

Extra Life: A Short History of Living Longer
Episode 1 - Vaccines
Variolation



In the first episode of *Extra Life*, science author Steven Johnson and historian David Olusoga discuss how vaccines have been a powerful tool in extending human lifespans across the globe. The episode chronicles the history of vaccination, exploring how human beings have defeated devastating illnesses like smallpox through experimentation and collaboration.

Warm-up:

Coronavirus and the vaccine has dominated the news and media for over a year. Throughout our journey facing this pandemic, individuals, families, communities, states, and countries have all had to make tough choices about how to keep themselves and others safe. An example of a choice each community has had to make is when their schools should be open to in-person learning.

1. Make a list of all of the choices we've had to make throughout this year.
2. After you make the list, choose at least two to explore. Consider the following:
 - What made this choice complicated?
 - Describe the different sides to the choice. Explain the arguments of both sides.
 - Ultimately, do you agree with the choice that was made? Why or why not?

For more curricular materials connected to *Extra Life* and "The Living Century" by Steven Johnson, visit www.pulitzercenter.org/extralife.

Take a moment to consider where you're getting most of your news about the pandemic. Here are some examples:

- Social media (Instagram, Facebook, Twitter)
- Print media (Newspapers like the *New York Times* or *Washington Post*)
- Online media (Websites like Politico.com, ProPublica.org, and others)
- TV (National or local TV stations)
- Radio

Once you consider where you get your news from, consider *why* you choose to get your news from this source.

- What makes your news source credible?
- What makes your news source accessible for you?

Key Vocabulary:

Smallpox

Variolation

Medical intervention

Trafficked

Puritan congregation

Outbreak

Illegitimate

Introducing the Video: [Extra Life | Episode 1: Variolation](#)

[In this video clip](#), Johnson and Olusoga share the story of the first medical intervention to make a difference in human lifespans. Variolation, a procedure used to combat smallpox, was introduced to colonial Boston in the 1700s by an enslaved African man. What followed was a campaign by a Puritan minister and slave owner to convince his community to try a new, potentially risky procedure to combat an outbreak of smallpox devastating their community.

Watch the clip (7 minutes and 24 seconds) and answer the comprehension questions below.

Comprehension Questions:

What is smallpox? How did it impact life expectancy?	
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According to Olusoga, what separated smallpox from other diseases?	
Who is Onsemsis and how did he arrive in the U.S.?	
Where have historians gotten their information about Onsemsis? What is limited about these records?	
What is variolation?	
What were the risks to variolation?	
List two reasons that the public and the medical establishment in Boston were resistant to trying variolation, even during a major outbreak.	
What were the results from Cotton Mather's variolation experiment?	

Discussion Questions:

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1. How did racism and distrust of foreign countries contribute to the acceleration of smallpox in Boston in the early 1700s? Do you see evidence of that kind of skepticism negatively impacting your country or community now? How so?
2. Olusoga states that information from outside of Europe was “illegitimate” to colonial America. Think of the ways we collect, interpret, and verify information now. What makes information “legitimate?” What makes information “illegitimate?”
3. In colonial America, information about variolation was distrusted because of an intrinsic racism. How do the values of your community drive what kinds of information you trust and what kind of information you distrust?

Extension Activities:

1. **Investigating resistance to the COVID-19 vaccination.** At the end of the clip, Johnson and Olusoga discuss the different reasons that colonial America was resistant to variolation. Now that the world has developed a vaccine for COVID-19, some communities have expressed reservations about taking the vaccine. Many journalists have captured these perspectives in articles and interviews. Research and identify at least three different reasons that some people are skeptical of the vaccine, and write a short essay that integrates your research as part of your evaluation of these reasons. Remember to consider deeply why history, individuals’ past experiences, relationship with the news, or beliefs contribute to their attitudes toward vaccination.
2. **Explore a global Pulitzer Center story about vaccine hesitancy.** As we face a global pandemic, some communities are experiencing barriers to receiving vaccines and/or feelings of hesitancy around taking the vaccine. Read [“Indonesia's Anti-Vaxxers: Between Religion and Lack of Information”](#) by Adi Renaldi and craft a five-paragraph expository essay that captures the various barriers that people in Indonesia are facing in securing and trusting COVID-19 vaccines.