

Nancy Gathany: On behalf of my colleagues, Dr. Douglas Hamilton, Dr. Kathy Towers-Solis, and Valerie Morelli, welcome to this webinar, Ebola Training Toolkit Overview. I am Dr. Nancy Gathany, an instructional designer with CDC, and I'm the moderator for our webinar today.

To participate in today's program you need a phone connection and a separate Internet connection.

Webinar Goal

Provide an overview of the new Ebola Training Toolkit, *Preparing Healthcare Workers to Work in Ebola Treatment Units (ETUs) in Africa*.

The toolkit is designed for organizations that plan to provide in-person training for healthcare workers preparing to work in ETUs in Africa in response to the Ebola epidemic.

Our goal today is to provide an overview of the new Ebola Training Toolkit, *Preparing Healthcare Workers to Work in Ebola Treatment Units in Africa*. The intended audience for the toolkit is organizations that plan to provide in-person training for healthcare workers preparing to work in Ebola Treatment Units in Africa in response to the Ebola epidemic. Throughout the rest of today's webinar, we will refer to Ebola Treatment Units as ETUs.

Agenda

Overview and History of the Course

Toolkit Components

- Lectures and Tabletop Exercises
- Ebola Treatment Unit (ETU)
Practical Exercise
- Administration

Next Steps

Question and Answer

To introduce you to this new toolkit, we will hear from three experts who had key roles in the development of the toolkit.

Agenda

Overview and History of the Course

Douglas Hamilton, MD

Medical Epidemiologist, Center for Surveillance,
Epidemiology, and Laboratory Services (CSELS)
Director, CDC's ETU Safety Training Course
Subject Matter Expert, Ebola Training Toolkit

Toolkit Components

- Lectures and Tabletop Exercises
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Practical Exercise
- Administration

Next Steps

Question and Answer

First, Dr. Hamilton will provide a brief overview and history of the course. Dr. Hamilton has served as a Director for CDC's ETU Safety Training Course and as a subject matter expert with the team developing the toolkit.

Agenda

Overview and History of the Course

Toolkit Components

- Lectures and Tabletop Exercises
- Ebola Treatment Unit (ETU)
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Kathy Towers-Solis, PhD

Chief, Communication and Education Branch, National Center
for Immunization and Respiratory Diseases (NCIRD)
Course Manager, CDC's ETU Safety Training Course
Co-Project Lead, Ebola Training Toolkit

Next Steps

Question and Answer

Dr. Towers-Solis will then introduce the components of the toolkit and show how it is structured. Dr. Towers-Solis served as the Course Manager for CDC's ETU Safety Training Course and as the Co-Lead for the toolkit development.

Agenda

Overview and History of the Course

Toolkit Components

- **Lectures and Tabletop Exercises** **Valerie Morelli, BA**
Public Lead Health Communication Specialist, NCIRD
CDC Content Manager, Ebola Training Toolkit
- **Ebola Treatment Unit (ETU)**
Practical Exercise
- Administration

Next Steps

Question and Answer

For a closer look at the toolkit, Valerie Morelli will describe the lecture and table top exercises. And she will walk us through the Ebola Treatment Unit Practical Exercise component. Valerie served as the content and clearance manager for the toolkit.

Agenda

Overview and History of the Course

Toolkit Components

- Lectures and Tabletop Exercises
- Ebola Treatment Unit (ETU)
Practical Exercise
- **Administration**

Next Steps

Question and Answer

Douglas Hamilton, MD

Medical Epidemiologist, Center for Surveillance,
Epidemiology, and Laboratory Services (CSELS)
Director, CDC's ETU Safety Training Course
Subject Matter Expert, Ebola Training Toolkit

Lastly, Dr. Hamilton will review the Administration component and the steps you can take now towards replicating this in-person training for your organization.

Agenda

Overview and History of the Course

Toolkit Components

- Lectures and Tabletop Exercises
- Ebola Treatment Unit (ETU)
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Next Steps

Question and Answer

These presentations will take approximately 30 minutes in total. At that point, we will open the lines for the question and answer session.

Agenda

Overview and History of the Course

Toolkit Components

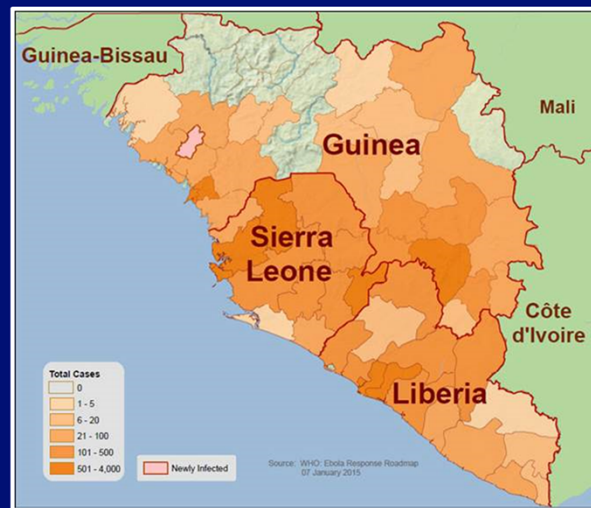
- Lectures and Tabletop Exercises
- Ebola Treatment Unit (ETU)
Practical Exercise
- Administration

Next Steps

Question and Answer

Dr. Hamilton will now provide an overview of the history and events that led up to the creation of the Ebola Training Toolkit.

2014 Ebola Epidemic, West Africa



* Source: WHO Response Roadmap, December 31, 2014
<http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/distribution-map.html>

Douglas Hamilton: The 2014 Ebola epidemic is the most widespread in history and the first in West Africa. CDC is working with other U.S. government agencies, Médecins Sans Frontières, the World Health Organization, and other domestic and international partners in an unprecedented international response to the outbreak.

In the early days of the response, health authorities noted that in the countries most affected by the Ebola outbreak, the impact on healthcare workers was severe; the mortality rate among

Clinician Assisted by MSF Staff Member



Clinician, assisted by a Médecins Sans Frontières (MSF) staff member, following a protocol for decontamination before exiting an Ebola treatment unit.

