

Historical Epidemics

Obj. 9.2: Identify factors shaping historical epidemics & explain their impact on health outcomes.



Major Epidemics Throughout Time

The table shows major epidemics throughout history. Use it to answer the questions on the following page.

Death Toll	Location	Date	Disease	Notes
ca. 40% of population	Europe	541-2	Bubonic plague	Known as Plague of Justinian, due to the name of the Byzantine emperor in power at the time.
30% to 70% of population	Europe	1346-50	Bubonic plague	Known as "Black Death" or "Black Plague," first return of the plague to Europe after the Justinianic plague of the 6th century.
30% to 90% of population	Southern New England	1616-1619	Unknown	Unknown cause. Latest research suggests epidemic(s) of leptospirosis with Weil syndrome. Classic explanations include yellow fever, bubonic plague, influenza, smallpox, chickenpox, typhus, and syndemic infection of hepatitis B and hepatitis D.
280,000	Italy	1629-1631	plague	Italian plague of 1629-1631
100,000	England	1665-1666	plague	Great Plague of London
>>100,000	Asia, Europe	1816-1826	cholera	first cholera pandemic
>>100,000	Asia, Europe, N. America	1829-1851	cholera	second cholera pandemic
1,000,000	Russia	1852-1860	cholera	Third cholera pandemic
616	England	1854	cholera	Broad Street cholera outbreak
1,000,000	worldwide	1889-1890	influenza	1889-1890 flu pandemic
75,000,000	worldwide	1918-1920	influenza	1918 flu pandemic
2,000,000	worldwide	1957-1958	influenza	Asian flu
1,000,000	worldwide	1968-1969	influenza	Hong Kong flu
>30,000,000	worldwide	1981-present	influenza	Hong Kong flu
775	Asia	2002-2003	SARS coronavirus	SARS
14,286	worldwide	2009-2010	influenza	2009 flu pandemic

Source: Wikipedia, List of Epidemics (http://en.wikipedia.org/wiki/List_of_epidemics)

- 1) Which epidemic in the past 200 years killed the most people?
- 2) What type of disease has been most prevalent in major outbreaks over the past 200 years?
- 3) Which two epidemics included in this table had the LEAST number of victims? Why were they significant?
- 4) Why do you think recent major disease outbreaks seem to be spreading worldwide, rather than just being contained in one or a few continents as outbreaks in the past often were?

DISCUSS

In addition to the outbreaks included in the table, what other epidemics or pandemics have you heard of? What factors make the spread of disease considered an epidemic or pandemic?

NEW INFO

Epidemics & Pandemics

What is an epidemic? How is a pandemic different?

epidemic: any unexpectedly large number of cases of an illness, health related behavior, or other health-related event in a particular population at a particular time.

pandemic: an epidemic that is occurring in many parts of the world.

Epidemic or Pandemic?

- _____ A. Stomach Flu at our school
- _____ B. HIV/AIDS
- _____ C. Alcoholism in the Southwest US
- _____ D. Obesity

REVIEW:

Communicable disease (infectious): Can be transmitted from an infected person, animal, or object to another person

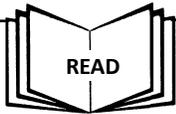
Noncommunicable disease: Non-transmissible (can't be "caught")

Chronic disease: Lasts longer than 3 months, sometimes for the remainder of one's life

Acute disease: Peak severity of symptoms occurs and subsides within 3 months of onset, usually within days or weeks

Communicable, Noncommunicable, Chronic, Acute? (List all that apply!)

- _____ A. Stomach Flu at our school
- _____ B. HIV/AIDS
- _____ C. Alcoholism in the Southwest US
- _____ D. Obesity



Infectious Disease Throughout Time

Challenge: You are a medical anthropologist studying the history of major epidemics over time. You and a team of health historians will specialize in one particular infectious disease and make conclusions in terms of:

- a. life expectancy
- b. causes of death
- c. beliefs about illness
- d. medical discoveries
- e. context of epidemics

Step 1: Write down your team’s assigned disease: _____

Step 2: Read about your disease, taking notes on both the **timeline**.

Step 3: Summarize your notes with respect to each focus area in the table on the following page.

Step 4: Present information about your disease to the class

Step 5: Draw **conclusions** once you hear information from all teams.

TIMELINE:

Epidemic	Middle Ages (500-1500)	Renaissance (1500 – 1700)	18 th Century (1701-1800)	19 th Century (1801-1900)	20 th Century (1901 – 2000)	21 st Century (Today)

Use the space below to continue your notes, using the timeline above as your guide:

Focus Area/ Questions	Cholera	Smallpox	Plague	HIV/AIDS	Tubercu- losis
<p>Life Expectancy: How did your disease affect life expectancy? What time period did it cause the most death? At what point was your disease less of a threat to humanity?</p>					
<p>Causes of Death: Is the disease communicable, noncommunicable, chronic, acute? How is it spread? How does it kill people?</p>					
<p>Beliefs about Illness: What did people believe about the disease? Did these beliefs change over time? If so, how?</p>					
<p>Medical Discoveries: What breakthroughs affected the likelihood of epidemics in your time period?</p>					
<p>Context of Epidemic: What happened during or after your epidemic?</p>					



Patterns & Conclusions

- 1) **Life Expectancy:** In what time period did life expectancy increase the most? Why?

- 2) **Causes of Death:** How did the types of diseases people commonly fell ill from change over time? Over what decade(s) did this change occur?

- 3) **Medical Discoveries:** What were the major types of medical discoveries that reduced epidemics of communicable disease and increased average life expectancy?

- 4) **Beliefs about Illness:** How did beliefs about the causes of illness and outbreaks change over time?

- 5) **Epidemics:** In what ways have the the patterns and trajectories of epidemics changed over time?



Research an Epidemic

Choose any epidemic that you have not yet studied in class. Research the epidemic so that you understand its history in terms of:

- a. life expectancy
- b. causes of death
- c. beliefs about illness
- d. medical discoveries
- e. context of epidemic

Then pretend you are a survivor of the epidemic (in any country, at any period of time!) and write a letter to a friend living on another continent, explaining the epidemic and it's impact on yourself, you family and friends, your community and your nation.