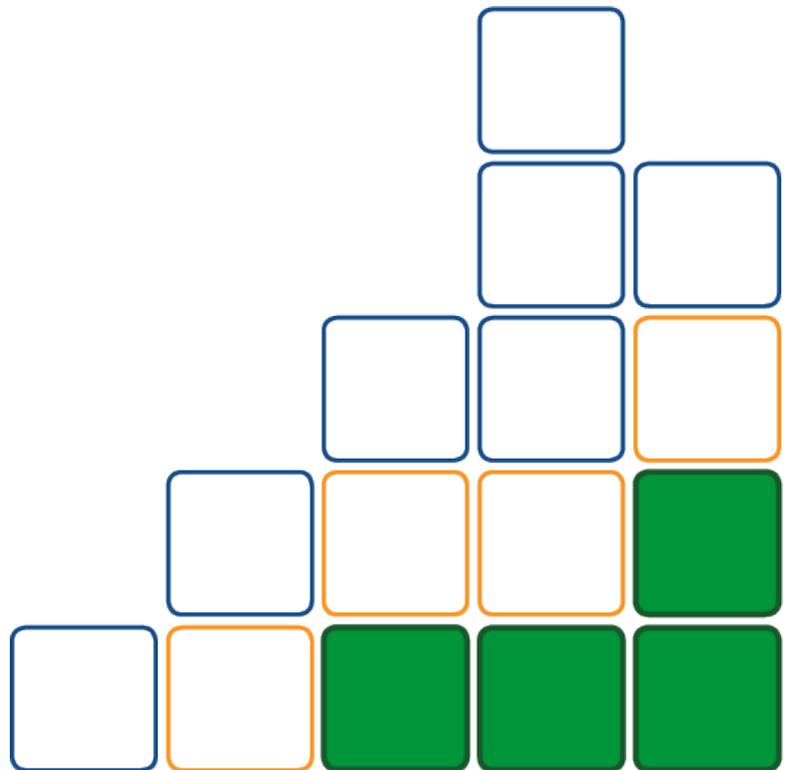




FETP-Frontline Curriculum Guide

FETP-Frontline



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Acronyms

| | |
|------|---|
| CDC | U.S. Centers for Disease Control and Prevention |
| FETP | Field Epidemiology Training Program |
| IDSR | Integrated Disease Surveillance and Response |
| IHR | International Health Regulations |
| MOH | Ministry of Health |
| RA | Resident Advisor |
| SWOT | Strengths, weaknesses, opportunities, threats |

About this Guide

Purpose

This guide has two purposes. The first is to provide information about the FETP-Frontline curriculum, including overall and specific learning objectives, field activities and deliverables, and schedule. The second is provide general guidance on planning and implementing the classroom workshops. More specific information on curriculum content and more specific guidance on implementation is provided in the workshop-specific planning guides:

Workshop 1 Planning Guide (*FETPF2.0_d01_WS1_Planning Guide_2020-02.docx*)

Workshop 2 Planning Guide (*FETPF2.0_j01_WS2_Planning Guide_2020-02.docx*)

Workshop 3 Planning Guide (*FETPF2.0_p01_WS3_Planning Guide_2020-02.docx*)

Audience for this Guide

This guide is intended to be used by persons who have responsibility for planning, adapting, and implementing the FETP-Frontline curriculum, assuming the decision has already been made to start the program. The guide may also be useful for those who must decide whether to initiate the program, those who will implement it, and those who will oversee it. Such persons include but are not limited to officials from the Ministry of Health (MOH) and other governmental agencies, country offices of the U.S. Centers for Disease Control and Prevention (CDC), potential partner and funding organizations; program directors, resident advisors (RAs), FETP technical and administrative support staff, mentors, field supervisors, and other interested parties.

Model Curriculum and Adaptation

This guide describes a suggested or model curriculum for FETP-Frontline. Individual programs are allowed to modify or adapt the curriculum to meet the needs of their countries. Program are encouraged to insert local examples and exercises, if available, to make the instructional and technical content more relevant, and to focus the material to better address local health priorities.

Note to Users: If you find errors, have suggestions for improvement, are willing to share modifications / improvements / additions you have made, or have other feedback about these materials, please e-mail the FETP curriculum team at **FETPtraining@cdc.gov**.

The Field Epidemiology Training Program Model

A Field Epidemiology Training Program (FETP) is a competency-based, mentored workforce development program to improve the field epidemiology knowledge, skills, and competencies of Ministry of Health (MOH) workers enrolled in the program. The program blends training of the participants with service to the country. The FETP model is based on the premise that improving the epidemiologic skills of MOH staff improves the capacity of the MOH to prevent, detect, and respond to public health priority issues, and in turn can contribute to improving the public’s health.

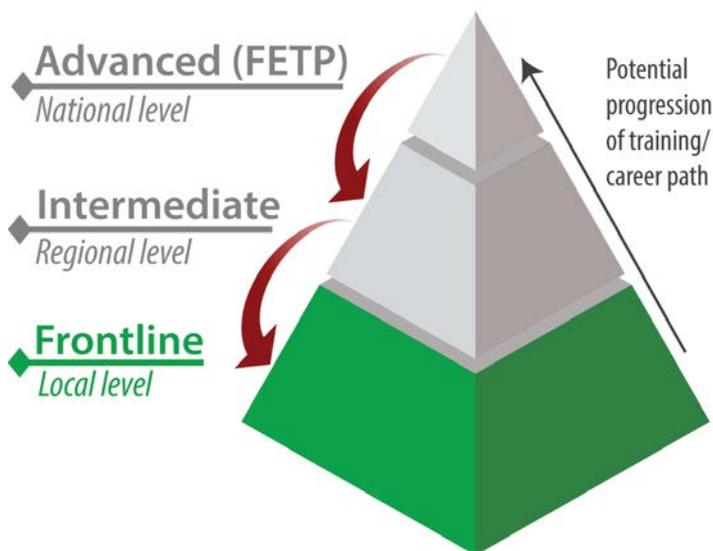
The current FETP approach includes three tiers to address the epidemiologic training needs at different levels of a country’s health system. These tiers are FETP-Frontline, FETP-Intermediate, and FETP-Advanced. Each program uses the same training approach consistent with principles of adult education — no more than 25% program time in classroom workshops, interspersed with 75% of time learning “on the job” by conducting mentored, MOH-relevant field activities.

Each tier addresses the same four key competency domains but with different expectations. The table below provides a high-level comparison of competencies by FETP tier and competency domain.

Table 1. High-level comparison of competencies by FETP tier and competency domain

| Competency Domain | FETP-Frontline | FETP-Intermediate | FETP-Advanced |
|-----------------------------------|--|---|--|
| Public Health Surveillance | Summarize surveillance data and monitor reporting from local sources | Summarize data from and evaluate surveillance systems | Summarize data from and implement improvements to surveillance systems |
| Field Investigation | Participate in epidemiologic field investigation | Conduct outbreak investigation using descriptive epidemiology | Conduct (lead) outbreak investigation using analytic epidemiology |
| Epidemiologic Methods | Summarize and interpret surveillance data | Design, conduct, analyze, and interpret data from descriptive epidemiologic studies | Design, conduct, analyze, and interpret data from analytic epidemiologic studies |
| Scientific Communication | Prepare timely surveillance reports for internal use | Produce epidemiologic reports for external distribution | Develop and deliver written and oral epidemiologic reports to an external audience |

Overview of FETP-Frontline



FETP-Frontline is a 3-month in-service training program to strengthen epidemiologic capacity at the district level of the health system by improving the staff’s ability to detect, investigate, and response to diseases and events of public health importance or international concern.

