FAOAIDEnews
Animal Influenza Disease Emergency

Situation Update 77
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HPAI outbreaks reported in this publication refer to officially confirmed cases only.
The information is compiled from the following sources: World Organisation for Animal Health (OIE), national governments and their ministries, and the European Commission (EC) – these sources are responsible for any errors or omissions.

Coping with risks posed by avian influenza and other infectious diseases

Societies around the world are frequently exposed to recurring risks including natural and man-made disasters. Over time people have developed complex resilience mechanisms. In terms of costs resulting from disasters, there are numerous figures that need to be accounted for in assessments. These costs range from economic to material to psychological. For instance, disease outbreaks cause death and illnesses in animals and humans. In animals, livestock mortalities decimate income-generating assets and limits livelihoods alternatives. In humans, illnesses not only reduce productivity but also carry economic repercussions in terms of healthcare and medications, among other associated expenses. Moreover, disasters (including earthquakes and tsunamis) can cause trauma reactions, as well as anxiety, depression, and grief. These shocks to animals and humans increase the prevalence of depression, post-traumatic disorders, shocks, sicknesses, and physical problems.

Anecdotes and experiences recorded after disasters show that the most common response to natural and man-made disasters was shock, damage assessment, and recovery efforts, as well as reliance on social safety nets (i.e. support from family, friends, and neighbors), and some residual psychological harm. Scientific research tells us that because disasters are so pervasively threatening and hugely devastating, they activate the most primitive brain regions in humans. When faced with threats and hazards, the common human experiences are distress, intense fear, and panic. Brains instinctively go into fight-or-flight responses. These reactions are expected. Humans and designed to have them, and they turn out to be effective in helping mobilize survival instincts, gearing up defenses, and reacting promptly to threats and hazards.

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The degree of risk coping by vulnerable populations is closely associated with robustness of state services and national governance. During crises, the social contract between citizenries and their governments is either strengthened or weakened, depending on how the responses to disasters are handled. For example, in 2003, the severe acute respiratory syndrome (SARS) epidemic that swept through southern China created anxiety, disorientation, rising fears, and trepidation among domestic and foreign audiences. Studies demonstrate that providing the public with realistic information about both risks and recovery helps reduce anger, fear, uncertainty, and worry. It also helps promote community action. A year later, in 2004, another example with H5N1 highly pathogenic avian influenza (H5N1 HPAI) in Thailand showed that early communication with the public, the media, and consistent liaising with international authorities can significantly aid in regaining the trust of local communities on government actions. This is important to underscore because the breakup of social contracts can be caustic. Popular mistrust of the government after a disaster erodes morale, disintegrates communal cohesion, and can lead to collective victimizations.

An increasing body of work suggests that infectious diseases will continue to emerge with the assistance of rising population growth, increased pressures on livestock production systems, more urbanization in the developing world, human encroachment of jungles and game reserves, deepening globalization of commerce and trade, and more frequent contacts between humans, domestic animals, and wildlife. As these threats and hazards rise as part of daily lives, so does the risks of new epidemics to develop. With the recent global scare created by pandemic influenza H1N1 in 2009, coupled with recurrent earthquakes, eruptions, hurricanes, tsunamis, and wars it is now clear that coping with risks is more complex than initially thought.

For its part, the Food and Agriculture Organization of the United Nations (FAO) puts in place technical cooperation programs with member countries to mitigate disease risks and minimize social threats. Within the Animal Production and Health Division (AGA), the unit responsible to respond to emergencies of animal nature is the Crisis Management Centre-Animal Health (CMC-AH).

In collaboration with other international agencies, FAO is able to help populations around the world cope with risks posed by diseases, as well as to devise livelihoods alternatives that aid in recovery efforts after disasters occur.

FAO of the UN is an institutional partner of World Veterinary Year (Vet2011).

FAO as One Health: Moving Forward

In the interconnected world in which we are currently living it is no longer sensible to talk about health in isolation. The health of humans, animals, and ecosystems is tightly interconnected as the growing human population and the rapid urbanization is pushing people closer to previously untouched environments; with increasing demands for energy and natural resources.

Similarly, rising incomes and globalized trade is placing pressure on crop and food production systems to satisfy the growing demand for cereals, legumes, vegetables, fruits, and high-quality animal proteins that more affluent and urban social groups around the world are increasingly demanding.

In addition, changing agro-ecological conditions, intensification of food production systems, and expanding local and global trade, has increased the likelihood of animal and plant diseases and pests to emerge and spread farther and faster than before, and for unsafe food to reach numerous consumers in distant markets.

