Annual Progress Report of the TEPHINET Secretariat

A Network to Empower the Global Public Health Workforce

TEPHINET
Training Programs in Epidemiology and Public Health Interventions Network
Letter from the Advisory Board Chair and the Director of TEPHINET

2017: A Milestone Year for TEPHINET

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Dear Partners and Friends,

On behalf of the Secretariat and Advisory Board of TEPHINET, we extend our greetings and would like to thank you for viewing our 2017 Progress Report. In 2017, TEPHINET celebrated its 20th anniversary as a global network of field epidemiology training programs (FETPs). The timing of this milestone year was fortuitous as TEPHINET was simultaneously updating its vision and mission, refining its strategic goals, experiencing tremendous growth within the Secretariat, and implementing dozens of projects within our key work areas including scientific conferences, special topics (including Zika, polio, non-communicable diseases, and biosecurity), operational and technical support to FETPs, and support to individual FETP trainees through mini-grants. The outcomes of these activities are captured within this report.

Following this pivotal year of growth and change for TEPHINET, where are we headed next?

Firstly, we must continue our focus and commitment to improving the quality and relevance of field epidemiology training programs and their graduates in order to strengthen health systems to deal effectively with global disease threats. To this end, TEPHINET’s third cycle of FETP accreditation is underway after the first two cycles resulted in the accreditation of a total of eight programs. As part of the growth of the TEPHINET Secretariat, we are improving our structure through incorporating and developing new areas of expertise, for example, through technical leadership, team coordinators, and other management positions.

TEPHIConnect, our online and mobile networking platform for FETP alumni worldwide, is up and running with more than 1,000 registered users, more than 850 of whom are active. We expect that this platform will support continuous learning within the global FETP community, increase peer-to-peer assistance and facilitate workforce mobilization in response to global disease threats. TEPHIConnect can also be used as an alumni tracking tool by FETPs. In addition, to further support workforce mobilization, TEPHINET is embarking on a new collaboration with GOARN on a three-tiered training in outbreak response.

In 2017, the TEPHINET Advisory Board voted to allow FETP-V (field epidemiology and veterinary training programs) to join our network. In light of the importance of the One Health paradigm, TEPHINET is committed to supporting partners and stakeholders including the Centers for Disease Control and Prevention, the Food and Agriculture Organization of the United Nations, the World Health Organization, and others in the establishment of veterinary tracks in existing field epidemiology training programs.

Finally, in a climate of economic and political uncertainty, one of our major challenges for the future is diversifying our sources of funding to ensure the sustainability of our network. We are grateful to our current funders, partners, and collaborators for their commitment to our mission and goals, and we look forward to walking the road ahead together.

Sincerely,

Dr. Dionisio José Herrera Guibert

TEPHINET Director and Advisory Board Member

Dr. Carl Reddy

Chair of the TEPHINET Advisory Board

Dr. Carl Reddy

TEPHINET Director and Advisory Board Member

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2017 marked the 20th anniversary of TEPHINET as a network of FETPs. During the 9th TEPHINET Global Scientific Conference in Chiang Mai, Thailand in August, TEPHINET recognized individual and organizational contributions toward the establishment and growth of our network over the past two decades with special recognitions and a plenary session featuring TEPHINET’s founding partners.

In this year, TEPHINET made significant gains toward fulfilling its 2017-2020 strategic goals:

1. IMPROVE the understanding of TEPHINET’s mission and role among stakeholders: TEPHINET defined its updated vision and mission and began developing an integrated plan to clarify the roles of key stakeholders including FETPs, regional FETP networks, CDC and WHO.

2. STRENGTHEN the quality of FETPs and their graduates: TEPHINET accredited five programs in its second cycle of FETP accreditation: Brazil, Cameroon, Kenya, Philippines and Zimbabwe.

3. SUPPORT continuous learning within the global FETP community: TEPHINET formed a learning working group to develop a continuous learning strategy to define learning objectives, course components, target audiences, learning management systems, and training needs.

4. INCREASE peer-to-peer assistance: TEPHINET organized scientific conferences and supported participants’ attendance at these events in order to stimulate the exchange of knowledge and experiences among field epidemiologists.

5. FACILITATE workforce mobilization in response to global disease threats: TEPHINET created the system architecture for a global FETP alumni database through its new online platform, TEPHIConnect, which allows FETPs to connect and share information with each other and FETPs to monitor and track their alumni.

6. ELEVATE TEPHINET’s voice and profile as a thought leader: TEPHINET co-sponsored FETP International Night with the CDC and held the 9th TEPHINET Global Scientific Conference to convene and inform epidemiologists and other public health experts on topics of public health importance. In addition, more than 100 TEPHINET consultants work globally to provide scientific expertise to FETPs and local ministries of health and other agencies on a range of public health topics.
Who We Are

TEPHINET: A Global Network of Field Epidemiology Training Programs

First incorporated in 1997, Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) is a global network of field epidemiology training programs (FETPs), trainees, and graduates. Currently, TEPHINET comprises 69 programs actively training field epidemiologists in more than 100 countries.

TEPHINET member programs include those with laboratory and veterinarian education components. Overall, TEPHINET member programs consist of more than 10,000 trainees—of whom 6,500 are graduates—who play a critical role in improving global health security by strengthening country capacity to detect and respond to disease outbreaks and other public health problems.

With a secretariat based in Atlanta, Georgia, USA and an Advisory Board of representatives from different international regions, TEPHINET is the only global network of FETPs and works closely with regional FETP networks and sub-regional and national programs.

Key Work Areas

The TEPHINET Secretariat works on building FETP capacity through the following general work areas:

- Quality improvement of FETPs
- Communications and networking
- Scientific conferences
- Operational support to FETPs (this includes financial, administrative, human resources, and logistical support)
- Special initiatives to strengthen FETP activities (these are projects which may be tied to increasing FETP capacity to respond to different diseases or provide training in specific topic areas)
- Individual support to FETP trainees and graduates through grants awarded in support of proposed projects aimed at strengthening local health surveillance activities

Demonstration of hand washing procedure in an elementary school during an AWD (acute watery diarrhoea) outbreak investigation and intervention at Nifas Silk Lafto sub-city, Addis Ababa, Ethiopia, September 2016 (photo credit: Kelbark Tafilo)
Mission
To empower and mobilize a competent field epidemiology workforce for all people through standardized training, experiential learning, training program quality improvement, mentoring, and knowledge exchanges in order to connect epidemiologists better, faster and with quality across the globe.

Vision
All people are protected by a field epidemiology workforce capable of detecting and responding to health threats.

The TEPHINET Secretariat
The TEPHINET Secretariat operates under the leadership of a director and deputy director and consists of project staff who carry out day to day project activities. On the operational side, the Secretariat also has individuals working in finance, communications, and office and event management. Each year, more than 100 international consultants work closely with TEPHINET Secretariat staff to implement activities around the world.

The Secretariat supports FETPs and public health initiatives through funded projects; topical areas include FETP capacity building and quality improvement, polio, non-communicable diseases, maternal and child health, birth defects, flu, infection prevention and control, Zika and vector-borne diseases. The Secretariat also provides support to FETPs through networking initiatives including communications and conferences.

