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Unit Overview

Tuberculosis (TB) is a global epidemic, killing nearly 2 million people each year and affecting the lives of countless others. The World Health Organization estimates that there were 9.4 million new TB cases in 2009 alone. One crucial tool in the fight against the spread of TB is the dissemination of accurate, easily understood information about the disease. This is especially important in countries with a high number of cases of TB, but it is also crucial in raising the profile of the disease in other countries, such as the United States, that have a lower incidence of TB but are nonetheless affected by it.

In this unit, students work together to create a global media campaign about TB that covers one of the many aspects of the disease, including how it is transmitted, how it can be treated, and what can be done to prevent the growing numbers of cases of multi-drug resistant TB (MDR-TB). To prepare for the project, students form teams and conduct research on a specific aspect of TB, focusing in particular on the impact of the disease on the lives of people in three countries with a high TB burden: South Africa, Moldova, and India.

Once students have completed their research, they create media campaign materials, such as posters or multimedia presentations, which incorporate both text and images. Optionally, students can present their media campaign to an audience of other students and community members.

Unit Length

3–4 50-minute sessions

Unit Project Description

Students take on the role of workers at an international health agency that is focused on stopping the spread of TB. Their mission is to create a global media campaign about TB that is informative, engaging, and memorable. Students work in teams that are assigned one of the following topics:

- Transmission and prevention of TB
- Diagnosis and treatment of TB
- Living with TB
- The impact of TB on the poor
- Preventing MDR-TB

Students conduct research by going on a guided tour of the Epidemic TB website, looking at images from South Africa, Moldova, and India as well as information about TB.

Once students have completed their research, they create media campaign materials about their topic that incorporate text and, optionally, images from the Epidemic TB website. Depending on classroom resources and the time available, students might produce a number of different products, such as posters, multimedia presentations, or a script for a 15-second television public service announcement (PSA). At the end of the unit, students share their campaign materials and what they have learned about TB with one another. Optionally, the class can also present its media campaigns to an audience of other students and community members, acting as educators to inform the community about worldwide challenges related to TB.

Learning Objectives

Students will:

- Understand and be able to convey to others basic information about TB, including primary causes of infection, symptoms and effects of the disease, and treatment and prevention strategies
- Understand and be able to convey to others the global scope of TB and the impact the disease has on the world's poorest and most vulnerable communities
- Understand and be able to convey to others the threat that MDR-TB poses, and identify ways to prevent its spread
- Identify the information about TB that must be widely disseminated in order to help stop the spread of the disease
- Design and create media campaign products that memorably and effectively convey information about TB

Unit Placement

This unit is designed to be taught in a health class. It touches on many issues that students focus on in health class: the transmission of disease, the relationship between a person's environment and community and his or her health, how to communicate with others about health-related issues, and how to promote a positive health message. The content of the unit also helps students view tuberculosis with a global perspective, consider how people around the world are affected by disease, and connect global issues to their own experience.

The unit can also be used in other classes:

- **Art/Digital Media:** The unit can be used as a way for students to create art or media related to a social issue. Depending on the focus of the class, students might create a variety of media campaign materials, from paintings or drawings to videos or animations.
- **Communications:** This unit provides students with an ideal opportunity to learn how to create effective and creative communications about a complex issue.
- **Science:** The unit could be used in a science class by having students focus on the scientific facts about the disease, such as how TB is transmitted and the effect that it has on the pulmonary system and other parts of the body. The unit project is a good way for students to get experience conveying accurate scientific information to an audience. Note: Using the unit for science class will require some significant adaptation and the use of outside resources in addition to the Epidemic: TB website.
- **Social Studies:** The unit can be used as a way to talk about an important global issue. Using the unit in social studies class may be particularly appropriate if you adapt it so that each team is focused on a specific country (see *Ideas for Extending or Adapting the Unit*).

Student Prerequisites

Ideally, students will have basic knowledge of communicable diseases (such as through learning about AIDS in health class) before beginning the unit. However, the unit can be adapted for students who have not yet learned this content.

Ideas for Adapting or Extending the Unit

Instead of having each team work on one topic, you can divide the class into teams of five and have each student within the team be responsible for creating materials about a different topic. In this adaptation, each team creates its own complete global media campaign. At the end of the unit, teams can compare their different approaches.

Rather than have the class focus on a global strategy, you can have each team create media campaign materials that are targeted to a specific country: South Africa, Moldova, or India.

Table of Lessons

Lesson 1: Information as a Tool to Fight TB

Students are introduced to the unit. They learn about the scale of the TB epidemic worldwide and watch a short video about the impact of TB on the lives of people in Moldova. Students learn about the unit project, analyze images or video from a media campaign about another health issue, and begin to explore the Epidemic TB website.

Lesson 2: Conducting Research

Students complete their research on their assigned TB topic and begin to work on developing their product for the global media campaign.

Lesson 3: Creating Media Campaign Materials

Students create their media campaign products and share what they have made and learned with one another.