Also, consideration needs to be given to transnational developments taking place around the globe; for example, climate change or threats from civil instabilities. Few disagree that our world is now witnessing the effects of atmospheric changes in terms of higher temperatures, increased rainfalls, and frequent natural disasters.

The emergence of Brazil, China, India, and Russia, as well as of other transition economies is signaling a new era, one in which issues related to economic growth, economic and food security, rural development, poverty alleviation, and hunger mitigation are addressed concurrently.

In the past decades, the world has been exposed to new threats and hazards. Some of these lie in animals and plants, some in humans, and others in ecosystems.

For instance, in animals we can recall the high-profile cases of Bovine Spongiform Encephalopathy in cattle in the United Kingdom, SARS in China and Canada, or Ebola Reston virus found in pigs in Southeast Asia. Also, more recently, we witnessed outbreaks of Porcine Reproductive and Respiratory Syndrome in China and Viet Nam, Monkey Pox in the United States, Nipah virus in Malaysia and Bangladesh, and Highly Pathogenic Avian Influenza H5N1 on three continents, followed closely by the worldwide spread of Pandemic Influenza H1N1 in 2009.

Fish, mollusks, and crustaceans are, of course, also animals. And in some of these aquatic species we have white spot in shrimp, koi herpes virus, and viral hemorrhagic septicemia, to name a few.

Similarly, crops and plants are attacked by pests and diseases that seriously impact food production and food availability: wheat rust Ug99 spread to Central Asia and northern India, and one of the most insidious migratory pests: Locust in Africa, Asia, and Europe. Also, food safety is becoming an increasingly serious issue due to a more globalized trade, as previously mentioned.

Humans also are important disease and pest carriers. All of us are familiar with seasonal influenza. But there are other diseases still claiming lives all around the world. Some examples include HIV/AIDS, malaria, measles, smallpox, polio, mumps, and common diarrheas.

Last, but not least, we have threats in our environments ranging from air and water pollution, inorganic waste, ocean contamination, and also some very new diseases which were not known to us. For example, scientific research has discovered that exotic bats and jungle rats can transmit debilitating diseases to animals and human.

With changes in climate, we are expecting that certain parasites, viruses, and bacteria or their vectors will find new ecosystems in which to flourish. To sum up, the demographic explosion, the closer we get to each other and, to our environments, the more exposed we are to risks, threats, and hazards that impact our health and livelihoods. Simply put, everything is connected to everything else.

The concepts behind One Health need to be examined through the lens of individuals, households, societies, states, regions, and continents. There is no more reason to view health as separate compartments. Health is to be seen together, in conjunction with all living species, integrated to our surrounding, our foods, livelihoods, and our daily lifestyles.

In equal measure, dealing with health does not stop at delivering medications or responding to crises. It goes far beyond that. We need to talk about nutrition, about political, economic, cultural, social, scientific, technological, legal, and ecological impacts and linkages.

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MOST RECENT H5N1 AI OUTBREAKS 2006-2011

Note: This list has been compiled on the basis of information up to 30 April 2011.

2011

April	Bangladesh, Egypt, Indonesia, Israel (Jordan Valley), Korea (Republic of), **Mongolia**, Viet Nam
March	China (Hong Kong SAR), India, Japan, Myanmar
February	West Bank
January	Cambodia

2010

October	Nepal
June	Russian Federation
May	China
April	Lao PDR
March	Bhutan, **Bulgaria**, Romania

2009

March	Germany

2008

November	Thailand
September	Togo
July	Nigeria
June	Pakistan
May	United Kingdom
March	Turkey
February	**Switzerland**, Ukraine
January	Saudi Arabia

2007

December	Benin, Iran, Poland
October	Afghanistan
August	France
July	Czech Republic
June	Ghana, Malaysia
April	Kuwait
January	Côte d'Ivoire, Hungary

2006

August	Sudan
July	**Spain**
June	Niger
May	Burkina Faso, Denmark
April	Djibouti, Sweden
March	Albania, **Austria**, Azerbaijan, Cameroon, **Croatia**, **Greece**, Jordan, Kazakhstan, Serbia, **Slovenia**
February	**Bosnia-Herzegovina**, **Georgia**, Iraq, **Italy**, **Slovakia**

***Green**: areas which never had reported outbreaks in poultry*

Sources: World Organisation for Animal Health (OIE), European Commission (EC), FAO and national Governments

AT A GLANCE

The latest HPAI outbreaks for the period 1 – 30 April 2011

Note AIDEnews publishes reports of **confirmed HPAI cases** using the following sources: OIE, European Commission, FAO and national governments.