There was an obvious need for training for the healthcare workers going into ETUs to ensure they understood the type of protective equipment and gear to use, how to use it and how to stay safe as they administered care to patients with Ebola.

Although there have been courses to prepare ETU workers, such as the courses offered by Doctors without Borders, that is Médecins Sans Frontières or MSF, in Belgium, there were no similar courses in the United States to meet this training need. As the epidemic progressed, more and more workers from the United States were going to Africa to work in the ETUs. CDC recognized that we needed to offer a training program in the United States that would essentially duplicate the course MSF offered in Belgium.

Task Force Charged to Create Course



Early Offering of Course, September 2014

* Photo: Pattie Griffin, CDC

A CDC task force was formed to rapidly create a course for healthcare workers going to work in ETUs in Africa. The task force consisted of medical officers, epidemiologists, health educators, and instructional designers. To get a sense of what the curriculum should include, members of the task force traveled to Belgium to take the MSF course. With full collaboration of MSF and WHO, CDC used their materials that served as the basis for the curriculum.

Personal Protective Equipment (PPE)



* Photo: James Gathany, CDC

As we developed the curriculum, we noted slight differences in the type of personal protective equipment or PPE, the various responding organizations used. For example, some organizations use goggles while others use face masks for eye protection. Some use Tyvex suits while other use TyChem suits. Therefore, we decided not to teach one specific protocol but rather to focus on the principles of why you use the various elements of PPE. Our training is not the same as the MSF or WHO versions, it is more like an amalgamation of the two.

Personal Protective Equipment (PPE)

Examples of PPE: Goggles, face masks, and gloves



* Photo: James Gathany, CDC

In our training, students learn the principles of high-risk PPE, such as why it is important to protect mucous membranes and your face and how to do that safely. We also emphasize the need to doff (or remove) your PPE in a certain sequence.

CDC ETU Safety Training Class Photo



* Photo: DHS

Once the initial curriculum was designed and implemented, CDC offered the 3-day, in-person training course at the training facilities of the U.S. Federal Emergency Management Agency (or FEMA's) Center for Domestic Preparedness. Since the launch of this course, titled, *Preparing Healthcare Workers to Work in Ebola Treatment Units (ETUs) in Africa*, we have trained more than 540 healthcare workers on the principles of infection prevention and control needed to work safely in an ETU setting.

But this course is not the final stage of ETU training for these healthcare workers. No matter how life-like we make our exercises, our training is not the same as training in a real ETU where there is live virus present.

Our 3-day in-person course serves as an **introduction** to safe use of high-risk PPE. Graduates of the course are not prepared to work in an actual ETU until they have a mentored experience in an ETU with an experienced ETU worker.

Ebola Training Toolkit Website

Preparing Healthcare Workers to Work in Ebola Treatment Units (ETUs) in Africa: Training Toolkit Announcement

Page Summary

Purpose: The training toolkit is designed to help organizations replicate CDC's 3-day in-person training course to help prepare healthcare workers (HCWs) to work in ETUs in Africa.

Intended audience: Organizations that want to offer a training course for HCWs preparing to work in ETUs in Africa in response to the Ebola epidemic.

Planning Materials Now Available

The planning materials describe the physical space, setup instructions, and supplies needed, as well as the staffing needs to be able to offer the training course. Please register to access the planning materials for the course. Note: the planning materials do not include the entire training toolkit. You will be notified when the entire toolkit is available in the spring.

[Click here to access the planning materials.](#)

www.cdc.gov/vhf/ebola/hcp/safety-training-course/training-toolkit.html

To ensure the sustainability of this effort to support this outbreak and potential future outbreaks, we created a toolkit so other organizations could use to replicate the training. As you will see in this webinar, a great deal of effort has gone into the development of this toolkit which will be available for download from this website.

The toolkit is a complete guide with training materials, templates, and videos to help you offer an ETU safety course. However, it is not designed to serve as a self-study course for an individual responder to learn how to properly use PPE.

As you will see in this webinar, the toolkit is comprehensive and provides all of the information required to replicate this three-day in-person course



Nancy Gathany: Thank you, Dr. Hamilton.

Next Dr. Towers-Solis will introduce you to the components of the toolkit and show you how it is structured.

Kathy Towers-Solis: Thank you, Nancy.

This training toolkit is designed to help organizations replicate the 3-day, in-person training course to prepare healthcare workers to work in ETUs. The goal of the training course is to teach healthcare workers principles of infection prevention and control to work safely in an ETU setting.

Course Goals

- Provide information on the epidemiology and transmission of Ebola virus disease and the current Ebola epidemic
- Describe infection prevention and control principles as they pertain to working in ETUs in Africa
- Demonstrate the skills needed to work safely and efficiently in a well-designed ETU
- Describe how to evaluate personal and environmental safety within an ETU
- Describe the basic principles of clinical care and management of a patient with Ebola
- Describe patient and community assessment and intervention strategies for Ebola treatment and control

The specific goals of the course are to

Provide information on the epidemiology and transmission of Ebola virus disease and the current Ebola epidemic

Describe infection prevention and control principles as they pertain to working in ETUs in Africa

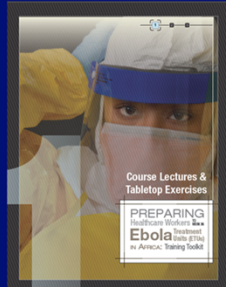
Demonstrate the skills needed to work safely and efficiently in a well-designed ETU

Describe how to evaluate personal and environmental safety within an ETU

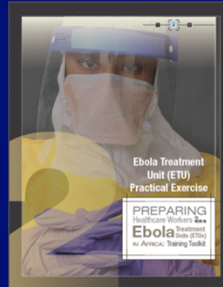
Describe the basic principles of clinical care and management of a patient with Ebola

Describe patient and community assessment and intervention strategies for Ebola treatment and control

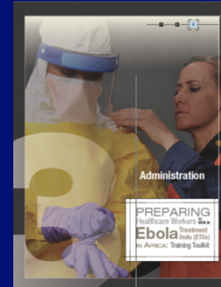
Toolkit Components



Course Lectures and
Tabletop Exercises



ETU Practical Exercise

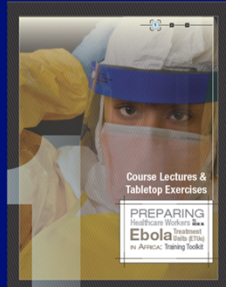


Administration

To accomplish our course goals, we use blended learning methods to ensure students learn and retain critical knowledge and are able to apply what they have learned to real-life situations. The blended learning methods used include lectures, tabletop exercises, and hands-on interactive exercises in a mock ETU environment.

