

Linking Epidemiology and Laboratory Systems

Introduction

The U.S. Centers for Disease Control and Prevention (CDC) aims to strengthen the linkage between epidemiology and laboratory systems, primarily with the goal of using laboratory data to improve disease surveillance and outbreak response.

In 2004, to accomplish this objective, CDC (through its Division of Public Health Systems and Workforce Development) created the Field Epidemiology and Laboratory Training Program (FELTP). This program is modeled after the Field Epidemiology Training Program (FETP), a two-year full-time training and service program created by CDC in 1980.

Through these programs, CDC works with Ministries of Health around the world to help them detect, diagnose, and control epidemic outbreaks.

FELTP definition

An FELTP contains all the components of a traditional FETP, but it also includes a track designed to train select laboratory scientists using a competency-based curriculum that supports laboratory-based surveillance for priority diseases and enhanced laboratory capacity to assist in outbreak response.

In addition, this initiative is meant to foster collaboration between epidemiologists and laboratorians and the building of laboratory networks.



FELTPs promote the collaboration of public health laboratorians and epidemiologists in order to achieve common goals in surveillance and outbreak response to improve public health on a global scale.

FELTP goal

The goal of an FELTP is to establish functioning laboratory-based disease surveillance systems for priority diseases with an enhanced laboratory capacity to assist in outbreak response. The addition of a laboratory training component begins to address the long-standing disconnect between epidemiology and laboratory practice. The program aims to foster collaboration and linkage between epidemiologists and laboratorians. It is also meant to strengthen the building of laboratory networks.

Training components

Through the FELTP, laboratory scientists receive additional laboratory skills intended to efficiently manage public health laboratories in addition to effectively diagnosing and controlling outbreaks of public health importance. This is accomplished through content and application of public health laboratory management, advanced laboratory methods, principles of quality assurance, and laboratory policy and systems.

Partnerships

Based on country needs, other laboratory technical or management development programs may be incorporated into the FELTP through partnerships with other CDC centers, the World Health Organization, or other outside agencies.

Primary target audience

The target audience for FELTPs are national or sub-national laboratory managers working in the public or private sector.

FELTPs around the world

CDC has implemented FELTPs in Ethiopia, Georgia, Ghana, Kenya, Nigeria, Pakistan, South Africa, and Tanzania. To find out more, visit the following websites:

- www.afenet-lab.net/
- www.kenya-feltp.net/
- www.nigeria-feltp.net/
- www.nicd.ac.za/units/feltp/source/feltp_home.htm
- www.tanzania-feltp.net/

FELTP Competencies

Upon completion of the program, laboratory scientists should be able to

- Analyze on a routine basis laboratory data to improve data quality, identify possible aberrations, and trends,
- Design or evaluate a lab-based surveillance system,
- Collaborate with epidemiologists in an outbreak investigation or field-based study,
- Interpret and communicate laboratory results of public health importance to decision makers,
- Use management skills to create or support public health laboratory networks in-country or with international reference laboratories,
- Use quality management systems to provide timely and accurate laboratory services, and
- Integrate the core function and capabilities of the public health laboratory into existing clinical laboratories.

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