

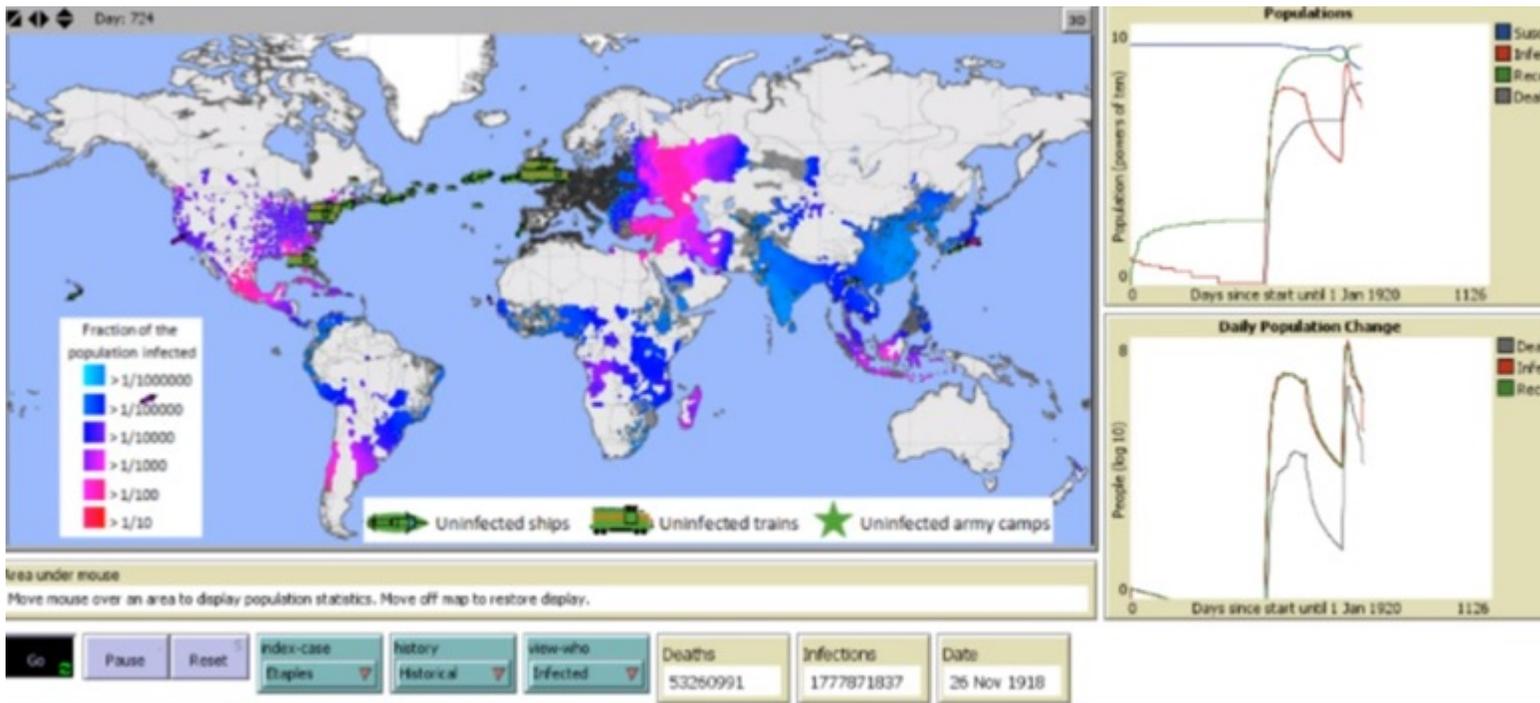


The 'Spanish' Influenza pandemic and its relation to World War I

by Kenneth Kahn

2012-09-02 21:34:09

A world-wide epidemic caused by influenza viruses led to between 50 and 100 million deaths in 1918 and 1919 (as much as 1 of every 18 people). Because neutral Spain was not censoring news it became associated with Spain but its origins are more likely to be the USA or France. It came in three waves (Spring 1918, Autumn 1918, and Winter 1919) and the second wave was unusually deadly. And unlike typical flu pandemics it disproportionately killed young healthy adults. Many researchers have suggested that the conditions of the war significantly aided the spread of the disease. And others have argued that the course of the war (and subsequent peace treaty) was influenced by the pandemic. To help understand questions about the worst disaster in history we have built a [computer model](#) of the pandemic. To use and adapt the model does not require any programming knowledge.



The model provides the functionality to explore how the pandemic may have unfolded without the war. Or if the war lasted much longer. You can run the simulation with one history setting and then another and compare the resulting graphs. As there is controversy about where the flu originated you can also run simulations according to different theories. The model contains a large number of behaviours and parameters which you can change or disable from within your browser to run your own experiments and see what effect they have. For example, *American Expeditionary Forces*

can be inactivated by clicking on it to see what effect the American troop movements had on the pandemic. Similarly *Armistice celebrations North American* and *Europe and Armistice celebrations Australia and New Zealand* can be disabled to determine how much they influenced the dynamics of the pandemic's second wave.

There is a web version of the model that will run in your browser (requires Java) and a downloadable version (requires the free software NetLogo). We have also prepared some videos of the execution of the Spanish Flu model. These run faster but lack all the interactive features. More information on how to run the model can be found in [the Student Guide](#). We have also drawn together a rich collection of articles, video lectures and primary source materials from across the World Wide Web into [a resource pack](#) to support you in your exploration of this topic. All materials you can reuse in your own teaching and learning.

This model can be used in courses in history (of World War One or epidemics), public health, or computer modelling. Both a teachers guide and students guide has been developed, containing links to supporting resources and 'Things to think about' and 'try' when running the model. Ultimately it can be used as a focus of discussions about uncertainties and controversies in history. And how, if at all, one can attempt to answer questions in counter-factual history.

- [Spanish Flu Simulator: Student Guide](#)
- [Spanish Flu Simulator: Teacher Guide](#)
- [Resource Pack](#). More materials including open access articles can be found in the [Teachers Guide](#).

Thanks to Professor **John Oxford** and **Douglas Gill** for their generous help understanding the history of the Spanish Flu and their comments on early versions of the computer model.

Licensed as Creative Commons CC-BY-NC-SA

[Original version](#)