The toolkit has three components.
Course Lectures and Tabletop Exercises
Ebola Treatment Unit Practical Exercise and
Administration

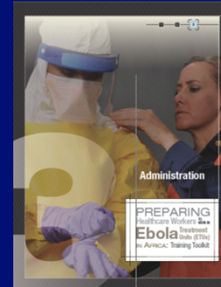
Toolkit Components



Course Lectures and
Tabletop Exercises



ETU Practical Exercise

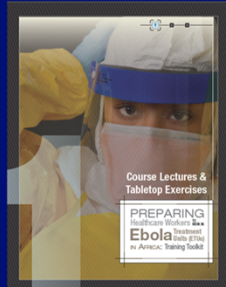


Administration

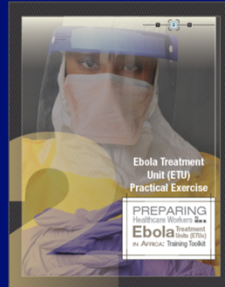
First, the “Course Lectures and Tabletop Exercises” component contains the instructional materials needed to deliver the course lectures and tabletop exercises. A brief summary of each lecture and a link to an electronic delivery of the lecture are also provided. Instructors will lead lectures on topics such as Ebola transmission and epidemiology, clinical care, and infection prevention and control.

The interactive tabletop exercises provide opportunities for students to discuss lecture content and how to apply it in ETUs. You will get a closer look at the lectures and tabletop exercises in a moment from Valerie Morelli.

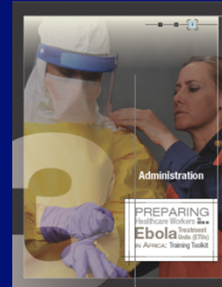
Toolkit Components



Course Lectures and
Tabletop Exercises



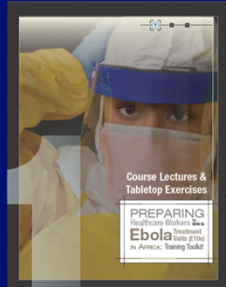
ETU Practical Exercise



Administration

The second component of the toolkit is the Ebola Treatment Unit Practical Exercise. This section contains the needed information to create an ETU simulation. Trainer guides, instructional videos, and supporting administrative documentation are included. In the mock ETU, students apply the concepts they learned in the lectures and in tabletop exercises. They practice donning and doffing (putting on and taking off) PPE and perform simulated patient care activities while wearing PPE. Valerie Morelli will review this component of the toolkit later in this webinar.

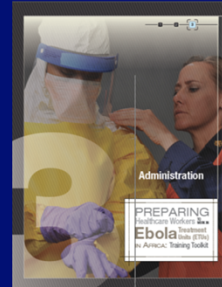
Toolkit Components



Course Lectures and
Tabletop Exercises



ETU Practical Exercise



Administration

The final component of the toolkit is “Administration,” which provides the details you will need to conduct the programmatic and administrative requirements needed to plan, develop, manage, and evaluate the course. Dr. Hamilton will review key aspects of this component at the conclusion of the webinar.

Ebola Training Toolkit Website

The screenshot shows the CDC website interface for the Ebola Training Toolkit. At the top, the CDC logo and name are visible, along with a search bar and a 'CDC A-Z INDEX' link. The main heading is 'Ebola (Ebola Virus Disease)'. Below this, there is a navigation menu with various categories like 'About Ebola', '2014 West Africa Outbreak', 'Outbreaks', 'Signs and Symptoms', 'Transmission', 'Risk of Exposure', 'Prevention', 'Diagnosis', 'Treatment', 'U.S. Healthcare Workers and Settings', 'Non-U.S. Healthcare Settings', 'Guidance for Ambulance Service Providers', 'Determining Risk of Ebola Transmission in Healthcare and Community Settings', 'Four Keys to Infection Control', 'QIGs: Infection Control in Healthcare Settings in Countries with Minimal or No Transmission', 'Training Healthcare Workers Going to Africa', 'DeLafont Information', 'Additional Considerations', and 'Continuing Education'. The main content area is titled 'Preparing Healthcare Workers to Work in Ebola Treatment Units (ETUs) in Africa: Training Toolkit Announcement'. It includes a 'Page Summary' section with a 'Purpose' paragraph and a 'Methods and Analysis' paragraph. There is also a 'Planning Materials Now Available' section. On the right side, there is a 'Ebola Training Toolkit Overview Webinar' section with a brief description and a link to attend the webinar. The URL 'www.cdc.gov/vhf/ebola/hcp/safety-training-course/training-toolkit.html' is displayed at the bottom of the screenshot.

www.cdc.gov/vhf/ebola/hcp/safety-training-course/training-toolkit.html

We have packaged all of these components in digital formats that you can access from the ETU Training Toolkit Website once you complete the registration process. The majority of the guidance is contained in one large PDF file. We will show you how to access the toolkit at the conclusion of the webinar.

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- Lectures and Tabletop Exercises
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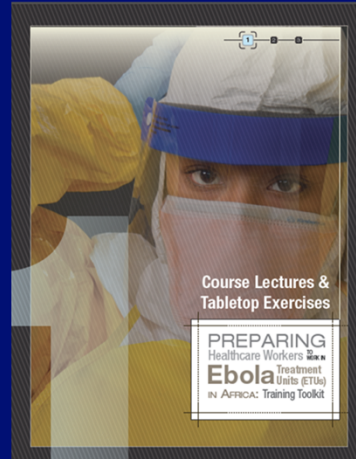
Question and Answer

Nancy Gathany: Thank you, Dr. Towers-Solis. Next Valerie Morelli will provide an overview of the first two components of the toolkit, course lectures and table top exercises AND the ETU Practical Exercise component.