AFRICA

Egypt

A total of thirty (30) H5 HPAI positive cases were reported in 13 governorates: Behera (5), Beni Suef (1), Damiyatta (2), Fayoum (5), Gharbia (1), Helwan (1), Luxor (1), Menoufia (6), Minya (1), Kafr el-Sheikh (1), Qena (2), Sharqia (1), Sixth of October (3) Governorates (number of outbreaks in brackets). More than 19,000 birds have died or been culled.

Of the 30 outbreaks, 28 were in backyard poultry (chickens, ducks, and geese) and 2 were in commercial chicken farms; all backyard holdings were either not vaccinated or vaccination history unknown while both of the commercial farms had been vaccinated.

South Africa

H5N2 HPAI outbreak was reported in nine ostrich farms in Western Cape Province. The outbreak was found by routine surveillance. Farms tested positive for serology but initially had no clinical signs. Initial PCR test and virus isolation were negative. Follow-up PCR test could only confirm diagnosis. Later a farm with 5,754 ostrich had clinical signs and 100 ostriches died.

NEAR EAST

Israel

A marsh harrier (*Circus aeruginosus*) tested positive for H5N1 HPAI at the Kimron Veterinary Institute. The bird was found on 6 April 2011 in an Israeli settlement in the West Bank, Jordan Valley and died in a wildlife veterinary hospital.

ASIA

Bangladesh

A total of twelve (12) H5N1 HPAI outbreaks occurred in: Barisal (1), Chittagong (2), Dhaka (5) and Rajshahi (4) Divisions (number of outbreaks in brackets) in commercial poultry farms. A total of 17 191 birds died and 67,563 were destroyed.

Indonesia

H5N1 HPAI outbreaks occurred from 30 March to 6 April 2011 in 18 villages in Gorontalo Province in the north of Sulawesi Island and were reported to OIE on 26 April. A total of 817 birds have died and 4 119 were destroyed. The last reported outbreak in Gorontalo Province was in June 2007.

The Participatory Disease Surveillance and Response (PDSR) programme through 33 Local Disease Control Centres covers 71,727 villages in 85 percent of Indonesia's 448 districts and municipalities in 29 of its 33 provinces. During March 2011, PDSR conducted surveillance in 1,763 villages (2.5 percent). The overall HPAI incidence was 2.5 infected villages per 1,000 villages under surveillance.

Korea, the Republic of

An outbreak of H5N1 HPAI occurred on 6 April 2011 in a layer farm with 13,200 chickens in Yeoungcheon-si, Gyeongsangbuk-do.

Viet Nam

H5N1 HPAI outbreaks in six provinces were reported in: the Red River Delta Provinces of Ha Nam; the North East Provinces of Bac Kan; the North Central Coast Provinces of Quang Tri; the South Central Coast Provinces of Quang Ngai*; the Central Highland Provinces of Dak Lak; and the Mekong River Delta Province of Vinh Long*. More than 51 000 birds have died or been destroyed. (*: multiple outbreaks).

SUMMARY OF CONFIRMED HPAI OUTBREAKS
(As of 30 April 2011)

Sources: OIE, European Commission (EC), FAO and national governments – WHO for human cases/deaths
Note: H5N1 unless otherwise indicated. Highlighted countries indicate those in which there has been only one officially confirmed H5N1 outbreak or occurrence. Dates of the last outbreak within this year are in bold.

AFRICA	First outbreak	Latest outbreak	Animals affected to date	Human cases / deaths to date
Benin	7 November 2007	15 December 2007	Domestic poultry	-
Burkina Faso	1 March 2006	20 May 2006	Domestic poultry - wild birds	-
Cameroon	21 February 2006	28 March 2006	Domestic poultry – wild birds	-
Côte d'Ivoire	31 March 2006	31 January 2007	Domestic poultry – wild birds	-
Djibouti	6 April 2006	6 April 2006	Domestic poultry	**1 / 0**
Egypt	17 February 2006	**30 March 2011** Helwan, Minya, Menoufia	Domestic poultry – wild birds – donkeys	**143 / 47**
Ghana	14 April 2007	13 June 2007	Domestic poultry	-
Niger	6 February 2006	1 June 2006	Domestic poultry	-
Nigeria	16 January 2006	22 July 2008	Domestic poultry – wild birds	**1 / 1**
South Africa	1 February 2011	25 March 2011 (H5N2)	Ostrich	-
Sudan	25 March 2006	4 August 2006	Domestic poultry	-
Togo	6 June 2007	8 September 2008	Domestic poultry	-