FETP-Frontline participants come together for two classroom workshops of 5 days each where they learn the skills needed for effective surveillance and response, including use of case definitions, disease detection and reporting, summarization of data using basic tables and graphs, case investigation, outbreak investigation and response, surveillance monitoring and evaluation, problem analysis, and data analysis and interpretation for decision-making. Between workshops, participants return to their jobs and complete field activities to practice, implement, and reinforce what they have learned. These activities include creating summary tables and charts of the surveillance data routinely collected at their agency; conducting monitoring and feedback site visits to surveillance reporting sites; performing a health problem analysis; and participating in a case or outbreak investigation. At the third workshop (1–3 days) participants have an opportunity to present their fieldwork, and those who successfully complete the program receive a Certificate of Completion signed by MOH and CDC officials.

Program Goal

The goal of FETP-Frontline is to use training to improve the MOH’s epidemiologic capacity, particularly at the district level.

Program Objectives

Through successful implementation of FETP-Frontline, the MOH will achieve the following program objectives:

- Increase appreciation among public health workers for the role of data for monitoring the health of the community and for providing information for decision-making,
- Improve basic surveillance data collection and analysis, interpretation, and communication,
- Improve the quality and use of surveillance data for disease and outbreak detection,
- Improve the sharing and dissemination of health information, and
- Improve the capacity to investigate and respond to public health events of importance.

Key Elements of FETP-Frontline

- The program is hosted by the MOH, initially with support from CDC HQ or partner staff as needed. The intention is for the program to be institutionalized and sustained by the Ministry as it becomes feasible to do so.
- Two 1-week classroom workshops provide participants with the knowledge and tools necessary to conduct assigned job-relevant field activities.
- On-the-job field activities allow participants to apply public health surveillance skills, including creating a report with summary tables and charts of surveillance data; conducting monitoring and feedback visits at reporting sites, and investigating local cases and/or outbreaks of priority health conditions.
- Field activities are conducted with the support of a mentor, who is in regular contact with participants to provide feedback and guidance as needed for the successful completion of those activities.
- At the third (concluding) workshop, participants give oral presentations of one or more of their activities, sharing their findings with colleagues, FETP staff, and MOH officials.

FETP-Frontline Curriculum

Participant Competencies

Participant Competencies / Learning Objectives, in Brief

The standard curriculum for FETP-Frontline focuses on four competency domains — public health surveillance, field investigation, epidemiologic methods, and communication. Within these domains, the competencies participants are expected to achieve are:

Domain: Public Health Surveillance

1. Communicate the purpose and characteristics of a functional public health surveillance system
2. Identify cases and clusters of disease of public health interest in the community
3. Monitor and assess the quality of local public health surveillance data
4. Summarize and interpret surveillance data regularly
5. Produce surveillance summary reports that describe patterns of disease occurrence and provide information that is useful for public health decision-making

Domain: Field Investigation

6. Conduct case investigations and participate in outbreak investigations

Domain: Epidemiologic Methods

7. Summarize and interpret surveillance and other epidemiologic data

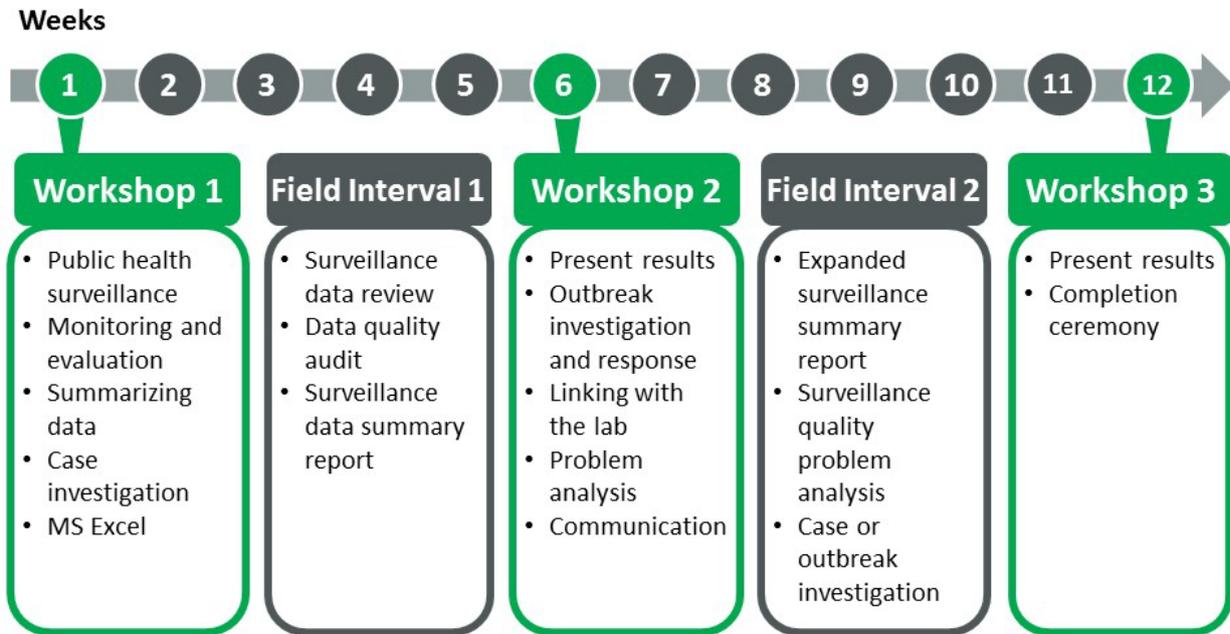
Domain: Communication

8. Communicate effectively with technical and non-technical audiences

The complete list of competencies and sub-competencies for the curriculum can be found in the *Appendix B*.

Program Structure / Timeline

FETP-Frontline is implemented over a 12-week period. The training is modular, with three classroom workshops conducted in intervals. Workshops 1 and 2 run for 1 week each, while Workshop 3 lasts 1–3 days. The field intervals between the workshops last 4–6 weeks. During the field intervals, participants complete field activities while also performing their usual job responsibilities.



Workshop 1 lasts one week (5–6 days). The Workshop 1 curriculum includes an introduction to surveillance and the steps of a surveillance system — collecting, assessing quality, summarizing, displaying, interpreting, communicating the surveillance information, and taking action. Workshop 1 also introduces participants to basic features of MS[®] Excel.

Field Interval 1 lasts 4–6 weeks. During this interval, participants are back at their jobs, most with full-time responsibilities. Nonetheless, participants are expected to find time to complete two field activities — a weekly analysis of surveillance data with production of a brief surveillance report, and site visits with data quality audits to selected surveillance reporting sites. Each participant is assigned a mentor who provides guidance and assistance as necessary to help the participant complete these activities.

Workshop 2 also lasts one week. The Workshop 2 schedule provides time for each participant to give a brief oral presentation of his/her Field Interval 1 activities. The focus of Workshop 2 is on outbreak investigation, but the Workshop 2 curriculum also covers problem analysis using a fishbone diagram, linking with the laboratory, an overview of oral presentation skills, and the basic features of MS[®] PowerPoint.

Field Interval 2 lasts 4–6 weeks. During this interval, participants complete three field activities — an expanded surveillance summary report, a surveillance problem analysis / SWOT analysis, and a case investigation or outbreak investigation, if one occurs.

Workshop 3 usually runs 1–3 days. Workshop 3 provides an opportunity for FETP-Frontline participants to give oral presentations of one or more of their field activities. The schedule is flexible enough to allow for welcomes and a keynote address from a MOH official, if desired. Some programs build in time for rehearsals of the presentations and/or instruction on additional topics. Workshop 3 concludes with the issuance of Certificates of Completion to participants who have successfully completed the requirements of the program.