The TEPHINET Advisory Board
The Advisory Board of TEPHINET supports and evaluates the duties and functions of the network with the support of the Secretariat. In coordination with the Secretariat, the Advisory Board advises in the technical aspects of the network, is informed of the annual budget, and actively carries out the network’s purposes and objectives. The Advisory Board is composed of at least one person from each region as well as the Director of the TEPHINET Secretariat and representative members from the following organizations who serve as liaisons: the World Health Organization (WHO), the Centers for Disease Control and Prevention (CDC), and the European Centre for Disease Prevention and Control (ECDC). A chairperson of the board is elected to their post by members of the network and serves a three-year term.

What We Do
As a network, TEPHINET supports FETP quality improvement through its accreditation program, provides training and professional development opportunities for FETP trainees and graduates through scientific conferences and e-learning, and facilitates resource-sharing among FETPs through a number of networking initiatives. As an implementing partner to organizations such as the CDC, WHO, the U.S. Department of State and others, TEPHINET provides management and training support to FETPs through funded projects.
WHAT IS A FIELD EPIDEMIOLOGY TRAINING PROGRAM (FETP)?

An FETP is a program that builds capacity in health service agencies by providing training in field epidemiology and other public health competencies in the context of health delivery systems. FETPs are modeled after the CDC’s Epidemic Intelligence Service (EIS), a two-year training program for health professionals interested in applied epidemiology. The success of EIS led to requests from other countries for similar programs. Today, more than 70 countries have FETPs.

FETPs and FELTPs are designed to strengthen public health systems in four specific ways:
1. To increase the number and quality of field epidemiologists in the public health workforce;
2. To develop worldwide capacity for timely detection, investigation of, and response to public health emergencies;
3. To improve capacity to collect public health data through improved disease surveillance systems and use the data collected effectively;
4. To promote the use of evidence-based recommendations in public health decision-making and policies.

THE FETP TRAINING MODEL

In response to the Ebola and Zika outbreaks of the last few years, TEPHINET has been working with local ministries of health and other partners to implement frontline and intermediate field epidemiology training programs to build capacity more quickly to respond to future outbreaks.

Typically, 60-70% of FETP training consists of a field training apprenticeship taking place in a host country or region which aims to teach the practical application of epidemiological methods in field-based settings. The remainder of FETP training consists of classroom training. While programs differ by country, most programs require two years of mentored, full-time work. In addition, most programs are affiliated with local ministries of health, while others are hosted by a university or public health agency. FETP graduates are certified by the institutions in which their programs function and work in areas including outbreak investigations, disease surveillance, public health program development, general public health services, and urgent health needs. In addition, many graduates return to their FETPs to serve as mentors or trainers.
Program Member Map

Membership in progress
(FETPs which have expressed an interest in becoming official members but are still in the process of submitting a formal membership request to the TEPHINET Advisory Board):
Bangladesh
Democratic Republic of the Congo
Gambia
Malawi
Sierra Leone
Uruguay
Zambia

African Region
Angola
Cameroon
Ethiopia
Ghana
Guinea-Bissau
Indian Ocean
(Madagascar, Mauritius, Reunion, Seychelles)
Kenya
Mozambique
Namibia
Nigeria
Rwanda
South Africa
Tanzania
Uganda
West Africa
(Benin, Burkina Faso, Cote d’Ivoire, Guinea, Mali, Niger, Senegal, Togo)
Zimbabwe

Americas Region
Argentina
Brazil
Canada
Central America
(Belize, Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Nicaragua, Panama)
Colombia
Costa Rica
Mexico
Paraguay
Peru
United States

European Region
Central Asia
(Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan)
European Programme for Intervention Epidemiology Training (EPiET) and the European Programme for Public Health Microbiology Training (EUPHEM) (accept trainees from all 28 European Union member states)
France
Germany
South Caucasus
(Armenia, Azerbaijan, Georgia)
Spain
Turkey
United Kingdom

Eastern Mediterranean Region
Afghanistan/Tajikistan
Egypt
Iraq
Jordan
Morocco
Pakistan
Saudi Arabia
Yemen

Southeast Asia Region
India
Indonesia
Thailand

TEPHINET/Task Force for Global Health Registered Branch Offices
Bogota, Colombia
Islamabad, Pakistan
Guatemala City, Guatemala

TEPHINET Secretariat Office
Atlanta, Georgia, United States

Western Pacific Region
Australia
Cambodia
China
Hong Kong
Japan
Laos
South Korea
Malaysia
Mongolia
Papua New Guinea
Philippines
Singapore
Taiwan
Vietnam
In 2016, the TEPHINET Secretariat launched the first cycle of FETP accreditation. Today, eight Field Epidemiology Training Programs (FETPs) — Canada FETP, Epidemic Intelligence Service (United States), United Kingdom FETP, Brazil FETP, Cameroon FETP, Kenya FETP, Philippines FETP and Zimbabwe FETP — have been accredited by the TEPHINET Global Accrediting Body (GAB).

Accreditation is an opportunity for FETPs to align with common standards supporting quality training and increased recognition of their value in developing a public health workforce capable of detecting and responding to health threats. TEPHINET developed the process and standards for accreditation over a five-year period with input from its global network of programs and partners including the TEPHINET Accreditation Working Group (AWG).

The standards for accreditation are grouped into four main domains and include:

- Management, infrastructure and operations
- Integration with public health service
- Staffing and supervision
- Selection and training of residents

FETPs must meet basic eligibility requirements, which include:

- The majority of residents’ time is spent in field work (minimum of 68 weeks)
- The duration of the program is at least 21 months
- At least two cohorts have completed the program, and continuous cycles of recruitment have been established

FETPs must first complete a readiness assessment, which helps the FETP determine if it is prepared to move forward. From there, the FETP submits a Letter of Intent and a Certification of Eligibility to the TEPHINET Secretariat, which then decides whether to move forward. From there, the TEPHINET Accreditation Working Group (AWG) reviews the applications and includes recommendations to the GAB, which then decides whether to confer accreditation status.

“Accreditation is really about improving quality for all programs, while accreditation is not a requirement, it does offer benefits for all FETPs,” says Madeleine Ikeda do Carmo of EpiSUS (Brazil FETP) and the program's official TEPHINET certificate of accreditation.

With accreditation entering its third cycle, the TEPHNIT team is continuing to refine the overall process.

“The good news is that we have learned lessons from the first two accreditation cycles, so we have streamlined processes, improved forms and tried to make the process more user-friendly,” says Burnett. “In addition, as more programs become interested in accreditation, we know that one of our future challenges will be the identification of qualified FETP graduates to serve as ART members. This year, we have taken the proactive step of starting a database of potential reviewers whom we can call upon for future cycles.”

The training of ART members presents additional opportunities for program development. In February 2017, TEPHINET piloted a two-day training workshop for potential reviewers from all over the world. The workshop was facilitated by members of the AWG and hosted by the European Centre for Disease Prevention and Control (ECDC). TEPHINET is in the process of building its first online training module for accreditation reviewers.

While accreditation is not a requirement, it does offer benefits for all FETPs.

“Accreditation is really about improving quality for all programs, regardless of whether or not they pursue or achieve accreditation,” says Dionisio Herrera, MD, PhD, director of TEPHINET. “All FETPs can learn from the accreditation standards and work toward them, which in turn strengthens program sustainability and credibility, adds value to their countries’ health systems and builds a more qualified network of public health professionals.”

