

Globalization and Health

Course

World Health
Research

Unit IV

Globalization &
Health

Essential Question

How does
globalization
contribute to
health and
disease?

TEKS

130.209. 1 F, 3
A, 2 A

Prior Student Learning

An understanding
of how the United
Nations conducts
health summits.

Estimated time

Four 50-minute
classes

Rationale

Globalization affects all facets of life including health and disease. It has helped spread some of the deadliest infectious diseases known to humankind. In the 14th century, the Black Death, which started in Asia, killed at least one-third of Europe's population. When Europeans colonized America, 90% of the native population was killed by small pox. Now the world faces SARS, HIV/AIDS, multidrug resistant TB, and deadly flus – CDC.

Objectives

Upon completion of this lesson, the student will be able to:

- Define globalization
- Identify positive and negative ways in which globalization impacts societies
- Describe the most important ways that infectious diseases are affected by globalization

Engage

"Epidemics of cholera follow major routes of commerce. The disease always appears first at seaports when extending into islands or continents."

-John Snow, "On the Mode of Communication of Cholera," 1849

Key Points

A. What is Globalization?

1. This is a term to describe changes that take place in societies around the world as a result of the increased global networking of trade and communication.

B. Globalization impacts many facets in societies in positive and negative ways:

| Impact on: | Positive | Negative |
|----------------|--|--|
| 1. health | <ul style="list-style-type: none">• shared knowledge of research and medical technology | <ul style="list-style-type: none">• spread of infectious diseases |
| 2. environment | <ul style="list-style-type: none">• international cooperation to address ecological challenges | <ul style="list-style-type: none">• cross-boundary water & air pollution• over-fishing of ocean• spread of invasive species (plants & animals) |
| 3. culture | <ul style="list-style-type: none">• diversity of food from different countries (food a | <ul style="list-style-type: none">• leads to multiculturalism which can cause reduction |

| | | |
|---------------|--|--|
| | global enterprise— McDonalds, etc.) • spread of “world fashion” (clothing icons worn worldwide: jeans, t-shirts, tennis shoes, etc) • pop culture: Facebook, Sudoku, YouTube, Idols | in cultural diversity or displace a local culture • globalization of foods has aided the spread of “fast- food” diseases (e.g. obesity) |
| 4. technology | • increased flow of information around the world (wireless phones, fiber optic communications, satellites, Internet) | • provides means of communication for political and religious discontents |
| 5. Economic | • a common global market where there is exchange of goods and capital | • an economic collapse in any given country affects other countries |

C. Globalization is not new.

1. For thousands of years, people have been buying from and selling to each other in lands at great distances.
2. Example: famed Silk Road that connected trade routes across Asian continent with Mediterranean world, as well as North Africa and Europe
 - a. Silk Road got its name from the valuable silk fabric that traders carried from China to Europe.
 - b. One of the Silk Road’s most famous travelers was Marco Polo, who wrote of his experiences as he traveled.
3. Silk Routes were important paths for cultural, commercial and technological exchange for almost 3000 years.

D. Nowadays, modes of transportation allow more people and products to travel around the world much faster.

1. opened airways to transcontinental movement of infectious disease vectors
2. example: worldwide spread of HIV/AIDS

E. Increased migration of people throughout the world

1. For example, in the United States, “immigration infections” from faraway lands have spread throughout the population.
 - a. approximately 500,000 people in the United States are believed to be infected with Chagas disease (a tropical parasitic disease)
 - b. in 2008, the tuberculosis rate among foreign-born people in the United States was 10 times that of U.S.-born

F. The most important ways that infectious diseases are affected by globalization include:

1. increased global travel
2. increased trade in goods
3. food-borne illnesses
4. urbanization
5. climate change
6. microbial drug resistance
7. breakdowns in public health systems

G. Challenge in the era of globalization

1. building effective international public health services
2. improving global networks of identifying, tracking, and responding to disease outbreaks and other health conditions

Activity

Activities #1 & #2 (from the Levin Institute: Globalization 101.