Key Roles

Coordinator. Someone needs to be responsible for ensuring that the necessary planning and arrangements for both the classroom and field components of FETP-Frontline have been made and go smoothly. The coordinator is responsible for the planning and logistics related to:

- Workshop site and equipment, including catering
- Supplies, including handouts
- Faculty, particularly identifying and inviting instructors
- Curricular content
- Assessment of participants and evaluation of the program

The Coordinator does not necessarily perform all of these tasks him/herself, but if the tasks are delegated, the Coordinator is responsible for ensuring that they get done. Often, the Resident Advisor serves as Coordinator until the MOH's Program Coordinator takes over.

Instructors. Course instructors are expected to review their assigned lessons (lectures, exercises, and/or case studies) in advance. If the lesson has slides that need to be replaced with local examples, the instructor is expected to do so. If the lesson has optional (usually more advanced) content, the instructor should consult with the Coordinator in deciding whether to cover that optional material or not (default should be to NOT cover that material). Most lessons have one or more exercises embedded in them. The instructor must review the content and timing of the exercises and be prepared to facilitate them. Some lessons have more discussion questions than can be covered in the allotted time — the instructor should review these questions and select some but not others. Finally, the instructor is expected to show up on time and teach with enthusiasm.

Mentors. Mentorship is an essential feature of Field Epidemiology Training Programs, and is the most obvious feature that distinguishes FETPs from most “short courses.” During the classroom workshops, mentors are expected to meet with their mentees to discuss field projects, even if the mentors have no other teaching responsibilities. Mentors are also expected to be familiar with the concepts and practices taught during the workshops. During the field intervals, mentors are expected to communicate regularly, e.g., at least weekly, with the mentees to ensure that mentees understand the requirements and are on track to complete the field projects. Mentors may have to tutor mentees on classroom material they did not understand. They are expected to visit each mentee (and his/her supervisor) during each field interval. They are expected to review field products and provide constructive feedback. Some mentees may ask for advice on further training and/or career advancement. Finally, mentors are expected to provide regular progress reports about each mentee to the Course Director.

Classroom Workshops

Instructional approach

FETP-Frontline classroom workshops blend lessons (interactive lectures), exercises, case studies, and hands-on computer training. Workshops 1 and 2 are teaching workshops.

- Pretest, posttest, daily review session. Each workshop begins with a pretest and ends with a posttest to assess whether participants learned the content covered during the workshop. Each morning can begin with a short daily review session comprised of questions that address some of the key topics covered during the previous day. These review sessions are not intended for grading (although some programs do), but to identify topics from the previous day that numerous participants answered incorrectly and that need to be reviewed by the faculty before beginning the new day's curriculum.
- Lessons, discussions. The lessons focus on the practice of public health surveillance and field epidemiology and the background knowledge that supports that practice. The lessons are designed to be as interactive as possible, with the instructor engaging the participants in discussion whenever appropriate. Lessons include optional discussion questions to encourage participants to share thoughts and experiences and to learn from one another. Faculty need to balance discussion with the time available, because more discussion questions are included than time allows.
- Exercises and case studies reinforce the content covered in the preceding lessons. These exercises and case studies promote peer-to-peer learning, critical thinking, and problem solving.
- Daily debrief. At the end of each day, FETP faculty and staff should meet for a (usually brief) debriefing session to review how the day went, to discuss any challenges that arose (including participants that may not be keeping up), and to prepare for the following day.

Schedules and time management

The model schedules included in this guide provide suggested times to allot for each session. More time may be needed for the first cohort or two as staff gain experience, and for cohorts that include participants with less experience or educational background.

To keep on time, faculty should:

- Use a clock, watch, or phone app to monitor time
- Announce the end time at the start of each activity and break
- Provide 10-, 5-, and 1-minute warnings during exercises
- Manage discussions tightly, by using discussion questions selectively during the lessons and keeping the discussions brief. Instructors can encourage participants to continue discussions during breaks or at the end of the day.

Content and Learning Objectives

Workshop 1 lasts one week (5–6 days). The Workshop 1 curriculum includes an introduction to public health surveillance and the steps of a surveillance system — collecting, assessing quality, summarizing, displaying, and interpreting data, and communicating health information to support action based on the scientific findings. Workshop 1 also introduces participants to basic features of MS Excel.

After completion of Workshop 1, participants should be able to:

- Collect and summarize surveillance data regularly
- Monitor the timeliness, completeness, and quality of surveillance data

- Summarize data by time, place, and person
- Write a surveillance summary report
- Conduct a case investigation
- Conduct a surveillance data quality audit

For model schedules and lesson plans for Workshop 1, see Appendix C.

Workshop 2 also lasts one week. The Workshop 2 schedule provides time for each participant to give a brief oral presentation of his/her surveillance field project. These presentations can be given as a batch on Day 1 or a few can be given each day. The focus of Workshop 2 is on outbreak investigation, but the Workshop 2 curriculum also covers problem analysis using a fishbone diagram, linking with the laboratory, an overview of oral presentation skills, and the basic features of MS PowerPoint.

After completion of Workshop 2, participants should be able to:

- Participate on an outbreak field investigation and response team
- Collaborate with laboratory staff before, during, and after an outbreak investigation
- Conduct an analysis of causes of a surveillance quality problem
- Prepare and deliver an oral presentation to a technical audience

For model schedules and lesson plans for Workshop 2, see Appendix D.

Workshop 3 can run from 2 days to an entire week. The primary purpose of Workshop 3 is to provide an opportunity for FETP-Frontline participants to give oral presentations of their field activities. The schedule is flexible enough to allow for welcomes and a keynote address from a senior Ministry of Health official, if desired. Many programs invite MOH and other stakeholder representatives to the participant presentations as a way to increase the visibility of the program's accomplishments. Some programs include 1 or 2 days of rehearsals prior to the official presentations. Other programs extend Workshop 3 to provide training on additional topics such as contact tracing or emergency response. Workshop 3 concludes with the issuance of certificates of completion to participants who have successfully completed the requirements of the program.

For model schedules for Workshop 3, see Appendix E.

Field Activities

During the intervals between classroom workshops, participants are back at their jobs, most with full-time responsibilities. Nonetheless, participants are expected to find time to complete their FETP-Frontline field activities. Mentors are available to provide guidance as necessary to help participants complete these activities.

Field Interval 1

1. Surveillance data analysis, brief surveillance summary report
2. Site visits / data quality audits / SWOT analysis

Field Interval 2

3. Expanded surveillance summary report
4. Surveillance problem analysis
5. Case investigation or outbreak investigation

Although FETP-Frontline participants must submit their field activity reports to the FETP staff, programs can require that participants also share the results of their field activities with the relevant stakeholders. For example, participants should present the results of their data quality audits to the staff responsible for surveillance reporting at the visited field sites. Similarly, they should share the results of their surveillance data quality problem analysis / SWOT analysis with those responsible for overseeing the surveillance system at the district.

