



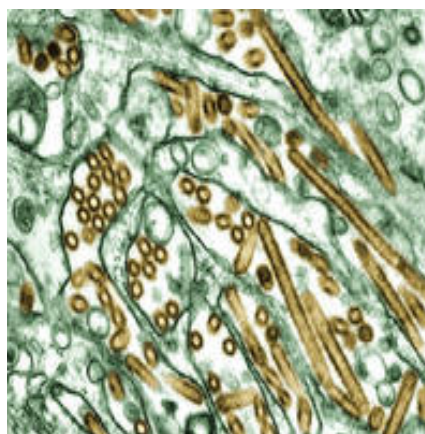
Global flu database goes live

New global platform for sharing scientific information

The GISAID Platform went online 15 May 2008 as a global database run by scientists for scientists from a wide variety of fields including veterinary and human virology, bioinformatics, epidemiology, immunology and clinical analysis.

The initiative comes after scientists and health experts from different countries wrote an open letter to *Nature* magazine in August 2006, calling for data on influenza to be shared more quickly and openly, and created the Global Initiative on Sharing Avian Influenza Data (GISAID).

In its start-up presentation, the GISAID Platform says its founding scientists "have pledged to share the data, to analyze the findings jointly, and to publish the results collaboratively, on the basis of open sharing of data respecting the rights and interests of all involved parties".



H5N1 virus

The facility is open free-of-charge to all researchers anywhere the world who agree to foster a better understanding of the influenza virus. It says it will offer a series of services, starting with the EpiFlu Database, led by a Swiss consortium, which provides secure storage and analysis of genetic, epidemiological and clinical data.

One of the first countries to say it would send avian influenza virus samples to the new database was Indonesia. The country's health minister Siti Fadilah Supari said 15 May that Indonesia would start sharing all genetic information about her country's bird flu virus with the new global database. Previously, Indonesia had refused to participate in the virus sharing system of the World Health Organization (WHO) saying it was unfair to developing countries.

OFFLU (the joint OIE/FAO Network of Expertise on Avian Influenza) says it will contribute to any further development by providing feedback to GISAID on the platform's capacity to meet OFFLU's needs. For more information about GISAID and the platform, visit <http://platform.gisaid.org>.

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Call for improving HPAI mortality detection in caged poultry

Detection thresholds for caged poultry should be lowered to permit more rapid detection – and therefore more effective control – of infectious diseases such as HPAI.

Writing in the 13 May online edition of *Interface*, the journal of The Royal Society, a group of researchers at the Edinburgh-based Institute of Immunology and Infection Research used a mathematical model to establish time of detecting HPAI infection poultry. Detection is triggered when mortality, food or water intake or egg production in layers pass recommended thresholds suggested from the experience of past HPAI outbreaks.

The researchers also examined how many false alarms occur in uninfected flocks when detection thresholds owing to background mortality are altered. They conclude that time to detection of the effects of an HPAI strain such as H5N1 can be significantly improved, particularly for large flocks, by lowering detection thresholds, and this can be accomplished without causing excessive false alarms in uninfected flocks.

For an abstract of the article, see <http://journals.royalsociety.org/content/4t672525v015058g/>

Avian influenza

FAO boosts genetic data analysis capacity

Dr. Mia Kim, a U.S. veterinarian, has joined the Emergency Prevention System for Transboundary Animal Diseases (EMPRES) of FAO's Animal Production and Health Division. With a broad background in molecular biology and diagnostics, epidemiology and biosecurity, Mia's role includes analysis of avian influenza genetic data.

She will be part of an OIE/FAO Network of Expertise on Avian Influenza (OFFLU) team, working to provide Indonesia with in-country training in bioinformatics, implement an information sharing platform, and support efforts to standardize laboratory protocols and share data among participating laboratories.

Siberia

Birds test positive for bird flu antibodies

Avian influenza antibodies have been found in migratory birds in southern Siberia, according to the Russian Federation's agricultural watchdog *Rosselkhoznadzor*. Reporting the finding May 19, RAI Novosti said the presence of antibodies means that the birds had been in contact with infected birds or had survived avian influenza.

"Laboratory tests revealed antibodies of the H5 subtype of the virus in 18 blood samples taken from migratory birds in three regions in the Altai Territory and three samples taken at Lake Uvs Nuur in the Tuva Republic," *Rosselkhoznadzor* reported.

MOST RECENT HPAI OUTBREAKS 2006-08

Note: This list has been compiled on the basis of information up to 16 May 2008.