ASIA	First outbreak	Latest outbreak	Animals affected to date	Human cases / deaths to date
Afghanistan	2 March 2006	2 October 2007	Domestic poultry – wild birds	-
Bangladesh	5 February 2007	**29 March 2011**	Domestic poultry	**3 / 0**
Bhutan	18 February 2010	14 March 2010	Domestic poultry	-
Cambodia	12 January 2004	**28 January 2011**	Domestic poultry – wild birds	**15 / 13**
China	20 January 2004	9 May 2010 wild birds	Domestic poultry – wild birds	**40 / 26**
China (Hong Kong SAR)	19 January 2004	**1 March 2011**	Domestic poultry – Wild birds	
India	27 January 2006	**4 March 2011**	Domestic poultry	-
Indonesia	2 February 2004	**6 April 2011**	Domestic poultry – pigs (with no clinical signs)	**176/ 145**
Japan	28 December 2003	**16 March 2011**	Domestic poultry – wild birds – raccoons (no clinical signs)	-
Kazakhstan	22 July 2005	10 March 2006	Domestic poultry – wild birds	-
Korea, Rep. of	10 December 2003	**6 April 2011**	Domestic poultry – wild birds	-
Lao PDR	15 January 2004	27 April 2010	Domestic poultry	**2 / 2**
Malaysia	7 August 2004	2 June 2007	Domestic poultry – wild birds	-
Mongolia	10 August 2005	3 May 2010	Wild birds	-
Myanmar	8 March 2006	**16 March 2011**	Domestic poultry	**1 / 0**
Nepal	8 January 2009	25 October 2010	Domestic poultry	-
Pakistan	23 February 2006	17 June 2008	Domestic poultry – wild birds	**3 / 1**
Thailand	23 January 2004	10 November 2008	Domestic poultry – wild birds – tiger	**25 / 17**
Viet Nam	9 January 2004	**30 March 2011**	Domestic poultry	**119/ 59**

NEAR EAST	First outbreak	Latest outbreak	Animals affected to date	Human cases / deaths to date
Iran	2 February 2006	10 December 2007	Domestic poultry - wild birds	-
Iraq	18 January 2006	1 February 2006	Domestic poultry – wild birds	**3 / 2**
Israel	16 March 2006	**6 April 2011** (Jordan Valley)	Domestic poultry – Emu (zoo)	-
Jordan	23 March 2006	23 March 2006	Domestic poultry	-
Kuwait	23 February 2007	20 April 2007	Domestic poultry – wild birds - zoo birds	-
Saudi Arabia	12 March 2007	29 January 2008	Domestic poultry	-
West Bank & Gaza Strip	21 March 2006	**27 February 2011**	Domestic poultry	-

EUROPE	First outbreak	Latest outbreak	Animals affected to date	Human cases / deaths to date
Albania	16 February 2006	9 March 2006	Domestic poultry	-
Austria	10 February 2006	22 March 2006	Wild birds – cats	-
Azerbaijan	2 February 2006	18 March 2006	Wild birds – domestic poultry – dogs	**8 / 5**
Bosnia-Herzegovina	16 February 2006	16 February 2006	Wild birds	-
Bulgaria	31 January 2006	29 March 2010	Wild birds	-
Croatia	21 October 2005	24 March 2006	Wild birds	-
Czech Republic	20 March 2006	11 July 2007	Wild birds – domestic poultry	-
Denmark	12 March 2006	22 May 2006	Wild birds – domestic poultry	-
France	17 February 2006	14 August 2007	Wild birds – domestic poultry	-
Georgia	23 February 2006	23 February 2006	Wild birds	-
Germany	8 February 2006	10 January 2009 mallard, wild	Wild birds – domestic poultry – cats – stone marten	-
Greece	30 January 2006	27 March 2006	Wild birds	-
Hungary	4 February 2006	23 January 2007	Wild birds – domestic poultry	-
Italy	1 February 2006	19 February 2006	Wild birds	-
Poland	2 March 2006	22 December 2007	Wild birds – domestic poultry	-
Romania	7 October 2005	27 March 2010	Wild birds – domestic poultry – cat	-
Russian Federation	15 July 2005	5 June 2010 wild birds	Domestic poultry – wild birds	-
Serbia	28 February 2006	16 March 2006	Wild birds – domestic poultry	-
Slovakia	17 February 2006	18 February 2006	Wild birds	-
Slovenia	9 February 2006	25 March 2006	Wild birds	-
Spain	7 July 2006	9 October 2009 (H7)	Poultry	-
Sweden	28 February 2006	26 April 2006	Wild birds – domestic poultry - game birds – mink	-
Switzerland	26 February 2006	22 February 2008	Wild birds	-
Turkey	1 October 2005	9 March 2008	Domestic poultry – wild birds	**12 / 4**
Ukraine	2 December 2005	11 February 2008	Wild birds – domestic poultry – zoo birds	-
United Kingdom	30 March 2006	22 May 2008 (H7N7)	Wild birds – domestic poultry	-