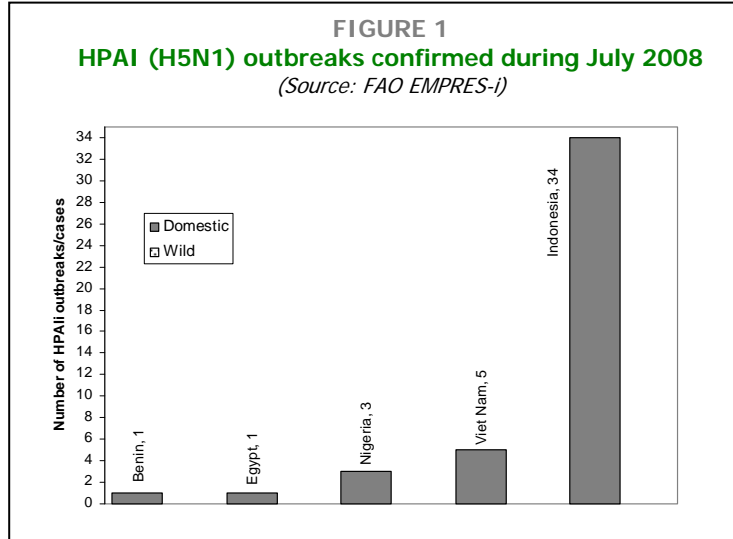


This overview is produced by the FAO-GLEWS team, which collects and analyses epidemiological data and information on animal disease outbreaks as a contribution to improving global early warning under the framework of the Global Early Warning for Major Animal Diseases including Zoonoses.

glews@fao.org

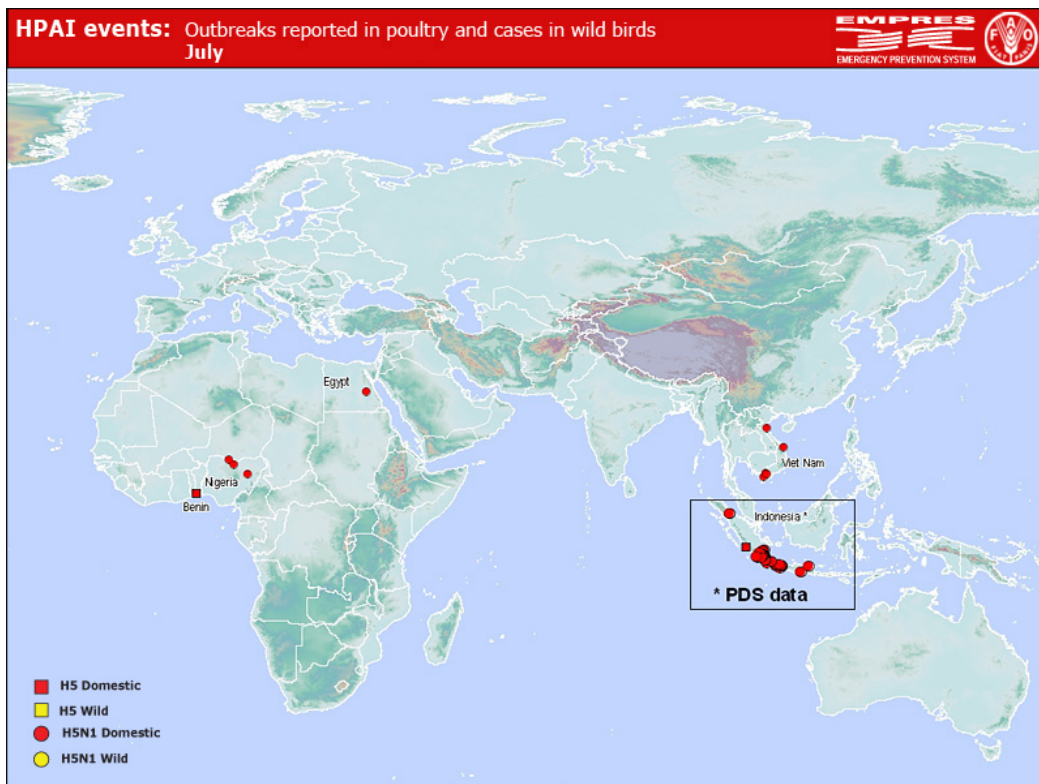
WORLDWIDE



Only 42 outbreaks/cases of HPAI (H5N1) were reported worldwide in July 2008 in four countries (Egypt, Indonesia, Nigeria and Viet Nam). The number of outbreaks/cases per country and the geographical locations are illustrated in Figures 1 and 2, respectively. No cases were reported in wild birds.