Field Activities and Deliverables

The following table summarizes the field activities and deliverable products for FETP-Frontline participants.

| Interval | Field Activity | Deliverable | Due Date |
|----------|--|---|--|
| 1 | Weekly analysis of surveillance data | Surveillance summary report | Workshop 2 |
| 1 | Site visits / data quality audits; SWOT analysis | Feedback presentation or report to sites | end of Field Interval 1 or during Field Interval 2 |
| 1 | Site visits / data quality audits; SWOT analysis | Written report, Oral presentation | Workshop 2 |
| 1 | Changes in your office | Charts, maps on wall | NA |
| 1 | Case investigation* | Written report | Workshop 3 |
| 2 | Continued weekly analysis of surveillance data | 12-week surveillance summary report | Workshop 3 |
| 2 | Problem analysis | Presentation or report to surveillance director | end of Field Interval 2 |
| 2 | Problem analysis | Written report, Oral presentation | Workshop 3 |
| 2 | Case investigation* or outbreak investigation | Written report, Oral presentation | Workshop 3 |

* during either Field Interval 1 or Field Interval 2

Support for Participants

Participants should be provided with the following support:

- Assigned mentor (technical advisor) reliably available throughout program
- Regular communication from the FETP staff about program news and continuing education through e-mail, teleconferences, and/or webinars
- Technical resources such as recommended web sites
- Electronic or paper copies of FETP-Frontline lesson handouts and field guides
- Peer network of FETP-Frontline participants and other MOH officials

Assessing the Participants

Assessment tools to monitor progress of participants throughout the course and to adjust instruction as needed are summarized in the following table:

| Tool | Completed by | Purpose | When |
|-----------------------------------|---------------------|--|---|
| Pretest | Participant | Measure participant initial knowledge and skills; adjust instruction as needed | Start of Workshops 1 and 2 |
| Daily review questions (optional) | Participant | Measure participant understanding of lesson content; adjust instruction as needed | Start of each day after day one, of each workshop |
| Posttest | Participant | Measure participant improvement in knowledge and skills | End of Workshops 1 and 2 |
| Mentor progress reports | Mentor | Inform staff of participant progress and challenges in completing field activities | During field intervals |
| Field Product Scorecards | Participant | Self-assessment checklist for completing field products | While completing field products |
| Field Product Scorecards | Staff | Measure quality of field products | While reviewing field products and oral presentations |
| Final written exam (optional) | Participant | Measure participant's grasp of concepts and skills at end of training | End of Workshop 3 |

To assess whether participants have achieved a satisfactory level of competence, program staff can use the following metrics:

- Satisfactory attendance and participation in all classroom workshops (no unexcused absences)
- Satisfactory score on the post-tests, or satisfactory improvement from pre-test to post-test
- Optionally, satisfactory score on daily review questions, if responses collected and graded

- Satisfactory grade on surveillance summary report
- Satisfactory grade on case or outbreak investigation report
- Satisfactory grade on oral presentations
- Satisfactory assessment by the field mentor and other program staff
- Optionally, satisfactory score on final written exam

Assessment tools are intended to be used as a feedback mechanism for staff and participants alike. Staff, particularly the coordinator and instructors, should use assessment tools to identify (1) weaknesses in instruction (e.g., if all or most participants respond incorrectly on a daily review question), and (2) participants at the top and bottom of the cohort. Those at the top might be recommended for FETP-Intermediate and/or mentor training. Those at the bottom should be targeted for extra attention, either during classroom workshops or mentor interactions during field intervals or both.

Program Completion

A participant who has performed satisfactorily on the criteria listed above will have successfully met the completion requirements of FETP-Frontline. Each such participant will receive a certificate of completion signed by an official of the Ministry of Health, and, if appropriate, an official of the CDC country office and implementing partner organization.

Curriculum Evaluation Methodology

Evaluating the curriculum is particularly important during the first year of FETP-Frontline implementation, after the introduction of new materials or instructional methods, and every few years subsequently to ensure that the curriculum remains relevant and appropriate. Tools for evaluating the curriculum include:

| Evaluation Tool | Purpose | Timing |
|--|--|--|
| Participant Workshop Feedback Form | Measure perceived quality and value of curriculum; used for program improvement | End of each workshop, End of program |
| Daily Staff Debrief | Measure perceived quality, usefulness relevance, and participant reaction to instruction and materials | End of each workshop day, End of each workshop, End of program |
| Participant Field Interval Feedback Form | Measure perceived value of field activities; provide feedback on quality of mentoring | End of each field interval |

Impact evaluation, measuring the change in practices at the individual and organizational level, should be conducted after a reasonable period of time, such as 6 months.

Feedback results should be used by FETP-Frontline staff to adapt the FETP-Frontline curriculum to their country's and learners' needs. Modifications could include covering

additional topics (e.g., contact tracing), replacing model curriculum examples, exercises, and case studies with local ones, and modifying the pace of instruction to suit the learners in a given cohort.

FETP liaisons in the U.S. CDC Workforce and Institute Development Branch would appreciate receiving feedback results and country-specific modifications to the curriculum, particularly if the results and modifications could be used to improve the model curriculum or could be shared with other interested countries.

Modifications to 3-Month Schedule

Adding Additional Topics

Some programs choose to add 1–5-day modules on topics prioritized by the MOH. Such topics have included cross-border health concerns and collaboration, One Health, emergency response, and disease-specific topics. Any of the three workshops can be extended to cover these additional topics. However, programs should not try to squeeze additional topics into the existing schedule, because the model schedule is already quite full.

Tips for Conducting the Training

Day 1 Welcome, Introductions

- Start on time, or as close as possible
- Explain program rules (no unexcused absences, arrive on time each morning, certificate of completion only for those who satisfactorily complete all field projects, etc.)
- Explain class rules (location of restrooms, laptops allowed or not, don't interrupt others, etc.)

MOH Officials

Appropriate MOH representatives should be invited to participate during Workshop 1 (Day 1 welcome and surveillance lesson), Workshop 2 (Day 3 linking with the laboratory), and Workshop 3 (participant presentations and certificate ceremony). MOH and CDC officials should be encouraged to drop by at other times when they are available. This may provide an opportunity to serve as a resource for program managers or instructors to help guide and enrich participant discussions about health priorities or health policy during lessons and exercises.

Discussions

The Instructor Guide for each lesson includes suggested discussion questions, sometimes with answers, to allow participants to address topics in greater depth as a group.

- Advantages of discussion: participants learn from one another; instructor hears what participants already know and how well they understand the content covered
- Disadvantages of discussion: discussion can consume considerable time; misinformation from participants can lead to more rather than less confusion; participants may raise issues beyond the scope of FETP-Frontline training

Instructors should review possible discussion questions before the lesson and select a limited number to use. Instructors will have to use judgment to balance discussion with the need to finish on time.

Daily Review Questions

Daily review questions provide evidence of how well topics were understood the previous day. If many or most participants answer incorrectly, instructors should review the topic using different explanations, or even ask a participant who answered correctly to explain the answer to his/her colleagues.

The original intent of the daily review questions was to determine which of the previous day's topics needed to be reviewed (reflecting teaching), not as a quiz to be graded (reflecting learning). Nonetheless, some programs have chosen to use the daily review questions as a quiz.

Daily review questions can be printed and handed out, shown on a PowerPoint slide, or asked verbally. Answers can be collected and graded, handed to a classmate for grading, or not collected at all.

After participants finish answering the questions, the instructors should review each question. For example, the instructor can ask a random participant to read the question, then direct the group, “Raise your hand if you answered A,” and so on for each possible answer. Then ask, “Of those who answered A, why did you answer A?” and have a participant explain. The instructor can ask others to explain their (incorrect) answers, and either explain the right answer or ask other participants to do so.

Appendices

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Appendix A. FETP-Frontline Schedule Overview

| Week | Classroom Workshop Topics | Field Interval – Field Activities |
|------|---|---|
| 1 | <u>Workshop 1 (1 week)</u> <ul style="list-style-type: none"> • Introduction to course and public health surveillance • Collecting surveillance data • Case definitions, line lists • Data quality • Summarizing data • Displaying data • Interpreting data • Communicating surveillance information • Case investigation • Surveillance monitoring, including data quality audits • MS Excel • SWOT Analysis | |
| 2–5 | | <u>Field Interval 1</u> <ul style="list-style-type: none"> • Weekly surveillance data review, report • Site visits / data quality audits; SWOT analysis |
| 6 | <u>Workshop 2 (1 week)</u> <ul style="list-style-type: none"> • Participant presentations of field work • Outbreak investigation (3 parts) • Problem analysis • Linking with laboratory • MS PowerPoint • Oral presentations | |
| 7–11 | | <u>Field Interval 2</u> <ul style="list-style-type: none"> • Expanded surveillance summary review, report • Surveillance quality problem analysis • Case investigation or outbreak investigation |
| 12 | <u>Workshop 3 (2 days)</u> <ul style="list-style-type: none"> • Participant oral presentations • Closing ceremony | |

Appendix B. FETP-Frontline Competencies and Sub-competencies

A participant who successfully completes the FETP-Frontline program should be able to...

