

Title: Advanced FETP Case Study: An Epidemiological Study to Examine Stroke Hospitalizations During the COVID-19 Pandemic – Planning and Conducting Analysis. Part A- Study Design

Background: Noncommunicable diseases (NCDs), such as cardiovascular diseases, cancers, chronic respiratory diseases, and diabetes, account for more than 74% of deaths globally. The COVID-19 pandemic has shown increased vulnerability of people living with NCDs to a higher risk of becoming seriously ill or dying from COVID-19. The field epidemiology training program (FETP): NCD COVID-19 Toolkit was developed in response to the call from FETPs requesting tools and training to strengthen epidemiology skills needed to address NCDs, especially during a public health emergency. The Toolkit will help FETP trainees develop the skills needed to integrate NCD investigation into COVID-19 response duties while reinforcing best practices for infectious disease control.

Case studies are a critical part of field epidemiology training. They are exercises that encourage participants to apply their problem-solving skills and knowledge of epidemiologic principles and practices in an interactive learning environment. The FETP: NCD COVID-19 Toolkit case studies are designed to provide real-life scenarios that illustrate the process of examining NCD comorbidities during the COVID-19 response. The exercises require participants to apply and extend their field investigation skills to the NCD context and build new competencies to address NCDs.

This workshop will entail conducting a case study that examines an increase in stroke hospitalizations following COVID-19-related health service disruptions. Participants will plan the analysis for a research study that investigates possible associations between SARS-CoV-2 infection and stroke. The case study asks participants to think critically about issues, such as the selection of subjects, study data, and data quality. Participants create a data analysis plan, identify variables for analysis, and assess study limitations.

Workshop goal:

This workshop will help participants develop the skills needed to integrate NCD investigation into COVID-19 response duties while reinforcing best practices for infectious disease control

Workshop objectives:

The case study learning objectives are defined as:

- Examine reported findings of stroke in patients with SARS-CoV-2 infection. Compare the associations between two major stroke types and COVID-19.
- Develop a research hypothesis guided by the PICOT (population, intervention, comparator, outcome, and time frame) format for a study that uses medical records of patients admitted to the hospital.
- Construct a data analysis plan modeled on CDC FETP guidance documents.

- Assess study limitations, alternative designs, and supporting data.

Duration of workshop: Half day

Target Participants : FETP residents or alumni, Epidemic Intelligence Service (EIS) Officers, and others who have an interest in expanding their skill set to include NCDs.

Facilitators & Co-Facilitators:

Dr. Tolcha Kebebew, Public Health Specialist US CDC Ethiopia Office

Ellen Yard, Epidemiologist U.S. Centers for Disease Control and Prevention

Number of participants : 50