Novel China flu seems to pose low risk to humans

The H10N8 avian flu strain, first detected in humans in a 73-year-old woman in eastern China this month, seems, despite the woman's death, to pose little immediate risk to people, preliminary information has shown. The sequence of the virus has not yet been published, but *Nature* has learned that the haemagglutinin surface protein shows none of the worrisome amino-acid changes that typically would allow the virus to infect humans. This means that, unlike H7N9, which is behind the current fatal flu outbreak in the southern Guangdong province, the virus cannot easily jump from poultry or other birds to humans.

One possible explanation for the fatal case is that the elderly woman's health status left her more vulnerable to the H10N8 virus than healthier individuals, in which case this H10N8 infection may be no more than a rare event. The woman, who was hospitalized on 30 November and died on 6 December, is reported to have been immunocompromised and to have had heart disease, myasthenia gravis and other illnesses.

The World Health Organization, in a fact sheet on H10N8 published on 19 December, nonetheless noted: "Given the potentially unpredictable behaviour of influenza viruses, vigilance and close monitoring is needed." If the virus is widespread in birds, some further sporadic cases could occur, it added.

The sequence also suggests that the virus, like H7N9, does not cause serious disease in birds, which means it would likewise spread silently in poultry. This would complicate surveillance of the virus were H10N8 to become a problem.

The WHO also noted that increasing surveillance for flu and severe acute respiratory-tract infections (SARI) means that "it is not unexpected to start to detect human infections with a variety of non-seasonal influenza subtypes". In May, the first infection of humans with H6N1 avian flu was detected in Taiwan in a woman who recovered, and no new cases of the virus have since been reported. It is possible that in the past many flu viruses occasionally jumped to humans but quickly disappeared before being detected.

Meanwhile, surveillance that picked up eight serious cases of people hospitalized with SARI in Montgomery County, Texas, has caused a scare, as none of the patients initially tested positive for influenza, raising concerns that the cases might be a novel flu. Four of them subsequently died. However, two patients have since tested positive for the 2009 H1N1 pandemic flu virus, which is now just another seasonal flu strain. Investigations are ongoing, with H1N1 activity high in the area, but for the moment this scare has the appearance of a false alarm.