In less than a year, TEPHIConnect — an online and mobile networking platform created exclusively for alumni of TEPHINET's 69 member Field Epidemiology Training Programs (FETP) — has garnered nearly 1,000 users representing 93 countries. The TEPHINET Secretariat launched TEPHIConnect at its 9th Global Scientific Conference in Thailand in August 2017 in conjunction with the organization’s 20th anniversary. Launch efforts included a plenary session focused on TEPHIConnect as well as booths where conference attendees could both demo and register for the platform.

“The significance of TEPHIConnect as a network lies in our ability to connect field epidemiologists from all over the world to share information and strengthen public health response efforts,” says Dionisio Herrera, MD, PhD, director of TEPHINET. “TEPHIConnect provides an engaging tool for our network’s graduates to build these connections online. The opportunity to connect this extraordinary group of more than 10,000 FETP graduates worldwide is the next step in strengthening the FETP family.”

TEPHIConnect’s launch at the global conference was a success with more than 200 registering at the platform on one of the signup booths. Following the conference, TEPHINET reached out to FETP alumni through social media and email marketing as well as other network events.

“The responses we received at the global conference and through other marketing efforts throughout the year have been positive,” says Tina Rezvani, MA, MS, communications manager for TEPHINET. “Alumni are excited to have access to this global online platform for those who share the common language of field epidemiology.”

Beyond simply connecting FETP alumni, TEPHIConnect also serves as a centralized way of communicating for users to reach out with updates and request assistance, as well as learn about post-graduate training and mentorship, career and certification opportunities. The platform also highlights the value of TEPHINET’s programs.

“TEPHIConnect is a great tool in tracking the effectiveness of TEPHINET’s programs and training,” explains Miriam Alderman, MBA, deputy director of TEPHINET. “It tells us where FETP alumni land in their career, whether in the government, at ministries of health or in epidemiology positions of influence.”

This project illustrates TEPHINET’s collaborative approach and ability to obtain a strong response in a short period of time. The TEPHINET Secretariat led the development of TEPHIConnect with input from the Public Health Informatics Institute (PHII), its fellow program at The Task Force for Global Health, along with the Centers for Disease Control and Prevention (CDC), who provided funding for the project, and a steering committee of global partners representing regional FETPs. The network is hosted on Hivebrite, an all-in-one platform that manages and engages all types of private communities.

Looking forward, TEPHINET is working with Hivebrite to explore ways to extend the capabilities of TEPHIConnect, which is already available as a mobile app. For example, future functionalities could include a user portfolio so that users could display their work, webinar capabilities or donation modules. Hivebrite is also looking to expand its language offerings for TEPHIConnect, which is currently available in English, Spanish and French.

Ultimately, the goal of TEPHIConnect is to facilitate and maintain a global field epidemiology network that provides health systems and organizations with rapid access to competent public health professionals when and where they’re needed most. It is a project in progress with the potential to be used in continuing education efforts for alumni and in supporting public health emergencies at the global, regional and national levels. TEPHINET also plans to train interested FETPs on the administrative management of TEPHIConnect as a tool to facilitate alumni tracking, a challenge for many programs.

“I am hoping that the members of TEPHINET — alumni, trainees, staff, directors — see the value of engaging with the platform,” Alderman says. “We see the potential for TEPHIConnect to evolve into a tool that helps us identify the right expertise at the right time so that we can mobilize and respond to outbreaks in a timely manner. We envision TEPHIConnect as a must-have resource for our community whose primary goal is to safeguard public health.”

Visit www.tephiconnect.org to learn more.

The Philippines FETP displays their TEPHNET certificate of accreditation during a Philippines Department of Health flag-raising ceremony.

TEPHIConnect Takes Off

PLATFORM TO CONNECT FETP ALUMNI ATTRACTS HUNDREDS WITHIN FIRST FEW MONTHS AFTER LAUNCH

An FETP graduate exploring TEPHIConnect during its launch at the 9th TEPHINET Global Scientific Conference (August 2017).

WWW.TEPHINET.ORG 2017 PROGRESS REPORT
TEPHINET Moves Forward with Biosafety and Biosecurity Efforts

MIDDLE EASTERN AND NORTH AFRICAN COUNTRIES RECEIVE TRAINING IN BIOSAFETY AND BIOSECURITY

Through its mission to empower and mobilize a competent field epidemiology workforce, the TEPHINET Secretariat, with grants from the U.S. Department of State and CRDF Global, is continuing to invest in biosafety and biosecurity training efforts in the Eastern Mediterranean region. In 2017, approximately 14 trainings were held, educating over 300 participants in biosecurity and biosafety protocols. These efforts are designed to prevent, detect and respond to existing and emerging global biological threats and are based on three pillars built on a foundation of sustainable capacity.

• Biowarfare: These activities are designed to train scientists to detect and control biorisks, which are dangerous threats to biosecurity and biosafety. These include risks posed by infectious agents, toxins and weaponizable pathogens. Experienced trainers teach participants to reduce biorisks by:
  • Improving laboratory biosafety and biosecurity programs,
  • Enhancing their country or region’s ability to detect and control disease outbreaks, and
  • Engaging biological scientists in research on health security.

• Scientist Engagement: Enhance global health security and foster safe, secure and sustainable bioscience capacity through joint scientific collaborations designed to help prevent, detect, and respond to biological threats.

• Sustainable Capacity: Focus on long-term sustainability and capacity building that creates an infrastructure for biorisk management and disease detection and control at all levels within a country and region.

These efforts are designed to prevent, detect and respond to existing and emerging global biological threats and are based on three pillars built on a foundation of sustainable capacity:

• Biosecurity/Biosafety: Increase biosafety and biosecurity through technical consultations, risk assessments and training courses and build the human capacity and internal expertise to create a sustainable culture of laboratory biorisk management.

• Disease Detection and Control: Strengthen the capacity for public and veterinary health systems to detect, report and control infectious disease outbreaks.

• Scientist Engagement: Enhance global health security and foster safe, secure and sustainable bioscience capacity through joint scientific collaborations designed to help prevent, detect, and respond to biological threats.

• Sustainable Capacity: Focus on long-term sustainability and capacity building that creates an infrastructure for biorisk management and disease detection and control at all levels within a country and region.

With support from TEPHINET and the U.S. Department of State Biosecurity Engagement Program (BEP), FETP Morocco organized a biosafety and biosecurity workshop for 26 participants at École Nationale de Santé Publique in Rabat from October 23-27, 2017. Participants included FETP residents, as well as professionals from various disciplines, including veterinarians. FETP Morocco recently organized a training workshop. Twenty-six participants attended the workshop at École Nationale de Santé Publique (ENSP) in Rabat, Morocco from October 23-27, 2017. Participants who attended the workshop included five alumni of the first cohort of the Morocco FETP, 11 clinical biologists, three veterinarians, two lab engineers, three lab technicians and two ENSP trainers.

