prevent and control epidemics as well as public health surveillance systems. Consequently, Public Health Emergency Management (PHEM) has been targeted for reengineering.

The Government of Ethiopia has been dedicating considerable resources to respond to public health emergencies ranging from epidemics of diseases to widespread malnutrition resulting from drought. Ethiopia is developing a dependable system, which

can quickly detect unusual health events and institute appropriate response measures. Per the proclamation of FDRE No. 471/2005, the Ministry of Health is mandated to “undertake appropriate measures in the events of disasters and other situations that threaten public health and coordinate measures to be taken by other bodies”.

Strengthening disease surveillance and response systems in Ethiopia is of paramount importance, and Public Health Emergency Management has been adopting best practices implemented elsewhere and tailoring and contextualizing them to local communities throughout Ethiopia. PHEM has designed a forecasting, early warning, and response system and currently is targeting twenty diseases for surveillance.

2. Ethiopia Field Epidemiology Training Program

The Ethiopia Field Epidemiology Training Program (EFETP) is a comprehensive two-year competency-based post-graduate training and service program designed to build sustainable public health expertise and capacity. Inaugurated in February 2009, the EFETP has been tailored to the needs and priorities of Ethiopia, and is a partnership between the Federal Ministry of Health, Addis Ababa University School of Public Health, the Ethiopian Public Health Association and the U.S. Centers for Disease Control and Prevention (CDC). The program is modeled after the Epidemic Intelligence Service program (aka the "Disease Detectives") of the U.S. government. Other FETP programs are currently active throughout the world, and these programs work to build local capacity to respond to significant public health challenges.

Field Epidemiology is often referred to as “shoe-leather” epidemiology because the work is done in the field in communities^v. Residents in the EFETP receive 25% of their training from short modular classroom courses designed to teach principles of epidemiology and public health. The remaining 75% of the training consists of a field residency program, which includes hands-on learning and service. Residents gain competency and experience at field bases within the Federal Ministry of Health and Regional Health Bureaus. The training is closely supervised, is competency-based, and is conducted on the job.

Residents in the EFETP investigate disease outbreaks, develop effective prevention and control measures, and work with disease surveillance systems to establish data-derived information about the health burden of reportable diseases.

Graduates of the program receive a Master of Public Health degree in Field Epidemiology and are assigned to positions that provide epidemiologic service to the Ministry of Health. An intake of promising residents each year ensures that a steady stream of qualified field epidemiologists graduates and increases the capacity of the public health workforce.

It is the long-term vision of the EFETP to create smaller training modules for other public health field workers. The trainings will include both outbreak investigations and public health surveillance techniques, which are designed to increase the competencies of a broader range of public health field workers throughout Ethiopia.

The mission of EFETP is to train a cadre of skilled public health professionals who provide in-service assistance to advance and protect public health and contribute to evidence-based decision-making.

The goal is to strengthen the Ethiopian Public Health Emergency Management by:

1. Improving public health event detection and response;
2. Creating a robust disease surveillance system;
3. Building capacity in field epidemiology and public health laboratory systems;
4. Enhancing evidence-based decision making for public health practice; and
5. Reducing morbidity and mortality associated with priority diseases.

The objectives of the program include:

1. Building public health capacity by developing a cadre of health professionals with advanced skills in applied epidemiology and laboratory management;

2. Increasing national and regional capacity to respond to public health emergencies such as outbreaks, natural disasters, and other unusual public health events including those that could be a result of chemical or biological terrorism;
3. Strengthening national surveillance systems;
4. Preparing field epidemiology residents to take part in the leadership of Public Health Emergency Management units at national, regional, and sub-regional levels as well as other health related institutions;
5. Contributing to research activities on priority public health problems;
6. Strengthening laboratory participation in surveillance and field investigations;
7. Improving communications and networking of public health practitioners and researchers in the country and throughout the region;
8. Promoting the sustainability of the EFETP; and
9. Assuring active use and dissemination of public health data, which has been developed by the EFETP staff and residents.

3. Roles of Partners in the Program

The EFETP is owned by the MOH. Addis Ababa University School of Public Health, CDC and EPHA are the major partners that support the program. Each of the partners has specific roles in the program. The FMOH and Regional Health Bureaus provide training field sites, field supervisors and deploy residents. Addis Ababa University School of Public Health is responsible for the academic content of the program, including designing a curriculum, providing classrooms, preparing and evaluating all courses, and granting the program's degree. The EPHA channels funding, provides administrative support, and manages materials, supplies, logistics, and travel. The US CDC provides technical assistance and funding through the President's Emergency Plan for AIDS Relief (PEPFAR).

The program Director is the Deputy Director General of EHNRI and Head of PHEM Center. The program Co-Director is the Dean of AAU-SPH. The EPHA Executive Director is the secretary of the Program. There is also a Memorandum of Understanding

(MOU) between these partners to jointly administer the EFETP. The program coordinator is from EHNRI and the academic coordinator is from Addis Ababa University School of Public Health.

