

ANALYSIS OF THE ANIMAL HEALTH SITUATION IN MEMBERS IN THE REGION DURING 2020 AND 2021

16th Conference of the OIE Regional Commission for the Middle East

3 and 4 November 2021 - Virtual meeting

World Animal Health Information and Analysis Department,

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This report provides a summary of the animal health situation in the Middle East Region during the period 1 January 2020 to 13 September 2021, followed by an update on the status of OIE-WAHIS implementation and future perspectives. This animal health situation report is based on the information submitted to the OIE by 21 OIE Members and non-members¹ in the Middle East Region through the OIE World Animal Health Information System (OIE-WAHIS), and it includes a summary of the situation in the Region with regard to the following: i) indicators of Members' reporting; ii) infection with peste des petits ruminants virus; iii) infection with foot and mouth disease virus; iv) infection with rabies virus; v) infection with avian influenza viruses; and vi) an update on OIE-WAHIS.

A. Indicators of Members' reporting

During the past few years, the submission of reports has been strongly affected by the renovation of WAHIS and the launch of the new OIE-WAHIS. In this connection, all Members were asked to submit their 2019 six-monthly reports by the end of June 2020, so that the data could be migrated into the new system.

Following the launch of OIE-WAHIS in March 2021, all Members were asked to submit their pending 2020 six-monthly reports and any other data not previously submitted, so that their information could be updated. The distribution of aquatic and terrestrial animal health reports of Members and non-members in the Region for the years 2019, 2020 and 2021, submitted by 13 September 2021, is shown in Figure 1. For terrestrial animal diseases, 20 Members and non-members submitted at least one report for 2019. This number then dropped to 12 for 2020, and two for first semester 2021, indicating a delay in the submission of information to the OIE. For aquatic animal diseases, the number of Members and non-members that submitted at least one aquatic animal health report for each year was equivalent to only about half of the corresponding number for terrestrial animal diseases (11 for 2019, six for 2020 and one for 2021). Members of the Region are reminded that timely submission of aquatic animal health information is an integral part of compliance with OIE standards. This information is of crucial importance for global aquatic animal health, particularly in the context of the first global strategy on aquatic animal health, launched during the 88th OIE General Session in May 2021.

¹ 20 Members of the OIE Regional Commission for the Middle East and Palestine

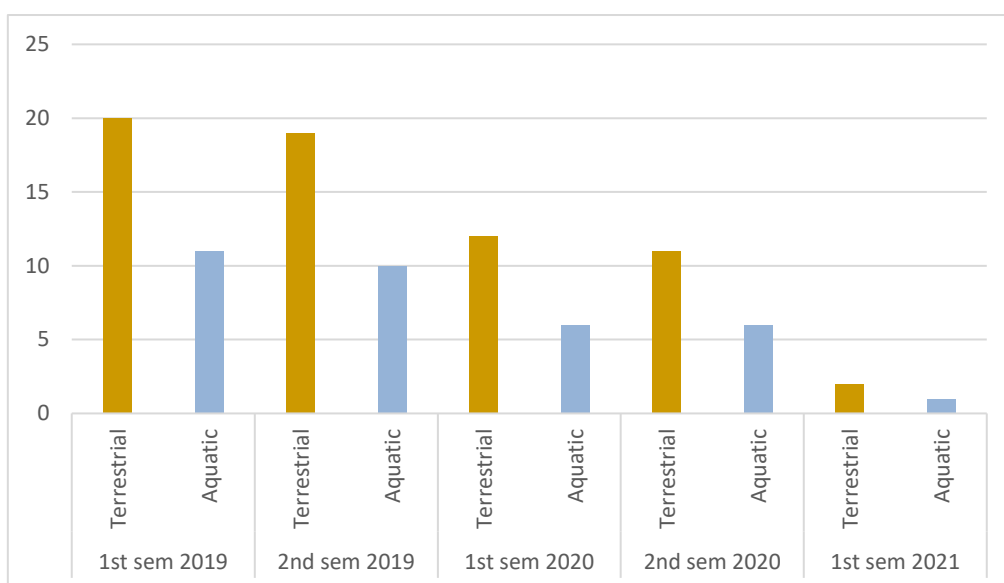


Figure 1. Number of six-monthly reports submitted for 2019, 2020 and 2021, by semester, in the Region

During the period of analysis of this report (1 January 2020 to 13 September 2021), 18 immediate notifications and 76 follow-up reports were submitted by Members and non-members in the Region. This represents 2% of all the reports submitted from around the world during that period. The highest proportion of immediate notifications (44%) was for infection with avian influenza viruses (subtype H5N8). Other diseases reported through immediate notifications were as follows: anthrax, infection with *B. abortus*, infection with foot and mouth disease virus, infection with koi herpesvirus, infection with lumpy skin disease virus, infection with peste des petits ruminants virus and infection with Rift Valley fever virus.