Note: Activity #2 of this lesson plan (United Nations Role-play) takes considerable student preparation. To prepare your students for this activity they need to have an understanding of the United Nations summits.

Activity #3:

Assessment

Successful completion and presentation of Activities #1 and #2.

Materials

Instructions for Activities #1 and #2

Handout #1: Pages 8 – 19 in the [Health and Globalization booklet](#) (click on the PDF **Download the Issue Brief**).

Handout #2: *Developed Countries Agree to Increase Access to HIV/AIDS Drugs for Poor Nations*

<http://www.globalization101.org/developed-countries-agree-to-increase-access-to-hiv-aids-drugs-for-poor-nations/>

Accommodations for Learning Differences

For reinforcement, the student will research and design a collage that depicts ways in which globalization has affected societies around the world. (See instructions for Activity #4)

National and State Education Standards

National Health Science Cluster Standards

HLC06.02

Health care workers will understand the fundamentals of wellness and the prevention of diseases processes. They will practice preventive health behaviors among the clients.

TEKS

130.209. (c) 1F identify and describe the challenges in global health, which can have the greatest impact on health in developing nations;

130.209. (c) 2A compare the availability of health care in developing and developed countries;

130.209. (c) 3A describe technologies that support the prevention and treatment of infectious diseases.

Texas College and Career Readiness Standards

English Language Arts

II. B. Understand new vocabulary and concepts and use them accurately in reading, speaking, and writing.

III. A. Understand the elements of communication both in informal group discussions and formal presentations (e.g., accuracy, relevance, rhetorical features, and organization of information).

III. B. Develop effective speaking styles for both group and one-on-one situations.

IV. A. Apply listening skills as an individual and as a member of a group in a variety of settings (e.g. lectures, discussions, conversations, team projects, presentations, interviews).

IV. B. Listen affectively in informal and formal situations.

V. B. Select information from a variety of sources.

Science

X. C. 1. Recognize variations in population sizes, including human populations and extinction, and describe mechanisms and conditions that produce these variations.

X. D. 1. Recognize and describe major environmental policies and legislations.

X. D. 2. Understand the types, uses and regulations of various natural resources.

X. E. 5. Understand how human practices affect air, water, and soil quality.

Social Studies

I. F. 1. Use a variety of research and analytical tools to explore questions or issues thoroughly and fairly.

III. Analyze how and why diverse communities interact and become dependent on each other.

IV. 3. Evaluate sources from multiple perspectives.

Cross-Disciplinary

- I. A. 1. Engage in scholarly inquiry and dialogue.
- I. B. 1. Consider arguments and conclusions of self and others.
- I. B. 2. Construct well-reasoned arguments to explain phenomena, validate conjectures, or support positions.
- I. B. 3. Gather evidence to support arguments, findings, or lines of reasoning.
- I. B. 4. Support or modify claims based on the results of an inquiry.
- I. C. 3. Collect evidence and data systematically and directly related to solving a problem.
- I. E. 1. Work independently.
- I. E. 2. Work collaboratively.
- I. F. 3. Include the ideas of others and the complexities of the debate, issue, or problem.
- II. C. Understand which topics or questions are to be investigated.
- II. C. Explore research topic.
- II. C. 5. Synthesize and organize information effectively.
- II. C. 7. Integrate source material.
- II. C. 8. Present final product.
- II. E. 1. Use technology to gather information.
- II. E. 2. Use technology to organize, manage, and analyze information.

Explore additional [Health & Globalization](#) units and lesson plans from The Levin Institute: Globalization 101.

Activity 1 and 2

Unit One: Globalization and Health

[HTTP://WWW.GLOBALIZATION101.ORG/](http://www.globalization101.org/)

Introduction

In this lesson, students will learn about the political, economic, and social effects of disease, looking particularly at those effects on developing countries. They will learn about the ways in which globalization has affected health around the world and about international public health officials' suggested responses to the spread of infectious disease. Students will participate in a role-playing exercise about providing cheap medications to poor countries.