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 Figures 3 and 4, respectively. For the same period, the number of human cases reported to the World Health Organization (WHO) is illustrated in Figure 5.

FIGURE 2
HPAI (H5N1) outbreaks in poultry and cases of H5N1 infection in wild birds reported in July 2008
 (Source: FAO EMPRES-i)



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 3
Weekly numbers of HPAI (H5N1) outbreaks in poultry compared with cases of H5N1 infection in wild birds reported between February and July 2008

(Source: FAO EMPRES-i) (Indonesia PDS data are included only from May onwards, which is when the epidemiological unit definition was modified from household level to village level)

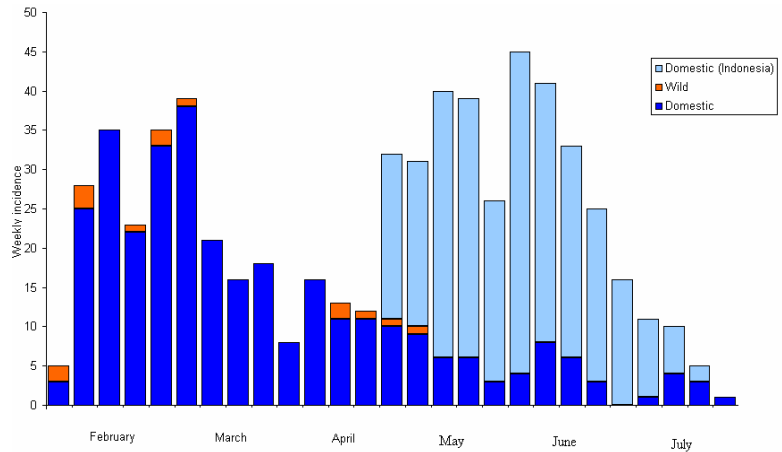
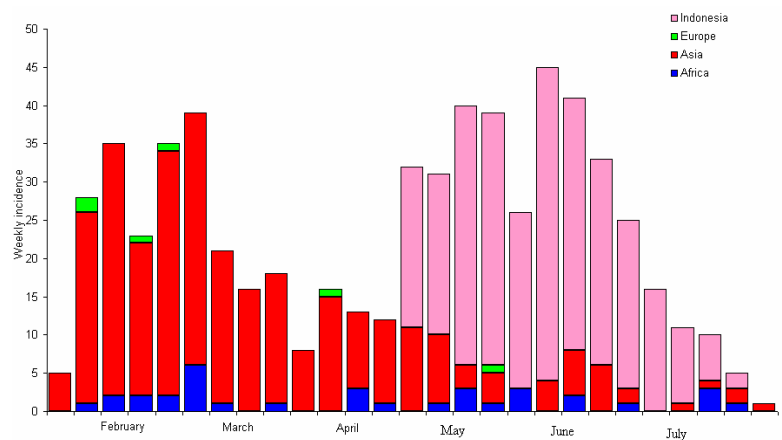