There is an Advisory Council (AC) composed of representatives from Addis Ababa University School of Public Health (the chair of the Advisory council), the EHNRI (Co-chair), the Ethiopian Public Health Association (Secretary), the WHO country office, and CDC-Ethiopia. This council advises the decision-making regarding the operation of the EFETP. The council also provides consultations and directions with regard to overall activities and communication with other authorities.

4. Admission Requirements to the Program

The program is designed to strengthen PHEM systems throughout Ethiopia. The candidates for the program are often selected from the PHEM systems at the national, regional, zonal and woreda levels. It also includes trainees from national and regional laboratories and professionals from other Directorates, which have direct contribution to public health emergency management. Trainees from other sectors such as agriculture and national defense also have a chance to participate in the training course.

Candidates are also required to fulfill admission requirements for all Masters Degrees in the University including:

- ✓ holding a first degree in a health related discipline (e.g. health officer, nurse, medical doctor, environmental health professional, laboratorian or biological science);
- ✓ being available for full-time formal training, field work and related MOH activities;
- ✓ having a support letter from MOH, RHB, or organizations they are working for ;
- ✓ passing an entrance exam and interview by the selection committee.

The admission examination and interview aim at evaluating each candidate's academic and attitudinal preparation to pursue a graduate program and undertake future assignments.

5. Core Competencies

As EFETP is a competency-based training program, candidates who get the chance to join the program are required to achieve the following competencies:

Competency	Activity
Epidemiologic Methods	<ol style="list-style-type: none"> 1. Use epidemiologic practices to conduct studies that improve public health programs 2. Respond to outbreaks
Biostatistics	<ol style="list-style-type: none"> 3. Analyze epidemiological data using appropriate statistical methods
Public Health Surveillance	<ol style="list-style-type: none"> 4. Evaluate a public health surveillance system
Laboratory and Biosafety	<ol style="list-style-type: none"> 5. Use laboratory resources to support epidemiologic activities
Communication	<ol style="list-style-type: none"> 6. Develop written public health communications 7. Develop and deliver oral public health communications
Computer Technology	<ol style="list-style-type: none"> 8. Use computers for specific applications relevant to public health practices
Management and Leadership	<ol style="list-style-type: none"> 9. Manage a field project 10. Manage staff and resources 11. Be an effective team leader and member 12. Manage personnel responsibilities
Epidemiology of Priority Diseases and Injuries	<ol style="list-style-type: none"> 13. Evaluate & prioritize the importance of diseases or conditions of national public health concern

The course work is delivered in modular form and is arranged in two blocks i.e. the first part prepares trainees for Field Residency I, and the second block prepares them for Residency II.

6. Field Bases

The FETP is designed for the residents to conduct 75% of their residency activities in the field. Accordingly, the program has established five field bases located at PHEM offices at national and regional levels. EFETP field bases have been established within the PHEM center at EHNRI and at four Regional Health Bureaus: Amhara, Oromia, SNNPR, and Tigray. These bases provide opportunities for field experiences in epidemiology and were chosen based on population size, disease burden, and the availability of infrastructure and supervisory staff. Additional field bases will be added in the future depending on program needs.

7. Graduation Requirements

Residents are evaluated using examinations, exercises, presentations, projects and practical assignments. Successful completion requires satisfactory performance in class work as well as in the field residency and progress is monitored by the Field Supervisors and Mentors. Residents are required to produce outputs in the following areas:

- 1) Report of at least 2 outbreak or epidemic investigations
- 2) Report from evaluation of a surveillance system
- 3) Surveillance data analysis report
- 4) Accepted protocol for epidemiologic project
- 5) Health profile description report
- 6) Final draft of a scientific manuscript for peer review journal
- 7) Abstract for a scientific presentation
- 8) Narrative summary of disaster situation visited
- 9) Narrative summary of laboratory activities
- 10) Record of teaching/mentoring in the EFETP
- 11) Article appropriate for an epidemiology bulletin submitted to EFETP/MOH and
- 12) Submission of monthly activity reports

Candidates who successfully complete the required course work and the residency program will be presented to the Graduate Council and then to the University Senate. Upon approval of these successive bodies candidates will be awarded a Master of Public Health (MPH) degree in Field Epidemiology.

For more information refer to:

http://www.cdc.gov/globalhealth/FETP/pdf/Ethiopia_factsheet.pdf

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ⁱ Federal Democratic Republic of Ethiopia, Ministry of Health. Health Sector Development Program; 2010/11-2014/15.

ⁱⁱ Ethiopian Demographic Health Survey (EDHS), 2005.

ⁱⁱⁱ Preliminary data from 2010 Ethiopian Demographic Health Survey (EDHS).

^{iv} Federal Democratic Republic of Ethiopia. Public Health Emergency Management Core Process Manual 2008.

^v David Mukanga *et al.* Field Epidemiology Training Programmes in Africa - Where are the Graduates? Human Resources for Health. 2011; 8 (18).



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Federal Democratic Republic of Ethiopia
Ministry of Health

