# Swine flu could protect against deadly mutation: experts

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The global outbreak of swine flu hovering just below the pandemic threshold could provide immunity for those already infected if the virus mutates into a more deadly form, scientists have told AFP.

That is what happened in 1918, when most people who fell ill with a mild Spring flu were effectively inoculated from the far more lethal strains that roared back a few months later and killed at least 40 million worldwide, according to recent and upcoming studies.

The death rate among those infected during the first wave was 70 percent lower, according to groundbreaking research published in November in the Journal of Infectious Diseases.

The findings suggest that going all-out to prevent exposure to the kind of non-seasonal flu sweeping across the world today may turn out to be counter-productive in the fight to reduce mortality.

Health officials around the world have taken decisive measures to halt the flu's spread, including closing schools and quarantining travellers.

Mexico City, the epidemic's epicentre, was essentially shuttered for five days until Wednesday.

"In 1918, with the benefit of 20/20 hindsight, it would have been better to allow a first wave of infection in order to build immunity to the merging virus while it was still mild," said Lone Simonsen, an

epidemiologist at George Washington University and a co-author of the November study.

Like the early phase of the devastating pandemic nearly a century ago, the current outbreak of A(H1N1) has spread widely but caused few deaths.

In the last two weeks, the swine flu has spread to 23 countries and infected more than 1,500 people, more than 90 percent of them in North America, according to the World Health Organisation (WHO).

Among the 42 fatalities reported by health officials in Mexico, more than half were healthy young adults, much like the pattern nearly a century ago.

"In a scenario similar to the 1918 pandemic, we would not want to mitigate a 'friendly' first wave," said Cecile Viboud, a scientist at the US National Institutes of Health in Bethesda, Maryland who also contributed to the study.

But both researchers agree that it would be difficult to translate their findings into policy recommendations.

"That was then and this is now. We do not even know if there is going to be a second wave, or whether it will be severe. Besides, the mitigation strategy that is currently being implemented may work," Simonsen said by phone.

"We don't know enough about the process of adaptation of novel influenza viruses," noted Viboud by email.

That the first wave of the 1918 flu acted like a vaccine for subsequent waves may seem unsurprising. But their study, which analysed monthly

hospitalisation and mortality rates for respiratory illness in dozens of army camps in the United States and Britain, is the first to muster convincing evidence.

"For a lot of people in our field, history begins in about 1995, which is as far back as most electronic archives go," said Christopher Fraser, a mathematical modeller and infectious disease epidemiologist at Imperial College London.

"But if you go back through older records with a modern understanding and computational techniques for processing lots of data, you can really gain a lot of insight into what happened," he told AFP.

Fraser will publish later this month research, based on the private archives of a chief US investigator during the 1918 pandemic, that comes to much the same conclusion.

"We also found that prior immunity protected the population to a very large extent in the autumn wave," he said.

Health officials today, he added, face a chicken-and-egg problem in deciding whether to "let the infection go".

"You would need at least a few thousand infections before you could really say that," which may not happen if the global effort to contain the swine flu's spread succeeds, he explained.

But if you do let the virus progress before finding out how virulent it is, it could put people at risk if the first wave turns out to be more dangerous than expected.

John Oxford, a top virologist at the Saint Bartholomew's and the Royal London Hospital, agrees that "it would be too dangerous to let the virus

run its course -- there are still too many unknowns".

The ratio of infections to fatalities has yet to be calcuated, he pointed out.

Fraser, part of a WHO outbreak task force sifting through the data from Mexico, said new figures on the Mexico outbreak would likely be released by Friday.

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