Lesson 4 (Optional): Sharing Information with the Community

Students present their global media campaigns and share what they have learned about TB with other students in the school and/or community members.

Advance Preparation

- Before beginning the unit, determine what kinds of product(s) teams will make for their TB media campaign. A wide range of products, from very simple to more complex, will work for the unit, depending on the time and resources you have available. Here are some options:
 - Posters—these can be made using image-editing software, such as Photoshop, or by hand with posterboard and markers (if students are using photographs from the Epidemic TB website, they will need to print them). Another option is to use a poster-making website (see *Resources* in the *Teacher Center* section of the Epidemic TB website for links).
 - A multimedia presentation that incorporates text and images—these can be made using software such as iMovie or Photo Story. See *Resources* in the *Teacher Center* section of the Epidemic TB website for links to multimedia tools.
 - A script for a 15-second TV PSA. The script should indicate how images from the Epidemic TB website or other visual imagery would be incorporated into the ad. Students could act out their PSAs for the class, or, with help from a media teacher, film them.

- A 15-second PSA for radio. Students can write the script and record the PSAs themselves, using audio software, such as Audacity. See *Resources* in the *Teacher Center* section of the Epidemic TB website for links to audio software.
- Before Lesson 1, select images and/or video clips from one or more media campaigns that were designed to raise awareness or share information about a health issue other than TB. You may wish to choose media campaigns about issues that you have discussed previously in health class, such as AIDS, STDs, or smoking cessation. Ideally, the ads you choose should be memorable, with striking imagery. Plan to print or project the images, or project and play the videos. See *Resources* in the *Teacher Center* section of the Epidemic TB website for links to sites with images from media campaigns about health issues.
- Before Lesson 1, preview the Epidemic TB website, paying particular attention to the areas of the site that teams are directed to look at for information about their topics (as listed on **Handouts 2A–2E: TB Topic Worksheet**).
- Before Lesson 1, preview the video about TB in Moldova on the main page of the *Moldova* section of the Epidemic TB website.
- Before Lesson 2, determine if you will have students do the optional gallery walk of student’s journal entries. If so, arrange for students to print the photographs they wrote about for Journal 1.
- Determine whether you will have students share their media campaign products amongst themselves or with a larger group of students from within the school and/or the wider community (i.e., Lesson 4). If the latter, invite people ahead of time and make any necessary arrangements.

Students can also submit their work to the Pulitzer Center on Crisis Reporting by emailing the product or link to globalgateway@pulitzercenter.org. Once approved the work will be featured under student reporting on the Pulitzer Center site. You can find a link in *Resources* in the *Teacher Center* section of the Epidemic TB website. Students can also upload their media campaign products to a media-sharing website.

- Determine whether to give students the *TB Action Packet* available in the *Take Action* section of the Epidemic TB website. See the Teacher’s Note in Lesson 3 for more information.

Lesson 1: Introduction to Tuberculosis as a Global Disease

Students are introduced to the unit. They learn about the scale of the TB epidemic worldwide and watch a short video about the impact of TB on the lives of people in Moldova. Students learn about the unit project, and analyze images or video from a media campaign about another health issue. Teams begin to explore the Epidemic TB website.

Materials Needed

- Video about Moldova from the main page of the *Moldova* section of the Epidemic TB website
- Digital projector
- **Handout 1: TB Media Campaign Project Overview**
- **Assessment Checklist: TB Media Campaign**
- Images and/or videos from a media campaign about a health issue (see *Advance Preparation*)
- **Handouts 2A–2E: TB Topic Worksheet** (one copy of the appropriate handout for each team member)
- Computers with Internet access and printers (at least one for each team)
- **Handout 3: Journal Assignments**

Instructions

1. Have students consider media campaigns about public issues.

Pose the following questions to the class, giving several students the chance to share their answers:

- Think back to the last time you saw a really effective ad (e.g., a video, poster, or billboard) about a public issue (such as a health issue, environmental issue, or political issue)—one that made you stop and think, or even take some action. What was the ad about? Describe it.
- What made the ad so effective?

Possible answers: Useful information, clever language, strong imagery

- What purpose do you think the ad was intended to serve—what did the people who made it want you to do after seeing it?

Possible answers: The ad's purpose could be to provide information, to change people's minds about the issue, to encourage people to take action (such as vote, donate money, write an e-mail), or to encourage people to change their behavior.

- Now think about the diseases you've been learning about in health class, such as AIDS and other STDs. If people wanted to design a public media campaign to help prevent the transmission of these diseases, what kinds of information should they include? How should the ads be designed—what would grab your attention or make you think twice about engaging in risky behavior?
- Do you think that media campaigns can be an effective tool in the fight against infectious diseases? Why or why not?

Possible answers: *Answers will vary. Ideally, by the end of the unit students will see the utility of using media as a way to inform people about disease and potentially change their behavior.*

2. Discuss TB with students.

Ask students the following question:

- What three infectious diseases do you think kill the most people each year around the world?