In 2017, the Yemen FETP worked to build in-country capacity in disease detection, outbreak response, and health security efforts in Yemen through five training workshops which covered International Health Regulations, Biosafety and Biosecurity, Rapid Response, and Outbreak Investigation. Participants included the third cohort of FETP residents, staff from the Ministry of Public Health and Population and Governorate Health Offices. The third cohort FETP residents also participated in 13 outbreak investigations in various districts throughout Yemen, as well as received advanced training on epidemiological methods.

The Egypt FETP conducted seven workshops which focused on outbreak investigation, biosecurity and biosecurity, rapid response, and training of trainers for select health directorates and district health officers representing various governorates. “The attendance of participants from multiple sectors encourages the collaboration of professionals working in human, animal and environmental health,” Gourdet-Murray says. “The true benefit of these trainings is that they increase the number of public health professionals across disciplines in these areas who are aware of biological threats and have experience in biorisk practices.”

According to Gourdet-Murray, the training courses include standard field epidemiology coursework from TEPHINET member FETPs; however, the trainings are enhanced with coursework on identifying outbreaks, disease surveillance and controlling infectious agents and toxins. When the trainings are complete, participants are expected to know how to manage safe and secure labs as well as act as first responders in the event of an outbreak. TEPHINET plays a critical role in the trainings.

“TEPHINET provides administrative support for the trainings by ensuring that the resident advisor consultants, mentors and trainers have the needed materials and resources to enhance their curriculums,” Gourdet-Murray says. “TEPHINET promotes secure, safe, and sustainable capacity to detect and control dangerous outbreaks through supporting a series of workshops in outbreak investigation, biosecurity and biosecurity, and training of trainers who will ultimately lead the workshops.”

Response, and Outbreak Investigation. Participants included...
2016 brought with it a challenging public health emergency — the Zika virus.

“In 2016, the World Health Organization (WHO) declared a public health emergency because of Zika,” says Mariana Mansur, PhD, a project manager with the TEPHINET Secretariat. “Zika was strongly impacting public health in Brazil, Colombia and other countries in the Latin American and Caribbean region. While national-level field epidemiology training existed in these countries, we realized there was a lack of strong disease surveillance at the local level. Public health surveillance needed to be strengthened from the ground up in these countries.”

Enter FETP Frontline Surveillance Training (Frontline), a program focused on the rapid and efficient training of health workers to detect and respond to diseases and events of public health importance or international concern. In response to the 2014-2015 Ebola outbreak in West Africa, TEPHINET collaborated with the Centers for Disease Control and Prevention (CDC) to launch STEP (Surveillance Training for Ebola Preparedness) training, which became the precursor to FETP Frontline. Since 2016, Frontline is one of many projects on which TEPHINET has collaborated with the CDC to strengthen the capacity of public health expertise to fight Zika in countries in Latin America and the Caribbean including Grenada, St. Vincent and the Grenadines, Jamaica, Trinidad and Tobago, Haiti, the Dominican Republic, Brazil, Colombia, Uruguay, Peru, Paraguay and Ecuador. TEPHINET has supported the implementation of Frontline by providing operational and technical support to programs in these countries.

Frontline trainees, who are typically public health students and graduates, learn and practice the fundamental skills used in frontline surveillance, including use of case definitions, disease detection and reporting, data summary, case investigation, outbreak investigation and response, surveillance monitoring and evaluation and data analysis and interpretation for decision making. In the case of those being trained to respond to Zika, they also study Zika-related epidemiological topics such as vector control and birth defects in children of women and men who had the Zika virus.

“Frontline provides on-the-job training for public health professionals,” Mansur explains. “Trainees spend about two weeks in the classroom in workshops, and then they go back to their jobs for two months to participate in field projects to practice what they have learned in the classroom and receive mentorship.”

After the completion of the field projects, Frontline culminates with a presentation of results and a completion ceremony. Trainees who complete the program receive a certificate of completion signed by the local Ministry of Health and CDC officials. While trainees certainly benefit professionally, their home countries also see lasting results from Frontline trainings.

“The value of Frontline for countries where it is implemented is that it develops the public health workforce,” Mansur says. “Health officers at the municipal level are now trained to collect data and conduct primary data analysis so that they understand when there is an outbreak or any public health event that is not normal. Frontline graduates are able to identify outbreaks and expedite outbreak investigation, research and response.”

According to Mansur, there will be close to 1,000 Frontline graduates by the end of May 2018. Frontline trainings have been so effective that in Brazil, the Ministry of Health has identified funding to continue the trainings beyond May.

“We’re pleased that Ministries of Health see that Frontline is valuable enough to continue to fund it,” Mansur says. “Frontline is one of TEPHINET’s largest achievements for the Latin American and Caribbean region in the last year. We have invested many efforts, and we see that they are paying off.”

From May 15 to 18, 2018, TEPHINET will be hosting the 10th TEPHINET Regional Scientific Conference of the Americas in Cartagena, Colombia. Of the 342 scientific abstracts TEPHINET received in consideration for oral and poster presentations during this conference, 101 were submitted by Frontline graduates, a sign that these programs will leave a strong footprint on the region. This work was made possible through support provided by the Bureau for Global Health, U.S. Agency for International Development, under the terms of an Interagency Agreement with the U.S. Centers for Disease Control and Prevention. The opinions expressed herein are those of the authors and do not necessarily reflect the views of the U.S. Agency for International Development.
As part of a long-term strategy to address the Zika epidemic, the TEPHINET Secretariat is continuing to support efforts to build capacity in Latin American and Caribbean countries with three goals: developing vector control and surveillance strategies, enhancing emergency risk communications and strengthening laboratories.

According to Mariana Mansur, PhD, a project manager for TEPHINET, developing vector control and surveillance strategies means limiting and/or eradicating the Aedes aegypti mosquito that carries and spreads the virus. The Aedes aegypti mosquito is also known to spread dengue fever, yellow fever and the chikungunya virus. With funding from and in collaboration with the Centers for Disease Control and Prevention (CDC) and the U.S. Agency for International Development (USAID), TEPHINET currently provides administrative, financial and logistical support, as well as trainings in vector surveillance and control in Colombia, Peru and the Dominican Republic. Strategies for vector control include determining which insecticides are effective or that mosquitoes have become resistant to, eliminating possible breeding areas and using tools such as ovitraps, which trap female mosquitoes as they are about to lay eggs.

“Vector control is absolutely fundamental for an immediate and effective response to Zika and other mosquito-borne diseases,” says Mansur. “If we do not control the vector, we will still have people getting sick.”

Addressing the Zika virus also relies on effective emergency risk communications (ERC) to various audiences. To refine ERC skills among health workers, TEPHINET, in coordination with the CDC, organized a series of four risk communications workshops attended by 100 public health professionals from 38 countries. The workshops, which were held in Trinidad (May 2017), Haiti (July), and Panama (September), focused on:

- Managing the challenge of transparency associated with ERC, especially in balancing economic impacts and how to negotiate and advocate the use of an appropriate risk communication response
- Managing communication cooperation and collaboration among different stakeholders and to manage rumors that result from inconsistent and unclear recommendations
- Determining appropriate ERC strategies to deal with low risk perception, concern and interest in order to strengthen community engagement with culturally and socially acceptable interventions and tools
- Using effective risk communication plans and strategies in response to media and social media demands

Looking ahead, TEPHINET, in partnership with the CDC and the World Health Organization (WHO), plans to incorporate the curriculum into larger workshops, as well as provide an online self-guided course on tephnit.org.

