

Avian influenza goes global, but don't blame the birds

Since early 2006, highly pathogenic avian influenza H5N1 has been clocking up air miles at an alarming rate. It has spread quickly to Europe, the middle east, India, and Africa following no apparent pattern, and underlining how little scientists know about the virus ecology and where it will strike next. There is now growing concern that the whirlwind spread of avian flu in some parts of the world is not entirely governed by nature, but by the human activities of commerce and trade.

Since mid-2005, the Food and Agriculture Organisation (FAO) and WHO have given wide prominence to the theory that migratory birds are carrying the H5N1 virus and infecting poultry flocks in areas that lie along their migratory route. Indeed, this is probably how the virus reached Europe. Unusually cold weather in the wetlands near the Black Sea, where the disease is now entrenched, drove migrating birds, notably swans, much further west than usual. But despite extensive testing of wild birds for the disease, scientists have only rarely identified live birds carrying bird flu in a highly pathogenic form, suggesting these birds are not efficient vectors of the virus. Furthermore, the geographic spread of the disease does not correlate with migratory routes and seasons. The pattern of outbreaks follows major road and rail routes, not flyways.

Far more likely to be perpetuating the spread of the virus is the movement of poultry, poultry products, or infected material from poultry farms—eg, animal feed and manure. But this mode of transmission has been down-played by international agencies, who admit that migratory birds are an easy target since nobody is to blame. However, GRAIN, an international, non-governmental organisation that promotes the sustainable management and use of agricultural biodiversity, recently launched a critical report titled *Fowl play: the poultry industry's central role in the bird flu crisis*. GRAIN points a finger at the transnational poultry industry as fuelling the epidemic. Over the years, large concentrations of (presumably stressed) birds have facilitated an increased affinity of the virus to chickens and other domestic poultry, with an increase in pathogenicity. Since the 1980s, the intensification of chicken production in eastern Asia has gained momentum, changing the whole dynamic of avian influenza viruses in the southern China epicentre, which has had far-reaching consequences for the rest of the world.

Reports suggest that the outbreak in Nigeria emerged as a result of illegally imported poultry, specifically day-old chicks. It seems that Nigeria has continued to import chickens from China and Turkey despite the FAO forbidding such trade with infected countries. It is unacceptable that this trade continues unchecked. Tighter regulation and monitoring of poultry movement should be enforced, and the perpetrators held accountable for their actions.

Of major concern now is the continued spread of the H5N1 virus in Africa, where millions of people live alongside chickens, increasing the chances of the virus crossing into human beings. Poor medical, veterinary, and laboratory services, lack of health education, porous borders, and high mortality rates from other infectious diseases mean a new human influenza virus could spread undetected. Furthermore, we do not know what the impact of exposure to avian influenza will be on the many people who are already immunocompromised with, for example, HIV/AIDS.

As in southeast Asia, poultry culls in Africa would damage the livelihood of millions of people. Poultry is a major source of dietary protein, thus ridding the continent of H5N1 could lead to malnutrition with devastating consequences to human health. Even with a concerted education campaign about the dangers of contact with dead birds, many Africans are likely to continue selling or eating birds that have died because they cannot afford to throw away meat even if it might be infected. Africa will need financial assistance to combat bird flu. Currently the \$1.9 billion pledged in Beijing in January to combat avian influenza is earmarked for aiding research efforts, strengthening surveillance, and increasing the stockpiling of surgical masks and other equipment. But some of these funds should be set aside to compensate African farmers for destruction of their birds. Inadequate compensation will not only tip people into extreme poverty, but will also help spread the virus by discouraging people from reporting the disease.

As bird flu spreads it is clear no country is protected from the virus. Although the risk to people is still low, movement of the virus through more hosts and different environments increases the chances of viral mutation and efficient transmission among human beings.

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For more information on H5N1 in Turkey see [Reflection and Reaction](#) page 186

For more information on the Beijing pledge see [Lancet Infect Dis](#) 2006; 6: 133

To see GRAIN's report visit <http://www.grain.org/go/birdflu>