Teacher's Note: Defining *Infectious Diseases*

Before asking students this question, you may want to make sure that they understand what infectious diseases are—diseases that can be transmitted via physical contact, air, food, or other objects. These diseases do not include non-transmissible illnesses, such as heart disease and cancer.

Give students time to share their answers. If no one answers correctly, tell students that the three infectious diseases that kill the most people each year are AIDS, malaria, and tuberculosis, or TB.

Tell students that during this unit, they will focus on TB, an infectious disease that kills nearly 2 million people a year around the world. In 2009, 1.7 million people died of this disease.

Ask students:

- What do you know or have you heard about TB? Have you heard, either in the news or elsewhere, stories of people who have gotten TB?

Possible answers: *Students may know that TB usually affects the lungs, that it's a problem more commonly found in developing countries, that it can be dangerous or deadly, or that it's treatable with drugs. They may have heard stories in the news of people in this country who have developed TB (for example, if there was an outbreak of the disease at a school in the state), or of people in developing countries who have TB. They may also not know anything at all about the disease.*

Tell students that although incidences of TB in the United States are relatively low, it is a global epidemic that affects the lives of millions of people a year, and countries like the United States have a role to play in its prevention and treatment. As global citizens, students should be aware of the facts about TB, and may even want to raise others' awareness about the disease. In addition, because TB is an infectious disease, people traveling from the United States to other countries may become infected, and people traveling from other countries to the United States may carry the disease.

Teacher's Note: Discussing TB in the United States

While TB is less common in the United States than in the developing world, there were still approximately 13,000 cases of TB in the United States reported in 2008, and it has been an issue of concern, particularly in some urban areas and on the border with Mexico. If you want students to explore the scope of the TB problem in the United States, and issues related to its treatment and prevention, direct them to the websites listed in the *Additional Resources* section of the Epidemic TB website.

3. Play the video about TB in Moldova.

Tell students that they are going to watch a video about the effect of TB on the lives of people in Moldova, a country in Eastern Europe that was formerly part of the Soviet Union. The video looks at multiple-drug resistant TB (MDR-TB), a form of the disease that is particularly difficult and costly to treat.

Teacher's Note: Images in the Video and on the Epidemic TB Website

Students may find some images (including those of a man who died from TB) in the video or on the Epidemic TB website sad or disturbing. You may want to acknowledge that many of the images are very sad and difficult to look at, as the disease can be very painful and deadly. Tell students that during the unit, they will explore ways to improve life for those afflicted with the disease, as well as prevent it from spreading. By helping to raise awareness about TB with their unit projects (especially if they share them with the community), students are also contributing in a small way to the fight against the disease. If necessary, make sure you have parent permission before using the video.

Show the video.

Ask students the following questions:

- What did you learn about TB and MDR-TB from the video?

Possible answers:

- *TB kills about 1.8 million people a year*
- *MDR-TB is harder to treat and more deadly than regular TB*
- *Moldova has a high incidence of MDR-TB*
- *TB can cause fever, pain, and weakness, can cause patients to cough up blood, and can cause patients to become very thin*
- *Treatment for TB can require taking pills every day for six to eight months*
- *MDR-TB can be caused when patients do not finish a course of treatment*
- *TB can be a curable disease if treated properly*
- If you were going to design a media campaign about TB to use in Moldova, what aspects of the disease would you focus on? Why?

Possible answers: *Students may suggest focusing on aspects of MDR-TB, such as the importance of completing a full treatment of medication.*

- Before developing your campaign, what additional information would you need to know?

4. Introduce the unit project.

Give students **Handout 1: TB Media Campaign Project Overview and Assessment Checklist: TB Media Campaign**. Describe the unit project, explaining that students will work in teams to develop media campaign materials about a specific topic related to TB. The class as a whole will thus create a global media campaign about TB. Go over the assessment checklist with students and answer any questions they may have.

Tell students the kind of media campaign products they will be making, such as posters or multimedia presentations.

5. Have students analyze materials from an existing media campaign on a health issue.

Show students the images and/or videos you have collected. Have the class discuss the following questions:

- Which of these images/videos are the most effective, and why?

Possible answers: *They may use humor to make a point; incorporate language or slogans that are clever or engaging; convey information that students didn't know or were surprised to learn; or use imagery that is funny, beautiful, disgusting, shocking, or powerful.*

- How might you incorporate some of these techniques when you create your own media campaign?

Emphasize the importance of including powerful imagery, which students will have a chance to use for their own projects by incorporating photos from the Epidemic TB website. Also emphasize the importance of including crucial, to-the-point information about the subject, but doing it in a way that grabs a viewer's attention and is easy to remember.

6. Have teams begin to conduct research on the TB website.

Divide students into teams of four to five and assign each team one of the following topics:

- Transmission and prevention of TB
- Diagnosis and treatment of TB
- Living with TB
- The impact of TB on the poor
- Preventing MDR-TB

Distribute **Handouts 2A–2E: TB Topic Worksheet**, giving the appropriate worksheet to each team. Go over the topics with the class, focusing particularly on those concepts, such as MDR-TB, that may be unfamiliar to students. If possible, connect the topics to what students have been learning in health class—for example, you might ask students to think about the similarities and differences in the way TB is transmitted compared to other diseases they have learned about.