Strengthening laboratories and their capabilities is another way TEPHINET is building capacity in Latin American and Caribbean countries. In addition to providing training on how to manage safe and secure laboratories, TEPHINET is supporting the training of health workers in diagnosing the virus and providing laboratories with tests to quickly identify the disease.

“The goal is to build capacity by developing a rapid and reliable diagnosis,” Mansur says. “When it is suspected that a patient carries the Zika virus, it’s important to be able to provide a real time diagnosis and analysis in a lab so that we can stop the virus from spreading further.”

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The typical work day of an officer with the National Stop Transmission of Polio (N-STOP) Program in Pakistan is fraught with challenges. Like many epidemiologists working in the field, they must travel over inhospitable terrain, attempt to reach inaccessible locales, and earn the trust of families turning their children over to be immunized. Pakistan in particular faces serious security threats, meaning that polio immunization teams usually include members of the armed security forces. Despite this, N-STOP officers continue on their mission to eradicate polio in the country, fueled by the knowledge that this goal is within reach. In 2017, only eight cases of polio were reported, which represented an overall 97% drop in cases registered since 2014. Thus far in 2018, only one case has been reported.

The TEPHINET Secretariat, through funding from the Centers for Disease Control and Prevention (CDC), and in collaboration with the Pakistan Field Epidemiology and Laboratory Training Program (FELTP), the federal Ministry of Health, and the Expanded Program on Immunization in Pakistan (EPI), provides administrative and logistical support to N-STOP Pakistan by facilitating the travel of the N-STOP officers—who are public health professionals and medical doctors by training—around the country. TEPHINET provides the necessary logistical support N-STOP officers require to do their work, helping to secure vehicles, meeting spaces, training opportunities, equipment, and security teams needed to go into communities.

Most recently, TEPHINET facilitated the annual review and training on polio eradication for N-STOP Pakistan in Dubai, United Arab Emirates, which was opened by Senator Ayesha Raza Farooq, the Prime Minister’s Focal Person on Polio Eradication. A total of 81 participants, including 16 senior government and Emergency Operations Centers (EOCs) officials as well as 65 N-STOP officers and team leads, were trained on advanced skills for polio eradication through this event.

In Pakistan, lessening the burden of polio through eradication is a goal which has been met with strong commitment at all government levels. According to Khurram Butt, MBA, project management team lead at TEPHINET, the country’s National Emergency Action Plan (NEAP) was reenvisioned to focus polio eradication efforts at the district level; however, most district-level administrative officials do not have the medical expertise that N-STOP officers provide.

Most district commissioners are not medical doctors with technical expertise,” Butt says. “N-STOP officers become the technical right arm to district commissioners in eradicating polio.”

N-STOP officers are designated as essential members of District Polio Eradication Committees in the NEAP and assist the district commissioners and District Polio Control Rooms in planning, coordinating and conducting Supplementary Immunization Activities (SIAs).

The Pakistan FELTP and N-STOP Pakistan play an important synergistic role as the bridge between these commissioners, partners, and health management teams. At this critical stage, 60 N-STOP officers are working across 54 high-risk districts, up from 52 districts this time last year.
2017 Projects

As an implementing partner to public health organizations, the TEPHINET Secretariat is granted funds to manage several projects related to strengthening public health systems worldwide. TEPHINET provides direct support to several FETPs through funding it receives for

ALL REGIONS

FETP Cancer Curricula
Countries: Worldwide | Funder: CDC
To develop the FETP cancer curriculum, including slide presentations, facilitator’s guides, case studies and field exercises for four modules (cancer epidemiology, comprehensive cancer control programs, cancer registries, and cancer screening programs). The project also aims to provide technical assistance to FETP residents conducting non-research cancer projects through the awarding of mini-grants. The curriculum has been finalized and will be available on the CDC FETP and TEPHINET websites for countries to increase capacity in cancer prevention, control, and surveillance.

FETP Accreditation
Countries: Worldwide | Funder: CDC
To improve and maintain the quality of FETP training and graduates and their involvement and effectiveness in supporting country public health priorities. The project will achieve this by creating minimum quality standards and providing a process for continuous program improvement and the identification of program needs. In 2017, TEPHINET conducted a pilot training workshop for 12 accreditation reviewers from all six WHO regions in preparation for the second cycle of FETP accreditation. In addition, TEPHINET maintains a database of more than 100 potential accreditation reviewers. As a result of the second cycle of FETP accreditation, TEPHINET accredited five programs in Brazil, Cameroon, Kenya, the Philippines and Zimbabwe. To date, a total of eight programs have been accredited.

FETP Alumni Network
Countries: Worldwide | Funder: CDC
To establish a cohesive network of FETP graduates worldwide in order to facilitate the mobilization of experienced and qualified epidemiologists to support emergency response. This goal will be achieved by creating and maintaining a fully functioning FETP alumni network database in addition to providing an organized platform and alumni program for post-graduate training, certification, employment opportunities, and other professional communications. In August 2017, TEPHINET officially launched TEPHIConnect (www.tephiconnect.org), the only global online network exclusively for FETP graduates. To date, TEPHIConnect has nearly 10,000 members.

Global Noncommunicable Disease (NCD) Activities
Countries: Worldwide | Funder: CDC
To support the Global NCD program’s efforts to reduce the global burden of non-communicable diseases, which continues to expand as an international threat to public health especially in low- and middle-income countries. This includes working with partners to strengthen the evidence base of cardiovascular disease and its risk factors, in particular hypertension and diabetes, as well as the economic impact and investment case for NCDs.

Healthcare-associated Infection (HAI) Surveillance
Countries: Worldwide | Funder: CDC
To support the Centers for Disease Control and Prevention’s International Infection Control Program work to develop healthcare-associated infection (HAI) surveillance systems in low and middle income countries. This work involves supporting a series of surveillance stakeholder workshops that aim to outline priority HAI’s for surveillance and develop novel surveillance definitions appropriate for low and middle income countries.

The total estimated number of graduates of TEPHINET member programs is 10,000+. Across programs responding to the survey, the total number of graduates is an estimated 6,484+.

*This figure does not include graduates of the Epidemic Intelligence Service, which number at 3,500+ or graduates of 16 other TEPHINET member programs.
International Diabetes Epidemiology Group (IDEG) Training Symposium

To support the execution of the International Diabetes Epidemiology Group Training Symposium held in 2017 in Abu Dhabi, UAE, by 1) Serving as a communications liaison between the IDEG and course participants, 2) Providing travel grants for 25-30 participants, 3) Ensuring financial coverage of meeting/venue logistics, and 4) Establishing a listserv for continued networking of participants and faculty after completion of the course.

IPC/AMR Regional Meetings

To support the Centers for Disease Control and Prevention’s International Infection Control Program (IICP) as it strives to reduce the global burden of healthcare-associated infection and antimicrobial resistance associated with healthcare delivery in low and middle income countries by serving as a global resource for infection prevention and control. The main project objective is to strengthen and promote sound infection prevention and control (IPC) and antimicrobial resistance (AMR) practices.

Noncommunicable Diseases (NCD) - FETP

To provide technical assistance and support to train Ministry of Health staff within their national or regional FETP in non-communicable disease epidemiology. This will be achieved through mentored mini-grants to support NCD field work, NCD workshops with support for travel and registration, and NCD regional technical advisors.