B. Animal health situation in the Middle East Region (data updated until 13 September 2021)

This section mainly covers the period from 1 January 2020 to 13 September 2021. The disease situation for this period is based on the six-monthly reports, immediate notifications and follow-up reports received by the OIE. Only 15 Members submitted six-monthly reports for terrestrial animal diseases for this period, namely Afghanistan, Bahrain, Cyprus, Djibouti, Egypt, Iraq, Jordan, Kuwait, Oman, Saudi Arabia, Somalia, Sudan, Turkey, United Arab Emirates and Yemen. They submitted a report for at least one of the following semesters: first semester 2020 (12 countries), second semester 2020 (11 countries) or 1st semester 2021 (two countries). For other Members and non-members, the situation is unknown, apart for those having reported unusual events through the early warning system.

i. Infection with peste des petits ruminants virus

Peste des petits ruminants (PPR) has long been present in the Middle East, where small ruminants play an essential role in communities and in the livelihood of the population. The PPR situation in the Region has not undergone any relevant changes and the disease continues to be present in all the countries previously affected.

During the period of analysis (1 January 2020 to 13 September 2021), only one Member of the Region reported the occurrence of PPR through the early warning system; in September 2020, Libya reported the recurrence of the disease, which had been absent since May 2019. Libya reported seven new outbreaks, affecting more than 400 sheep and goats, in four regions, all in the northwest of the country.

Other affected Members reported the occurrence of PPR through their six-monthly reports, as the disease was considered stable and no early warning notification was therefore needed. As shown in Figure 2, 11² countries reported the presence of PPR, three notified the absence of the disease (Bahrain, Cyprus and Jordan) and the remainder did not submit their six-monthly reports, which means that no information is available.

It is important to emphasise that most of the countries that reported the disease as present (9/11) provided additional information on where (i.e. provinces affected) and when (i.e. month or semester) the disease occurred and its impact (number of outbreaks, cases, etc.). This is crucial information as it helps to provide a better view of disease spread so that control and eradication measures can be suitably targeted and neighbouring countries can take appropriate risk management measures.

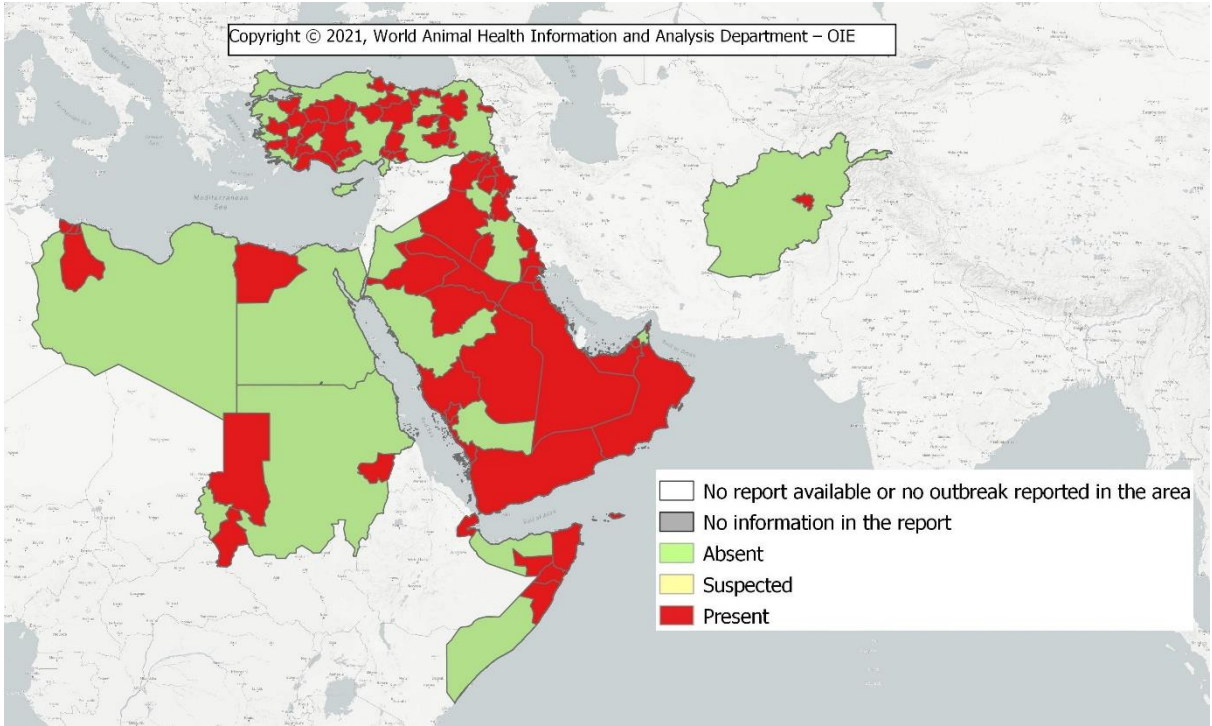


Figure 2. Distribution of peste des petits ruminants in the Middle East Region, as reported during the period 1 January 2020 to 13 September 2021 (source: OIE-WAHIS)

² Afghanistan, Djibouti, Iraq, Kuwait, Libya, Saudi Arabia, Somalia, Sudan, Turkey, United Arab Emirates and Yemen.