Note: Some students may think that certain topics are more exciting or lend themselves to greater creativity than others. Tell students that all of the topics cover equally important information, and challenge students in all teams to create memorable, effective media campaign products. Or, you can allow students to rank the three topics they would most like to work on, and assign students their topics based on their preference.

Have students read their handout and begin conducting research by taking a guided tour of the Epidemic TB website as indicated. Students should take notes on their handouts as they look at the website.

7. Have students complete Journal 1.

Distribute **Handout 3: Journal Assignments**.

Have students complete Journal 1 at home or in class.

Journal 1

Think about the images that you looked at today, and choose one that particularly moved you and that you believe represents your TB topic. Write a couple of paragraphs about your image in which you answer the following questions:

- What was your reaction to seeing this photograph? What did it make you feel and think about TB and the effect it has on other people?
- What might it feel like to be in the position of the person or people in this photograph?
- How could spreading information about your topic (whether within the country represented in the image or to a broader audience) affect the lives of the person or people in this photograph?

Handout 1: TB Media Campaign Project Overview

Tuberculosis (TB) is a global epidemic. According to the World Health Organization, about 2 billion people, nearly one-third of the world's population, are infected with the TB bacterium, and of those, 1 in 10 will go on to develop the disease. TB rates are higher in areas that are poorer and less developed, so the disease has a disproportionately large impact on communities with fewer resources and less access to quality health care.

What can be done to stop the spread of TB? There are many approaches, including funding research, improving the quality of health care in the regions hardest hit by TB, and working to reduce poverty around the world. An additional piece of the puzzle, and the one you will focus on, is education—for people who have TB, for people living in areas with high rates of the disease, and for people who live in countries that may have lower rates of TB but can have a big impact on the global community, such as the United States.

For this project, you and your classmates will take on the role of workers in an international health agency that is focused on stopping the spread of TB. Your job is to develop a global media campaign to give people facts about TB that will inform them about the scope of the disease, help them make decisions to prevent infection, and help them recover from the disease successfully if they are infected.

You will work in teams, and each team will take on a different TB topic. Your team will complete the following steps.

Step 1: Conduct research about your topic.

Before you can share information with others about TB, you'll need to gain an understanding of the disease yourself. To do this, you and your teammates will take a guided tour of a website about TB. The website contains photos and information about the lives of people in three countries hit hard by TB: South Africa, Moldova, and India. It also includes information about your TB topic. Visit the parts of the site indicated on the worksheet you are given, and take notes on the information you find.

Step 2: Create a product for the media campaign.

Now that you've gathered the information you need on your TB topic, you can put that information in a form that will be easily understood and remembered by others. You will create a product for the media campaign. It may be a poster, a multimedia presentation, or another format—your teacher will let you know.

As you think about creating your product, answer the following questions with your teammates:

- Who is the target audience for the media campaign product—for example: people who have TB, people who are trying to prevent TB, people in developed countries who may not know much about the disease, young people, women, people in the United States who want to help fight the disease?
- What is your goal for the media campaign product—do you want people to change their behavior, to learn something, to take action?
- Of all the information that you've learned about your topic, what is the most crucial thing to pass on to your target audience?
- How can you convey this information in a way that's easily understood and memorable?
- What images from the Epidemic TB website can you use that will have a powerful impact on viewers? How do these images illustrate something important about your topic?

Once you've answered these questions, begin to make your product. As you work, keep in mind that you want your campaign to be memorable and informative. Think back to the ads you looked at earlier—what techniques did they use, and how can you adapt them to your product?

Step 3: Share your media campaign product and what you have learned with others.

You will present your part of the media campaign to your classmates or to a larger group of people (your teacher will tell you which). In either case, include the following information:

- What you have learned about your topic
- The target audience for your media campaign product
- Your goal for your campaign product
- Your rationale for choosing the language and images you used
- How your media campaign can help to fight the spread of TB

Assessment Checklist: TB Media Campaign

Use this checklist to help you plan and assess your project. Make sure that you include all the required components. Your teacher will use this checklist to help evaluate your work.