Lecture and Tabletop Exercises

Includes

- Presentations
- Slides for Course Lectures
- Training Guides
- Student Worksheets



Valerie Morelli: Thank you, Nancy.

This component of the toolkit contains the instructional materials you will need to deliver the lectures and tabletop exercises necessary for the course. It includes presentations and slides for the course lectures and the trainer guides and student worksheets for the tabletop exercises.

Lecture and Tabletop Exercises Contents

Lectures Cover

- Background Information
- Information on Ebola Disease Epidemiology and Transmission
- Key Infection Prevention and Control Principles

CONTENTS

Overview

- Course Lecture and Tabletop Exercise Preparation
- Course Lectures and Tabletop Exercise Summaries and Links

Course Lectures Slides and Scripts

- Overview of the 2014 Ebola Epidemic and Response
- Ebola Virus Disease and Clinical Case Part I: History, Transmission, and Clinical Presentation
- Infection Prevention and Control for Healthcare Workers
- Ebola Treatment Unit
- Ebola Virus Disease and Clinical Case Part II: Diagnosis and Clinical Management
- Identification and Waste Management in the Ebola Treatment Unit
- Staff Health and Support
- Ebola Virus Disease and Clinical Case Part III: Experimental Treatments and Vaccines
- Staff Health and Support
- Ebola Virus Disease and Clinical Case Part III: Experimental Treatments and Vaccines
- Interaction with the Community: Health Promotion and Contact Tracing

Tabletop Exercises

Designing a Safe Ebola Treatment Unit

- Trainer Guide
- List of Issues for ETU Design
- Student Workbook

Triage of Persons Presenting to an Ebola Treatment Unit

- Trainer Guide
- Case Study Scenario
- Student Workbook
- WFO Screening Algorithm for Healthcare Facilities in Guinea

Triage of Persons Presenting to an Ebola Treatment Unit

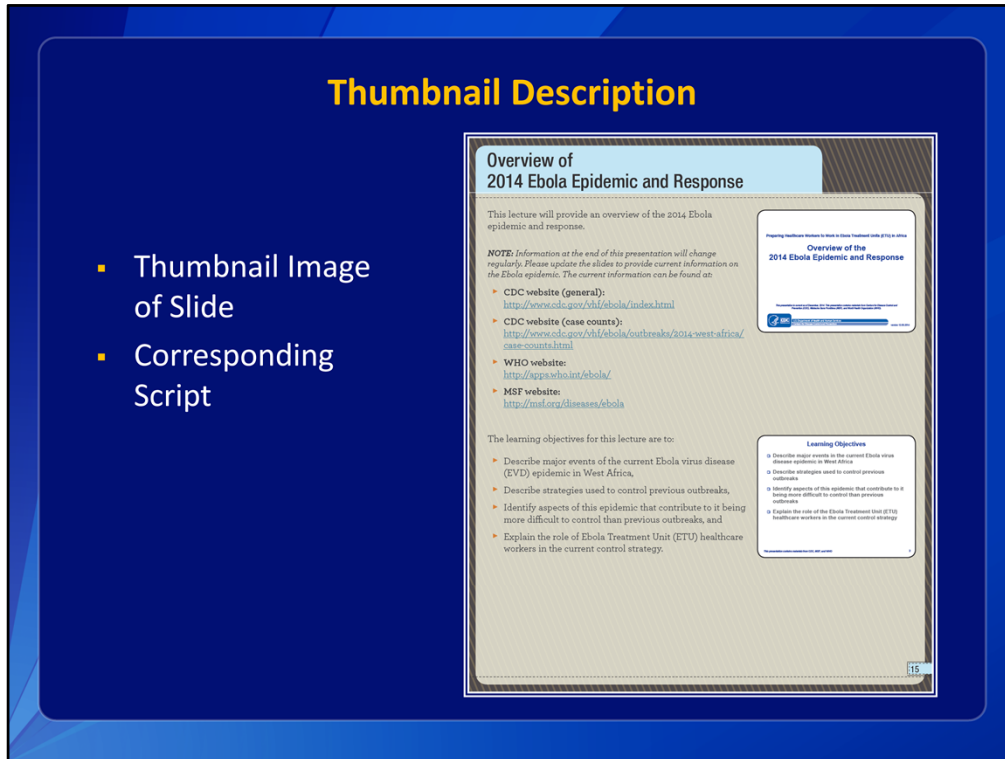
- Trainer Guide
- Case Study Scenario
- Student Workbook
- WFO Screening Algorithm for Healthcare Facilities in Guinea

There are nine lectures that provide the basic knowledge needed to understand the current Ebola epidemic and response. This includes background information on this epidemic, information on Ebola disease epidemiology and transmission, and key infection prevention and control principles for working safely in ETUs.

Lecture Material Options

- Thumbnail Description
- PowerPoint with Speaker Notes
- E-lecture

Specifically, the toolkit provides the lecture materials in three formats, a thumbnail description in the toolkit, a PowerPoint format and an e-lecture. Let's take a minute to review each of these.



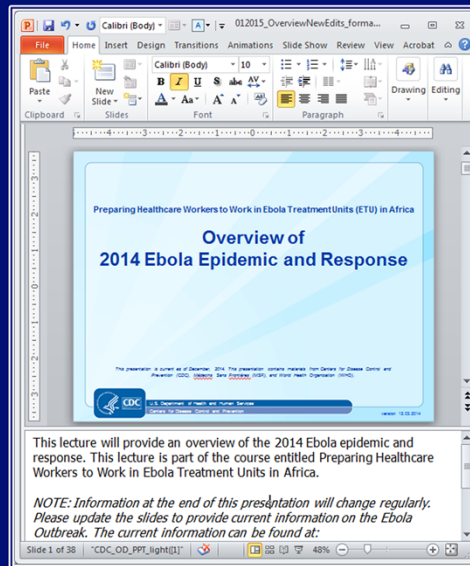
The toolkit provides a thumbnail image of each slide and the corresponding script for reference for each lecture. Here we see the lecture and script for the first course lecture, “Overview of the 2014 Ebola Epidemic and Response.”