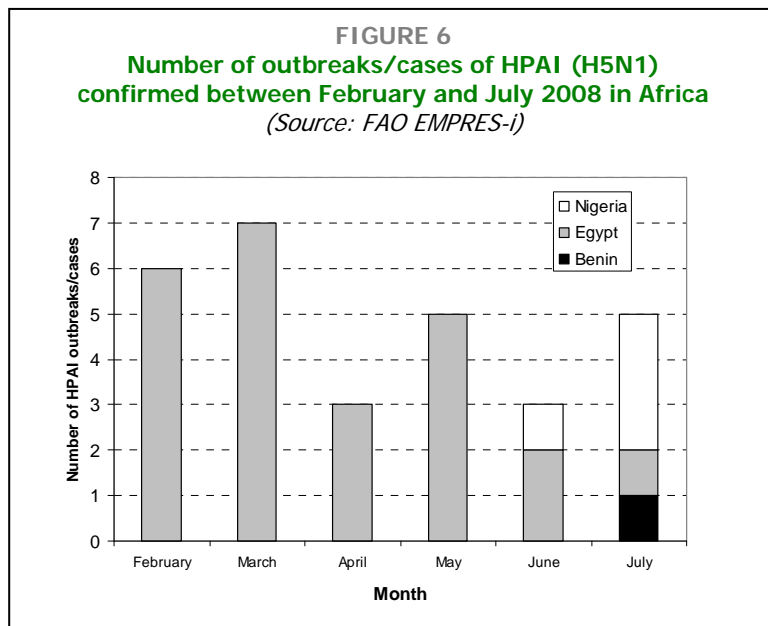
FIGURE 4
Weekly combined numbers of HPAI (H5N1) outbreaks in poultry and cases of H5N1 infection in wild birds per continent reported between February and July 2008

(Source: FAO EMPRES-i) (Indonesia PDS data are included only from May onwards, which is when the epidemiological unit definition was modified from household level to village level)



SITUATION BY CONTINENT/REGION

Africa

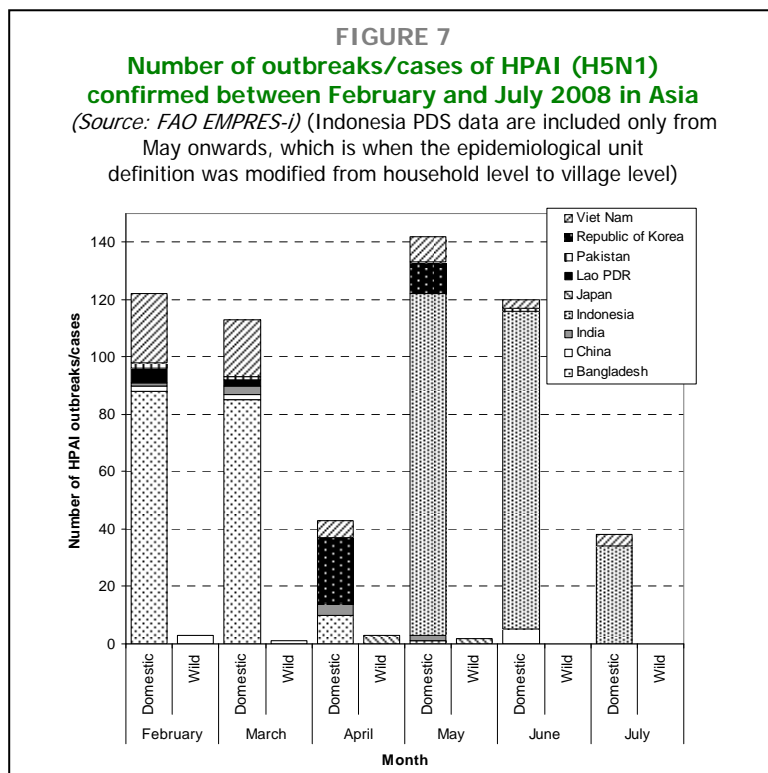


In **Benin**, 2 live chickens purchased at the market in Lokossa on 29 July as part of the routine surveillance tested positive for HPAI H5 at the Veterinary Laboratory of Parakou. There were no mortalities and the origin is still being investigated. The last reported outbreak in Benin dated from December 2007.

In **Egypt**, the current epidemic of HPAI was first confirmed in Egypt in 17 of February 2006. Since then the disease has been confirmed in 22 out of the 27 Governorates. The disease is endemic and outbreaks are detected from north to south of the country in the areas adjacent to the Nile river. Only one HPAI outbreak was reported during July 2008 affecting a backyard raising. The outbreak was detected through passive surveillance.

