

Avian flu in man

A very rare disease

Human cases remain exceptional: man is naturally resistant to avian flu. Repeated and close contact with diseased or dead birds is necessary for infection to take place. Humans are infected through their eyes, developing a generally benign form of conjunctivitis (the case of the H7N7 virus in the Netherlands in 2003), or through the deep inhalation of particles that may provoke a severe respiratory infection. The incubation period lasts between 1 and 2 weeks before the first symptoms appear: high fever, headaches, muscular pain, fatigue, cough, and respiratory difficulty. In certain cases, these symptoms evolve rapidly into acute respiratory distress that can lead to death.

The human victims

As of August 2006, the virus has provoked 241 confirmed human cases of avian flu in Southeast Asia, Turkey, Iraq, and Egypt, with a mortality rate of approximately 60% (the proportion of deaths among diagnosed cases). These cases must be considered in the context of the hundreds of millions of people exposed. It may thus be affirmed that the transmission of H5N1 from poultry to man is an exceptional phenomena that always is linked to extremely poor hygienic and sanitary conditions. In contrast, human influenza viruses are the indirect cause of several hundred thousand deaths each year around the world.

- 1997: 18 people are infected with the H5N1 virus in Hong Kong, 6 die.
- 1999 and 2003: the H9N2 virus is found in three people in Hong Kong, they develop only minor symptoms.
- 2003: the H7N2 virus is discovered in a man suffering from a severe flu in the state of New York (USA).
- 2003: the H7N7 virus infects several dozen people in the Netherlands who were in contact with sick birds, provoking conjunctivitis. A veterinarian dies following infection from the virus.
- Since the resurgence of the H5N1 epizootic in Southeast Asia in 2003, 241 people have been infected, of which 141 have died (August 2006). This figure evolves from week to week, the most frequent cases currently being found in Indonesia which is having difficulty controlling the epizootic. The last reported cases of deaths outside of Asia were in Turkey, Iraq, and Egypt.

From person to person

The transmission of the HPAI H5N1 virus from an infected person to a healthy individual is extremely rare. A substantial mutation of the existing HPAI H5N1 virus strains would be required for this to be more frequent. Its occurrence would change the nature of the disease and considerably increase the risk of a pandemic caused by the mutant virus.



Plucking captured wild bird in Mopti, Mali, 2006 – Alexandre Caron, © Cirad



Poultry market vendor in Vietnam, 2003 – Jean-Charles Maillard, © Cirad