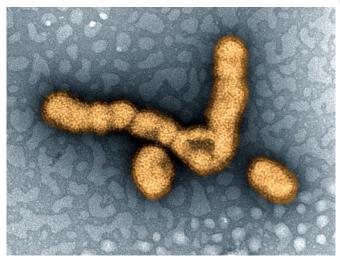


New swine flu strain found in China poses threat of pandemic

30 June 2020, by Bob Yirka



H1N1 influenza virus particles. Credit: NIAID

A team of researchers affiliated with a host of institutions in China and one in the U.S. has found evidence of a new strain of swine flu that poses a possible threat to humans. In their paper published in *Proceedings of the National Academy of Sciences*, the group describes their widespread testing of pigs in China and people known to be near them, and what they have learned.

Media outlets around the world have been reporting that researchers in China have discovered a new strain of swine flu that is poised to set off an influenza pandemic, even as the world is still very much suffering a global coronavirus pandemic. Such reports may be overstating the threat. According to the researchers, the new strain, called G4 EA H1N1, has not yet shown an ability to jump from human to human—an obvious necessity for a pandemic.

The work by the researchers is part of an ongoing initiative in China—medical workers have been regularly testing domestic swine for viruses in the

hope of catching a virus jumping to humans before it runs rampant. In their paper, the researchers focus on testing that occurred between the years 2011 to 2018—a period during which 179 swine flu strains were found, though the bulk of them were G4. They also found that the infection rate in swine has been rising dramatically since 2016, and G4 is now the most common strain found in Chinese pigs.

The researchers also found that the G4 strain included DNA from 2009's H1N1 strain, which was behind the pandemic that year. And they found that G4 has jumped to humans—two people with active infections were diagnosed and 10 percent of those known to be exposed to infected pigs had G4 antibodies. The fear is that the G4 strain will continue to evolve to the point that it becomes able to jump from person to person, triggering an outbreak and a possible pandemic.

The researchers suggest the new swine flu strain represents a <u>potential threat</u> strong enough to warrant precautionary measures. The first step in that process has already begun in China, as researchers there are very closely monitoring the virus—a next step would involve developing a vaccine before it is needed.

More information: Honglei Sun et al. Prevalent Eurasian avian-like H1N1 swine influenza virus with 2009 pandemic viral genes facilitating human infection, *Proceedings of the National Academy of Sciences* (2020). DOI: 10.1073/pnas.1921186117

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