The Food and Agriculture Organization of the United Nations (FAO) and the OIE have set the goal of eradicating PPR in the world by 2030. In order to achieve this, a PPR Global Control and Eradication Strategy³ has been jointly developed, setting out the tools and actions needed to control and eradicate PPR, reinforce the Veterinary Services and control other small ruminant diseases. One of these tools is the PPR Monitoring and Assessment Tool (PMAT), which has been redesigned taking into account feedback from the countries piloting it⁴.

Proper implementation and monitoring of the control strategy is essential to achieve the control and future eradication of PPR. In the Region, only Cyprus has an officially recognised PPR-free status. Based on the information reported through OIE-WAHIS, the proportion of reporting countries implementing preventive and surveillance measures was determined. All 14 reporting countries have mechanisms of disease notification (14/14) and most of them (11/14) implement precaution at the borders and passive surveillance activities (general surveillance and monitoring). The proportions are lower for movement control (6/14) and active surveillance activities (4/14).

Half of the reporting countries do not apply any control measures in wild populations, nor do they know the status of the disease in these populations. However, PPR is recognised as an important disease of wildlife and a threat to biodiversity, in addition to its impact on small ruminant production. Therefore, the wildlife component must also be considered if the PPR Global Eradication Programme (GEP) is to succeed. With the aim of enhancing capacity to detect and respond to suspected PPR events in wildlife and enhancing coordination between the wildlife and livestock sectors, a training workshop on PPR outbreak investigation in wildlife was conducted virtually on 16 and 17 March 2021. The workshop included a presentation on the field experiences and capacity of Iran. The report of the workshop is available online⁵.

Official PPR vaccination programmes were reported in 70% of the reporting countries (10/14). Most of the Members reported the use of live attenuated vaccines, and only one reported using inactivated vaccines. During the reporting period, approximately 35 million animals were vaccinated in the Region. Additional efforts should be made in all the countries to achieve proper vaccination coverage and avoid the occurrence of PPR outbreaks. Eradication of PPR is possible but it requires the engagement of all actors, including application of the necessary resources, implementation of control measures and monitoring of disease evolution. To assist in this process, the new features of OIE-WAHIS, including maps at province level, make it easier for countries to monitor the evolution of diseases.

- No major changes were observed in the distribution of PPR in the Region, where the disease continues to be widespread.

³ OIE and FAO 2015, Global Strategy for the Control and Eradication of PPR, [ppr-global-strategy-avecannexes-2015-03-28.pdf \(oie.int\)](https://www.oie.int/fr/document/ppr-global-strategy-avecannexes-2015-03-28.pdf)

⁴ <https://rr-middleeast.oie.int/wp-content/uploads/2020/10/report-of-the-8th-rsc-meeting.pdf>

⁵ Peste des petits ruminants outbreak investigation in wildlife, Report of the virtual training workshop 16–17 March 2021, <https://www.oie.int/fr/document/ppr-report-march2021/>

- The example of Libya, where the disease was absent for almost a year, highlights the importance of maintaining vigilance and readiness to report and respond immediately to new incursions.
- More efforts and resources should be allocated to control this disease in the Region, within the framework of the Global Control and Eradication Strategy.
- There is only limited information available on the PPR situation in wildlife in the Region. OIE Members are urged to consider implementing actions at the wildlife/livestock interface to control PPR, in line with a One Health approach to disease control.

ii. ***Infection with foot and mouth disease virus***

Foot and mouth disease (FMD) is a transboundary animal disease with a high impact on international trade. It is reported to be present and stable throughout the Region (Figure 3).

During the period 1 January 2020 to 13 September 2021, two immediate notifications were submitted from the Region. Libya reported the recurrence of FMD in February 2020 and in June 2021. The previous occurrence of FMD in Libya had been in June 2019. The February 2020 recurrence involved FMD serotype A in sheep and goats. The June 2021 recurrence involved FMD serotype O in cattle. All outbreaks occurred in the northernmost parts of the country.

All other occurrences of FMD were reported through six-monthly reports as the disease was considered stable and no early warning notification was needed. Of the 15 Members in the Region that submitted six-monthly terrestrial reports between 1 January 2020 and 13 September 2021, eight⁶ reported FMD as present or suspected. The remaining seven reported the disease as absent or no information.