Requirements Percentage of Total Grade Comments

Media Campaign Product	%	Student Comments	Teacher Comments
Presents a clear and easily understood message related to the team's assigned TB topic.	20%		
Includes accurate information about TB, and demonstrates students' understanding of the assigned TB topic.	20%		
Is clearly designed to reach the team's target audience.	15%		
Demonstrates creativity and shares a message about TB in a memorable, engaging way.	15%		
Presentation	%	Student Comments	Teacher Comments
Students speak knowledgeably and accurately about their assigned TB topic.	10%		
Students clearly describe their target audience and their goal for the media campaign.	10%		
Students present a persuasive rationale for selecting the text and (optionally) images they used.	10%		
Total	100%		

Handout 2A: TB Topic Worksheet: Transmission and Prevention of TB

Your team will create a product for the media campaign that shares information about how TB is transmitted and how it can be prevented, for example:

- What TB is
- How TB is transmitted
- Risk factors for infection
- The conditions that make transmission of TB more likely
- Steps that can be taken (personally or by public agencies) to help prevent the spread of the disease
- Ways to decrease stigma (avoiding people with TB or treating them badly, which often happens in some parts of the world)

Guided Tour of the Epidemic TB Website

To learn about your topic, you will take a guided tour of the Epidemic TB website, visiting pages that include information about your TB topic, the scope of the disease, and the impact it has on the lives of people in South Africa, Moldova, and India.

To conduct your guided tour, search for images tagged with the following keywords on the Epidemic TB website, using the advanced search function:

- Transmission
- Prevention
- Silicosis (a lung disease that increases a person's risk of developing TB)
- HIV

Look at each image that comes up for these keywords, read the captions, and note your answers to the questions below. You should also visit the *TB Introduction* section of the Epidemic TB website and look for information about transmission and prevention of TB.

Notes on Your Research

The following questions can help you organize what you are learning about the topic.

What are the facts about our topic?

Are there any data or statistics about the topic?

How do specific issues (such as overcrowded housing) in the countries profiled on the website affect TB transmission and prevention?

What is the most important information to convey to the public about this topic?

Handout 2B:

TB Topic Worksheet: Diagnosis and Treatment of TB

Your team will create a product for the media campaign that shares information about the diagnosis and treatment of TB, for example:

- Symptoms of TB
- How people are diagnosed with TB
- What people should do if they suspect they have TB
- How people are treated for TB
- The importance of completing a full course of TB treatment

Guided Tour of the Epidemic TB Website

To learn about your topic, you will take a guided tour of the Epidemic TB website, visiting pages that include information about your TB topic, the scope of the disease, and the impact it has on the lives of people in South Africa, Moldova, and India.

To conduct your guided tour, search for images tagged with the following keywords on the Epidemic TB website, using the advanced search function:

- Symptoms
- Diagnosis
- Treatment

Look at each image that comes up for these keywords, read the captions, and note your answers to the questions below. You should also visit the *TB Introduction* section of the Epidemic TB website and look for information about the diagnosis and treatment of TB.

Notes on Your Research

The following questions can help you organize what you are learning about the topic.

What are the facts about our topic?

Are there any data or statistics about the topic?

How is TB diagnosed and treated in the countries profiled on the website?

What is the most important information to convey to the public about this topic?

Handout 2C: TB Topic Worksheet: Living with TB

Your team will create a product for the media campaign that shares information about the effect that TB has on the lives of those who are infected and their families, for example:

- The symptoms of TB
- How people's lives change when they develop active TB
- How their families' lives change
- What people unfamiliar with TB should know about what it's like to live with the disease
- Ways to decrease stigma (avoiding people with TB or treating them badly, which often happens in some parts of the world)

Guided Tour of the Epidemic TB Website

To learn about your topic, you will take a guided tour of the Epidemic TB website, visiting pages that include information about your TB topic, the scope of the disease, and the impact it has on the lives of people in South Africa, Moldova, and India.

To conduct your guided tour, search for images tagged with the following keywords on the Epidemic TB website, using the advanced search function:

- Living with TB
- Symptoms
- Mortality
- Stigma

Look at each image that comes up for these keywords, read the captions, and note your answers to the questions below. You should also visit the *TB Introduction* section of the Epidemic TB website and look for information about living with TB.

Notes on Your Research

The following questions can help you organize what you are learning about the topic.

What are the facts about our topic?

Are there any data or statistics about the topic?

What is it like to live with TB or have a family member with TB?

What is the most important information to convey to the public about this topic?

Handout 2D:

TB Topic Worksheet: The Impact of TB on the Poor

Your team is going to create a product for the media campaign that shares information about the impact of TB on the lives of those living in poverty, for example:

- Why TB is more prevalent in areas with greater poverty
- How TB affects the lives of people living in poverty
- What can be done to reduce the spread of TB in poor communities
- What effect different issues, such as infrastructure (basic services and facilities, such as schools and hospitals) and economic and political conditions, have on TB

Guided Tour of the Epidemic TB Website

To learn about your topic, you will take a guided tour of the Epidemic TB website, visiting pages that include information about your TB topic, the scope of the disease, and the impact it has on the lives of people in South Africa, Moldova, and India.

To conduct your guided tour, search for images tagged with the following keywords on the Epidemic TB website, using the advanced search function:

- Poverty
- Infrastructure

Look at each image that comes up for these keywords, read the captions, and note your answers to the questions below. You should also visit the *TB Introduction* section of the Epidemic TB website and look for information about poverty and TB.

Notes on Your Research

The following questions can help you organize what you are learning about the topic.

What are the facts about our topic?

Are there any data or statistics about the topic?