In **Nigeria**, after nearly 10 months without an outbreak, new HPAI cases were confirmed in Kano and Katsina States on 24 July. Earlier, during one of the regular surveillance and disease search in the poultry production system and marketing chains across the country, positive cases were discovered in live-bird markets in Gombe and Birin Kebbi. The virus isolated in LBM in the states of Gombe and Birin Kebbi (from ducks) was characterised genetically as belonging to sublineage EMA3, within clade 2.2, never reported before in Africa. The EMA3 genetically differ from the strains that circulated in Nigeria in 2006 and 2007 and they are more related to A/H5N1 strains circulating in Europe (Italy), Asia (Afghanistan) and the Middle East (Iran) in 2006. It remains unknown how this strain has been introduced to the continent, whether through movements of wild birds or domestic poultry. Should have migratory birds introduced the virus, it would have been in September 2007 when the migratory period commenced and ended with spill over in the poultry sector at a later date and only detected in July. There is no indication that the EMA3 sublineage has more (*or less*) virulent characteristics than other viruses that cause HPAI of the H5N1 strain.

Asia



In **Viet Nam** the disease is believed to be endemic and vaccination is implemented throughout the country to assist with control. The AI vaccination strategy for 2009-10 is currently being finalized. In July, four outbreaks were reported in poultry but no human cases.

Indonesia has experienced a high number of cases of HPAI type H5N1 in poultry in the last three years. HPAI remains endemic in Java, Sumatra, Bali and South Sulawesi with sporadic outbreaks reported from other areas. HPAI infection is considered to be established throughout most of Indonesia, though with widely varying prevalence, and only two of its 33 Provinces are considered to be free of infection.

The high figure of reported cases for Indonesia in 2007-08 can be explained thanks to the highly effective 'participatory disease search' (PDS)

programme, which has been very effective at detecting outbreaks. The programme uses participatory techniques combined with an influenza type A rapid test to identify cases of HPAI in backyard village-type poultry production environments (Figure 7). The programme is supported by FAO and is operating in 331/448 districts through 31 LDCCs in 27 provinces in Java, Sumatra, Bali, Sulawesi and Kalimantan. 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. In June the Ministry of Health stated that they would discontinue reporting human cases as they occurred and would henceforth report cases on a six-monthly basis. It does, however, update the national WHO Office about individual suspect and confirmed cases as they occur in accordance with IHR (within 24hr), but media announcements of cases will be done periodically. No cases were reported by the MoH during July and the official case tally remains 135 with 110 fatalities.

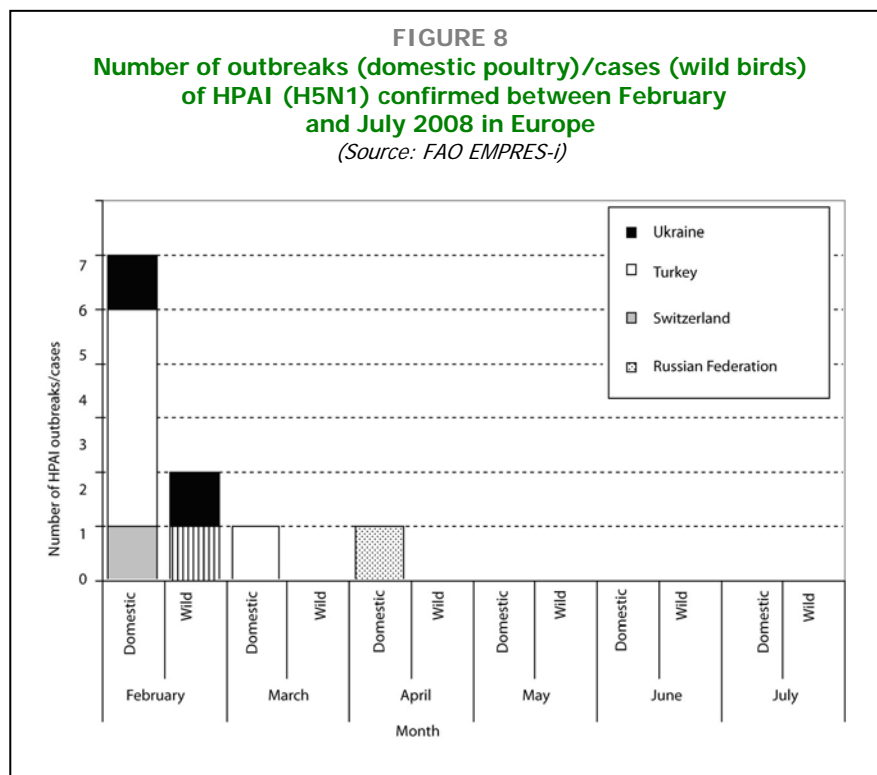
The new database for the PDSR system in Indonesia has been modified since 1 April 2008 and is now based on the village as the epidemiological unit. Individual household reports are therefore now consolidated and reported as lesser numbers of village-level outbreaks.