Domain: Public Health Surveillance

1. Communicate the purpose of surveillance and characteristics of a functional surveillance system
 - a. Describe the role of surveillance in public health practice
 - b. Describe the key characteristics of the surveillance system — purpose, list of diseases included, flow, case definitions, timeliness requirements, etc.
2. Identify cases and clusters of disease of public health importance
 - a. Ensure that cases and suspected clusters of disease of public health interest are reported to the appropriate governmental authorities
3. Monitor and assess the quality of local public health surveillance data
 - a. Monitor the timeliness and completeness of reporting from different reporting sources
 - b. Conduct data quality audits
 - c. Provide feedback to improve timeliness, completeness, and data quality of surveillance data
4. Summarize, analyze, and interpret surveillance data regularly
 - a. Describe the rationale for regular (e.g., daily or weekly) review and analysis of surveillance data
 - b. Summarize surveillance data by time, place, person
 - c. Calculate rates and descriptive statistics
 - d. Create tables, graphs, maps
 - e. Identify trends, patterns, acute deviations, and outliers
 - f. List the possible causes of a sudden increase in cases
 - g. Notify authorities immediately of suspected high-priority diseases and incidence that exceed thresholds
5. Produce surveillance summary reports that describe patterns of disease occurrence and provide information that is useful for public health decision-making
 - a. Produce a surveillance summary report that includes descriptive epidemiology, descriptive statistics, and brief descriptive and interpretative text for key reportable conditions, with recommendations for action as appropriate
 - b. Design a surveillance summary report template that can be used periodically (e.g., monthly)

Domain: Field Investigation

6. Conduct case investigations and participate in outbreak investigations
 - a. Conduct follow-up investigations of reported or suspected cases of public health interest
 - b. Participate as a team member in the investigation of a reported or suspected outbreak
 - c. Create a line list
 - d. Draw an epidemic curve

Domain: Epidemiologic Methods

7. See Surveillance, Competency 4 and Field Investigation, sub-competencies 6c and 6d

Domain: Communication

8. Communicate effectively with technical and non-technical audiences
 - a. Prepare and deliver an oral presentation to a Ministry of Health officials

Appendix C. Workshop 1

(See also **FETP-Frontline Workshop 1 Planning Guide [document d01]**)

Workshop 1 Learning Objectives

Workshop 1 focuses on strengthening skills necessary for conducting effective public health surveillance, primarily at the district (“frontline”) level.

After complete Workshop 1, participants should be able to:

- Collect and summarize surveillance data regularly
- Monitor the timeliness, completeness, and quality of surveillance data
- Summarize data by time, place, and person
- Write a surveillance summary report
- Conduct a case investigation
- Conduct a surveillance data quality audit

Workshop 1 Content

Workshop 1 lasts one week (5–6 days). The Workshop 1 curriculum includes an introduction to public health surveillance and the steps of a surveillance system — collecting, assessing quality, summarizing, displaying, and interpreting data, and communicating health information to support action based on the scientific findings. Workshop 1 also introduces participants to basic features of MS Excel.

Workshop 1 didactic lessons include:

- 1.01 Introduction to course and public health surveillance
- 1.02 Collecting surveillance data
- 1.03 Case definitions, line lists
- 1.04 Data quality
- 1.05 Summarizing data
- 1.06 Displaying data
- 1.07 Interpreting data
- 1.08 Communicating surveillance information
- 1.09 Case investigation
- 1.10 Surveillance monitoring, including data quality audits
- 1.11 MS Excel
- 1.12 SWOT Analysis
- 1.13 Introduction to Field Interval 1 Activities

Most lessons have one or more embedded exercises.

The Workshop 1 schedule includes two case studies:

- Dengue Surveillance in Country Z (embedded in schedule)
- Conducting a Surveillance Data Quality Audit in a District in Liberia (optional)

Workshop 1 Model Schedules

Two model schedules for Workshop 1 are provided, one for 5 full days, the other for 5½ days (see following pages). The 5½-day schedule includes class time for the Surveillance Data Quality Audit case study; the 5-day schedule does not. If the 5-day schedule is used, the Surveillance Data Quality Audit could be assigned as homework.

FETP-Frontline Workshop 1 Model Schedule (Option 1: 5 Days)

| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 |
|---|---|---|--|---|
| 8:00-8:30 Registration 8:30-9:30 MOH Welcome, Introductions 9:30-10:00 Pretest 10:00-10:30 1.01. Intro to Course and PH Surveillance | 8:30-9:00 Daily Review 9:00-9:30 1.03. Case Definitions, Line Lists (continued) 9:30-10:30 1.04. Data Quality | 8:30-9:00 Daily Review 9:00-10:30 1.06. Displaying Data (continued) | 8:30-9:00 Daily Review 9:00-10:00 1.09. Case Investigation (continued) 10:00-10:30 Introduction of Mentors | 8:30-9:00 Daily Review 9:00-9:30 Dengue Case Study, Part F 9:30-10:30 1.11. Excel for FETP-Frontline |
| 10:30-11:00 BREAK | 10:30-11:00 BREAK | 10:30-11:00 BREAK | 10:30-11:00 BREAK | 10:30-11:00 BREAK |
| 11:00-12:00 1.01. Intro to Course and PH Surveillance (continued) 12:00-13:00 1.02. Collecting Data | 11:00-13:00 1.05. Summary Statistics and Disease Frequency | 11:00-11:30 1.06. Displaying Data (continued) 11:30-13:00 1.07. Interpreting Data | 11:00-12:30 1.10. Monitoring and Evaluation 12:30-13:00 Dengue Case Study, Part C | 11:00-13:00 1.11. Excel for FETP-Frontline (continued) |
| 13:00-14:00 LUNCH | 13:00-14:00 LUNCH | 13:00-14:00 LUNCH | 13:00-14:00 LUNCH | 13:00-14:00 LUNCH |
| 14:00-15:00 1.02. Collecting Data (continued) 15:00-15:30 1.03. Case Definitions, Line Lists | 14:00-15:30 1.05. Summary Statistics and Disease Frequency (continued) | 14:00-15:15 Dengue Case Study, Parts A & B | 14:00-15:30 Dengue Case Study, Parts D-E | 14:00-15:00 1.11. Excel for FETP-Frontline (continued) 15:00-15:30 1.12. SWOT Analysis |
| 15:30-15:45 BREAK | 15:30-15:45 BREAK | 15:30-15:45 BREAK | 15:30-15:45 BREAK | 15:30-15:45 BREAK |
| 15:45-16:45 1.03. Case Definitions, Line Lists (continued) 16:45-17:00 Review, Wrap Up | 15:45-16:45 1.06. Displaying Data 16:45-17:00 Review, Wrap Up | 15:45-16:15 1.08 Communicating Information 16:15-16:45 1.09. Case Investigation 16:45-17:00 Review, Wrap Up Homework: Dengue Case Study, Part B | 15:45-16:45 Dengue Case Study, Part E (continued) 16:45-17:00 Review, Wrap Up | 15:45-17:00 1.13. Intro to Field Interval 1 Activities, Posttest, Feedback, Instructions for Field Interval 1 |
| 17:00 CLOSE | 17:00 CLOSE | 17:00 CLOSE | 17:00 CLOSE | 17:00 CLOSE |
| Staff Debrief | Staff Debrief | Staff Debrief | Staff Debrief | Staff Debrief |