What affect does TB have on the lives of those living in poverty in the countries profiled on the website?

What is the most important information to convey to the public about this topic?

Handout 2E: TB Topic Worksheet: MDR-TB

Your team will create a product for the media campaign that shares information about multi-drug-resistant TB (MDR-TB) and how it can be prevented, for example:

- What MDR-TB is
- The reasons that people develop cases of MDR-TB (such as not completing a full course of treatment for TB)
- How the treatment of MDR-TB differs from the treatment of regular TB
- How to prevent cases of MDR-TB
- Why MDR-TB is so much more dangerous than regular TB

Guided Tour of the Epidemic TB Website

To learn about your topic, you will take a guided tour of the Epidemic TB website, visiting pages that include information about your TB topic, the scope of the disease, and the impact it has on the lives of people in South Africa, Moldova, and India.

To conduct your guided tour, search for images tagged with the following keywords on the Epidemic TB website, using the advanced search function:

- MDR-TB
- Treatment

Look at each image that comes up for these keywords, read the captions, and note your answers to the questions below. You should also visit the *TB Introduction* section of the Epidemic TB website and look for information about MDR-TB.

Notes on Your Research

The following questions can help you organize what you are learning about the topic.

What are the facts about our topic?

Are there any data or statistics about the topic?

How serious an issue is MDR-TB in the countries profiled on the website?

What is the most important information to convey to the public about this topic?

Handout 3: Journal Assignments

Complete these journals when they are assigned to you by your teacher.

Journal 1

Think about the images that you looked at today, and choose one that particularly moved you and that you believe represents your TB topic. Write a couple of paragraphs about your image in which you answer the following questions:

- What was your reaction to seeing this photograph? What did it make you feel and think about TB and the effect it has on other people?
- What might it feel like to be in the position of the person or people in this photograph?
- How could spreading information about your topic (whether within the country represented in the image or to a broader audience) affect the lives of the person or people in this photograph?

Journal 2

Now that you've thought about the message you want to convey and the effect you want it to have on your audience, draft the text you will use for your media campaign product. Although there may be a lot of things you want to say about TB, try to boil down what you've learned into a message that is clear and memorable, and conveys something crucial about the disease.

If your team has not yet selected a photograph or photographs for your media campaign product, select one or more images you'd like to use and describe why you think the image will have an effect on the audience and what the image conveys about your topic.

Be prepared to share your work with your teammates.

Journal 3

Answer the following questions:

- How has your understanding of TB changed as a result of this unit?
- Think about the other diseases you've learned about in health class. What are the differences and similarities between TB and these other diseases, in terms of their transmission and treatment and the effect they have on people's lives?
- If you had to explain to a friend or a classmate why it was important for people to know about TB, even though there's a fairly low rate of TB in the United States, what would you say?

Lesson 2: Conducting Research

Students complete their research on their assigned TB topic and begin to work on developing their product for the global media campaign.

Materials Needed

- Optional: Students' Journal 1 entries and a print of the image they wrote about (see *Advance Preparation*)
- Computers with Internet access (at least one for each team)
- Students' copies of Handout 1 and Handout 2

Instructions

1. Optional: Conduct a gallery walk of students' journal entries.

If time permits, have students post their Journal 1 entries and the photographs they wrote about on the walls of the classroom. Give students some time to read several journal entries and look at the accompanying photographs.

Discuss the journal entries and photographs as a class, asking students to share what they found most moving, surprising, or informative about what they read and saw.

2. Have teams complete their research.

Give teams time to finish looking through the sections of the Epidemic TB website they were assigned, making notes on their copies of Handout 2. If time permits, encourage students to explore the other photos and information available on the website.

Once students have finished looking at the website, ask them whether they feel like they have enough information to create their media campaign products or if they need to know more. If any students think they need more information, you can direct them to the websites about TB (such as the WHO website) that are listed in the *Additional Resources* section of the Epidemic TB website.

3. Have teams discuss their media campaign products.

In preparation for designing and creating their media campaign products, have teams discuss the questions from Step 2 of Handout 1:

- Who is the target audience for the media campaign product—for example: people who have TB, people who are trying to prevent TB, people in developed countries who may not know much about the disease, young people, women, people in the United States who want to help fight the disease?
- What is your goal for the media campaign product—do you want people to change their behavior, to learn something, to take action?
- Of all the information that you've learned about your topic, what is the most crucial thing to pass on to your target audience?
- How can you convey this information in a way that's easily understood and memorable?
- What images from the Epidemic TB website can you use that will have a powerful impact on viewers? How do these images illustrate something important about your topic?

4. Have students complete Journal 2 in class or as a homework assignment.

Journal 2

Now that you've thought about the message you want to convey and the effect you want it to have on your audience, draft the text you will use for your media campaign product. Although there may be a lot of things you want to say about TB, try to boil down what you've learned into a message that is clear and memorable, and conveys something crucial about the disease.