⁶ Afghanistan, Egypt, Iraq, Libya, Oman, Saudi Arabia, Turkey and Yemen

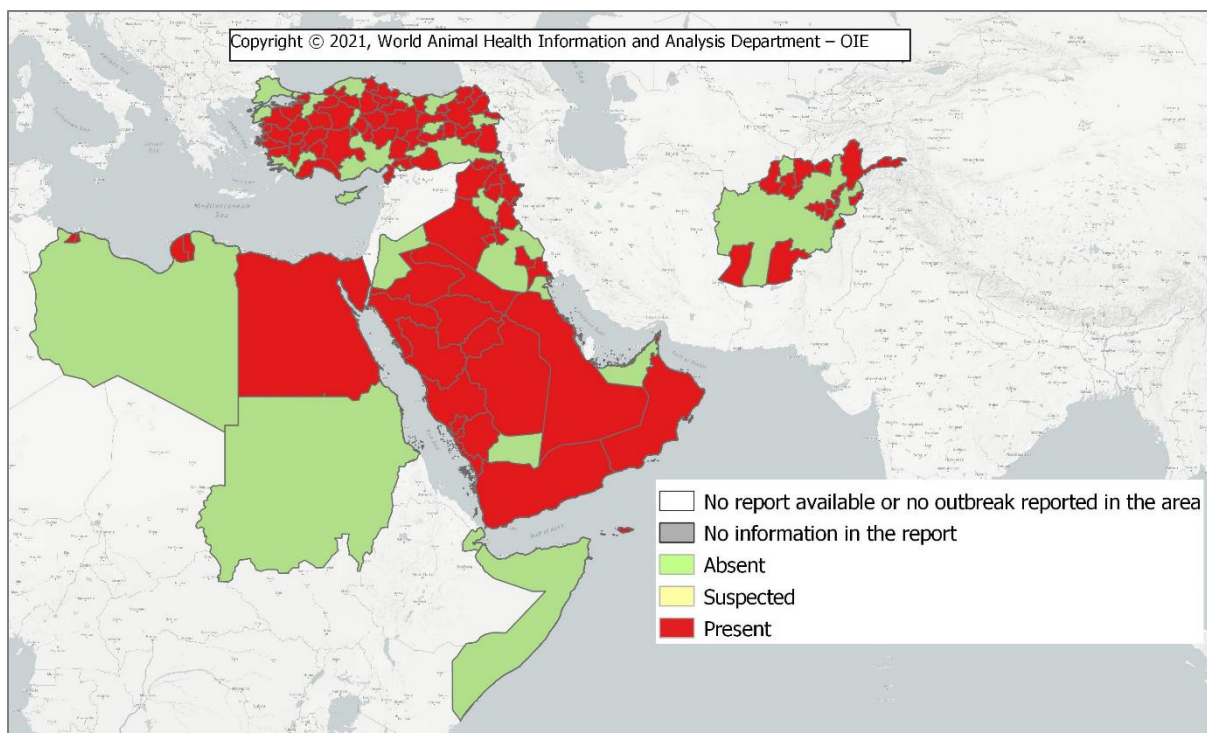


Figure 3. Distribution of FMD in the Middle East Region from 1 January 2020 to 13 September 2021 (source: OIE-WAHIS)

Among the eight Members reporting FMD as present or suspected, serotype O was reported by four⁷ and serotype A was reported by two⁸. Asia1 was reported by only one Member (Afghanistan). Two Members did not provide serotype information and only one Member indicated that no samples were collected or serotyped.

Of the 15 Members that submitted a six-monthly report during the period of analysis, all reported implementing at least one control measure for FMD. An analysis of the reported preventive and control measures showed that, for all 15 of these Members, FMD is a notifiable disease. Twelve reported having either general surveillance, targeted surveillance, monitoring or screening in place. Eleven Members reported having an official vaccination programme, while Cyprus reported that vaccination is prohibited. Only Egypt and Turkey reported controlling the disease in wildlife reservoirs.

Due to the transition to the new OIE-WAHIS, only 15 Members had submitted any six-monthly reports for the period under analysis by 13 September 2021, and only two Members (Bahrain and Iraq) had submitted all three reports. This makes it difficult to assess the disease situation in the Region or to compare it to that from the time period covered in the previous report. The FMD situation in the Region will therefore need to be reassessed after all six-monthly reports have been submitted.

- FMD is present in the Region with three circulating serotypes (O, A, Asia1) but appears to be relatively stable with only two immediate notifications during the period under analysis.