FETP-Frontline Workshop 1 Model Schedule (Option 2: 5.5 Days)

| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 |
|--|---|--|--|--|---|
| 8:00-8:30 Registration 8:30-9:30 MOH Welcome, Introductions 9:30-10:00 Pretest 10:00-10:30 1.01. Intro to Course and PH Surveillance | 8:30-9:00 Daily Review 9:00-9:30 1.03. Case Defs, Line Lists (continued) 9:30-10:30 1.04. Data Quality | 8:30-9:00 Daily Review 9:00-10:30 1.06. Displaying Data (continued) | 8:30-9:00 Daily Review 9:00-10:00 1.09. Case Investigation (continued) 10:00-10:30 Introduction of Mentors | 8:30-9:00 Daily Review 9:00-9:30 Dengue Case Study, Part F 9:30-10:30 1.11. Excel for FETP-Frontline | 8:30-9:00 Daily Review 9:00-9:45 1.15. Intro to Field Interval 1 (continued) 9:45-10:30 Data Quality Audit (DQA) Case Study |
| 10:30-11:00 BREAK | 10:30-11:00 BREAK | 10:30-11:00 BREAK | 10:30-11:00 BREAK | 10:30-11:00 BREAK | 10:30-11:00 BREAK |
| 11:00-12:00 1.01. Intro to Course and PH Surveillance (continued) 12:00-13:00 1.02. Collecting Data | 11:00-13:00 1.05. Summary Statistics and Disease Frequency | 11:00-11:30 1.06. Displaying Data 11:30-13:00 1.07. Interpreting Data | 11:00-12:30 1.10. Monitoring and Evaluation 12:30-13:00 Dengue Case Study, Part C | 11:00-13:00 1.11. Excel for FETP-Frontline (continued) | 11:00-11:45 (DQA) Case Study (continued) 11:45-13:00 Posttest, Feedback, Instructions for Field Interval 1 |
| 13:00-14:00 LUNCH | 13:00-14:00 LUNCH | 13:00-14:00 LUNCH | 13:00-14:00 LUNCH | 13:00-14:00 LUNCH | 13:00-14:00 LUNCH |
| 14:00-15:00 1.02. Collecting Data (continued) 15:00-15:30 1.03. Case Definitions and Line Lists | 14:00-15:30 1.05. Summary Statistics and Disease Frequency (continued) | 14:00-15:15 Dengue Case Study, Parts A & B | 14:00-15:30 Dengue Case Study, Parts D-E | 14:00-15:30 1.11. Excel for FETP-Frontline (continued) | 14:00 CLOSE Staff Debrief |
| 15:30-15:45 BREAK | 15:30-15:45 BREAK | 15:30-15:45 BREAK | 15:30-15:45 BREAK | 15:30-15:45 BREAK | |
| 15:45-16:45 1.03. Case Definitions and Line Lists (continued) 16:45-17:00 Review, Wrap Up | 15:45-16:45 1.06. Displaying Data 16:45-17:00 Review, Wrap Up | 15:45-16:15 1.08 Communicating Information 16:15-16:45 1.09. Case Investigation 16:45-17:00 Review, Wrap Up Homework: Dengue Case Study, Part B | 15:45-16:45 Dengue Case Study, Part E (continued) 16:45-17:00 Review, Wrap Up | 15:45-16:15 1.12. SWOT Analysis 16:15-16:45 1.12. Intro to Field Interval 1 16:45-17:00 Review, Wrap Up | |
| 17:00 CLOSE | 17:00 CLOSE | 17:00 CLOSE | 17:00 CLOSE | 17:00 CLOSE | |
| Staff Debrief | Staff Debrief | Staff Debrief | Staff Debrief | Staff Debrief | |

Workshop 1 Lesson Plan

| Lesson | Learning Objectives | Exercises |
|---|---|---|
| 1.01 Introduction to Course and Public Health Surveillance | <ul style="list-style-type: none"> Describe the steps of the public health surveillance cycle Summarize the key features of the International Health Regulations Identify the flow of surveillance data in your area Summarize the purpose and use of local surveillance data | 1.01-1: Surveillance Cycle Steps 1.01-2: Diagram Your Country's Surveillance System |
| 1.02 Collecting Data | <ul style="list-style-type: none"> Identify the reportable diseases or conditions for your district Explain the difference between passive and active data collection Describe basic data collection methods Summarize the rationale for zero reporting Describe limitations of reporting systems and ways to improve reporting | 1.02-1: Disease Reporting Practices 1.02-2: Complete a Case Report Form |
| 1.03 Case Definitions and Line Lists | <ul style="list-style-type: none"> Describe what a case definition is Describe why use of a consistent case definition is important for surveillance Determine if a patient meets a case definition Enter data into a line list | 1.03-1: Applying Case Definitions 1.03-2: Develop a Line List |
| 1.04 Data Quality | <ul style="list-style-type: none"> Name and identify data quality issues that can affect public health surveillance reporting Describe some consequences of poor data quality Name steps that can be taken to ensure data quality | 1.04-1: Assess Data Quality |
| 1.05 Summarizing Data | <ul style="list-style-type: none"> Explain and calculate the following measures of central location and spread: mode, median, mean, and range Explain and calculate the following measures of frequency: ratio, proportion, rate Explain and calculate the following measures of disease frequency: incidence, prevalence, attack rates, mortality rates, case-fatality rate | 1.05-1: Calculate Measures of Central Location 1.05-2: Calculate Measures of Frequency |

| Lesson | Learning Objectives | Exercises |
|--|--|--|
| 1.06 Displaying Data | <ul style="list-style-type: none"> Select a table, graph, or map that is appropriate for the data and communication objective Use paper and pencil to create tables, charts, graphs, and maps | 1.06-1: Summarize and Display Data in a Table 1.06-2: Create a Line Graph 1.06-3: Create a Histogram 1.06-4: Create a Bar Graph |
| 1.07 Interpreting Data | <ul style="list-style-type: none"> Describe and interpret summarized data Describe the use of thresholds when analyzing surveillance data List possible reasons for an observed increase in reported cases | 1.07-1: Interpret Data |
| 1.08 Communicating Surveillance Information | <ul style="list-style-type: none"> Describe the rationale for sharing public health surveillance information Describe the target audience for public health surveillance data Describe why period reports are a fundamental component of effective public health surveillance systems | 1.08-1: Communicate Information |
| 1.09 Case Investigation | <ul style="list-style-type: none"> List reasons for conducting a case investigation Conduct an interview with a case-patient in a professional manner | 1.09-1: Interviewing a Case |
| 1.10 Surveillance Monitoring and Evaluation | <ul style="list-style-type: none"> Distinguish <i>monitoring</i> and <i>evaluation</i> in the context of overseeing a surveillance system Distinguish <i>indicator</i> and <i>target</i> in the context of monitoring a surveillance system Use key indicators to monitor disease surveillance and response activities at the district level Name actions that can be taken to improve district-level public health surveillance | 1.10-1: Working with Indicators |
| 1.11 Excel for FETP-Frontline | <ul style="list-style-type: none"> Open a workbook, create and save a worksheet Enter, edit, and format data in a database Use formulas and functions to summarize and analyze data Organize data by sorting and filtering Chart data using a histogram and a line graph Use Excel to perform district data surveillance functions — enter, manage, and analyze data | Included |

| Lesson | Learning Objectives | Exercises |
|---|---|-----------------|
| 1.12 SWOT Analysis | <ul style="list-style-type: none"> • Describe what the letters S-W-O-T represent • Describe the reason for conducting a SWOT analysis • Conduct a SWOT analysis of your local surveillance system | None |
| 1.13 Introduction to Field Interval 1 Activities | <ul style="list-style-type: none"> • Describe the field activities to conduct during Field Interval 1 • List the deliverables from those activities • Explain the meaning of the phrase, “What’s on your wall?” | None |
| Case Study: Dengue Surveillance in Country Z | <ul style="list-style-type: none"> • List and describe the steps in the surveillance cycle • Describe the purpose and use of local surveillance data • Complete a surveillance case report form • Calculate and interpret incidence rates and case-fatality rates • Identify and correct data errors • Summarize and interpret surveillance data by person, place, and time using rates, tables, and graphs | NA (Case study) |
| Case Study: Conduct a Surveillance Data Quality Audit in a District in Liberia | <ul style="list-style-type: none"> • Describe the purpose of data quality audits • Prepare for a data quality audit • Use a data quality audit tool • Identify strengths, weakness, opportunities and threats in a surveillance system • Make recommendations based on data quality audit • Share findings and recommendations with stakeholders • Develop a data quality audit report | NA (Case study) |

