

Peace Corps

Paul D. Coverdell World Wise Schools

Educators | Lesson Plans

Preventing Communicable and Noncommunicable Diseases

WebQuest

Subject(s): **Language Arts & Literature, Social Studies & Geography, Environment & Health, Science**

Grade Level(s): **6–8, 9–12**

Related Publication: **Global Issues | Disease Prevention**

Overview

In this WebQuest, students investigate the global challenge of disease prevention – including both communicable (infectious) and noncommunicable (chronic) diseases. Students will identify the distinguishing features of communicable and noncommunicable diseases, and give examples of diseases in each category. They will investigate the domestic and global impacts of disease, and learn about some of the strategies that Peace Corps Volunteers are using to help reduce the risk of communicable and noncommunicable diseases in their host communities. Finally, each student will select a disease to research in depth. Using what they've learned, students will create realistic fiction journals from the perspective of a person who has experienced the disease they researched.

Background Information

More about how Peace Corps Volunteers address global issues:

- [Peace Corps - What do Volunteers do? - Health](#)

More about communicable and noncommunicable diseases in the world:

- [World Health Organization - Infectious Diseases](#)
- [World Health Organization - Chronic Diseases](#)

More about communicable and noncommunicable diseases in the United States:

- [Centers for Disease Control and Prevention - Chronic Disease Prevention](#)
- [Centers for Disease Control and Prevention - Vaccines and Preventable Diseases](#)

Objectives

- Compare and contrast communicable and non-communicable diseases and provide examples of each
- Posit explanations for the disproportionately high burden of communicable diseases in low-income countries
- Identify strategies for reducing risk factors for noncommunicable disease
- Conduct in-depth research on a disease
- Write realistic fictional narratives that demonstrate an understanding of the symptoms, impacts, and prevention of a specific disease

Vocabulary

- AIDS: Acquired Immune Deficiency Syndrome; an advanced stage of HIV infection in which the immune system cannot fight off infections
- Chronic disease: Long-lasting or recurrent diseases like cardiovascular disease and Type II diabetes
- Diabetes: Chronic disease in which the body does not produce insulin or cells ignore insulin
- Diarrheal disease: Any gastrointestinal illness that causes diarrhea; can lead to dehydration and an impaired immune system
- Heart disease: Any disease that prevents the heart from functioning normally; often linked with nutrition and physical inactivity, as well as family history
- HIV: Human Immunodeficiency Virus; the virus that causes AIDS
- Infectious diseases: Diseases caused by microorganisms entering the body (e.g., HIV/AIDS, malaria, influenza)
- Infrastructure: Basic facilities and services needed for a society or community to function
- Malaria: A type of infectious disease spread by mosquitoes
- Mosquito nets: Mesh netting usually hung over people's beds to prevent the spread of malaria through mosquito bites
- Neonatal disease: A health condition existing at birth or developing in the first month of life
- Stroke: The sudden death of some brain cells when blood flow to the brain is blocked or disrupted
- Tuberculosis: A type of infectious disease caused by bacteria; usually affects the lungs
- Vaccines: Weakened or killed forms of infectious disease organisms that are often injected into the body to stimulate the immune system and prevent future infection
- Waterborne diseases: Infections transmitted through ingestion of contaminated water

Featured Reading(s)

- [Global Issues | Disease Prevention](#)

Materials

- Student access to computers with Internet and audio

Procedures

1. Introduce students to the terms communicable disease and noncommunicable disease. Can they give examples of each type or explain the differences between the two types of disease? What experiences do students have with communicable and noncommunicable diseases? What do they know about key communicable and noncommunicable diseases that are affecting the U.S. and the world?
2. Explain to students that they will be engaging in a WebQuest, in which they will conduct research about disease prevention and then investigate one specific disease in-depth. As they investigate, they will learn about examples of disease prevention initiatives led by Peace Corps Volunteers around the world. If students are unfamiliar with Peace Corps, view the video available on the [Peace Corps website](#).
3. In the computer lab, direct students to the [Global Issues: Preventing Disease WebQuest](#). On the Student Page, read the *Introduction* and *Task* sections together, demonstrating how to navigate through the WebQuest and collect information requested on the data collection sheet. When reviewing the task, introduce the idea of realistic fiction and taking the perspective of someone who has experienced the disease or condition researched.
4. Allow time for students to work on the WebQuest independently, in pairs, or in small groups. Provide assistance to students as needed during their work time.
5. When students reach the section *Researching a Communicable or Non-Communicable Disease*, provide guidance as needed as students select diseases to research and look for relevant background information.
6. Once students have completed their research and reach the section *How do Communicable and Noncommunicable Diseases Affect People's Lives*, model an approach to beginning a journal entry from the perspective of a fictional character. Have students evaluate their work using the rubric in the *Evaluation* section. Then provide an opportunity for students to read one another's writing and ask questions about the specific diseases their classmates investigated.
7. Use the questions in the *Conclusion* section of the WebQuest to guide a class discussion, or ask for students' verbal or written reflections.
8. To engage students in further interdisciplinary exploration, see the teaching suggestions listed in [Investigating](#)

Disease Prevention.

Framework and Standards

Enduring Understandings

- Communicable and noncommunicable diseases have a significant effect on people and communities in the United States and the world.
- It is possible to reduce the risk factors for communicable and noncommunicable diseases.
- Successful disease prevention depends on access to resources like access to medical care and supplies, infrastructure, and quality health education.

Essential Questions

- How does disease affect individuals, families, communities, countries, and the world?
- How are global health concerns related to other major global issues such as poverty, water and sanitation, nutrition, and education?
- What can you do to address the burden of disease in your community and in the world?

Standards

National Science Education Standards

- Content Standard F: Science in Personal and Social Perspectives
 - Personal and community health

National Curriculum Standards for Social Studies

- Thematic Strand IX: Global Connections
 - Use maps, charts, and databases to explore patterns and predict trends regarding global connections at the community, state, or national level
 - Explore the causes, consequences, and possible solutions related to persistent, current, and emerging global issues

Common Core State Standards for English Language Arts

- **Writing**
 - **Text types and purposes:** Write narratives to develop real or imagined experiences using effective technique, relevant descriptive details, and well-structured event sequences.
 - **Research to build and present knowledge:** Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.