Time Required - Four 50-min. classes

Instructional Goals

Students gain a basic understanding of how health relates to globalization, including the spread of infectious diseases.

Learning Objectives

- Demonstrate knowledge of the history of the spread of infectious diseases.
- Demonstrate knowledge of terms related to the study of global health.
- Identify political, social, and economic effects of rising incidences of infectious diseases.
- Define and explain the most important ways that global health has been affected by globalization.
- Evaluate the degree to which global health concerns are a cause of globalization or merely global health issues that have global significance.
- Enumerate and describe suggested methods of responding to increasing global health concerns.

Materials

1. Handout 1, "**Seven Ways Globalization Has Affected Health**" (Pages 8 – 19) in the Globalization booklet)
2. Handout 2, "**Developed Countries Agree to Increase Access to HIV/AIDS Drugs for Poor Nations**"
<http://www.globalization101.org/developed-countries-agree-to-increase-access-to-hivaids-drugs-for-poor-nations/>

Procedure

Introductory Discussion

1. Begin activity with history of spread of diseases by:
 - having students **read** section "**Diseases and Human History**" from Health Issue Brief handbook
 - To begin the **discussion** of topic, quote John Snow in "On the Mode of Communication of Cholera" (1849): "**Epidemics of cholera follow major routes of**

commerce. The disease always appears first at seaports when extending into islands or continents.”

- Ask the students to discuss the significance of this statement.
 - Why would an epidemic follow routes of trade and commerce?
2. Next, **discuss** how in modern times globalization has led to the rapid spread of diseases around the world.
- Explain to students that according to some estimates, at the time of European colonization of the Americas, plagues such as smallpox and measles could travel around the world within the span of a year.
 - i. What do they think the time span is now?
 - How can disease spread so quickly?
 - Ask students why such quick travel can be so threatening as it relates to diseases.
3. Next, have students read **“Diseases Go Global”** from their handbook (pgs 3-7).
- Based on this section, lead a discussion about ramifications of rising incidences of infectious diseases.
 - Write the following terms on the board to help prompt students:
 - economic consequences
 - political consequences
 - societal impacts
 - governmental responsibilities
4. Pose this question to the students:
- If the spread of infectious diseases has been around for centuries, why does it seem like this is a relatively new phenomenon?
 - Ask students what they think has drawn increased attention to global diseases?

ACTIVITY 1

1. Have students read the Health Issue Brief section entitled, **“Infectious Diseases and Global Public Health”** (pgs 8-15).
2. Pass out handout1 **“Seven Ways Globalization Has Affected Health.”** Divide the class into seven groups and assign each group one of the items on the list:
 - 1) increased travel
 - 2) increased trade
 - 3) food-borne illnesses
 - 4) urbanization
 - 5) climate change and other environmental concerns
 - 6) microbial drug resistance
 - 7) breakdowns in public health systems.
3. Based on information from the Health Brief, groups should:
 - write a brief summary of the issue;
 - decide if the issue is a result of globalization, simply a global issue, or somewhere in-between (the difference between globalization and global issue is explained in the booklet); and
 - write an explanation for its conclusion.

- ask students to think about the following question: *To what extent is the issue the result of policy decisions that pertain to globalization versus being a result of other, local factors?*
4. When the groups have completed the task, ask **each group to present** its issue to the rest of the class.
 - Groups should summarize issue first, using a group member to write significant points on the board.
 5. After each group has presented its ideas,
 - ask the students if they think slowing down globalization would lead to an improvement in any of these problems or potentially worsen the problems.
 - How would such a slowdown be accomplished—government policies, individual choices, or international cooperation?
 - What kinds of policies could achieve such a slowdown?