2008

May	India, Japan , Korea (Republic of)
April	Bangladesh, China, Egypt, Indonesia, Russian Federation, Viet Nam
March	China (Hong Kong SAR) , Lao PDR, Pakistan, Turkey,
February	Myanmar, Switzerland , Ukraine, United Kingdom,
January	Israel, Saudi Arabia, Thailand

2007

December	Benin, Germany, Iran, Poland
November	Romania
October	Afghanistan, Nigeria
August	France
July	Czech Republic, Togo
June	Ghana, Malaysia
April	Cambodia, Kuwait
January	Hungary

2006

November	Côte d'Ivoire
August	Sudan
July	Spain
June	Mongolia , Niger
May	Burkina Faso, Denmark
April	Djibouti, Sweden [H5], West Bank & Gaza Strip
March	Albania, Austria, Azerbaijan [H5], Cameroon, Croatia , Greece , Jordan, Kazakhstan, Serbia, Slovenia
February	Bosnia-Herzegovina , Bulgaria , Georgia , Iraq [H5], Italy , Slovakia

Green: wild birds only

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

I. WORLDWIDE SITUATION

Thirty-four outbreaks/cases of HPAI (H5N1) were reported worldwide in April 2008 in eight countries (Bangladesh, Egypt, India, Indonesia, Japan, Republic of Korea, Russian Federation and Viet Nam). This compares with 175 outbreaks reported in April 2006 and 23 in April 2007. The geographical location of outbreaks in poultry and cases in wild birds is shown in Figure 1. Only two cases were reported in wild birds. Indonesia reported 55 HPAI events* between 5 April and 3 May.

The Indonesia data are not included in Charts 1, 2, 3 and 6 because the collected outbreak information in Indonesia is not comparable with that of other countries; in addition, case definition changed from household to village level on 1 April 2008.

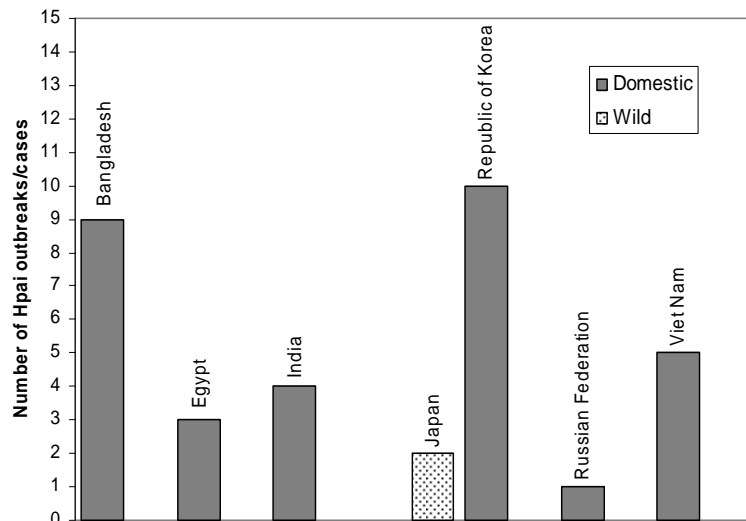


Chart 1 HPAI (H5N1) outbreaks confirmed during April 2008 (excluding Indonesia's PDS data) (Source: FAO EMPRES-i)

- Self-declared free country
- H5 Domestic
- H5 Wild
- H5N1 Domestic
- H5N1 Wild

NOTE: H5 cases are represented for countries where N-subtype characterization is not being performed for secondary cases or if laboratory results are still pending. Countries with H5 and H5N1 occurrences only in wild birds are not considered infected countries according to OIE status. The original data have been collected and aggregated at the most detailed administrative level and for the units available for each country.