Appendix D. Workshop 2

(See also FETP-Frontline Workshop 2 Planning Guide [document j01])

Workshop 2 Learning Objectives

Workshop 2 focuses on outbreak investigation activities, oral presentations, and surveillance problem analysis.

After complete Workshop 2, participants should be able to:

- Participate on an outbreak field investigation and response team
- Collaborate with laboratory staff before, during, and after an outbreak investigation
- Conduct an analysis of causes of a surveillance quality problem
- Prepare and deliver an oral presentation to a technical audience

Workshop 2 Content

Workshop 2 typically lasts five full days. The Workshop 2 curriculum addresses a number of aspects of outbreak investigations, including recognizing an outbreak, the steps of investigation and response, and collaboration with the laboratory. Workshop 2 also covers problem analysis and development and delivery of an oral presentation, including the basic features of MS PowerPoint.

Workshop 2 didactic lessons include:

- 2.01 Outbreak investigation Part 1: recognizing an outbreak
- 2.02 Outbreak investigation Part 2: descriptive phase
- 2.03 Outbreak investigation Part 3: analysis and response
- 2.04 Problem analysis
- 2.05 Linking with the laboratory
- 2.06 Oral presentation: plan, prepare, deliver
- 2.07 MS PowerPoint for FETP-Frontline
- 2.08 Introduction to Field Interval 2 Activities

Most lessons have one or more embedded exercise

The Workshop 2 schedule includes one case study:

- An Outbreak of Gastroenteritis Following a Walima in Pakistan

Workshop 2 Model Schedules

Two model schedules for Workshop 2 are provided, but a third could be used as well. The first option has all participants give their presentations of their field activities on days 1 and 2. At least one program has shifted the participant presentations to the end of the week, so the presentations incorporate the training participants have received on MS PowerPoint and oral presentation techniques (Option 2). A third option is to spread the participant presentations throughout the week, for example 4–5 participant presentations each afternoon.

FETP-Frontline Workshop 2 Model Schedule (Option 1)

| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 |
|---|--|---|---|---|
| 8:00-8:30 Registration 8:30-9:00 MOH Welcome 9:00-10:30 Participant Field Activity Presentations | 8:00-8:30 Pretest 8:30-10:30 Participant Field Activity Presentations | 8:30-9:00 Daily Review 9:00-10:30 2.03. Outbreak Investigation 3 | 8:30-9:00 Daily Review 9:00-10:30 2.06. Oral Presentation: Plan, Prepare | 8:30-9:00 Daily Review 9:00-10:30 Participant Oral Presentations |
| 10:30-11:00 BREAK | 10:30-11:00 BREAK | 10:30-11:00 BREAK | 10:30-11:00 BREAK | 10:30-11:00 BREAK |
| 11:00-13:00 Participant Field Activity Presentations | 11:00-11:30 Discussion 11:30-13:00 Intro to Workshop 2; 2.01. Outbreak Investigation 1 | 11:00-13:00 2.03. Outbreak Investigation 3 (continued) | 11:00-13:00 2.06. Oral Presentation: Plan, Prepare | 11:00-13:00 Outbreak Case Study |
| 13:00-14:00 LUNCH | 13:00-14:00 LUNCH | 13:00-14:00 LUNCH | 13:00-14:00 LUNCH | 13:00-14:00 LUNCH |
| 14:00-15:30 Participant Field Activity Presentations | 14:00-15:30 2.02. Outbreak Investigation 2 | 14:00-15:30 2.04. Problem Analysis | 14:00-14:45 2.07. PowerPoint | 14:00-15:00 Outbreak Case Study (continued) 15:00-15:30 Posttest |
| 15:30-15:45 BREAK | 15:30-15:45 BREAK | 15:30-15:45 BREAK | 15:30-15:45 BREAK | 15:30-15:45 BREAK |
| 15:45-16:45 Participant Field Activity Presentations 16:45-17:00 Review, Wrap Up | 15:45-16:45 2.02. Outbreak Investigation 2 (continued) 16:45-17:00 Review, Wrap Up | 15:45-16:45 2.05. Linking with the Laboratory 16:45-17:00 Review, Wrap Up | 15:45-16:45 2.07. PowerPoint 16:45-17:00 Review, Wrap Up | 15:45-16:45 2.08. Intro to Field Interval 2, Feedback, Instructions for Field Interval 2 |
| 17:00 CLOSE | 17:00 CLOSE | 17:00 CLOSE | 17:00 CLOSE | 17:00 CLOSE |
| Staff Debrief | Staff Debrief | Staff Debrief | Staff Debrief | Staff Debrief |

FETP-Frontline Workshop 2 Model Schedule (Option 2)

| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 |
|--|--|---|---|---|
| 8:00-8:30 Registration 8:30-9:00 MOH Welcome 9:00-9:30 Pretest 9:30-10:30 2.01. Outbreak Investigation 1 | 8:30-9:00 Daily Review 9:00-10:30 2.07. PowerPoint (continued) | 8:30-9:00 Daily Review 9:00-10:30 2.04. Problem Analysis | 8:30-9:00 Daily Review 9:00-10:30 Participant Field Activity Presentations | 8:30-9:00 Daily Review 9:00-10:30 Participant Field Activity Presentations |
| 10:30-11:00 BREAK | 10:30-11:00 BREAK | 10:30-11:00 BREAK | 10:30-11:00 BREAK | 10:30-11:00 BREAK |
| 11:00-11:30 2.01. Outbreak Investigation 1 11:30-13:00 2.02. Outbreak Investigation 2 | 11:00-13:00 2.03. Outbreak Investigation 3 | 11:00-13:00 2.06. Oral Presentation: Plan, Prepare | 11:00-13:00 Participant Field Activity Presentations | 11:00-13:00 Participant Field Activity Presentations |
| 13:00-14:00 LUNCH | 13:00-14:00 LUNCH | 13:00-14:00 LUNCH | 13:00-14:00 LUNCH | 13:00-14:00 LUNCH |
| 14:00-15:30 2.02. Outbreak Investigation 2 (continued) | 14:00-15:30 2.03. Outbreak Investigation 3 (continued) 14:00-15:30 Outbreak Case Study | 14:00-15:30 Participant Field Activity Presentations | 14:00-15:00 Discussion | 15:00-15:30 Posttest |
| 15:30-15:45 BREAK | 15:30-15:45 BREAK | 15:30-15:45 BREAK | 15:30-15:45 BREAK | 15:30-15:45 BREAK |
| 15:45-16:45 2.07. PowerPoint 16:45-17:00 Review, Wrap Up | 15:45-16:45 2.05. Linking with the Laboratory 16:45-17:00 Review, Wrap Up | 15:45-16:45 Outbreak Case Study (continued) 16:45-17:00 Review, Wrap Up | 15:45-16:45 Participant Field Activity Presentations 16:45-17:00 Review, Wrap Up | 15:45-16:45 2.08. Intro to Field Interval 2, Feedback, Instructions for Field Interval 2 |
| 17:00 CLOSE | 17:00 CLOSE | 17:00 CLOSE | 17:00 CLOSE | 17:00 CLOSE |
| Staff Debrief | Staff Debrief | Staff Debrief | Staff Debrief | Staff Debrief |