ACTIVITY 2: Role-Playing Exercise

1. As a way to draw together the various issues involved in the lesson on globalization and health, students will participate in a role-play.
 - This group activity will focus on **providing drugs to combat AIDS to poor countries**.
2. Pass out copies of the Globalization101.org News Report entitled “Developed Countries Agree to Increase Access to HIV/AIDS Drugs for Poor Nations” to each student or have them read it on-line at:
<http://www.globalization101.org/developed-countries-agree-to-increase-access-to-hivaids-drugs-for-poor-nations/>
 - Have students read the report to themselves or go through the report aloud, pointing out:
 - i. what the TRIPS agreement states,
 - ii. what criticisms developing countries have of TRIPS,
 - iii. and the counter-arguments of developed countries.
3. Divide students into 4 groups representing:
 - (1) the government of the United States,
 - (2) Oxfam (a British confederation of non-governmental organizations involved in fighting disease spread in developing countries),
 - (3) Merck (a multinational pharmaceutical company), and
 - (4) the government of South Africa.

These four groups are meeting at a UN-sponsored summit to discuss effective methods of stopping the spread of HIV/AIDS in Africa. While there is agreement that the disease is a problem that needs immediate attention, there is disagreement among the four parties as to the appropriate and feasible international response. The four groups also disagree sharply as to who should bear the financial and administrative burdens of carrying out any program.

4. Have students use Globalization101.org to research positions of each of the parties to this dispute.

- They can do this in-class, at home, or at a library, depending on the availability of computers and on your preference for having students do homework or in-class work.
 - Students should explore the links to:
 - i. international organizations,
 - ii. governments, and
 - iii. media outlets in the Health Issue Brief,
 - iv. the News Report, and
 - v. in Links section of the Globalization 101 site (should explore material in the CSIS Projects section on health, particularly the publications of the CSIS HIV/AIDS Task Force)
5. With this background, students must decide on a response to the crisis and write a two-page proposal outlining such a response.
- Let students know that you expect their proposals to realistically reflect the constraints and interests of the group they represent.
 - They will have to discuss in their groups what their interests are and even consider what those of the other groups are.
6. The day of the role-play, the teacher will play UN Secretary General Ban Ki Moon, who is presiding over the conference.
- Each group will have 10 minutes to present its proposal (ask groups to split this time among team members, rather than designating one spokesperson).
 - After each team presents their proposals, the teacher should begin the discussion by raising any points of clarification or asking students to respond to each others' proposals.
 - Groups are then given 15 minutes to negotiate with each other to try to reach agreement on a proposal (given class length, this role play may need to carry over into a second day).
 - At the end of the 15 minutes, groups are given 10 minutes to draft a new position that reflects any compromise or proposal that may have been agreed to during the negotiations phase.
7. After this period, you will again ask the groups to present their positions briefly, and then, as convener of the conference, work with the groups for a final 15 minutes to see if you can locate points of agreement or compromise that can serve as the basis for a joint proposal.

Conclusion

- After role-play activity is completed, you should provide some concluding remarks on the impact of globalization on health.
- One point that the Health Issue Brief makes illustrates the predicament nicely: *the challenge of addressing international public health issues is in many ways similar to the concern about global warming.*
- Although improvements in global public health benefit everyone, the costs are often borne by individual countries, so there is less incentive by lesser-affected countries to make big investments.

- Compounding this problem is that the countries with the biggest public health problems typically have the fewest resources to respond to them.
- The world's 60 poorest nations spend an average of \$13 per person on health care per year.
- The World Health Organization recommends that this number should rise to \$34 per person.
- By way of comparison, the United States spends \$4,500 on health care per person per year.

Ask students what they would recommend to make health care spending more balanced.

- Do they think that requiring developed, wealthier countries to spend more money on improved international public health system is fair?
- Do students agree with the argument that any effective response to the spread of global diseases must be global?
- Who would coordinate this effort?
- How would students prioritize their efforts if they were in charge:
 - would they spend more money on prevention, treatment, or research?
 - would they allocate more money to particular countries than to others?

Assessment

Students write a follow-up report that details their insights from the role-play, either in terms of the difficulty of finding common ground or of creating a program that is both feasible and effective. If a proposal was agreed to, the follow-up report should focus on how the proposal would be implemented in practice: what is needed before a program can be carried out, who will pay for and administer the program, and how will its effectiveness be monitored?