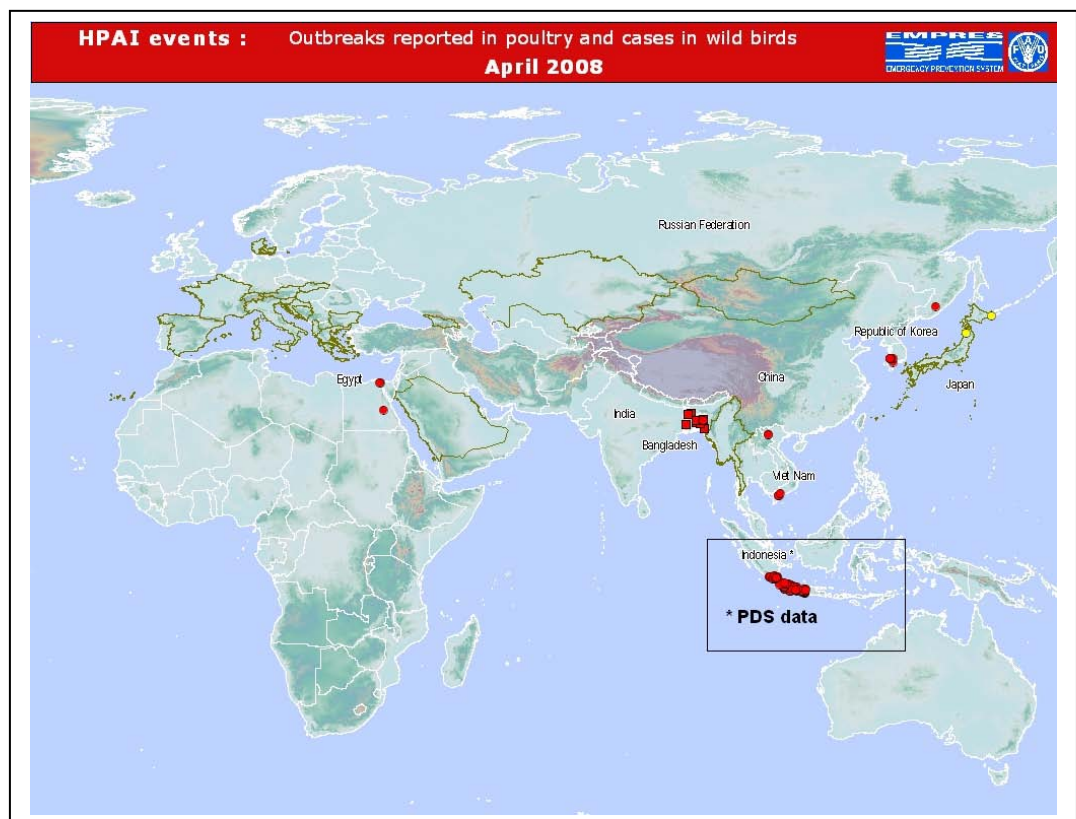


Figure 1 HPAI (H5N1) outbreaks in poultry and cases of H5N1 infection in wild birds reported in April 2008 (Source: FAO EMPRES-i)

**PDS case definition in Indonesia: When active outbreaks are encountered where severely sick birds, or recently deceased carcasses (within 12 hours of death) are present, the Participatory Disease Surveillance (PDS) teams carry out an influenza type A rapid test (Anigen® test). A mortality event consistent with clinical HPAI and a positive rapid test in affected poultry is considered a confirmed detection of HPAI in areas where HPAI has previously been confirmed by laboratory testing.*

The evolution of the number of reported cases over the last six months by continent and by species group (wild or domestic) is represented in Charts 2 and 3, respectively.

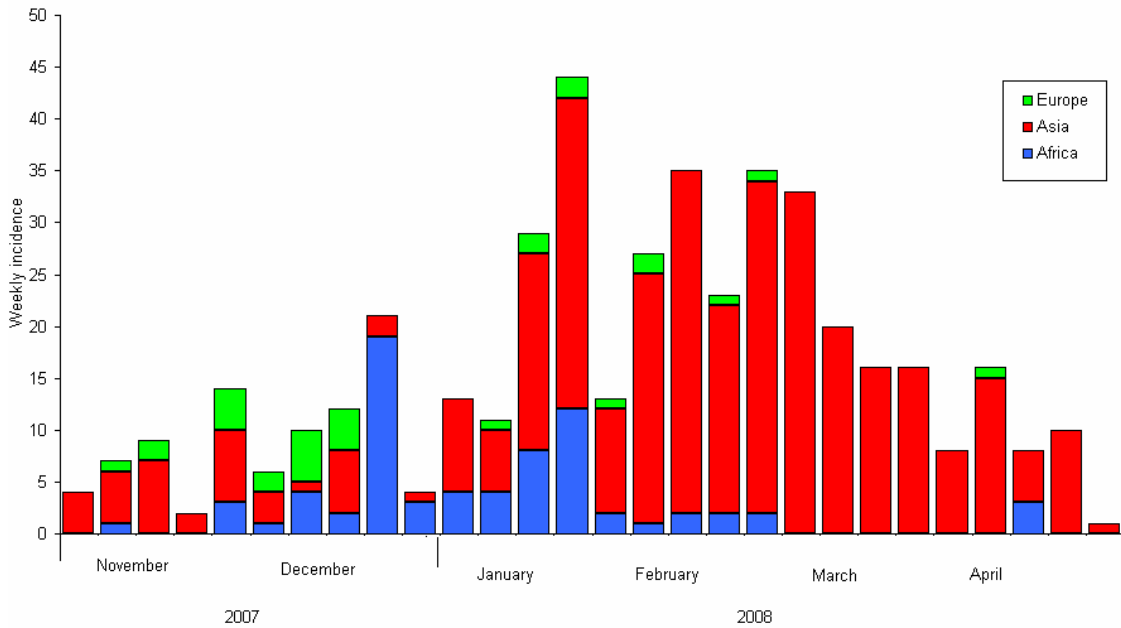


Chart 2 HPAI (H5N1) outbreaks in poultry and cases of H5N1 infection in wild birds per continent reported during the period between November 2007 and April 2008 (excluding Indonesia's PDS data) (Source: FAO EMPRES-i)