National Center for Immunization and Respiratory Diseases (NCIRD)

To develop capacity at the country level to support detection, diagnosis, and surveillance by providing training, technical assistance, and travel associated with the capacity building effort, reviewing and revising vaccination plans, supporting additional training and conduct evaluations that will help refine delivery and accountability of vaccines, and improving laboratory diagnostics through the purchase of necessary equipment for running assays.

Network Development Initiatives

To support TEPHNET’s fundamental work of building and strengthening an agile and dynamic global network of FETP trainees and graduates who can confront and manage modern challenges to global health security. The main objective is to organize and execute scientific conferences during which FETP trainees and graduates can share the results of their work.

Measuring the Timeliness of Outbreak Detection and Reporting Mini-grants

To award small grants (mini-grants) to trainees to evaluate their countries’ (or, in the case of Central America, their region’s) surveillance systems and estimate the timeliness from outbreak start to reporting and response.

AFRICA REGION

Advancing Birth Defects Counts

To establish a facility-based birth defects surveillance program in three districts in Tanzania in order to assist Tanzanian efforts in preventing neural tube defects. The surveillance system will support programs and policies that prevent birth defects, improve pregnancy outcomes and increase quality of life, reducing related disability and deaths among children in Tanzania.

Support to the Cameroon Field Epidemiology Training Program (FETP)

To provide operational support to Cameroon’s three-month Frontline FETP as well as its two-year advanced FETP. Training consists of training of trainers, training of surveillance staff, and mentoring.

Support to the Cameroon Field Epidemiology Training Program (FETLP)

To support the execution of the International Diabetes Epidemiology Group Training Symposium held in 2017 in Abu Dhabi, UAE, by 1) Serving as a communications liaison between the IDEG and course participants, 2) Providing travel grants for 25-30 participants, 3) Ensuring financial coverage of meeting/venue logistics, and 4) Establishing a listserv for continued networking of participants and faculty after completion of the course.

Kenya Improving Public Health Management for Action (IMPACT)

To support the implementation of the Kenya IMPACT program including the recruitment and training of fellows, the selection of fellows, mentors and field sites, classroom training and the assignment of fellows to field sites for practical learning.

Maternal and Child Health (MCH) Epidemiology Support to FETP

To provide mini-grants or FETP coordinated trainings on the topic of birth defects surveillance, risk factor identification or birth defects prevention interventions. Three mini-grants were awarded in Tanzania, South Africa, Ghana, Uganda, Mali, Nigeria.

Kenya Advancing Birth Defects Counts

To assess the burden of three selected defects, namely neural tube defects, clift lip and clift palate and Talipes Equinovarus in Nairobi County from 2016 to 2018.

Support to the Kenya Field Epidemiology and Laboratory Training Program (FETLP)

To award small grants (mini-grants) to FETP trainees to conduct projects focused on maternal and child health surveillance and public health intervention evaluation. To award small grants (mini-grants) to FETP trainees to conduct projects focused on maternal and child health surveillance and public health intervention evaluation. Six mini-grants were awarded in Tanzania, South Africa, Ghana, Uganda, Mali, and Nigeria.

Advancing Birth Defect Counts through Mini-grants/Training

To provide, through an IDSR e-learning course, an online training experience where users can practice using the skills and knowledge in the IDSR Technical Guidelines in the African Region.

Kenya Advancing Birth Defects Counts

To provide, through an IDSR e-learning course, an online training experience where users can practice using the skills and knowledge in the IDSR Technical Guidelines in the African Region.

National Public Health Institutes (NPHI) Development

To support the development of national public health institutes (NPHIs) in up to six countries. The NPHIs will serve as the institutional home for disease surveillance, detection and response and public health workforce development.

Surveying indigenous community members in a maternal mortality study, Peru (photo credit: Armona C. Mocco Rodriguez)
Capacity Building to Strengthen Evidence-based Vector Control Strategies

Country: Dominican Republic  |  Funder: USAID/CDC

To strengthen the Dominican Republic’s surveillance for the Aedes aegypti mosquito as well as build the capacity of the national vector control program using an integrated vector management framework.

C bystander LDaerism Development on Zika-related Epidemiological Topics Including Vector Control and Birth Defects to Enhance Skills in Zika Detection, Prevention and Response

Countries: Throughout Latin America and the Caribbean  |  Funder: USAID/CDC

To increase trainees’ ability to understand the relationship between the epidemiology of Zika and its control measures through short modules that supplement current training and experiences of FETP residents and graduates in Latin America and the Caribbean. Entomology exercises were developed as well as a case study on Zika associated with microcephaly. These are available in Spanish, English, French and Portuguese.

Enhanced Capacities of FELTP in the Dominican Republic for Zika

Country: Dominican Republic  |  Funder: USAID/CDC

To train laboratory personnel in field epidemiology skills through the development of FELTP in the country in order to improve the capacities to prepare and respond to Zika, dengue, chikungunya and other vector-borne emerging infections.

Establish Frontline Epidemiology Training Programs (FETPs) across the Latin America and Caribbean Region

Countries: Brazil, Caribbean sub-region, Colombia, Paraguay, Peru, Uruguay  |  Funder: USAID/CDC

To support the implementation of applied epidemiological research projects by faculty and trainees aimed at developing more effective public health interventions. Trainees will receive direct, expert guidance during Zika-related and other field activities, including outbreak investigations, surveillance system operations, and applied epidemiologic projects. TEPHINET has been able to identify, hire and place the Resident Advisors in countries as stated in the project SOW.

Regional Lab Strategy for Zika in Central America and Caribbean

Countries: Central American sub-regions  |  Funder: USAID/CDC

To promote and ensure long-term sustainability and country ownership of ongoing laboratory preparedness and response activities jointly implemented by multiple technical assistance teams and national partners and to develop a regional laboratory preparedness and response strategy to strengthen integrated laboratory and epidemiology response against Zika virus and other outbreak prune diseases.

Global Disease Detection (GDD) - Flu

Countries: Central American sub-region  |  Funder: CDC

To increase and enhance capacity for flu detection and other related epidemics in the Central America region through project design, analysis, and reporting, program management, and regional surveillance while working at the local level.

Zika Vector Surveillance

Countries: Brazil, Caribbean sub-region, Colombia, Paraguay, Peru, Uruguay  |  Funder: USAID/CDC

To support the implementation of applied epidemiological research projects by faculty and trainees aimed at developing more effective public health interventions. Trainees will receive direct, expert guidance during Zika-related and other field activities, including outbreak investigations, surveillance system operations, and applied epidemiologic projects. TEPHINET has been able to identify, hire and place the Resident Advisors in countries as stated in the project SOW.

Regional Lab Strategy for Zika in Central America and Caribbean

Countries: Central American sub-regions  |  Funder: USAID/CDC

To promote and ensure long-term sustainability and country ownership of ongoing laboratory preparedness and response activities jointly implemented by multiple technical assistance teams and national partners and to develop a regional laboratory preparedness and response strategy to strengthen integrated laboratory and epidemiology response against Zika virus and other outbreak prune diseases.