Of note, as the epidemic evolves, you will need to update the slides to reflect the latest case counts and developments. The lectures provide information through December 31, 2014. Therefore, some content presented in the lectures may have changed. We provide information in the written script on where to get the latest updates. As you can see in the notes here, several websites are provided as reference for updates.

The appendices also provide many links and references that may also be useful.

PowerPoint

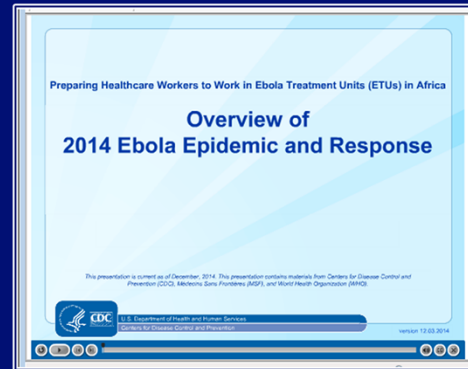
- PowerPoint with Detailed Speaker Notes



The PowerPoint files include detailed speaker notes that are identical to the text found in the toolkit. We recommend your instructors have subject matter expertise in the topic areas; therefore, they may choose to rely on the slides but modify the script to meet the needs of your organization. At a minimum, all of your presenters should be able to answer student questions and provide real-life examples to facilitate discussion in the classroom.

E-Lecture

E-Lectures Include Slides
and Audio of Speaker Notes

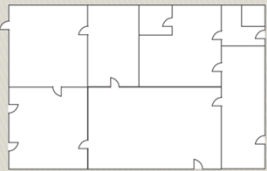


The last format I want to share with you is the e-lecture.

Here you see the first screen of the “Overview of the 2014 Ebola Epidemic and Response” e-lecture. The e-lectures include the entire content of the lecture including both the slide and the audio of the speaker notes. The e-lectures are not designed to serve as self-study lessons. Instructors should play the e-lecture file from a laptop or desktop computer for the students in the classroom.

Tabletop Exercises

- Designing a Safe ETU
- Triage of Persons Presenting to an ETU

Phase/Time	Instructional Sequence
Introduction 10 minutes	<p>At the start of the exercise, discuss the following points with the students:</p> <ul style="list-style-type: none">• Explain the goal and key points.• Note that the exercise reinforces knowledge and concepts learned in the ETU lecture.• Explain by designing an ETU, students will be able to see how the physical layout and mechanics of an ETU structure directly relate to the safety of healthcare workers, patients, and others.
Practice 30 minutes	<p>First, instruct the group to draw the following directly onto their pre-drawn facility:</p> <ul style="list-style-type: none">• Walls/fences, doors, and flow of people• Entry and exit points for staff, patients, and visitors  <p>Second, have the students write the list of items for ETU design on the sticky notes and place the notes where they belong within their ETU drawing. Students should make multiple sticky notes for items that may be found in multiple locations.</p>
Debrief 20 minutes	<p>When each group has completed the design of their ETU, they will have five minutes to present their work. After all groups have finished presenting, conduct a five-minute debriefing discussion.</p>

The toolkit includes two tabletop exercises, “Designing a Safe Ebola Treatment Unit” and “Triage of Persons Presenting to an ETU.”

These exercises build on the knowledge gained from the course lectures and provide students an opportunity to practice applying that knowledge in a classroom setting. The tabletop exercise information in the toolkit includes both a trainer guide and student worksheets.

Appendices

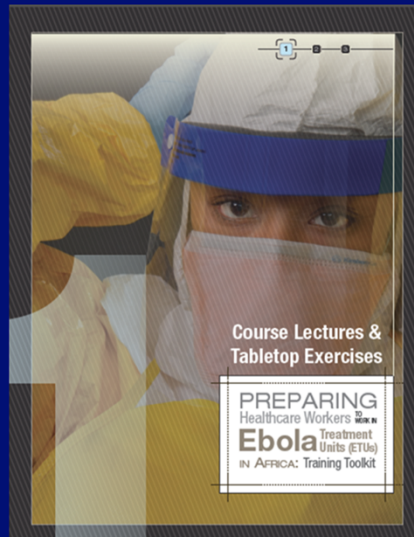
For Example

- Knowledge Assessment Questions
- Health Protocols
- Guidelines and Recommendations
- Website Links



I also want to point out this section's appendices. The appendices include extensive resource links that provide updated information on the current Ebola epidemic as well as links to health protocols, practices, and guidelines used by CDC and other international organizations including MSF and WHO. It also includes knowledge assessment questions instructors should use in conjunction with the lectures.

Lecture and Tabletop Exercises

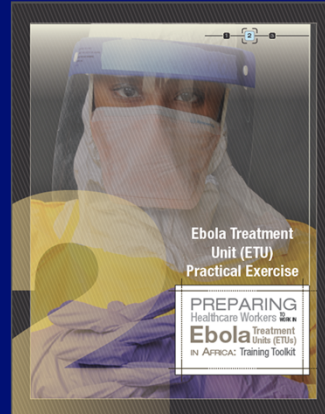


What I have shared with you today is just a glimpse of what is included in the Course Lectures and Tabletop Exercises.

The goal is that by using the lectures, your students will gain the knowledge they need to work safely in ETUs. And through the tabletop exercises, they apply that knowledge through practice in the classroom. The lectures and tabletop exercises are designed to provide students with the fundamental knowledge they need to work safely in the course ETU practical exercise, and ultimately in a real ETU setting.

ETU Practical Exercise Key Components

- Exercise Management
- Timing
- Safety
- Staff Roles
- Preparation for Trainers and Students
- Daily Trainer Guides



Next, I will describe the component of the toolkit that provides the information you need to conduct the ETU practical exercise.

This section describes the seven ETU stations and activities. It also provides information on exercise management, timing, safety, staff roles, preparation for trainers and students, and daily trainer guides.

Exercise Management

- Flow
- Timing
- Group Size



* Photo: James Gathany, CDC

To be most effective, students should move through the exercise in small groups. The size of the groups should be based on the facility size and how best to maximize the flow of students through the exercise while ensuring high performance.