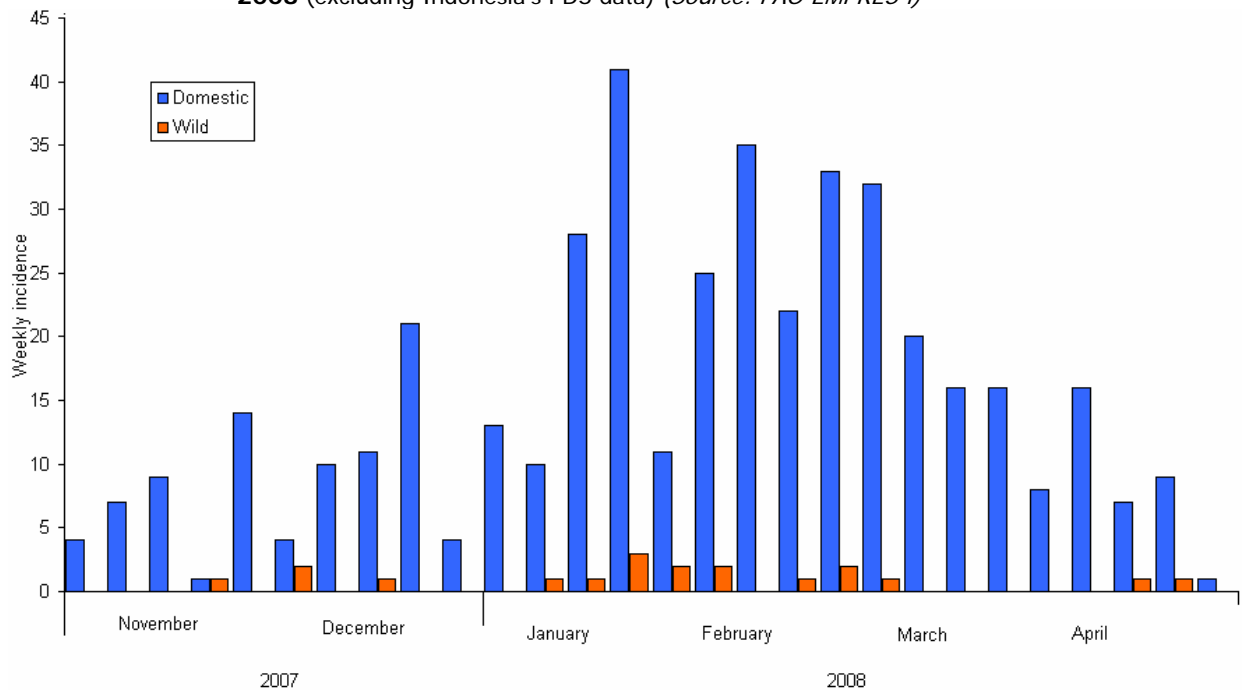


Chart 3 Number of HPAI (H5N1) outbreaks of HPAI in poultry and cases of H5N1 infection in wild birds reported between November 2007 and April 2008 (excluding Indonesia's PDS data) (Source: FAO EMPRES-i)