⁷ Afghanistan, Iraq, Saudi Arabia and Turkey

⁸ Afghanistan and Libya

- Surveillance, serotyping and reporting are important for controlling FMD. Members and non-members in the Region are encouraged to continue their efforts on FMD sampling and serotyping, as well as reporting the FMD situation and control measures applied.

iii. Infection with rabies virus

Rabies virus is one of the oldest recorded pathogens and rabies has the broadest distribution of any known viral zoonosis. In response to a global call to action in 2015, FAO, the OIE, the World Health Organization (WHO) and the Global Alliance for Rabies Control (GARC) developed the country-centric strategy “Zero by 30: The Global Strategic Plan to end human deaths from dog-mediated rabies by 2030”⁹. The first annual report¹⁰ described great progress but also highlighted the need to adapt and grow the approach in response to lessons learned. For Middle East countries, it highlighted the use of specific information systems in the Region, such as GARC’s Rabies Epidemiological Bulletin (REB) and the participation of some Middle East countries in WHO panels of standard diagnostic tests for proficiency testing in 2018 and 2019. Subsequently, and to build on the strong foundation laid in “Zero by 30”, the Tripartite (FAO-OIE-WHO) launched the United Against Rabies Forum¹¹ in 2020, an inclusive network bringing together stakeholders from diverse backgrounds to share knowledge, experience and ideas that will support countries and regions in developing and implementing effective rabies elimination programmes.

Concerning the rabies situation in the Region, both extremes of case occurrence exist, from zero to high. Some of the world’s few ‘rabies-free’ countries are found in the Region. Bahrain, Cyprus, Kuwait, and Qatar have been reporting zero cases in humans¹² and animals for several years. In 2018, in accordance with Chapter 1.6., Article 8.14.3 of the OIE *Terrestrial Animal Health Code*, the Delegate of Bahrain to the OIE self-declared the country free from rabies, and the self-declaration was still active as of 13 September 2021. In addition, Cyprus has never reported rabies to the OIE, Kuwait has reported rabies as absent since at least 2005, while Qatar has reported rabies as absent since 2010.

According to experts¹³, it may generally be easier to keep island countries, such as Bahrain and Cyprus, free from disease, because border spillover from contiguous areas is much more readily managed. Both countries reported implementation of border controls in their last six-monthly reports. The relative size and economic status of a country are also key factors in surveillance and management. Kuwait and Qatar, both of which are partially surrounded by water, reported both border controls and official dog vaccination in their last six-monthly reports.

However, the Middle East Region also includes countries in which rabies is endemic and viral transmission still largely takes place through dogs and cats. In several countries with compulsory

⁹ Zero by 30: The Global Strategic Plan to end human deaths from dog-mediated rabies by 2030, <https://www.oie.int/app/uploads/2021/03/zero-by-30-final-130618.pdf>

¹⁰ First annual progress report: Global Strategic Plan to End Human Deaths from Dog-mediated Rabies by 2030, <https://www.oie.int/app/uploads/2021/03/zeroby30annualreportfinal.pdf>

¹¹ United Against Rabies Forum website here, <https://uarforum.org/>

¹² The global Health Observatory, WHO, accessed on 10 September 2021, <https://www.who.int/data/gho/data/indicators/indicator-details/GHO/reported-number-of-human-rabies-deaths>

¹³ Rupprecht CE, Bannazadeh Baghi H, Del Rio Vilas VJ, Gibson AD, Lohr F, Meslin FX, et al. Historical, current and expected future occurrence of rabies in enzootic regions. *Rev Sci Tech.* 2018. August;37(2):729–39. 10.20506/rst.37.2.2836

vaccination of dogs, the main vectors are unvaccinated free-ranging dogs and wildlife, such as foxes or jackals.

The distribution of rabies in the Region in 2020 and 2021 is shown in Figure 4. Only 16 countries¹⁴ in the Region provided information for this period. Rabies was reported present by 10 of these countries¹⁵ (62%). Fifteen countries (94%) reported surveillance activities, and, among affected countries, five (50%) reported official vaccination in dogs. Official vaccination in dogs was also reported by Kuwait and United Arab Emirates, where the disease was reported absent during the period under analysis. For the previous Conference of the OIE Regional Commission for the Middle East, the figures were based on 19 reporting countries vs. 16 for this Conference. Therefore, the percentages are not fully comparable, although they suggest a slight increase in surveillance activities. This should be clarified after all Members and non-members of the Region have submitted their reports to the OIE.