Workshop 2 Lesson Plan

| Lesson | Learning Objectives | Exercises |
|--|---|---|
| Field Project Presentations | <ul style="list-style-type: none"> Use clear and concise communication to present field project results to peers and program staff | None |
| 2.01 Outbreak Investigation Part 1: Recognizing an Outbreak | <ul style="list-style-type: none"> Determine when to investigate an outbreak Develop clear investigation objectives | 2.01-1: Would You Investigate? 2.01-2: Write Investigation Objectives |
| 2.02 Outbreak Investigation Part 2: Descriptive Phase | <ul style="list-style-type: none"> Describe who should be members of an outbreak investigative team Confirm the existence of an outbreak Construct an outbreak case definition Find cases systematically Develop an analysis plan Summarize cases by time, place, and person | 2.02-1: Is it an Outbreak? 2.02-2: Prepare an Analysis Plan 2.02-3: Perform Descriptive Epidemiology |
| 2.03 Outbreak Investigation Part 3: Analysis and Response | <ul style="list-style-type: none"> Develop a hypothesis Discuss ways to evaluate that hypothesis Discuss strategies for outbreak control | 2.03-1: Developing Hypotheses 2.03-2: Analyzing Data |
| 2.04 Problem Analysis | <ul style="list-style-type: none"> Analyze a public health problem systematically Identify and organize root causes of a problem by using a cause and effect diagram Differentiate causes between those you do and do not have control over Develop an improvement plan for an appropriate key cause | 2.04-1: Explore the Causes |
| 2.05 Linking with the Laboratory | <ul style="list-style-type: none"> Describe the interaction that should occur between epidemiology and laboratory staff <ul style="list-style-type: none"> - on an ongoing basis - when an outbreak investigation begins - during the outbreak investigation - after an outbreak investigation Define and describe the importance of biosafety and biosecurity | None |

| Lesson | Learning Objectives | Exercises |
|---|---|-----------------|
| 2.06 Oral Presentation: Plan, Prepare, Deliver | <ul style="list-style-type: none"> • Describe the characteristics of a strong presentation • List the steps of the presentation strategy • Develop a SOCO • Describe and organize a presentation using the traditional structure of a technical presentation • Deliver a brief presentation to an audience | None |
| 2.07 PowerPoint for FETP-Frontline | <ul style="list-style-type: none"> • Create a new presentation • Insert, edit, and arrange slides • Customize and save a presentation • Create bulleted and numbered lists and sub-lists • Insert tables, graphs, and images into a PowerPoint slide • Use best practices for creating PowerPoint slides | Included |
| 2.08 Introduction to Field Work 2 | <ul style="list-style-type: none"> • Describe the field activities to conduct during Field Interval 2 • List the deliverables from those activities | None |
| Case study: An Outbreak of Gastroenteritis Following a Walima in Pakistan: | <ul style="list-style-type: none"> • Describe the factors that influence the decision to conduct a case investigation • Describe the initial steps of a field investigation of a possible outbreak • Describe the components of and develop a case definition • List the types of variables to include on an outbreak line list • Describe the components of a descriptive epidemiology analysis • Calculate and use food-specific attack rates to determine which food(s) might have caused the outbreak | NA (Case study) |

Appendix E. Workshop 3

(See also **FETP-Frontline Workshop 3 Planning Guide [document p01]**)

Workshop 3 Content

The typical Workshop 3 schedule includes welcoming or keynote remarks from one or more officials, participant presentations, and a certificate ceremony. The actual schedule depends on how much time is allowed for each presentation (including time for questions and answers), how many participants are in the cohort, and whether pre-Workshop rehearsal time is built in. The model schedules on the following pages are based on 20-minute allotments for each participant presentation, including the question-and-answer (Q&A) period (e.g., 15-minute presentations with 5-minute Q&A, or 10-minute presentations with 10-minute Q&A). If more time is allotted for presentations, keynote remarks, or rehearsals, the schedule must expand accordingly.

Workshop 3 Model Schedules

The schedule for Workshop 3 depends on the number of days allotted for rehearsals of participant oral presentations, and whether additional learning content is added to the workshop. Two model schedules for Workshop 3, one for 2 days and one for 3 days.

FETP-Frontline Workshop 3 Model Schedule (Option 1: 2 Days)

| | Day 1 | Day 2 |
|-------|---|--|
| 8:00 | Registration | Greetings, Introductions |
| 8:30 | 8:30–9:15 MOH Presentation | 8:30–10:30 Participant Presentations (6) |
| 9:00 | | |
| 9:30 | | |
| 10:00 | 9:15–10:30 Orientation to Rehearsals | |
| | Presentation rehearsals, critique | |
| 10:30 | | |
| | BREAK | BREAK |
| 11:00 | 11:00–12:15 Presentation rehearsals, critique | 11:00–13:00 Participant Presentations (6) |
| 11:30 | | |
| 12:00 | | |
| | 12:15–13:00 Participant Presentations (2) | |
| 12:30 | | |
| 13:00 | 13:00–14:00 LUNCH | |
| 13:30 | | |
| | | |
| 14:00 | 14:00–15:30 Participant Presentations (4) | 14:00–15:30 Participant Presentations (4) |
| 14:30 | | |
| 15:00 | | |
| 15:30 | BREAK | BREAK |
| 16:00 | 15:45–16:45 Participant Presentations (3) | 15:45–17:00 Concluding Remarks, Certificates, Evaluations, Wrap Up |
| 16:30 | | |
| 16:45 | Review, Wrap Up | |
| 17:00 | 17:00 CLOSE (staff debrief) | 17:00 CLOSE (staff debrief) |

FETP-Frontline Workshop 3 Model Schedule (Option 2: 3 Days)

| | Day 1 | Day 2 | Day 3 |
|-------|---|--|--|
| 8:00 | Registration | Registration | Registration |
| 8:30 | 8:30–9:15 Orientation to Rehearsals | 8:30–9:15 Greetings, Introductions | 8:30–9:15 Greetings |
| 9:00 | | | |
| 9:30 | 9:15–10:30 Presentation rehearsals, critique | 9:15–10:30 Participant Presentations* (4) | 9:15–10:30 Participant Presentations (4) |
| 10:00 | | | |
| 10:30 | | | |
| | BREAK | BREAK | BREAK |
| 11:00 | 11:00–13:00 Presentation rehearsals, critique | 11:00–13:00 Participant Presentations (6) | 11:00–12:00 Participant Presentations (3) |
| 11:30 | | | 12:00–13:00 Concluding Remarks, Certificates |
| 12:00 | | | |
| 12:30 | | | |
| 13:00 | 13:00–14:00 LUNCH | 13:00–14:00 LUNCH | 13:00–14:00 LUNCH |
| 14:00 | 14:00–15:30 Participant rehearsals, critique (continued) | 14:00–15:30 Participant Presentations (5) | 14:00–15:00 Evaluations, Wrap Up |
| 14:30 | | | 15:00 END (staff debrief) |
| 15:00 | | | |
| 15:30 | BREAK | BREAK | |
| 16:00 | 15:45–16:45 Participant rehearsals, critique (continued) | 15:45–16:45 Participant Presentations (3) | |
| 16:30 | | | |
| 16:45 | Review, Wrap Up | | |
| 17:00 | 17:00 CLOSE (staff debrief) | 17:00 CLOSE (staff debrief) | |

Notes