Number of Confirmed Human H5N1 Cases by month of onset as of 2008-05-19

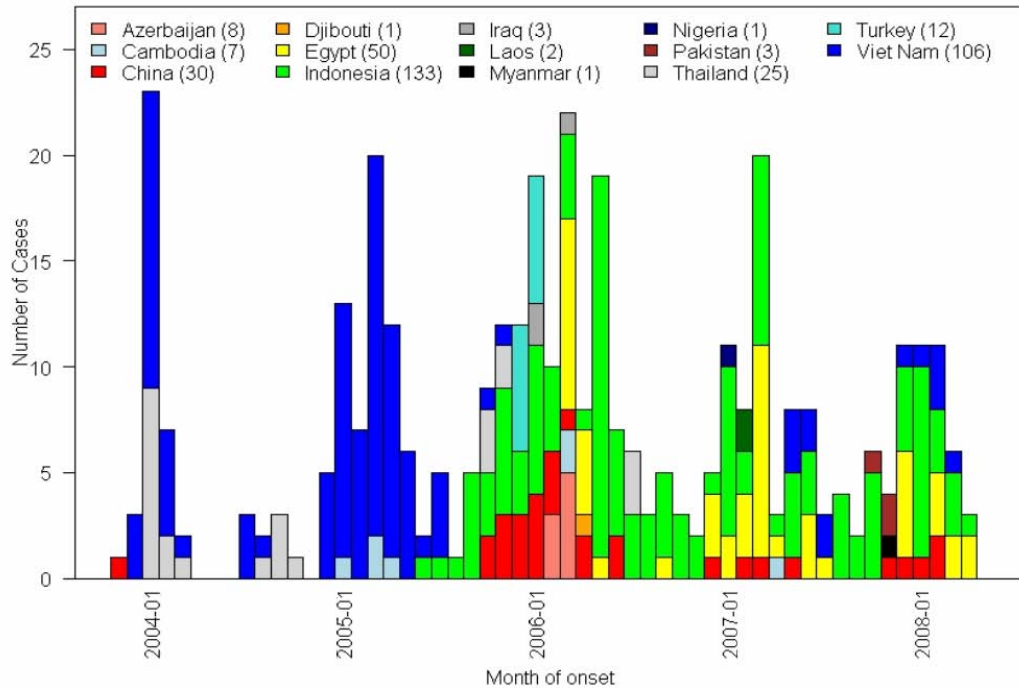


Chart 4 Current situation of H5N1 in humans (Source: WHO)

II. SITUATION BY CONTINENT/REGION

AFRICA

In **Egypt**, three HPAI cases in poultry were reported in household units and five at checkpoints/live bird markets; one of them was found while investigating a human case. On April, three human cases were reported, two of which were fatal.

Nigeria has not recorded any HPAI outbreak since 8 October 2007. Surveillance by laboratory diagnosticians was carried out by the Ministry of Agriculture and Water Resources in Ogun and Lagos states in the month of October. No report is expected.

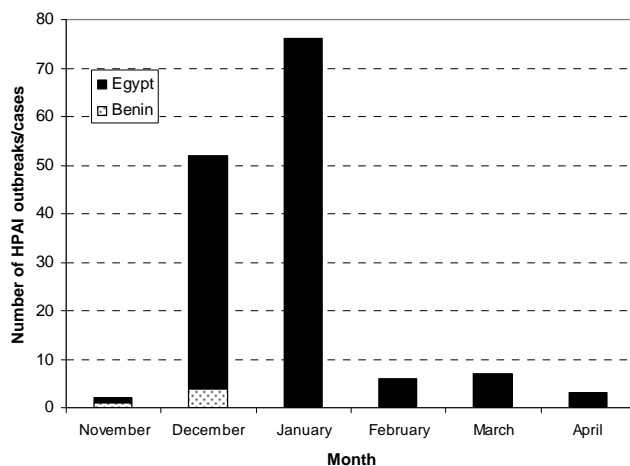


Chart 5 Number of outbreaks/cases of HPAI (H5N1) confirmed between November 2007 and April 2008 in Africa (Source: FAO EMPRES-i)

ASIA

Indonesia is still experiencing the highest number of cases of HPAI type H5N1 in poultry worldwide. An HPAI outbreak was confirmed in Maluku Province, the 31st province with HPAI outbreaks. HPAI remains endemic in Java, Sumatra, Bali and South Sulawesi with sporadic outbreaks reported from other areas. Infection has continued to spread during the year with outbreaks occurring in many of the remaining free areas. The high figure of reported cases for Indonesia in 2007-08 is largely due to the ongoing 'participatory disease search' (PDS) programme that uses participatory techniques combined with an influenza type A rapid test to identify cases of HPAI in backyard village-type poultry production environments (Figure 1 and Chart 2). The programme is supported by FAO and is operating in 193 out of 448 districts and nine provinces in Java, Sumatra and Bali. Outbreaks have been reported infrequently from the eastern provinces where it is likely that H5N1 HPAI is more sporadic in the smaller more dispersed poultry populations. One human case was reported in April 2008. Of the 133 human cases confirmed to date in Indonesia, 108 have been fatal.

