TEPHINET’s Learning Program: Setting the Global Standard for Continuous Learning in Applied Epidemiology

Background: FETP and Its Importance to Global Health Security

A field epidemiology training program (FETP) is a program that builds capacity in health service agencies by providing training in field epidemiology and other public health competencies within the context of health delivery systems. These programs train health workers in field epidemiology so that they can be the “boots on the ground” in the fight against diseases. Field epidemiologists examine diseases at their source and are often referred to as “disease detectives,” collecting, analyzing and interpreting data to help government ministries of health and other agencies respond more effectively during outbreaks. Nearly 80 percent of FETP graduates continue to serve in public health programs in their home countries. More than 80 programs currently operate around the world.

TEPHINET: The Only Global Network of FETPs

Formed in 1997 as FETPs worldwide sought a way to share information and experiences, Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) is a global network of FETPs, trainees, and graduates. Currently, TEPHINET comprises 72 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 comprise approximately 4,770 current trainees and 14,000 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 programs. With a secretariat based in Atlanta, Georgia, USA and an advisory board of global representatives, TEPHINET is the only global network of FETPs and works closely with regional FETP networks and sub-regional and national programs.

What is TEPHINET’s Learning Program?

While TEPHINET has been successful in overseeing the implementation and management of specific learning projects, it is TEPHINET’s goal to define and lead a more comprehensive initiative. TEPHINET proposes a formalized learning program to support its fundamental work of building and strengthening an agile and dynamic global network of FETP members that can confront and manage modern challenges related to global health security. Specifically, this program addresses TEPHINET’s strategic goal of supporting continuous learning within the global FETP community in collaboration with the regional FETP networks and programs. In order to meet this goal, TEPHINET’s current focus is to define a learning strategy, with guidance from an advisory body, to guide the network learning goals into the future. TEPHINET’s vision for the learning strategy is to:

1. Create a robust and sustainable learning platform able to host educational resources and training materials relevant to the global FETP community
2. Strengthen TEPHINET’s learning support, coordination, and interaction role to amplify the effectiveness of field epidemiologists within the network
3. Generate both internal and external (e.g., academic and research institutions) opportunities for collaboration and knowledge exchange

Learning is a cross-cutting theme, and, according to target audiences, works across programs and projects, including Accreditation and TEPHIConnect, the other flagship programs of TEPHINET.
Why is It Important?

The FETP community is looking for quality, relevant learning resources that are housed within an easily accessible system. Also, while continuous learning and training is important in any field, it is especially important in applied epidemiology, where capacity building and local contexts are key. Two of the main focus areas include:

- **Learning for rapid outbreak response:** In light of recent public health emergencies such as Ebola, Zika, 2019-nCoV and influenza, it is critical to provide public health experts and epidemiologists with the most up-to-date resources. The nature and spread of a disease can change rapidly, and response strategies may change based on circumstance. Learning programs use technology to ensure that appropriate training is available to a wide audience of epidemiologists and other public health officials. In response to the 2016 Zika outbreak, TEPHINET focused on strengthening FETPs through the development of Zika-specific learning-based interventions including curriculum development on entomology and birth defects as well as basic-level field epidemiology training programs (FETP-Frontline with a Zika component) in 13 countries to bolster the local health surveillance workforce.

- **Continuous learning for quality improvement and knowledge exchange:** Even when an outbreak is not occurring, continuous learning on state-of-the-art public health strategies, disease interventions, and related tools is important. For example, TEPHINET regional non-communicable disease (NCD) experts trained residents not only on the current state of NCDs but also on scientific writing and advanced data analysis tools, in order to improve abstracts, manuscripts, and technical reports and presentations to ministries of health.

Progress to Date

**Strategy development:**
- An environmental scan, needs assessment, and focus group meeting with key stakeholders have been conducted.
- Initial findings were presented to the network Program Directors and resulted in consensus on network-wide common learning themes to address, including: a standard FETP curriculum; integration of new, innovative teaching methods, and global access to relevant materials that meet quality standards and can be tailored to local contexts and needs.
- Established the FETP Learning Advisory Council to define and develop the learning strategy and provide ongoing guidance.
- Identified priority areas and target audiences of the learning strategy and developed related working group concept notes.

**Current innovations:**
- Development of an advanced e-learning zoonotics case study with the end goal of creating a new template for future e-learning content
- Development and feasibility piloting of virtual reality-based learning initiatives centered on laboratory training and workforce development

The Next Step: TEPHINET’s Learning Strategy Development and Implementation

During the remainder of this current strategic period (through 2020), TEPHINET will continue to advance the learning program in the following areas:
- Development and validation of the learning strategy with key stakeholders
- Strategy action planning and implementation, addressing three identified priority areas (competencies, quality, and collaboration and knowledge exchange), through activities such as:
  - Curation of existing and new learning content across current network platforms
  - Provision of materials through a new online learning platform (technology analysis, selection, and implementation)
  - Curriculum standardization and customization
  - Integration of new, innovative teaching methods

To learn more or get involved with the learning program, please contact:
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