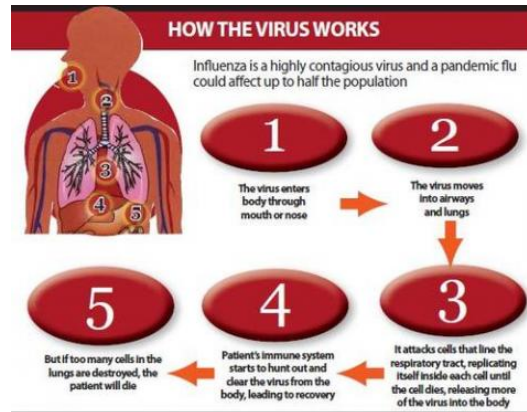


0. SWINE FLU (Influenza A H1N1) OUTBREAK of 2009 - Story Preface

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**9. SWINE FLU (Influenza A H1N1) OUTBREAK of 2009**



Swine Flu (now known as Influenza A / H1N1) spread in epidemic-like proportions in 2009. This illustration shows what happens once the virus enters a person's body. Image online via Medical Powerpoint Slides.

On the 12th of April, 2009, a Mexican woman died of severe viral pneumonia in the state of San Luis Potosi. An epidemiologist, in this area of central Mexico, wondered what had caused the thirty-nine-year-old's illness.

After submitting tissue samples, he soon learned concerning news. The woman had a previously undetected strain of swine influenza, now known as Influenza A / H1N1. (The link explains the meaning of "H" and "N.")

By the third week in April, more than 854 people in Mexico City had similar symptoms - 59 (and counting) had died. In San Luis Potosi, where the original case was reported, 23 more people were ill - two more had died. In Mexicali, near the U.S. border, four people were ill - none had died.

Dr. Jose A. Cordova Villalobos, Mexico's Secretary of Health, reported a total of 1,614 cases by the 26th of April - with 103 deaths and 400 hospitalizations.

Seemingly unrelated, at least initially, two children in California were also ill with flu-like symptoms. Then people in Kansas (where the 1918 Spanish flu pandemic reportedly originated), Texas, Ohio and New York City got sick. Of those twenty known cases, all had Swine Influenza A/H1N1 (as reported by the Centers for Disease Control). Two people were hospitalized; none died.

Most of the impacted individuals (this is a live map, of reported cases, from Google Earth) were young adults (between the ages of 25-45), and in previously good health. That fact caused World-Health-Organization officials to become very concerned:

*Because there are human cases associated with an animal influenza virus [H1N1 combines genes from swine, bird and human influenza viruses], and because of the geographical spread of multiple community outbreaks, plus the somewhat unusual age groups affected, these events are of high concern. (World Health Organization Report, 24 April 2009.)*

In discussing the early cases in California, the Centers for Disease Control also noted:

*...concern exists that this new strain of swine influenza A (H1N1) is substantially different from human influenza A (H1N1) viruses, that a large proportion of the population might be susceptible to infection, and that the seasonal influenza vaccine H1N1 strain might not provide protection. The lack of known exposure to pigs in the two cases increases the possibility that human-to-human transmission of this new influenza virus has occurred.*

The worry, of health officials, was that the new strain of Swine Influenza A (H1N1) had the potential to become pandemic. Given what happened with the Spanish Flu disaster of 1918-19 (caused, lead researchers originally believed, by a swine-flu virus), national and worldwide health authorities analyzed the H1N1 virus and carefully monitored its progress.

One can only hope that today's technologies, unavailable to scientists ninety years ago (when roughly one-third of the world's population "got the flu"), will help to unlock the mysteries of new flu strains (and reveal the best possible defenses to combat them).

NOTE:

Numerous pictures linked in this story are maintained at the U.S. National Museum of Health and Medicine -

See Alignments to State and Common Core standards for this story online at:

<http://www.awesomestories.com/asset/AcademicAlignment/SWINE-FLU-Influenza-A-H1N1-OUTBREAK-of-2009-Spanish-Flu-Pandemic>

See Learning Tasks for this story online at:

<http://www.awesomestories.com/asset/AcademicActivities/SWINE-FLU-Influenza-A-H1N1-OUTBREAK-of-2009-Spanish-Flu-Pandemic>

## Questions 2 Ponder

### Should Deadly Viruses Ever Be Revived?

In attempting to determine the cause of the Spanish-Flu pandemic, U.S. scientists examined the preserved lungs of a Spanish-Flu victim who lived in Alaska. The tissue of this Inuit woman, referred to as "Lucy," helped investigators to learn more about the virus and its likely source.

Before the lung-tissue studies, scientists believed that Spanish-Flu was caused by a swine-flu virus. In other words, they believed the virus originated in pigs.

After the lung-tissue studies, scientists still do not have all the answers about Spanish Flu, but they are reasonably certain the virus originated in birds.

Although investigating scientists now have more answers about the virus which caused Spanish Flu, do you think that reactivating the virus - for whatever purposes - is a good idea? Why, or why not?

Do you think there is any chance that the Spanish-Flu virus, which scientists used to investigate the likely source of the virus, could ever "get out," such that it could "get in" to the hands of terrorists? Explain your answer.

Is the benefit of learning answers to long-pondered questions worth the risk of reviving or recreating the Spanish-Flu virus? Explain your answer.

## Media Stream



### San Luis Potosi - Map Locator

Map online, courtesy Wikimedia Commons.

View this asset at: <http://www.awesomestories.com/asset/view/San-Luis-Potosi-Map-Locator>



### Mexico City - Map Locator

Image online, courtesy Wikimedia Commons.

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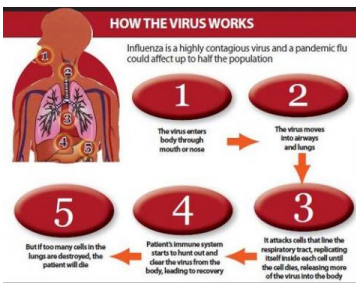
View this asset at: <http://www.awesomestories.com/asset/view/Mexico-City-Map-Locator>



### Mexicali - Map Locator

Map image online, courtesy Calibaja.

View this asset at: <http://www.awesomestories.com/asset/view/Mexicali-Map-Locator>



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## Swine Influenza A (H1N1) - A Serious Threat

Video online, courtesy CDC.

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## Swine Flu Virus - What is It?

Video online, courtesy CDC.

View this asset at: <http://www.awesomestories.com/asset/view/Swine-Flu-Virus-What-is-It->