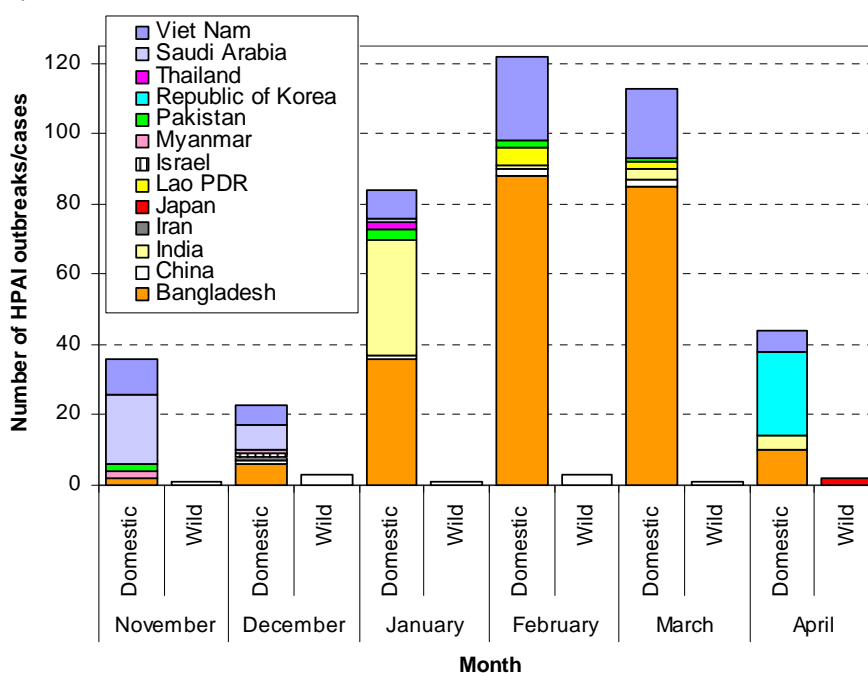


Chart 6 Number of outbreaks/cases of HPAI (H5N1) confirmed between November 2007 and April 2008 in Asia (excluding Indonesia's PDS data)
(Source: FAO EMPRES-i)

The endemic situation of HPAI in **Bangladesh** is of great concern. During April 2008, ten additional outbreaks were recorded, all in commercial farms. No new district was affected during this period. Outbreaks continued in previously affected districts including Gazipur, Narayanganj, Dinajpur, Joypurhat, Chittagong, Comilla and Gaibandha. Control campaigns have so far not succeeded in interrupting virus transmission within districts. However, April cases have experienced a considerable drop compared with the previous months (85 in March and 88 in February). It has been speculated that this may be because of the rise in temperatures that affect the virus survival. The total number of birds culled as of 31 April 2008 stood at 1.64 million.

Note: At the time of the publication of this update, there were reliable rumours that the first human case, which occurred back in January 2008, had been confirmed.

In January, the West Bengal state of **India** experienced the worst HPAI outbreak in that country to date, which was apparently controlled through an aggressive depopulation campaign. HPAI re-emerged in March in West Bengal and during April a new state (Tripura) also became affected, with three HPAI outbreaks, one of them within 500 metres of the border with Bangladesh.

During April, **Republic of Korea** experienced its worst series of H5N1 HPAI outbreaks ever, with 24 outbreaks all over the country, all but one in commercial poultry. Before April, the last reported outbreak in the country had been in June 2006. More than five million chickens and ducks have been slaughtered since the latest outbreak was reported on April 1 and culling is continuing. The origin of this year introduction remains unknown.

Japan reported during April that two wild swans tested positive for H5N1 infection in Akita and Hokkaido Island. No outbreaks have been detected in poultry.

Outbreaks in poultry have been reported regularly by **Viet Nam** (six outbreaks in April), mainly in duck production systems. No human cases were reported to WHO during this period.

Some Asian countries such as Cambodia and Iraq did not experience outbreaks of HPAI in April 2008, but they report regularly about the negative results obtained from all samples submitted from suspect cases. **Cambodia** is using an animal health hotline activity to receive reports from the field on suspicious outbreaks or cases of HPAI. **Iraq** also reported the laboratory results of their surveillance activities for the month of April. These data refer to all governorates except Kurdistan Province, in the north of the country. All samples taken were negative [poultry farms (15,535), backyard poultry (4,248), game and wild birds (363), and markets and slaughterhouses (6,007)]. The only avian influenza virus identified was H9 in samples collected from poultry farms.

EUROPE

The **Russian Federation** reported an outbreak affecting different species of village poultry in Primorskiy Kray. The source of the infection was probably hunted wild ducks and geese according to the OIE report.