In CDC's mock ETU, seen in these photos, groups are typically four students. Students work with a buddy as they would in a real ETU.

Safety Matters

- Personal Safety is Priority
- Adhere to Infection Prevention and Control Principles
- Provide Care Safely
- Obtain Medical Clearance Before the Training
- Follow OSHA Standards



* Photo: James Gathany, CDC

Personal safety is the top priority when working in an ETU, whether in a mock-ETU or in a real ETU. By rigorously adhering to infection prevention and control principles taught in the lectures and applying them systematically in the simulation, students learn to provide care safely and avoid exposure.

To emphasize safety, we recommend that you:

- Ensure all students have received prior medical clearance that focuses on assessment of fitness and ability to safely and effectively deploy on an Ebola response.
- Ensure compliance with all elements of the OSHA Respiratory Protection Standard if your organization is located in the United States and will be using N95 respirators. This includes fit testing, medical evaluation, and healthcare worker training. If your organization is not in the U.S., we still encourage you to follow this standard.

Staff Roles and Responsibilities

- Exercise Manager
- Station Trainer
- Logistics Manager
- Support Staff



* Photo: James Gathany, CDC

As you can see by this list, a number of staff members are needed for various roles in preparing for and conducting the exercise.

The exercise manager is responsible for overseeing the ETU exercise and the students' health and safety.

A logistics manager secures and prepares the facility for the ETU exercise.

Station trainers are responsible for delivering the station scenario and reinforcing safety principles during the ETU exercise.

Also, support staff assist with the exercise as needed, for example, by setting up or moving props, or guiding students from one station or activity to another.

Preparation for Trainers and Students

For Trainers

- Pre-course Conference Call
- On-site Train-the-trainer Session
- Daily Debriefing

For Students

- Orientation
- Daily Meetings

Training and student preparation is important for the success of the exercise. For trainers, we held a pre-course conference call describing course logistics, their role, and expectation. We also held an on-site train-the-trainer session before the course began as well as a daily debriefing session for all trainers with the course and exercise managers.

For students, we held daily meetings before the exercise to promote consistency and readiness.

Video Links Included

- Opening Video
- Video for Each Station (Stations 1 – 7)
- Low-risk PPE Donning and Doffing Video
- Closing Video



In the ETU Practical Exercise component you will find a trainer guide containing links to videos of the ETU practical exercise. The videos illustrate the mock ETU learning environment and supplement the detailed information in the written materials. There are links for:
an opening (or introductory) video, videos for all seven stations, and a closing video.
We've also include a link to a video that illustrates the donning and doffing process for low-risk PPE.

ETU Practical Exercise

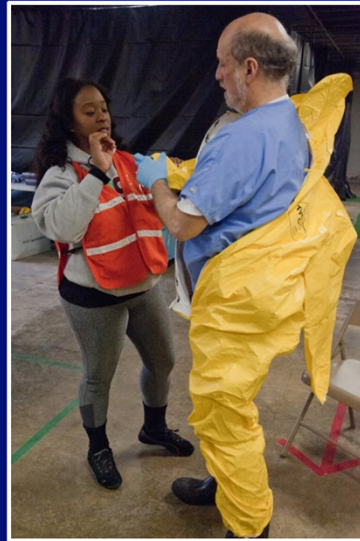
- Apply the concepts they learn in the lectures and discuss in tabletop exercises
- Practice donning (putting on) and doffing (taking off) personal protective equipment (PPE)
- Perform simulated patient care activities while wearing PPE

As I noted earlier, the ETU practical exercise has seven stations and multiple activities aimed at helping students to:

- Apply the concepts they learn in the lectures and discuss in tabletop exercises,
- To practice donning and doffing (putting on and taking off) PPE, and
- To perform simulated patient care activities while wearing PPE.

ETU Practical Exercise

- No-fault Environment
- Students Respond to Various Scenarios



* Photo: James Gathany, CDC

The exercise is designed to be an open, no-fault, non-judgmental environment in which diverse viewpoints can be expressed.

Students will respond to various scenarios by using their knowledge and insights and following directions from the trainers.

ETU Three-Day Practical Exercise At-A-Glance

ETU Three-Day Practical Exercise At-a-Glance			
	DAY 1	DAY 2	DAY 3
Station 1: Entrance Low-risk Zone	Enter ETU low-risk zone		
Station 2: Scrubs and Boots	Change into scrubs and boots		
Station 3: Briefing	3a: Briefing on blood draw and PPE breach	3b: Briefing on cleaning body spills and transferring corpse to morgue	3c: Briefing on triage and transporting new patients into ETU
			LOW-RISK PPE Activities* Triage and Transport (part 1 in low-risk PPE) 5a: Don low-risk PPE 5f: Triage in low-risk PPE 5g: Doff low-risk PPE
Station 4: Donning High-risk PPE	4a: Don high-risk PPE (long-cuff exam gloves)	4b: Don high-risk PPE (heavy-duty rubber gloves)	4c: Don high-risk PPE (heavy-duty rubber gloves)
Station 5: High-risk Activities	Blood and Breach 5a: Draw blood from patients 5b: Prepare specimen for lab and respond to PPE breach	Clean and Corpse 5c: Clean a body spill (e.g., vomit) 5d: Transport a corpse to the morgue	Triage and Transport (part 2 in high-risk PPE) 5h: Transport patient from triage to ETU high-risk zone 5i: Transfer patient from stretcher to cot 5j: Glo Germ contamination assessment pre-doffing
Station 6: Doffing High-risk PPE	6a: Doff high-risk PPE (long-cuff exam gloves)	6b: Doff high-risk PPE (heavy-duty rubber gloves)	6c: Doff high-risk PPE (heavy-duty rubber gloves) 6c: Glo Germ contamination assessment post-doffing
Station 7: Debriefing	Debrief with trainers or returned responders		

The toolkit includes this Three-Day Practical Exercise At-A-Glance. This succinct one-page summary will help you visualize the movement through the seven stations and the various activities over the three days.

