

# Swine flu goes person-to-pig; could it jump back?

4 May 2009, By MARGIE MASON , AP Medical Writer



Navy Doctor Captain Manuel Velasco displays a handful of vials containing samples taken from the throats of patients who are suspected of having swine flu at the Naval hospital in Mexico City, Sunday, May 3, 2009. (AP Photo/Dario Lopez-Mills)

(AP) -- Now that the swine flu virus has passed from a farmworker to pigs, could it jump back to people? The question is important, because crossing species again could make it more deadly.

The never-before-seen virus was created when genes from pig, bird and human viruses mixed together inside a pig. Experts fear the virus that has gone from humans back into pigs in at least one case could mutate further before crossing back into humans again. But no one can predict what will happen.

"Could it gain virulence? Yes," Juan Lubroth, an animal health expert at the U.N. Food and Agriculture Organization in Rome, said Sunday. "It could also become milder. It could go in both directions."

Canadian officials announced Saturday that the virus had infected about 200 pigs on a farm - the first evidence that it had jumped to another species. It was linked to a farmworker who recently returned from Mexico, where 19 people have died

from the virus. The farmworker has recovered, and the mildly infected pigs have been quarantined.

Agriculture officials believe the worker may have sneezed or coughed near the pigs, possibly in a barn. About 10 percent of the herd experienced loss of appetite and fever, but all are recovering.

Experts say pork - even from infected pigs - is safe to eat.

Lubroth stressed that sick people should avoid contact with swine, but said healthy farmworkers don't need to take any extra precautions because the chance of catching flu from a pig is small.

Unlike the H5N1 bird flu virus, which infects the blood, organs and tissue of poultry, most swine flus are confined to the respiratory tract, meaning the risk of a human getting infected by a pig is "probably 10 or a 1,000 times less," Lubroth said.

But pigs are of special concern because they share some basic biological similarities with humans, and they have served as "mixing vessels" in which various flu strains have swapped genetic material. That's what happened to create the current swine flu strain.

Scientists are unsure when the virus leaped from pigs to humans - possibly months or even a year ago - but it was identified as a new strain about a week and a half ago. Since then, nearly 800 cases have been confirmed worldwide. The only death outside Mexico occurred when a Mexican toddler died in a Texas hospital.

There have been sporadic cases of pigs infecting humans with influenza in the past. Most cases resulted in mild symptoms, typically among people who were in close contact with sick pigs. A few deaths have been recorded, and limited human-to-human transmission also has been documented, but nothing sustained.

Dr. Tim Uyeki, an epidemiologist with the U.S. Centers for Disease Control and Prevention who has worked on SARS and bird flu outbreaks, said there may be more pig-to-human cases that have gone unnoticed because surveillance among swine populations tends to be weaker than among poultry stocks.

Given that the past three flu pandemics - the 1918 Spanish flu, the 1957-58 Asian flu and the Hong Kong flu of 1968-69 - were all linked to birds, much of the global pandemic preparedness has focused on avian flus.

"The world has been watching and preparing and trying to prevent a pandemic from an avian influenza reservoir," he said. "The focus has been on birds, and here is a virus that's coming from a swine reservoir. Now it's a human virus."

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