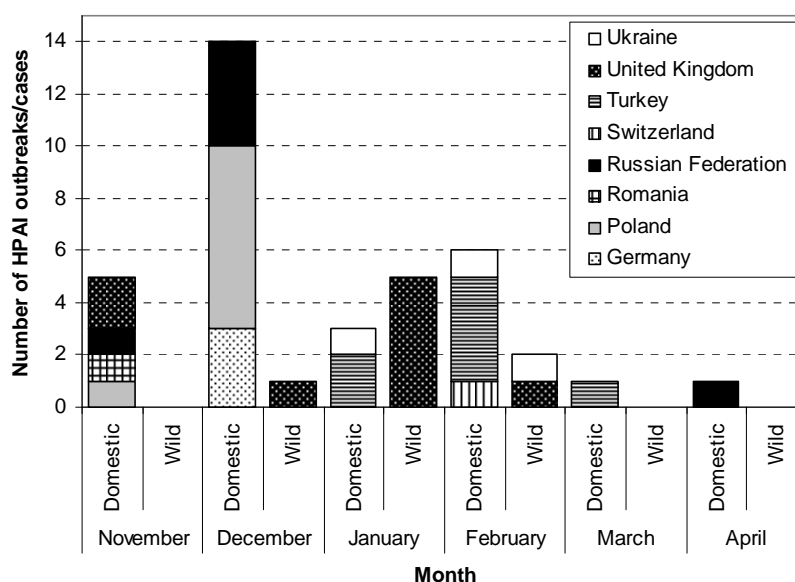


Chart 7 Number of outbreaks/cases of HPAI (H5N1) confirmed between November 2007 and April 2008 in Europe (Source: FAO EMPRES-i)

III. CONCLUSIONS

Fifty percent of HPAI outbreaks (without including the household-based PDS data from Indonesia) were reported in domestic poultry from infected/endemic countries (Indonesia, Bangladesh, Viet Nam and Egypt) with sporadic outbreaks in other countries, particularly the Republic of Korea. Only two wild bird cases were reported (Japan).

Overall, in the month of April 2008 the number of outbreaks was similar to April 2007 but differed significantly from April 2006, when ten times more outbreaks were reported (Chart 8). Although there has been an improvement in disease awareness, outbreaks/cases of HPAI are still likely to be under-estimated and under-reported in most affected countries because of the lack of systematic and effective disease surveillance systems, which may affect considerably the shape of the distribution of outbreaks by region. It is also important to highlight that outbreaks reported from Indonesia are not included in Chart 8.

An animated map showing the evolution of outbreaks over the last six months including January 2008 is available at: www.fao.org/ag/againfo/programmes/en/empres/maps.html.

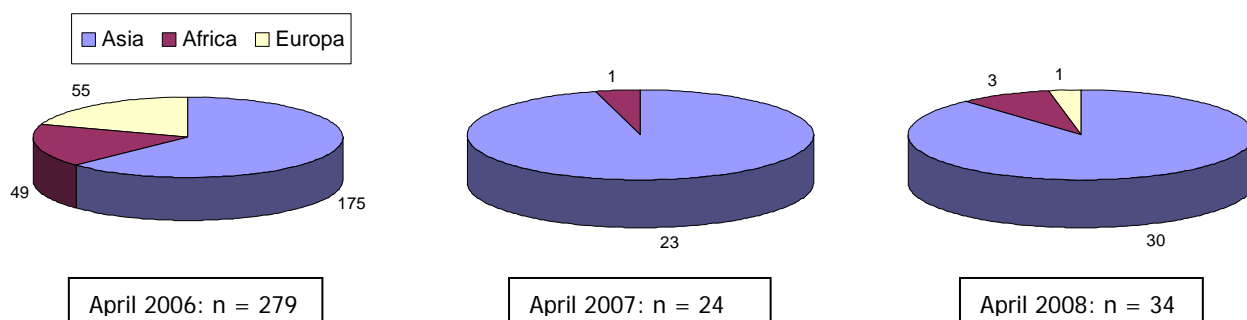


Chart 8 Number and distribution of outbreaks of HPAI (H5N1) confirmed in April 2006, 2007 and 2008 (excluding Indonesia's PDS data)
(Source: FAO EMPRES-I)

AT A GLANCE

The latest HPAI outbreaks for the period 1 – 16 May 2008

Note

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

ASIA

India

The Department of Animal Husbandry, Dairying and Fisheries confirmed on 9 May 2008 that samples collected from Painakumari village, in the Darjeeling district of West Bengal State, had tested positive for the H5 strain of avian influenza in rapid tests conducted at the High Security Animal Disease Laboratory (HSADL).

The OIE received official reports on 1 May 2008 of two earlier outbreaks affecting backyard poultry in Tripura: one on 14 April in the village of Hatcarra, the other on 15 April in the village of Nadilak.

