

What can 14th century Venice teach us about Ebola and other emerging threats?

August 26 2014



The way in which the Italian city of Venice dealt with the outbreak of the plague in the fourteenth century holds lessons on how to even mitigate the consequences of today's emerging threats, like climate change, terrorism, and highly infectious or drug-resistant diseases. So says Dr. Igor Linkov of the US Army Engineer Research and Development Center, and a visiting professor of the Ca Foscari University in Italy. Linkov led an article on resilience management appearing in Springer's journal *Environment Systems and Decisions*.

Venice was the hub of many trade routes into central Europe, and in 1347 became the epicenter of a [plague epidemic](#). While Venetians

initially attempted to mitigate what they believed to be the threat—God, vampires, etc.—by enacting traditional [risk management](#) like prayer and rituals, they eventually began to utilize what we would now call [resilience](#) management.

Instead of trying to target a poorly understood risk, state authorities focused on managing physical movement, social interactions, and data collection for the city as a system. This included a system of inspection, lazaretto (quarantine stations) on nearby islands, quarantine periods, and wearing protective clothing. Although these actions were too late to stop the disease's initial devastation, thanks to the cumulative efforts over several hundred years. Venice continued to flourish, experiencing only sporadic episodes of plague thereafter, while in Greece and southern Europe, similar epidemics raged for centuries.

As the world grapples with the current outbreak of Ebola in West Africa, Linkov and his colleagues see opportunities to learn from the Venetians in resilience management. In the case of Ebola, economic and cultural factors make risk management difficult. While it will take time to transform deeply rooted traditions that contribute the spread of the Ebola virus, health experts and national leaders may be able to realize improvements by bolstering the ability of other parts of the system to respond to re-emergence of the disease. Resilience management addresses the ability of a complex system— such as a city or community— to prepare, absorb, recover, and adapt to unexpected threats.

"Resilience management can be a guide to dealing with the current Ebola outbreak in Africa, and others like it, as well as other issues like population growth and the impacts of global [climate change](#)," believes Linkov. "Similar to what the officials of Venice did centuries ago, approaching resilience at the system level provides a way to deal with the unknown and unquantifiable threats we are facing at an increasing

frequency."

More information: Linkov, I. et al (2014). Risk and Resilience Lessons from Venice. *Environment Systems and Decisions*. [DOI: 10.1007/s10669-014-9511-8](https://doi.org/10.1007/s10669-014-9511-8)

Provided by Springer

Citation: What can 14th century Venice teach us about Ebola and other emerging threats? (2014, August 26) retrieved 3 May 2024 from <https://phys.org/news/2014-08-14th-century-venice-ebola-emerging.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--