To have public health laboratory systems able to confirm Zika virus infection, differentiate between other vector borne infections, and conduct epidemiological surveillance of Zika virus with a focus on newborns with neurological birth defects and/or patients with other nervous system disorders.

USAID Innovation

Country: Dominican Republic  |  Funder: USAID/CDC

To provide useful evaluation data for a Zika intervention in the Dominican Republic with the goal of improving health outcomes in the epidemic. This project will implement a new type of survey, administered through mobile devices, that enables mixed-methods research to take place in parallel by coupling closed-ended items with an option to add pictures, video, and voice recordings to an answer by a respondent.

Zika Vector Surveillance

Countries: Columbia, Peru  |  Funder: USAID/CDC

To strengthen geographical systems for surveillance of Aedes aegypti, to produce innovations in Aedes aegypti surveillance in Colombia, and to improve Aedes aegypti insecticide resistance surveillance in Peru.

Building Capacity of Coordination and Communication in Global Disease Detection

Countries: Central American sub-region  |  Funder: CDC

To increase and enhance capacity for global disease detection programs in Central America through trainings in the region to detect epidemics at the local level, and to build capacity for coordination and communication in Global Disease Detection through trainings and improved coordination with regional ministries of health.

Central America Region: FETP Cohort TEPHINET Conference Support

Countries: Central American sub-region  |  Funder: CDC

To support the FETP Central American regional cohorts to attend TEPHINET regional meetings to present papers and abstracts.
AMERICAS AND WESTERN PACIFIC REGIONS

**NCD Capacity Insular Areas**

- **Countries:** Caribbean USVI and Pacific Ocean Islands (Guam and Palau)  
  - **Funder:** CDC

This project aims to improve and support chronic disease surveillance and epidemiologic capacity in the US territories and affiliated jurisdictions in the Caribbean and Pacific oceans. This includes working with partners to build the capacity of US territories and affiliated jurisdictions to implement cross-cutting, unified approaches to promote health, prevent and control tobacco use, diabetes, and heart disease, while allowing flexibility for jurisdictions to perform at a level appropriate with their current ability and resources to build capacity and advance their health goals.

**Stop Polio**

- **Countries:** Throughout Latin America and Caribbean  
  - **Funder:** CDC

To provide project support as part of an existing agreement for support of the CDC STOP program. The services provided supported one of the key STOP objectives in developing capacity to better maintain elimination of measles in the Americas.

**Guillain-Barre Syndrome Studies in Peru**

- **Country:** Peru  
  - **Funder:** USAID/CDC

To conduct field research on patients with neurological symptoms associated with Zika virus in the northern region of Iquitos, Peru. Through a sub-contract with Cayetano Heredia University, TEPHINET provided logistical and contractual support for recruiting project staff and field researchers (neurologists, physicians) and setting up the office.

EASTERN MEDITERRANEAN REGION

**Morocco Field Epidemiology Training Program (FETP) – Promoting Secure, Safe, and Sustainable Capacity to Detect and Control Dangerous Outbreaks**

- **Country:** Morocco  
  - **Funder:** US Department of State

To advance this core objective while bolstering rigorous epidemiological capacity, including the ability to rapidly detect, report, investigate, and control outbreaks of especially dangerous pathogens, in Morocco and the region.

**Egypt Field Epidemiology Training Program (FETP) – Promoting Secure, Safe, and Sustainable Capacity to Detect and Control Dangerous Outbreaks**

- **Country:** Egypt  
  - **Funder:** US Department of State

To support the Egypt FETP to detect disease surveillance events, assessing their validity, and responding appropriately at the national level.

**Advance Pakistan Field Epidemiology and Laboratory Training Program (FELTP)**

- **Country:** Pakistan  
  - **Funder:** CDC Foundation

To develop a cadre of strong field epidemiologists who would support and integrate the fragmented surveillance systems in Pakistan and provide effective and timely responses to public health events.

**Pakistan Viral Hepatitis Prevention and Control**

- **Country:** Pakistan  
  - **Funder:** CDC

To promote and support the completion of at least nine interventional epidemiology studies by training all residents in interventional epidemiology and enhancing training materials on this topic.

**N-STOP (National Stop Transmission of Polio) Activities in Pakistan**

- **Country:** Pakistan  
  - **Funder:** CDC

To build a workforce to support implementation of Pakistan’s National Emergency Action Plan (NEAP) to interrupt transmission of Wild Polio Virus (WPV) and eradicate polio from the country.
Best Practices for Hepatitis C Virus (HCV) Elimination
Country: Georgia  |  Funder: CDC

To develop, implement, and assess interventions/strategies to enhance screening and linkage to care for persons infected with HCV. The interventions/strategies will include but not be limited to those that target providers, hospitals, primary care health centers, and other organizations and institutions that care for persons at risk for HCV infection.

Best Practices in Hepatitis C (HCV) Elimination
Country: Georgia  |  Funder: CDC

To develop, implement, and assess interventions/strategies to enhance screening and linkage to care.

Central Asia Field Epidemiology and Laboratory Training Program (Central Asia FELTP)
Countries: Kazakhstan, Kyrgyzstan, and Turkmenistan  |  Funder: CDC

To provide logistical support for the two-year Central Asia Field Epidemiology Training Program (CAR/FELTP) in Kazakhstan, Kyrgyzstan, and Turkmenistan so that FELTP residents from these countries are able to complete FELTP core competencies and successfully graduate from the program.

Central Asia: Influenza Surveillance and Training
Countries: Central Asia sub-region  |  Funder: CDC

To improve influenza surveillance in the Central Asia region by training staff and supporting an electronic surveillance database for influenza at nine sentinel surveillance sites.

Infection Prevention and Control (IPC) Activities in Georgia
Country: Georgia  |  Funder: CDC

To develop an Infection Control and Prevention (IPC) Program to build IPC and Antimicrobial Resistance (AMR) capacity across Georgia’s healthcare system to prevent and control healthcare-associated infections (HAIs).

Lab Quality Assurance Program for Hepatitis C (HCV) Elimination
Country: Georgia  |  Funder: CDC

To work with the Georgia HCV treatment program and FETP to develop and implement a Lab Q/A to support the Georgia HCV Elimination Program. The project will also establish a National EQA program housed and operating by Lugar Center, Georgia’s National Public Health Reference Laboratory.

Monitoring and Evaluation of Hepatitis C (HCV) Treatment
Country: Georgia  |  Funder: CDC

To provide monitoring and evaluation for the treatment expansion for HCV by working with the Georgia HCV treatment program, the Georgian Government, and stakeholders in primary care delivery and the harm reduction program to develop indicators and monitoring tools to evaluate the expansion of treatment into these settings.

EUROPE REGION

Bangladesh Improving Public Health Management for Action (IMPACT)
Country: Bangladesh  |  Funder: CDC

To increase the number of trained managers in the public health workforce of Bangladesh, increase Bangladesh’s capacity to support the development and delivery of all aspects of national public health plans, improve community partnerships and networks, and improve processes related to public health systems and program implementation.

Bangladesh Field Epidemiology Training Program (FETP)
Country: Bangladesh  |  Funder: CDC

To support the continuation and expansion of the Field Epidemiology Training Program in conjunction with the Institute of Epidemiology Disease Control and Research of Bangladesh.