If your team has not yet selected a photograph or photographs for your media campaign product, select one or more images you'd like to use and describe why you think the image will have an effect on the audience and what the image conveys about your topic.

Be prepared to share your work with your teammates.

Lesson 3:

Creating Media Campaign Materials

Students create their media campaign products and share what they have made and learned with one another.

Materials Needed

- Materials students need to create their media campaign products—depending on what students are making, these might include the following:
 - Poster board
 - Markers
 - Glue
 - Computers with Internet access and printers
 - Image-editing software
 - Multimedia/video-editing software
 - Audio software
 - Support for using software, such as manuals or tutorials
- Students' copies of **Assessment Checklist: TB Media Campaign**

Instructions

1. Have teams share their journal entries and design their media campaign product.

Have students share with their teammates the text they created for the media campaign product in Journal 2 and the photograph(s) they selected (if teams haven't already chosen photographs).

Have teams come to a consensus about the design of their media campaign product: the text they will use, the image(s) they will use, and any other components, such as graphic elements or background colors. Students may use the text from one journal entry, use pieces from several entries, or come up with something completely different as a group.

Remind students that although they may not be able to use every team member's text in their work, each team member can contribute to the final product by sharing his or her ideas. They should all work together to create the most effective media campaign product that they can.

2. Have teams create their media campaign products.

Give teams the materials they need in order to create their campaign products.

As necessary, provide students with instruction in using equipment or software, or give them manuals or tutorials to use.

As students work, visit each team to troubleshoot and provide support.

3. Have each team share its media campaign product with the class.

Note: If students will share their work with the community in the optional Lesson 4, you may choose to skip this step.

Give each team time to present its media campaign product to the class. Remind teams to share the following information:

- Their target audience for the media campaign product
- Their goal for the media campaign product
- Their rationale for choosing the language and images they used
- How their media campaign product can help to fight the spread of TB

4. Discuss students' global media campaign.

Note: Even if you skipped the previous step, you should still conduct this discussion with students. However, you may wish to do so after students have given their presentations in Lesson 4.

Have students reflect on the global media campaign they've created by discussing the following questions:

- How would you use the components of the media campaign created by each team? Where around the world would you want to use them, and what effect would you like them to have?
- What if you were designing a campaign specifically for one of the three countries profiled on the website (South Africa, Moldova, or India)? Which media campaign products would be most appropriate, and why? How might you need to change them to fit the country?
- The spread of MDR-TB is a serious concern for both developed and developing countries. How could you use the media campaign products as part of a campaign specifically focused on stopping the spread of MDR-TB? How might you change the language or images that were used?

5. Have students reflect on their work in the unit.

Note: This step may also be completed at the end of Lesson 4.

Have students complete Journal 3 in class or as homework. If time permits, discuss students' responses with the class.

Tell students to complete the Student Comments section of Assessment Checklist: TB Media Campaign and let them know when you will collect the assessments.

Journal 3

Answer the following questions:

- How has your understanding of TB changed as a result of this unit?
- Think about the other diseases you've learned about in health class. What are the differences and similarities between TB and these other diseases, in terms of their transmission and treatment and the effect they have on people's lives?
- If you had to explain to a friend or a classmate why it was important for people to know about TB, even though there's a fairly low rate of TB in the United States, what would you say?

6. (Optional) Have students prepare to present information about TB to the community.

If you are having students present their global media campaign to other students in the school and/or members of the community, have teams meet to plan their presentations. Students should focus on two key things:

- Succinctly conveying the most important information about their TB topic to the audience
- Describing the goal and intended audience for their media campaign product, and how they think the media campaign product could be used in the fight against TB

Students should also prepare to take questions from the audience, and may want to prepare their own questions to engage the audience in a dialogue (see Lesson 4 for more information). Once students have completed their preparations, have the class meet to discuss the order in which teams should present their work.

Teacher's Notes: Having Students Take Additional Action About TB

In conjunction with this project, students may want to take additional action about TB, such as writing e-mails or letters to politicians or raising funds to fight the disease. For more information about how to go about these activities, you can give students the *TB Action Packet* available for download in the *Take Action* section of the Epidemic TB website.

Lesson 4 (Optional): Sharing Information with the Community

Students present their global media campaigns and share what they have learned about TB with other students in the school and/or community members.

Materials Needed

- Teams' media campaign materials

Instructions

1. Have teams present TB information and their media campaign materials.

Have teams present their campaigns, sharing both the information they want to convey about their TB topic and the media campaign products they created.

2. Encourage students to take questions from or have a dialogue with the audience.

At the end of the presentations, give the audience time to ask students questions about TB. You might also engage audience members in a dialogue and have students ask them questions, for example:

- What did you know about TB before this presentation?
- How has this presentation changed your perception or understanding of TB?
- Now that you know more about TB, are there any actions you'd like to take?

Standards

This unit was developed to meet the following standards.