ETU Three-Day Practical Exercise At-A-Glance

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	DAY 1	DAY 2	DAY 3
Station 1: Entrance Low-risk Zone	Enter ETU low-risk zone		
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Station 6: Doffing High-risk PPE	6a: Doff high-risk PPE (long-cuff exam gloves)	6b: Doff high-risk PPE (heavy-duty rubber gloves)	6c: Doff high-risk PPE (heavy-duty rubber gloves) 6c: Glo Germ contamination assessment post-doffing
Station 7: Debriefing	Debrief with trainers or returned responders		

I will quickly review the major activities of the ETU practical exercise.

Station 1: Entrance to ETU Low-Risk Zone



* Photo: James Gathany, CDC

Station 1 is the Entrance to ETU Low-risk Zone.

The purpose of this station is to prepare students for entering the ETU; here, the trainer sprays their shoes and the students wash their hands.

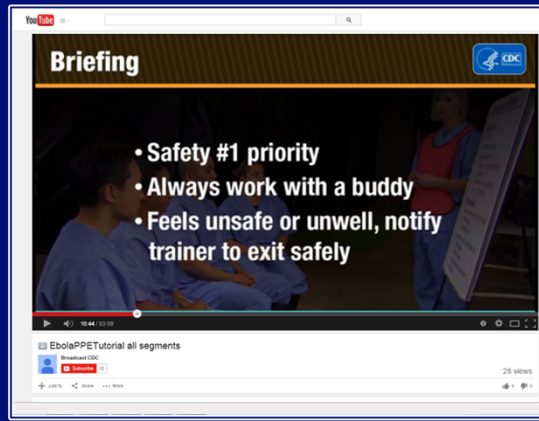
Station 2: Scrubs and Boots



* Photo: James Gathany, CDC

In Station 2, students change into scrubs and put on rubber boots. Although students are instructed to leave personal belongings outside the ETU, they may leave any remaining items here for retrieval after the exercise.

Station 3: Debriefing



Station 3 is the Briefing; in a real ETU, this would be the daily report to prepare healthcare workers for their shift. The purpose of the daily briefing is to prepare students to perform the day's activities in the high-risk zone. As I shared earlier, there is a different theme each day. For example, on Day 1 for the theme Blood and Breach, the trainer covers information about drawing blood from patients in the suspect and confirmed areas and transporting the specimens to the lab.

Station 4: Donning High-Risk PPE



* Photo: James Gathany, CDC

For each of the three days of the exercise, students will need to don high-risk PPE. Therefore, the purpose of Station 4 is for students to practice supervised donning of high-risk PPE and learn principles of donning PPE correctly.

As noted earlier, whether PPE is used for an exercise or in a real ETU, there will likely be differences in the PPE items and donning protocols. However, PPE must always be donned properly to provide adequate protection.

Station 5: High-Risk Zone Activities

ETU Three-Day Practical Exercise At-a-Glance			
	Day 1	Day 2	Day 3
Station 1: Entrance Low-risk Zone	Enter ETU low-risk zone		
Station 2: Scrubs and Boots	Change into scrubs and boots		
Station 3: Briefing	3a: Briefing on blood draw and PPE breach	3b: Briefing on cleaning body spills and transferring corpse to morgue	3c: Briefing on triage and transporting live patients into ETU
			LOW-RISK PPE Activities* 4a: Triage and Transport (part 1) in low-risk PPE 5a: Don low-risk PPE 5b: Triage in low-risk PPE 5c: Doff low-risk PPE
Station 4: Doffing High-risk PPE	4a: Don high-risk PPE (long-cuff exam gloves)	4b: Don high-risk PPE (heavy-duty rubber gloves)	4c: Don high-risk PPE (heavy-duty rubber gloves)
Station 5: High-risk Activities	Blood and Breach 5a: Draw blood from patients 5b: Prepare specimens for lab and respond to PPE breach	Clean and Corpse 5c: Clean a body spill (in-garment) 5d: Transport a corpse to the morgue	Triage and Transport (part 2) in high-risk PPE 5e: Transport patient from triage to ETU high-risk zone 5f: Transfer patient from stretcher to cot 5g: Don contamination assessment pre-doffing
Station 6: Doffing High-risk PPE	6a: Doff high-risk PPE (long-cuff exam gloves)	6b: Doff high-risk PPE (heavy-duty rubber gloves)	6c: Doff high-risk PPE (heavy-duty rubber gloves)
Station 7: Debriefing	Debrief with trainers or returned responders		



Station 5: ETU High-risk Zone

Station 5 includes 10 different activities during the three days. Keeping your one-page Exercise At-a-Glance handy will help you visualize the various activities and the movement from one activity to another within different areas of the ETU.

In the mock ETU high-risk zone which is similar to a real ETU, there are 2 patient areas: 1 for patients with suspected Ebola infection and another for patients with confirmed infection.

All of the Station 5 activities take place in the ETU high-risk zone except the triage activity on Day 3.

In Station 5, students learn to:

- Prioritize activities and bring needed supplies into the high-risk zone.
- Safely enter the high-risk zone and move from the suspect area to the confirmed area.
- Experience the challenges of performing procedures while wearing high-risk PPE.

As noted earlier, the specific activities for the high-risk zone vary each day. The theme for Day One is “Blood and Breach”, Day Two is “Clean and Corpse” and for day three, “Triage and Transport”.

Station 6: Doffing PPE



* Photo: James Gathany, CDC

Station 6 is where students exit the high-risk zone and doff their high-risk PPE. The purpose of this station is for students to learn how to avoid self-contamination while doffing PPE correctly.

In this exercise, a trainer coaches and supervises the doffing process. Doffing PPE is a process that should not be done alone in training or in a real ETU.

Station 7: Debriefing



* Photo: James Gathany, CDC

At the final station of the exercise, Station 7, the students participate in a debriefing session with a facilitator.

If possible, the facilitator should be a healthcare worker who has returned from working in an ETU in West Africa, who can share their real-life experiences and address student issues and concerns.