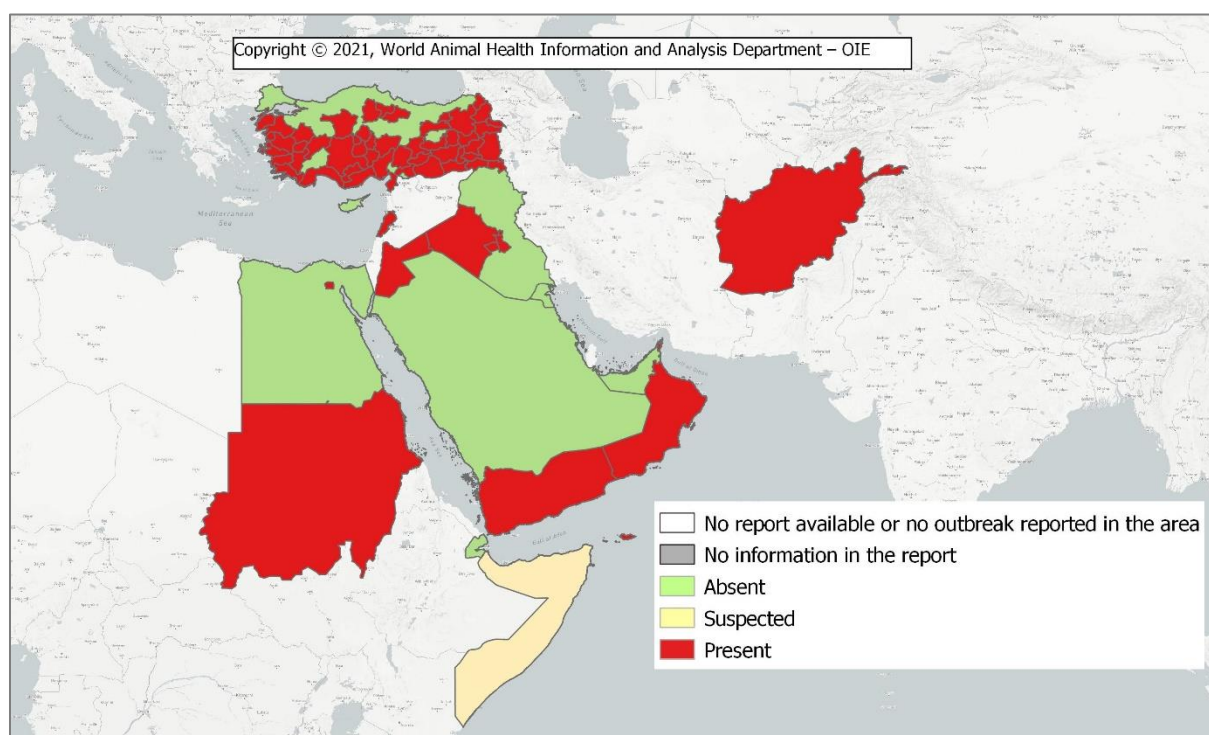


Figure 4. Distribution of infection with rabies virus in the Middle East Region, as reported during the period 1 January 2020 to 13 September 2021 (source: OIE-WAHIS)

The latest figures available from WHO for the reported number of human rabies deaths are from 2017. Data are available for only 12 countries of the Region but the OIE collected information from three additional countries through the annual report. For that year, the number of deaths ranged between 0 (in Bahrain, Kuwait, Qatar and Turkey) and 65 in Egypt.

The OIE supports its Members for the control and eradication of the disease through several mechanisms. One of these is the procedure for endorsement of official control programmes for dog-mediated rabies¹⁶. The overall objective of an OIE-endorsed official control programme for dog-

¹⁴ Countries listed in the introduction of the section “Animal health situation in the Middle East Region” and Lebanon, which has a rabies event reported “stable” since 2019.

¹⁵ Afghanistan, Egypt, Iraq, Jordan, Lebanon, Oman, Somalia, Sudan, Turkey and Yemen

¹⁶ Application for endorsement by the OIE of an official control programme for dog-mediated rabies, <https://www.oie.int/app/uploads/2021/05/a-questionnaire-dog-mediated-rabies.docx>

mediated rabies is for Members to progressively improve their dog-mediated rabies situation and eventually make a self-declaration in accordance with Chapter 1.6. of the *Terrestrial Animal Health Code* as a country free from dog-mediated rabies.

In addition to these mechanisms, a Regional approach for the elimination of dog-mediated human rabies in the Middle East¹⁷ has been documented and published on the OIE Regional Representation website.

- In conclusion, this report provides an update of the regional situation for infection with rabies virus. Despite the limitation of incomplete information due to reporting delays, the analysis suggests that little evolution has occurred since the previous Conference of the OIE Regional Commission for the Middle East, apart from a slight increase in surveillance (to be confirmed after all reports are submitted).
- Several initiatives and mechanisms, in line with the Global Strategic Plan to end human deaths from dog-mediated rabies by 2030, are available to support OIE Members in the progressive control and eradication of the disease, which still causes hundreds of human cases each year in the Region. These mechanisms are adapted to the diversity of situations in the Middle East (rabies-free countries to countries with endemic situations).
- Regular reporting to the OIE allows an evaluation to be made of the progress of the Region in the implementation of the pillars of the Global Strategy, the impact of these measures and the progress towards the global common goal – ending human deaths from dog-mediated rabies by 2030. Therefore, all Members are requested to update their animal health information in OIE-WAHIS and to continue reporting relevant information in due time, as per OIE standards.

iv. Infection with high pathogenicity avian influenza viruses

As in other Regions, infection with influenza A viruses is one of the most important priority animal diseases in the Middle East Region, given its economic impact, the threat it poses to public health and the endemic situation of the disease in some areas.

