

SCENARIOS: What the H1N1 flu might do

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By [Maggie Fox](#), [Health and Science Editor](#)

WASHINGTON (Reuters) - Field investigators at the U.S. Centers for Disease Control and Prevention said on Friday it appears the new H1N1 virus outbreak may be more widespread and milder in Mexico than it first appeared.

So far the swine flu virus has behaved like seasonal flu as it has spread to 14 countries, carried mostly by travelers from Mexico.

The World Health Organization says it cannot be stopped, but has no immediate plans to declare a pandemic -- a global outbreak of a new and serious disease.

Here are some ways the situation could develop:

FIZZLE OUT

Everyone is hoping this flu strain will just fizzle out. Influenza is a promiscuous virus, readily swapping genes with other flu viruses in a person's or animal's body. It also mutates constantly. These factors mean it can quickly grow worse or become milder. It could at any time lose its ability to transmit easily from one person to another and join the mix of regular seasonal flu strains.

If this happens WHO, which has declared the world at the brink of a pandemic, will almost certainly be criticized for over-reacting. But public health experts will argue that there is no way to predict how a virus will behave and it is better to save lives than to wait until it is too late.

The warnings also give businesses, governments and individuals practice for when a more fatal pathogen does threaten the globe.

And WHO is quick to point out that flu strains often disappear over the summer months, re-emerging in late summer or early autumn. The pandemic influenza has done this with a vengeance.

MILD PANDEMIC

This last happened in 1968. The H3N2 strain killed an estimated 1 million people. Experts predict that a strain of such virulence today would have less severe effects, with antivirals available that were not on the market 40 years ago.

Even with vaccines, drugs and better public education, ordinary seasonal flu kills between 250,000 and 500,000 people every year. The difference with a pandemic strain is that there would not immediately be a vaccine against it and it would likely cause serious disease among broader age groups than the very young, very old and immune-compromised who are generally vulnerable to influenza.

There could be disruptions to trade and travel, currency fluctuations, interruptions of supplies needed for manufacturing and a shortage of antivirals and the antibiotics needed to treat the "co-infections" that often accompany flu. Some reports predict a shortage of ventilators, and hospitals in many countries, especially the United States, already operate at full capacity and would be overwhelmed by an influx of newly sick people.

SEVERE PANDEMIC

This is the worst-case scenario. Every 30-40 years the world suffers an influenza pandemic, with a new strain of flu spreading rapidly, causing serious disease and killing hundreds of thousands of people within a few weeks.

The 1918 pandemic is considered the worst-case scenario. At least 40 million people died in 18 months and the epidemics passed over communities in waves.

But that was in the pre-antibiotic era, in a time when even simple infections killed people, no mechanical ventilators were available and vaccines were primitive at best. The general population had little idea of how diseases were transmitted.

Even so, experts predict a 1918-like flu would keep 40 percent of the workforce out at any time, with people either sick, caring for sick relatives or children out of school, or simply lying low. That would lead to shortages of supplies and even power outages.

If this kind of pandemic struck today, millions could die, world trade would slow to a crawl and many economies would crumble.

(Reporting by Maggie Fox; Editing by Xavier Briand)

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