Globalization Activity #3: *Track that Disease!*

Objective:

Student groups will trace the origin and spread of the following diseases:

- Group 1: Black Death of the 14th century
- Group 2: 1780 Smallpox Pandemic
- Group 3: 1918 flu pandemic (Spanish Flu)
- Group 4: 1957 Asian flu
- Group 5: 1968 Hong Kong flu
- Group 6: 2003 SARS pandemic

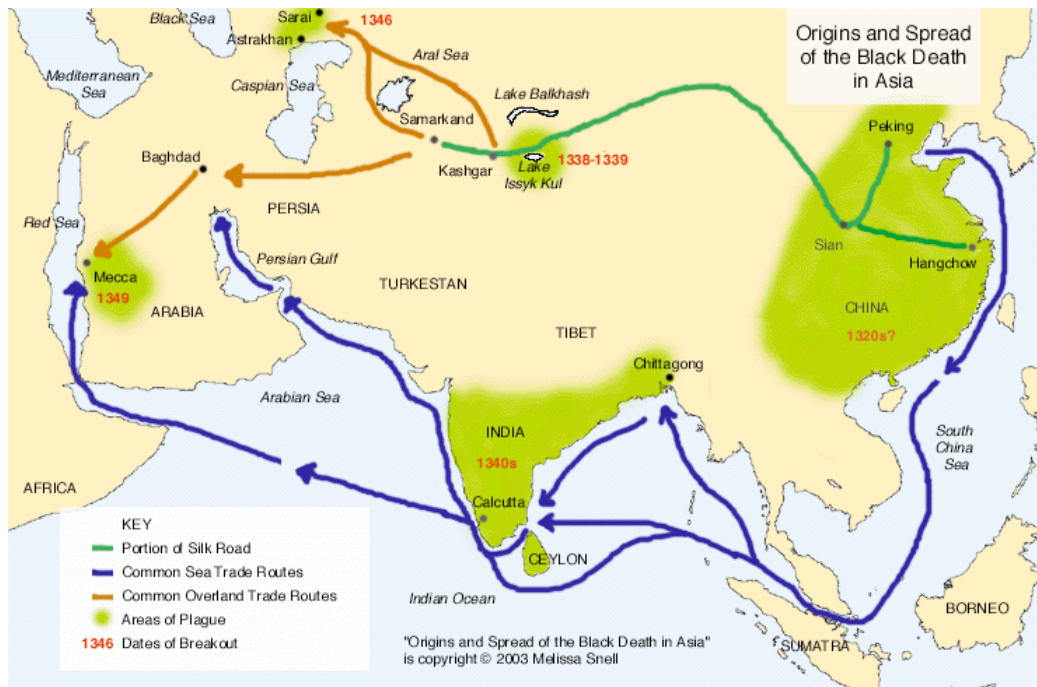
Materials:

- Standard size poster for each group
-

Instructions:

- Each group will research their assigned pandemic
- Using their poster, they need to draw a map or make a schematic illustration that shows the origin and spread of their assigned disease

Example:



giaphistory.com

Globalization Activity #4: ***How Globalization Has Impacted Societies***

Objective:

The students will

- research and design a collage that depicts ways in which globalization has affected societies around the world

Materials:

- computer access for initial research
- 3-foot piece of white butcher paper
- colored markers, map colors
- old magazines
- scissors
- paste

Teacher Instructions:

- Divide students into groups of 4 to 5
- Give each group a piece the white butcher paper
- Assign each group one of the following ways that globalization has impacted societies:
 - **Health** (spread of various infectious diseases)
 - **Food** (preparation, consumption, fast-foods, diversity of foods, etc.)
 - **Fashion** (clothing, hair styles, body hygiene products, plastic surgery)
 - **Pop culture** (music, TV, movies, etc.)
 - **Environment** (deforestation, climate change, pollution, biodiversity loss, and water resources)
 - (or any other change you choose)
- Students can cut out pictures and words from magazines and/or draw and write key words on their collage.

Group instructions:

- Title butcher paper with your assigned topic
- Create a collage that depicts how globalization has impacted your topic
- Present your collage to the class