No outbreak was reported in the month of July 2008 in **Bangladesh, China** or in the **Republic of Korea**.

Some other Asian countries such as Cambodia and Iraq, which did not experience outbreaks of HPAI, but regularly report the negative results obtained from suspected cases. **Cambodia** is using an animal health hotline activity to receive reports on suspicions or cases from the field. **Iraq** reported the laboratory results of their surveillance activities for July, for all governorates except Kurdistan Province, in the north of the country. All samples taken were negative for H5N1 [poultry farms (1,721), backyard poultry (759), game and wild birds (984), and markets and slaughterhouses (813)]. H9 avian influenza virus was identified from poultry farms in Najaf and Babel governorates.

Europe

The last cases in Europe were reported on 8 April 2008 in the Russian Federation in poultry and on 29 February 2008 in the United Kingdom in wild birds.



CONCLUSIONS

Considering the number of outbreaks reported worldwide, the global HPAI situation appears to have improved markedly in the first half of 2008. H5N1 HPAI endemic countries continue to report few outbreaks (Indonesia, Viet Nam and Egypt). However, Nigeria, which was one of the worst affected countries in Africa during 2006 and 2007, has experienced new outbreaks in June and July, after 10 months with no reported HPAI activity, and so has Benin.

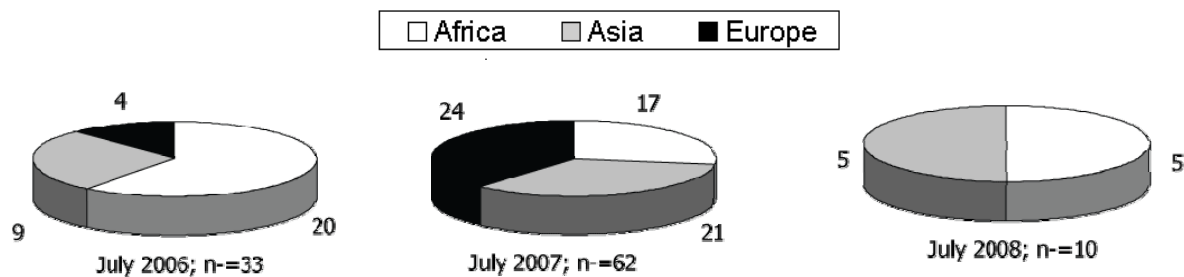
Overall, in the month of July 2008, the number of reported outbreaks is much lower than those of July 2006 and 2007 (Figure 9). Particularly Europe did not report any outbreak. Previous months of July in Europe had experienced four (2006) and 23 (2007) cases reported in wild birds.

Although there has been an improvement in disease awareness, outbreaks/cases of HPAI are still underestimated and underreported in many countries because of limitations in country disease surveillance systems, which may affect considerably the shape of the distribution of outbreaks by region. The variability and sensitivity in space and time of HPAI surveillance systems makes difficult to draw correct conclusions on the results and performance of countries affected in their fight against HPAI type H5N1.

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

FIGURE 9
Number and distribution of outbreaks of HPAI (H5N1) confirmed in July 2006, 2007 and 2008

(Source: *FAO EMPRES-i*) (Indonesia PDS data are included only from May onwards, which is when the epidemiological unit definition was modified from household level to village level)



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