

Egypt battles with avian influenza

In Egypt, 15 people have died from avian influenza since the virus emerged in its poultry population last year. Controlling the infection in domestic birds—which are often undeclared—is proving to be one of the government’s biggest challenges. May Meleigy reports from Cairo.

As avian influenza moved across Asia and into the Middle East in 2006, Egypt braced itself for a major outbreak in the country’s poultry. As expected, the highly pathogenic H5N1 avian influenza virus was first confirmed in Egypt in domestic poultry in February, 2006, and has since become deeply entrenched in this poultry population. From March, 2006, to August 3, 2007, there have been 15 human deaths from avian influenza out of 38 infections, ranking Egypt the worst affected country after Indonesia, Vietnam, China, and Thailand, and the worst affected country in the eastern Mediterranean region.

Egypt had not been prepared for this outbreak and had “no previous professional experience, or a unified national plan” on combating the virus, according to Mohy Sabry, an avian influenza consultant for the ministry of agriculture.

Despite being unprepared, Egypt has been swift in its response to the outbreak and has been praised for its openness and frankness about the situation. David Nabarro, senior UN systems coordinator for avian and human influenza, said that the Egyptian government has been “exemplary—having more openness than just about any other country on bird disease and human cases from bird disease”.

In late May, the government strengthened its response to the virus with a national plan for combating both avian and human influenza. 860 commercial farms and 285 backyard farms have been affected by avian influenza, according to the plan, which government officials presented to international donors at a round-table discussion in Cairo in early June. The local poultry industry, which had previously produced 2.2–2.5 million

chickens daily is estimated to have lost between US\$2–3 billion to avian influenza. This loss has affected the incomes of the 1.5 million people whose livelihoods depended on poultry. Chickens are of “extraordinary importance in the national diet, normally accounting for 35–40% of the protein consumed in Egyptian households”, said Nabarro.

Egypt’s main approaches to controlling avian influenza have been the culling of all poultry suspected of harbouring the virus and vaccinating birds. Around 30–35 million birds have been culled so far, which has helped to control the infection in commercial farms. However, this stamping out policy has its drawbacks because many non-infected birds have had to be killed. Consequently, the main challenge for the government has been the control of avian influenza in domestic birds, which are often kept on people’s rooftops and inside their bedrooms and homes, and are generally undeclared.

In Egypt, between 4.5–7 million families (out of a population of 75 million) raise poultry in their backyards and are at greatest risk from avian influenza. All the 15 people who died had kept poultry in backyard farms, and only two of the 38 people infected worked in commercial farms.

The Egyptian authorities have at various times given “blanket orders” to cull all birds within 1 km vicinity of infections, which has driven peoples’ poultry farming underground, according to Nabarro.

Devaud said that “backyard farms are very difficult to control, as those that keep them are very poor and rely on the birds as an additional income. It is a very difficult decision to report a sick bird for fear the authorities

will come to cull all the birds in the 1 km vicinity”. Jabbour explained that it is only when the infected person’s condition becomes critical that the family admit to any exposure to backyard birds.

Zuhair Hallaj, WHO representative for the Eastern Mediterranean Regional Office region, added that “it is a social and economic problem more than a cultural issue” and that “this is primarily an animal disease but due to the way animals are raised in this country the contact between animals and humans is intimate”.

Furthermore, there is a very dense human population in the valley of the Nile and Delta “which can average 500–5000 in some places and is very conducive to the rapid spread of infection”, explained Devaud.

Experts are concerned that poultry farmers might be reluctant to report infected dead birds because currently they cannot be guaranteed compensation. Despite

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The printed journal includes an image merely for illustration

Millions of families in Egypt raise poultry in their backyards

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The Egyptian government started vaccinating birds against avian flu last year

spending around US\$26 million on compensation schemes over the past year, these have largely been mismanaged and ineffective. Now, with the help of the Food and Agriculture Organization (FAO), the Egyptian government is putting together a plan to implement a more rigorous compensation scheme for farmers "that targets the right people". Gawaher Atif, senior adviser to the UN systems influenza coordination team, said that the "FAO is pulling together new compensation schemes for Egypt as it is an area that is very important to move ahead on".

Nabarro added that "without some form of incentive, it is very unlikely people will report sick birds and risk the likelihood of whole flocks being culled. There should be fair and prompt compensation payments, and the Egyptian government is working incredibly hard to get this in place".

As well as culling birds, the government started vaccinating them

against circulating influenza virus strains, including H5N1, in March, 2006—3 weeks after the start of the outbreak. Over a quarter of a billion doses of vaccine were imported by the government and 13 commercial companies. However, reaching the backyard farms proved difficult and vaccination, although offered freely to these farms, was inconsistent.

In July, 2007, the ministry of agriculture said that a campaign to vaccinate 2 million poultry daily was underway with 86 million doses of vaccine being allocated to do the job. So far, all of the vaccines for birds have been imported, but plans are underway to move towards local vaccine production, which the government hopes will be a cheaper option.

Experts at the roundtable discussion in June pointed out that \$350 million is still required to purchase a sufficient quantity of vaccine and produce genetically modified variants of the vaccine, in addition to meeting Egypt's avian influenza surveillance needs. To this end, the World Bank has recently approved \$7.1 million to support the animal health sector in Egypt.

Hatem El Gabali the Egyptian Minister of Health recently stated that "a human influenza pandemic is inevitable and the government is aiming to tackle the problem in an integrated and sustainable manner". But exactly how prepared is Egypt for a possible pandemic? Nabarro explained that over the past couple of years the UN has been working with the Egyptian government, including the prime minister's office, the ministry of agriculture and of health, the supreme national committee for coordination, and the ministry of defence, on preparing for a pandemic. "There is no straightforward answer, as parts of Egypt are well prepared, while others have some way to go", he said. Overall, Egypt scores quite well on factors that are important for pandemic preparedness, and political commitment to prepare for a pandemic is strong.

Hallaj is also confident about Egypt's efforts and said that "Egypt has a very good pandemic plan involving microplanning at the lowest level". According to Hallaj, "there are more than 2.5 million doses of Tamiflu currently available in Egypt, but the real problem lies in human vaccines, as the developing world has not yet started to produce them".

However, Nabarro said that in terms of planning for how a pandemic would hit sectors other than health, "there is more work to be done, particularly on maintaining essential services". But, he also said that "most countries have some way to go" on this issue.

As part of its preparedness plans, Egypt developed a national communication strategy on avian and human influenza in 2006. Erma Manoncourt, UNICEF's representative in Cairo, said that the agency has been helping the Egyptian government to coordinate this plan.

UNICEF funded a baseline survey as well as a qualitative community study to get a full picture of knowledge, attitudes, and practices relating to avian influenza. And, in 2006, the agency worked with Swiss non-governmental organisation (NGO) Terres des Hommes and some local Egyptian NGOs in village and district awareness campaigns and house-to-house educational activities. UNICEF trained more than 2500 *raidat* (female community-health workers) on key preventive and behavioural messages in order to target local communities, particularly women. The involvement of *raidat* along with religious and community leaders has helped to inform people in Egypt's villages about the threat of avian and human influenza.

Experts see this educational drive along with the establishment of compensation schemes for domestic poultry keepers as essential parts of Egypt's response to the highly pathogenic H5N1 virus.

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