Indonesia

FAO reported 15 May 2008 that out of just over 2,700 interviews conducted by Participatory Disease Surveillance (PDS) teams between 5 April and 3 May 2008, 55 positive cases of HPAI were detected, 14 in Java and 41 in Sumatra. Since the beginning of 2006, over 158,700 interviews have been carried out under the PDS programme, of which 3.3 percent have led to detection of HPAI.

Japan

Another dead whooper swan found on May 5 near Lake Saroma in eastern Hokkaido has tested positive for H5N1 avian influenza. This is the third H5N1 case this year, following earlier discoveries in five swans from two separate locations. All six swans, collected from three different locations in Akita and Hokkaido prefectures, were infected with the same H5N1 virus the Agriculture, Forestry and Fisheries Ministry said.

Korea (Republic of)

On 13 May 2008, the Ministry for Food, Agriculture, Forestry and Fisheries confirmed cases of HPAI in Seoul and Pusan. The ministry reported 11 May 2008 that as of that date there had been a total of 35 outbreaks of HPAI throughout the country.

Viet Nam

The Department of Animal Health (DAH) reported that on 1 May, an HPAI outbreak was detected on a flock of free-ranging ducks in Tan Tay commune, Thach Hoa district. The following day, the range of the outbreak was extended to free-ranging ducks in Tan Binh commune, Tan Thach district. The HPAI outbreak of 22-24 April 2008 in Son La province was confirmed on 5 May.

SUMMARY OF CONFIRMED HPAI OUTBREAKS (as of 16 May 2008)

Sources: OIE, European Commission (EC), FAO and national governments – WHO for human cases/deaths

Note: Highlighted countries indicate those in which there has been only one officially confirmed outbreak or occurrence

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	9 November 2006	Domestic poultry – wild birds	-
Djibouti	6 April 2006	6 April 2006	Domestic poultry	1 / 0
Egypt	17 February 2006	16 May 2008	Domestic poultry – wild birds	50 / 22
Ghana	14 April 2007	13 June 2007	Domestic poultry	-
Niger	6 February 2006	1 June 2006	Domestic poultry	-
Nigeria	16 January 2006	6 October 2007	Domestic poultry – wild birds	1 / 1
Sudan	25 March 2006	4 August 2006	Domestic poultry	-
Togo	6 June 2007	20 July 2007	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	14 April 2008	Domestic poultry	-
Cambodia	12 January 2004	6 April 2007	Domestic poultry – wild birds	7 / 7
China	20 January 2004	4 April 2008	Domestic poultry – wild birds	30 / 20
China (Hong Kong SAR)	19 January 2004	10 March 2008	Wild birds	-
India	27 January 2006	9 May 2008	Domestic poultry	-
Indonesia	2 February 2004	May 2008 (PDS data)	Domestic poultry – pigs (with no clinical signs)	133 / 108
Japan	28 December 2003	5 May 2008	Domestic poultry – wild birds	-
Kazakhstan	22 July 2005	10 March 2006	Domestic poultry – wild birds	-
Korea, Rep. of	10 December 2003	13 May 2008	Domestic poultry – wild birds	-
Lao, PDR	15 January 2004	2 March 2008	Domestic poultry	2 / 2
Malaysia	19 August 2004	2 June 2007	Domestic poultry – wild birds	-
Mongolia	10 August 2005	5 June 2006	Wild birds	-
Myanmar	8 March 2006	23 December 2007	Domestic poultry	1 / 0
Pakistan	23 February 2006	3 March 2008	Domestic poultry – wild birds	1 / 1
Thailand	23 January 2004	18 January 2008	Domestic poultry – wild birds – tiger	25 / 17
Viet Nam	9 January 2004	2 May 2008	Domestic poultry	106 / 52

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 (H5)	18 January 2006	1 February 2006	Domestic poultry – wild birds	3 / 2
Israel	16 March 2006	1 January 2008	Domestic poultry	-
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	2 April 2006	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 (H5)	Wild birds – domestic poultry – dogs	8 / 5
Bosnia-Herzegovina	16 February 2006	16 February 2006	Wild birds	-
Bulgaria	31 January 2006	9 February 2006	Wild birds	-
Croatia	21 October 2005	24 March 2006	Wild birds	-
Czech Republic	27 March 2006	11 July 2007	Wild birds – domestic poultry	-
Denmark	12 March 2006	26 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	25 December 2007	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	16 December 2007	Wild birds – domestic poultry	-
Romania	7 October 2005	6 December 2007 (cat)	Wild birds – domestic poultry – cat	-
Russian Federation	15 July 2005	8 April 2007	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	7 July 2006	Wild birds	-
Sweden	28 February 2006	26 April 2006 (H5)	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	29 February 2008	Wild birds – domestic poultry	-