Burma Field Epidemiology Training Program (FETP)
Country: Myanmar  |  Funder: CDC

To support activities for the FETP in Burma, a collaboration of CDC, USAID and the Thailand IFETP. This program uses the FETP in Thailand to train professional epidemiologists from Myanmar.
2017 Conferences

FACILITATING THE EXCHANGE OF PUBLIC HEALTH KNOWLEDGE TO DEVELOP A BETTER-PREPARED WORKFORCE

TEPHINET conferences provide opportunities for trainees and graduates of our member programs to present their work before an international audience of epidemiologists and public health experts. The networking and information-sharing opportunities offered through TEPHINET conferences are invaluable in efforts to build the capacity of public health systems in all countries, particularly low-to-middle income countries.

9th TEPHINET Global Scientific Conference: Building on 20 Years of Applied Epidemiological Training to Advance Disease Surveillance, Response, and Sustainable Development

August 7-11, 2017 – Chiang Mai, Thailand

TEPHINET organized this conference in collaboration with the Ministry of Public Health of Thailand and the Thai Field Epidemiology Training Program. The event was concurrent with the Thai National Epidemiology Seminar (NES). Drawing approximately 1,000 attendees, this conference was the largest in TEPHINET history. We received a record-breaking number (1,159) of scientific abstracts, and 400 oral and poster presentations were given by FETP trainees and graduates. A photo contest was also held to recognize excellent epidemiological fieldwork photography. Congratulations to the conference awardees:

- **Best Applied Intervention:** Qi Chen from the China FETP for, “An outbreak of Gastroenteritis by Norovirus GII.4 through person-person transmission in a primary school - Chongqing, China, 2016”

- **Best Oral Presentation, 1st Place:** Karen Lonogan from the Philippines FETP for, “Chikungunya Outbreak in a Village, San Fernando, Mindanao, Philippines, September 2016”

- **Best Oral Presentation, 2nd Place:** Djekeusi Katchi Tatiana from the Cameroon FETP for, “Clinico-epidemiological profile and outcome of snake bites victims: A pilot project to monitor and accelerate the reduction of snake bite mortality-Touboro Health District Cameroon- 2016”

- **Best Oral Presentation, 3rd Place:** Siobhan St. George from the Australia FETP for, “Salmonella Sequelae: Post-Infectious Irritable Bowel Syndrome and Reactive Arthritis Following an Outbreak – Victoria, Australia, 2015-2017”

- **Best Oral Presentation by an FETP Graduate:** Yosanly Cornelio from the Dominican Republic FETP for, “Zika virus epidemic, Dominican Republic, 2016”

- **Best Poster Presentation, 1st Place:** Jackie Kleynhans from the South Africa FETP for, “An outbreak of influenza A (H3N2) among students at a boarding school in Eastern Cape Province, South Africa, July 2016”

- **Best Poster Presentation, 2nd Place:** Natthaprang Nittayasoot from the Thailand FETP for, “Influenza outbreak in a psychiatric ward: Difficulties in disease control”

- **Best Poster Presentation, 3rd Place:** Alastair Donachie Malta from EPIET for, “National outbreak of Salmonella Give in Malta linked to a local food manufacturer, October 2016”

- **Best Poster Presentation by an FETP Graduate:** Chioma Dan-Nwafor from the Nigeria FELTP for, “Serological markers and risk factors associated with Hepatitis B virus infection among inmates in Kuje Prison, Federal Capital Territory, Nigeria, 2016”

- **Photo Contest:** Amaka Pamela Onyiah, Nigeria FELTP (1st place), Dany Bakely Ranoaritiana, Madagascar FETP (2nd place), Tawatchai Apidechkul, Thailand FETP (3rd place), Wossam Elnahry, Egypt FETP (Facebook winner)

A day of 13 workshops preceded the conference, which officially began the next day with a tribute to the late King Bhumbol of Thailand, who made great contributions to public health and sustainable development.

**Workshops**
- Zika: Cleaning and Analyzing Surveillance Data
- Field Epidemiology Capacity Building for Strengthening Public Health Institutes
- Introduction to Birth Defects Surveillance
- Public Health Entomology for Field Epidemiologists
- Science and Art for Epidemiologists to Influence Policy Makers
- Scientific Written Communication
- Tiers of the FETP Pyramid: Implementation and Curriculum Framework for International Health Regulations (IHR) with an emphasis on workforce
- FETP institutionalization and sustainability
- Public health and global health security
- Updates on the activities of each regional FETP network
  - African Field Epidemiology Network (AFENET)
  - ASEAN+3 Field Epidemiology Training Network (ASEAN+3 FETN)
- Eastern Mediterranean Public Health Network (EMPHNET)
- Red Centroamericana de Epidemiología de Campo (REDCEC)
- Red Suramericana de Epidemiologia de Campo (REDSUR)
- South Asia Field Epidemiology and Technology Network (SAFETYNET)

**Plenary and special session topics**
- NCD risk factors, prevention and control
- Ethics in public health surveillance and during epidemics
- 70 years of global influenza control
- Accelerating innovation in surveillance
- Public health entomology
- Chronological review of flu outbreak in Thailand
- Zika response as an example of field epidemiology intervention
- Achieving the Sustainable Development Goals: Ensuring health and well being at all ages
- One Health
- Urban health
- Emergency response and field epidemiology
- Joint External Evaluation (JEE) and WHO revised monitoring framework for International Health Regulations (IHR) with an emphasis on workforce
- FETP institutionalization and sustainability
- Public health and global health security
- Updates on the activities of each regional FETP network
  - African Field Epidemiology Network (AFENET)
  - ASEAN+3 Field Epidemiology Training Network (ASEAN+3 FETN)
- Eastern Mediterranean Public Health Network (EMPHNET)
- Red Centroamericana de Epidemiología de Campo (REDCEC)
- Red Suramericana de Epidemiologia de Campo (REDSUR)
- South Asia Field Epidemiology and Technology Network (SAFETYNET)
Launch of TEPHIConnect

TEPHINET took the opportunity of this conference and the momentum of our 20th anniversary as the ideal time to launch TEPHIConnect, an online and mobile networking and information-sharing platform exclusively for FETP alumni. TEPHINET developed TEPHIConnect with support from the CDC and in collaboration with the Public Health Informatics Institute (PHII) and a global steering committee of FETP and FETP regional network representatives. During the conference, a panel of regional FETP representatives discussed the importance of having TEPHIConnect in place as a means of linking skilled FETP graduates worldwide to support continuous learning, knowledge exchange, and facilitation of workforce mobilization in response to health emergencies. The launch event was a success with approximately 200 FETP graduates joining the online network at our TEPHIConnect signup tables. FETP graduates can join today by registering at www.tephiconnect.org.

20th Anniversary of TEPHINET

TEPHINET celebrated two decades of activity during the conference with a special plenary session featuring the founding partners of the network as well as recognitions for the founding member programs of TEPHINET.
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- Centers for Disease Control and Prevention (CDC)
- U.S. Department of State
- CRDF Global
- Hivos International
- Skoll Global Threats Fund
- Plan International
- CDC Foundation

If you are interested in supporting TEPHINET, please contact secretariat@tephinet.org.

“"The epidemiologist will always be a curious child in search of hidden truth.""