National Academic Standards and Core Skills

Social Studies: Content Standards 9–12

Compiled from the American Cancer Society
(www.cancer.org/Healthy/MoreWaysACSHelpsYouStayWell/SchoolHealth/national-health-education-standards-2007)

Standard 1. Students will comprehend concepts related to health promotion and disease prevention to enhance health.

Performance Indicators for Standard 1, Grades 9–12

- 1.12.3: Analyze how environment and personal health are interrelated.
- 1.12.5: Propose ways to reduce or prevent injuries and health problems.
- 1.12.6: Analyze the relationship between access to health care and health status.

Standard 2. Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.

Performance Indicators for Standard 2, Grades 9–12

- 2.12.2: Analyze how the culture supports and challenges health beliefs, practices, and behaviors.
- 2.12.5: Evaluate the effect of media on personal and family health.
- 2.12.7: Analyze how the perceptions of norms influence healthy and unhealthy behaviors.

Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.

Performance Indicators for Standard 4, Grades 9–12

- 4.12.1: Use skills for communicating effectively with family, peers, and others to enhance health.

Standard 8. Students will demonstrate the ability to advocate for personal, family, and community health.

Performance Indicators for Standard 8, Grades 9–12

- 8.12.2: Demonstrate how to influence and support others to make positive health choices.
- 8.12.3: Work cooperatively as an advocate for improving personal, family, and community health.
- 8.12.4: Adapt health messages and communication techniques to a specific target audience.

Partnership for 21st Century Skills

21st Century Learning Skills Content Standards List

Compiled from Partnership for 21st Century Skills (www.21stcenturyskills.org)

21st Century Themes

Schools must move beyond a focus on basic competency in core subjects to promoting understanding of academic content at much higher levels by weaving 21st century interdisciplinary themes into core subjects

1. Global Awareness

- 1A. Using 21st century skills to understand and address global issues
- 1C. Understanding other nations and cultures, including the use of non-English languages

4. Health Literacy

- 4A. Obtaining, interpreting and understanding basic health information and services and using such information and services in ways that are health enhancing
- 4E. Understanding national and international public health and safety issues

Learning and Innovation Skills

A focus on creativity, critical thinking, communication and collaboration is essential to prepare students for the future

5. Creativity and Innovation

- 5A. Demonstrating originality and inventiveness in work
- 5B. Developing, implementing and communicating new ideas to others
- 5C. Being open and responsive to new and diverse perspectives
- 5D. Acting on creative ideas to make a tangible and useful contribution to the domain in which the innovation occurs

6. Critical Thinking and Problem Solving

- 6A. Exercising sound reasoning in understanding
- 6B. Making complex choices and decisions
- 6C. Understanding the interconnections among systems
- 6D. Identifying and asking significant questions that clarify various points of view and lead to better solutions
- 6E. Framing, analyzing and synthesizing information in order to solve problems and answer questions

7. Communication and Collaboration

- 7A. Articulating thoughts and ideas clearly and effectively through speaking and writing
- 7B. Demonstrating ability to work effectively with diverse teams

7C. Exercising flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal

7D. Assuming shared responsibility for collaborative work

Information, Media and Technology Skills

Students must be able to exhibit a range of functional and critical thinking skills related to information, media and technology

8. Information Literacy

8A. Accessing information efficiently and effectively, evaluating information critically and competently and using information accurately and creatively for the issue or problem at hand

9. Media Literacy

9A. Understanding how media messages are constructed, for what purposes and using which tools, characteristics and conventions

9B. Examining how individuals interpret messages differently, how values and points of view are included or excluded and how media can influence beliefs and behaviors

10. ICT (Information, Communications & Technology) Literacy

10A. Using digital technology, communication tools and/or networks appropriately to access, manage, integrate, evaluate, and create information in order to function in a knowledge economy

10B. Using technology as a tool to research, organize, evaluate and communicate information, and the possession of a fundamental understanding of the ethical/legal issues surrounding the access and use of information

Life and Career Skills

The ability to navigate the complex life and work environments in the globally competitive information age requires students to pay rigorous attention to developing adequate life and career skills

13. Social & Cross-Cultural Skills

13A. Working appropriately and productively with others

13B. Leveraging the collective intelligence of groups when appropriate

13C. Bridging cultural differences and using differing perspectives to increase innovation and the quality of work

15. Leadership & Responsibility

15A. Using interpersonal and problem-solving skills to influence and guide others toward a goal

15B. Leveraging strengths of others to accomplish a common goal

15D. Acting responsibly with the interests of the larger community in mind

Bibliography

Centers for Disease Control and Prevention. (July 1, 2010). *Tuberculosis: General information*. Retrieved February 15, 2011, from www.cdc.gov/tb/publications/factsheets/general/tb.htm.

Rochkind, D. (August 30, 2010). *A funeral exposes the complexities of TB*. Retrieved February 15, 2011, from <http://pulitzercenter.org/blog/untold-stories/funeral-moldova-tb-poverty>.

World Health Organization. (November, 2010). *2010/2011 Global TB facts*. Retrieved February 15, 2011, from www.who.int/tb/publications/factsheets/en/index.html.