The epidemiology of avian influenza (AI) is complex. AI viruses constantly evolve by mutation and re-assortment with the emergence of new subtypes causing significant impact on animal health and production. Some AI subtypes can be zoonotic and therefore pose major threat to human health.

This report presents an overview of HPAI disease events (in poultry and non-poultry including wild birds) reported to the OIE’s early warning system (immediate notification and follow-up reports) by its Members, as well as non-Member Countries, during the period 25 December – 14 January, 2021 through the World Animal Health Information System (WAHIS). The stable situations reported in the six-monthly reports by two countries, namely Egypt and Indonesia, are not described in this report as this data for the second semester 2019 and first and second semester 2020 will be collected throughout the first semester of 2021.

The HPAI events (new outbreaks) are reported in Table 1.

Table 1: HPAI outbreaks reported through early warning system during 15 January – 04 February, 2021

<table>
<thead>
<tr>
<th>REGION</th>
<th>COUNTRY</th>
<th>Administrative divisions affected</th>
<th>Subtype(s)</th>
<th>N° Outbreaks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Poultry</td>
<td>Non-poultry</td>
</tr>
<tr>
<td>Africa</td>
<td>Mauritania, Nigeria, Senegal, South Africa</td>
<td>4</td>
<td>H5N1, H5N8</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>China (PRC), Chinese Taipei, Hong Kong, India, Iran, Iraq, Israel, Japan, Korea (Rep. of), Kuwait, Nepal, Vietnam</td>
<td>37</td>
<td>H5N1, H5N5, H5N8</td>
<td>55</td>
</tr>
<tr>
<td>Europe</td>
<td>Belgium, Czech Rep, Denmark, Finland, France, Germany, Ireland, Italy, Norway, Poland, Romania, Russia, Slovakia, Spain, Sweden, Ukraine, United Kingdom</td>
<td>58</td>
<td>H5, H5N5, H5N8</td>
<td>353</td>
</tr>
</tbody>
</table>

1. Spatial distribution

Figure 1. New and ongoing outbreaks in poultry (15 January – 04 February, 2021)

In this period, 410 new outbreaks (red dots on the map) were notified in poultry, in 23 countries in Africa, Asia and Europe. The total ongoing HPAI outbreaks worldwide is 739 (blue dots on the map). They are distributed as follows: Africa (17), Asia (184), Europe (538).

2. Impact of the disease by Region in poultry

During the period (15 January – 04 February, 2021), a total of 9,065,680 animals were notified as losses in Africa, Asia and Europe in the ongoing and new outbreaks (7,383,756 * losses notified in the previous report).

* The impact of the disease is measured in terms of losses, which are calculated by the sum of dead and culled animals from the infected farm or backyard premises of the reported outbreak. In case of non-poultry the losses correspond to the dead animals reported.

3. Changes in the epidemiological situation

Countries/Territories with new outbreaks during the period.

Africa

Two new outbreaks were reported in poultry in Nigeria and South Africa (H5N1, H5N8) and 3 outbreaks have been reported in non-poultry in Mauritania and Senegal (H5N1) during the period. Ongoing outbreaks are still present in South Africa and Nigeria in poultry (H5N6 and H5N8) and in Mauritania, Senegal and South Africa in non-poultry (H5N1, H5N8).

America

No new or ongoing outbreaks were reported during the period.

Asia

Eight countries reported 55 outbreaks (H5N1, H5N5, H5N8) in poultry. Six countries reported 83 outbreaks (H5N1, H5N8) in non-poultry. Ongoing outbreaks are still present in 10 countries in poultry (H5, H5N1, H5N2, H5N5, H5N6, H5N8, H7N9) and in 4 countries in non-poultry (H5, H5N1, H5N6, H5N8, H7N9).

Europe

Twelve countries reported 353 outbreaks (H5, H5N5, H5N8) in poultry. Sixteen countries reported 147 outbreaks (H5, H5N1, H5N5, H5N4, H5N5, H5N8) in non-poultry. Ongoing outbreaks are still present in 13 countries in poultry (H5, H5N1, H5N5, H5N8) and in 11 countries in non-poultry (H5, H5N1, H5N3, H5N5, H5N8).

Oceania

No new or ongoing outbreaks were reported during the period.

Figure 2. New and ongoing outbreaks in non-poultry, including wild birds (15 January – 04 February, 2021)

In this period, 233 new outbreaks were notified in non-poultry in 24 countries in Asia and Europe. The total ongoing HPAI outbreaks (blue dots on the map) in these bird populations is 347. They are distributed as follows: Africa (5), Asia (143), and Europe (199).
Key messages

In the reporting period 410 new HPAI outbreaks in domestic birds (subtypes H5, H5N1, H5N5, and H5N8) and 233 new outbreaks in non-poultry (subtypes H5, H5N1, H5N3, H5N4, H5N5 and H5N8) were reported in Asia, Europe and Africa. In addition, 1086 HPAI outbreaks in poultry and non-poultry are still ongoing in Europe, Asia and Africa, involving different subtypes, namely H5, H5N1, H5N2, H5N3, H5N5, H5N6, H5N8 and H7N9. The number of new and ongoing outbreaks reported by countries notably in Asia and Europe continue to be significant during this period.

- In Europe, the first outbreaks of HPAI H5N8 were reported in August 2020 in Russia in both poultry and wild birds. Since then, a new wave of epizootic outbreaks of H5N8 have been continuously reported in several European countries especially in wild birds, but also in poultry starting from mid October. The H5N8 virus has also reassorted with other wild bird influenza viruses to form new strains of H5N5 and H5N1 HPAI virus, which were also reported by countries. There has been continued virus change by genetic reassortment in wild birds resulting in other H5 subtypes like H5N3 and H5N4 also reported by few countries in the current epidemic wave.
- In Asia, several countries reported new outbreaks of HPAI particularly the subtypes involving H5N8 and H5N1 in poultry and/or wild birds and recurrence of H5N5 and H5N6 subtypes. Ongoing outbreaks of H5N1, H5N2, H5N5, H5N6, H5N8 and H7N9 are also continuing in few Asian countries.
- In Africa, HPAI H5N1 outbreaks in bordering areas of Senegal (poultry and wild birds) and Mauritania (wild birds) were reported becoming the first occurrences of HPAI in both countries. Nigeria reported reoccurrence of H5N1 this season. Outbreaks of H5N6 and H5N8 are ongoing in Nigeria and South Africa.

To summarise, the current HPAI H5 epidemic is still progressing in Europe, Asia and Africa causing severe impact due to dead and culled birds in the infected premises. It is more likely that the source of introduction in these outbreaks is through migratory wild birds and onward local spread. A similar situation of H5N8 epizootics associated with wild bird migration occurred in 2016/17. Report of increased number of outbreaks in wild birds indicate periods of heightened risk in countries due to migratory flyways during this season. Consequently, improving on-farm biosecurity measures is a priority to reduce the likelihood of exposure to poultry.

Veterinary Authorities in the affected countries have responded to contain outbreaks in poultry with stamping out measures, heightened surveillance, and recommendations to poultry owners to increase biosecurity.

The OIE Standards, and the transparency of reporting through the OIE’s World Animal Health Information System, provide the framework for Veterinary Services to implement effective surveillance, reporting, and controls for avian influenza. Wild bird surveillance can indicate periods of heightened risk, and at these times measures to improve on-farm biosecurity may reduce the likelihood of exposure of poultry.