Agenda

Overview and History of the Course

Toolkit Components

- Lectures and Tabletop Exercises
- Ebola Treatment Unit (ETU)
Practical Exercise
- **Administration**

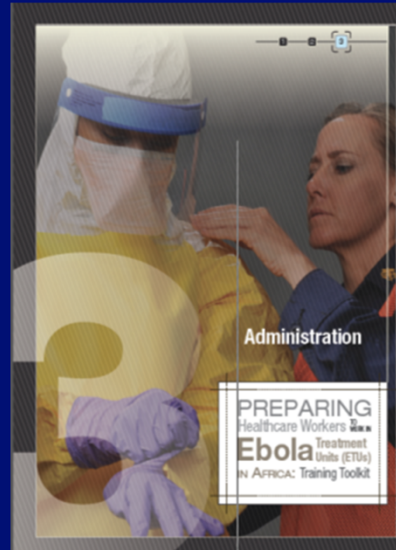
Next Steps

Question and Answer

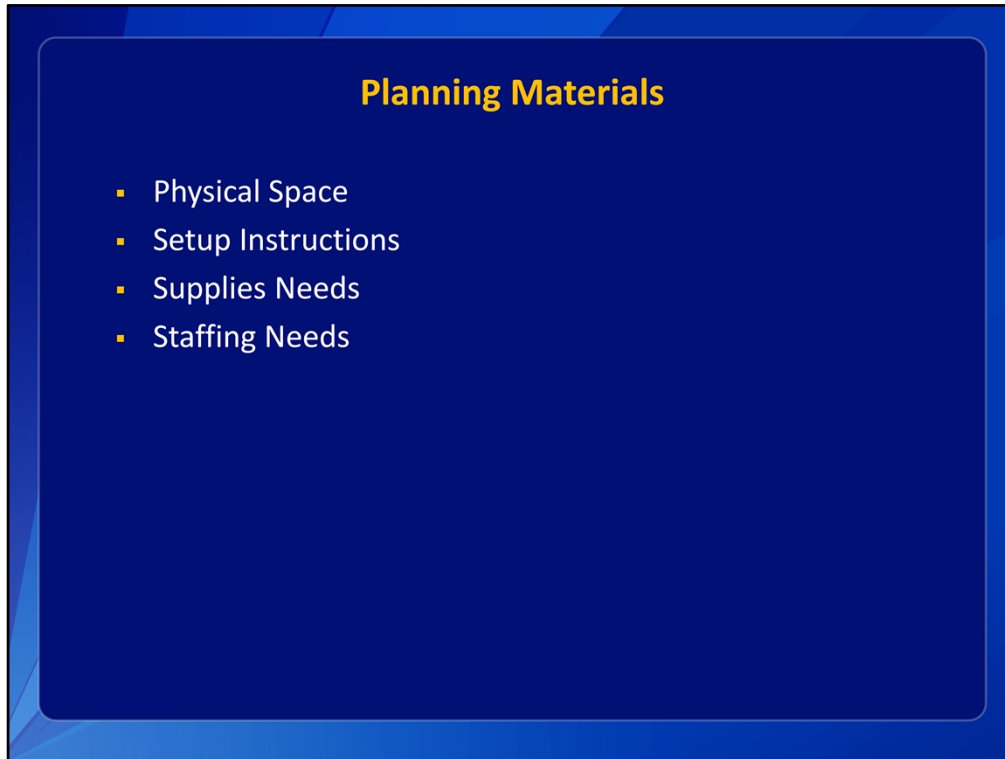
Nancy Gathany: Thank you. Now we'll ask Dr. Hamilton to conclude the presentations by covering the Administration component and the Next Steps.

Administration

- Course Planning
- Course Management
- Continuing Education
- Course Evaluation



Douglas Hamilton: The Administration component of the toolkit provides critical information for course planning, course management, continuing education and course evaluation and more. It provides detailed instructions for the design and setup of the mock ETU, as well as signage and supply needs and information for student recruitment and staff requirements and skills.



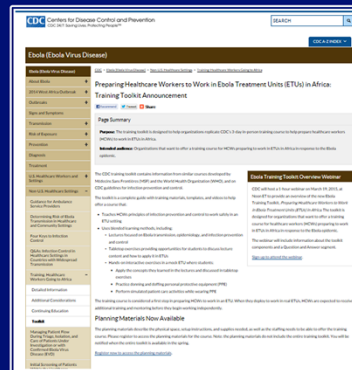
And as a next step, you can start the planning process now. If you've not yet done so, you can download the planning materials.

The planning materials provide information to help your organization prepare to offer this 3-day in-person training. The planning materials describe the physical space, setup instructions, and supplies needed, as well as the staffing needs to be able to offer the training course.

Download Planning Materials

- Start the planning process
- Register to access the planning materials at www.cdc.gov/vhf/ebola/hcp/safety-training-course/training-toolkit.html

Note: Planning materials do not include entire training toolkit. You will be notified when the entire toolkit is available in the spring.



Go to the Ebola Training Toolkit website to register to access the planning materials for the course.

At this time, the planning materials do not include the entire training toolkit. Once you register to access the planning materials, you will be notified by email when the entire toolkit is available in the next few weeks. You will then be able to download the toolkit and/or receive hard copy (including the DVDs) by postal mail.

Agenda

Overview and History of the Course

Toolkit Components

- Lectures and Tabletop Exercises
- Ebola Treatment Unit (ETU)
Practical Exercise
- Administration

Next Steps

Question and Answer

Nancy Gathany: Thank you.

That concludes the presentation portion of the webinar. Now I would like to invite our listeners to call in and ask questions. To do that please dial star one on your phone. Please tell us your first and last name and where you are from. I will now turn the mic over to our operator.

Closing



In closing, in our experience now having offered the course 15 times; with a total of 540 students so far, we've observed the positive impact this course has on students as well as the trainers. We sincerely hope this toolkit will benefit your organization as you answer the call to help countries care for patients and communities affected by Ebola.

With that I would like to thank everyone for joining us today with special thanks to our subject matter experts, Dr. Hamilton, Dr. Towers-Solis, and Ms. Morelli.

Acknowledgements

We would like to acknowledge those who contributed to the development of the toolkit.

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We would like to acknowledge those who contributed to the develop of the toolkit.

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



Department of Health and Human Services
Centers for Disease Control and Prevention

Thank you very much from Atlanta, and have a great day.