Members in the Middle East are among the top poultry producers at global level. According to FAOSTAT statistics, four Members are listed among the top 30 global producers¹⁸ (Figure 5), and trade restrictions due to the occurrence of high pathogenicity avian influenza (HPAI) outbreaks can have serious economic consequences.

¹⁷ Regional approach for the elimination of Dog-mediated human rabies in the Middle East, https://rr-middleeast.oie.int/wp-content/uploads/2020/10/rabies-project-in-me_2020.pdf

¹⁸ <http://www.fao.org/faostat/en/#data>

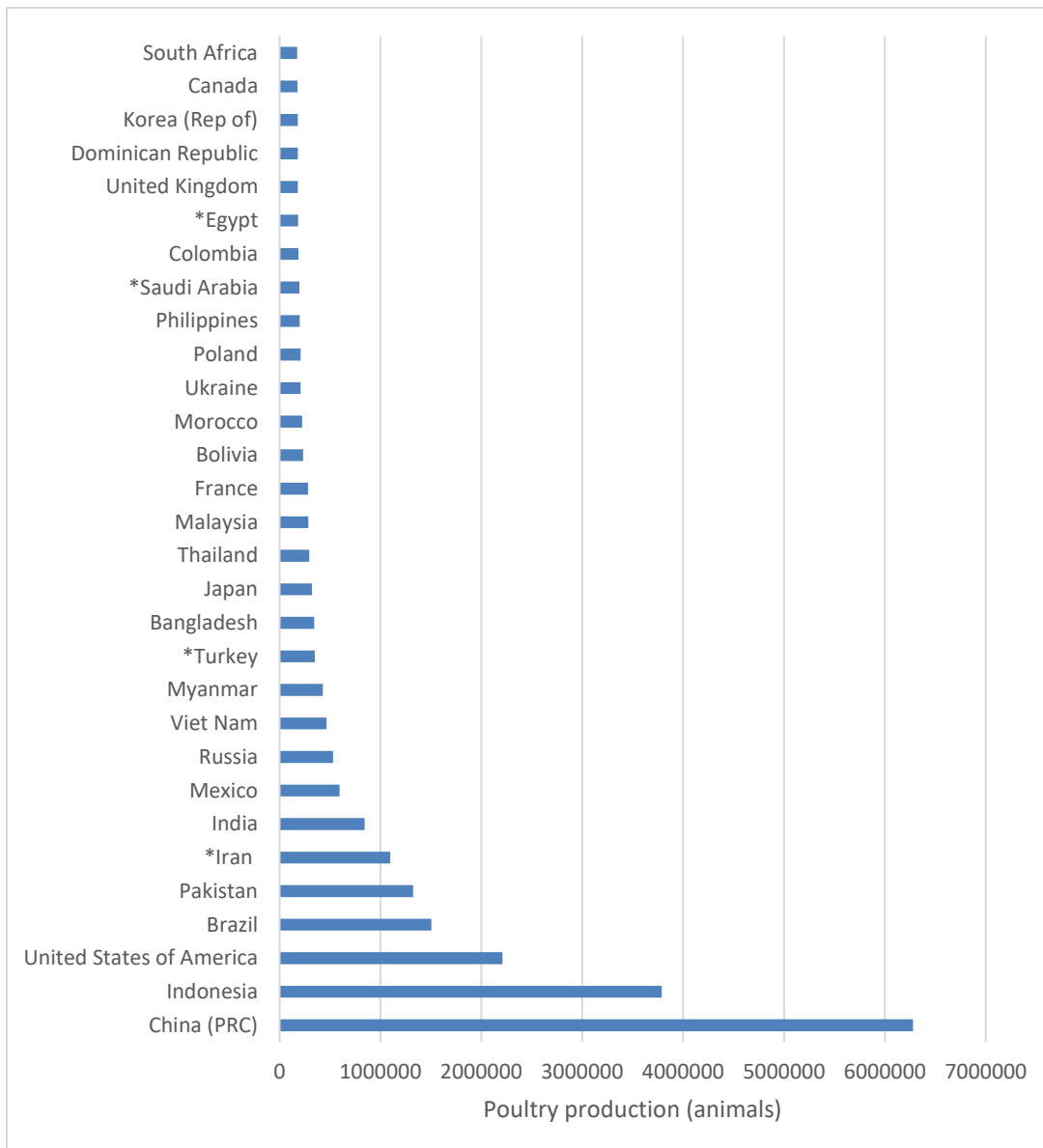


Figure 5. Main poultry producers worldwide: Members in the Region are indicated with an asterisk (source FAOSTAT)

On the other hand, to highlight the public health impact of the disease in the region, and according to WHO data, it is noteworthy that during the period 2003-2021 (as of April 2021) out of 862 H5N1 human cases declared at global level, 43% (375/862) were reported by countries in the Region (Djibouti: 1; Egypt: 359; Iraq: 3; Turkey: 12)¹⁹. A peak in human cases was observed during the period 2015-2019, while no cases have been reported in 2020 and 2021. The important consequences of avian influenza for animal and public health, and the role of environmental factors (such as wild bird movements) in disease dynamics, make avian influenza a perfect example for the application of the One Health approach. Indeed, the disease is considered a priority for the Tripartite partners, which have coordinated their efforts to improve disease surveillance and control, and regularly exchange information on the animal influenza situation. In addition, the OIE and FAO maintain the global

¹⁹ https://cdn.who.int/media/docs/default-source/influenza/h5n1-human-case-cumulative-table/2021_april_tableh5n1.pdf?sfvrsn=fc40672c_5&download=true

network of expertise on animal influenza (OFFLU). Finally, the science-based standards, guidelines and recommendations issued by the OIE are the international reference in dealing with avian influenza.

During the period 1 January 2020 to 13 September 2021, six Members²⁰ in the Region reported HPAI viruses in poultry as present, while two Members reported the presence of HPAI in non-poultry including wild birds²¹. The distribution of the disease in the Region is shown in Figures 6 and 7.

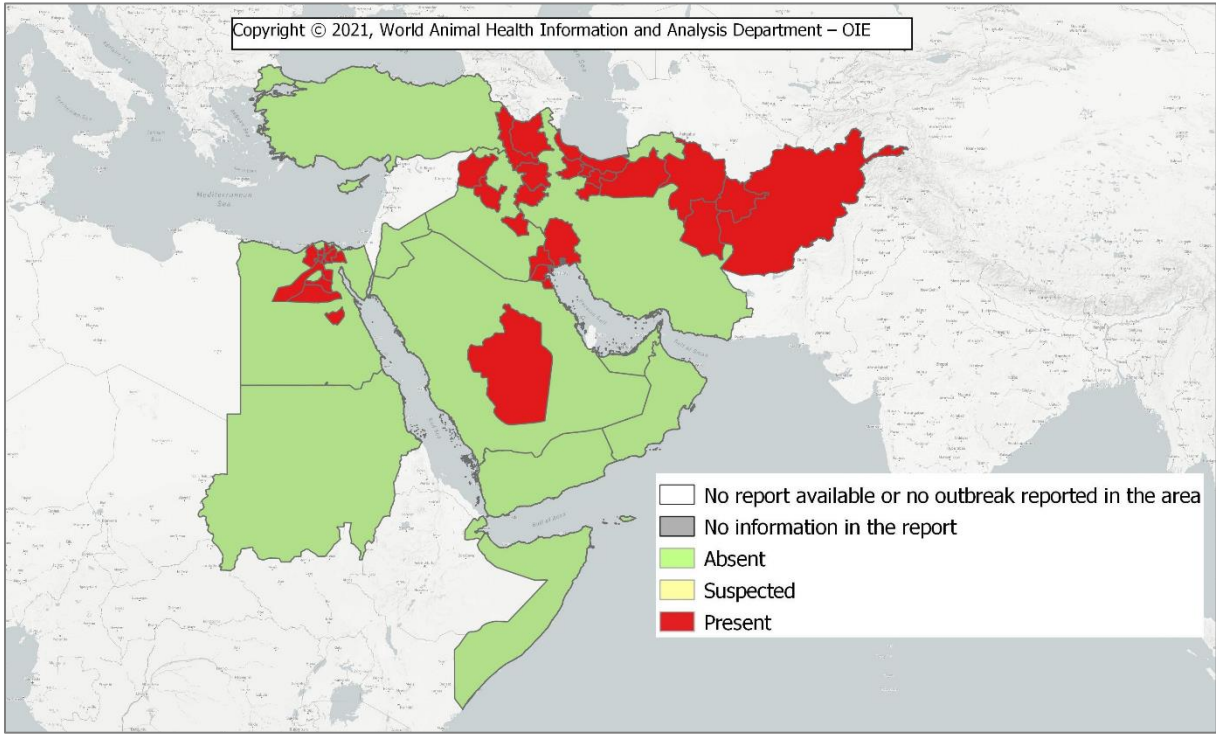


Figure 6. Distribution of infection with high pathogenicity avian influenza (HPAI) viruses in poultry in the Middle East Region, as reported during the period 1 January 2020 to 13 September 2021 (source: OIE-WAHIS)

²⁰ Afghanistan, Egypt, Iran, Iraq, Kuwait and Saudi Arabia

²¹ Afghanistan and Iraq

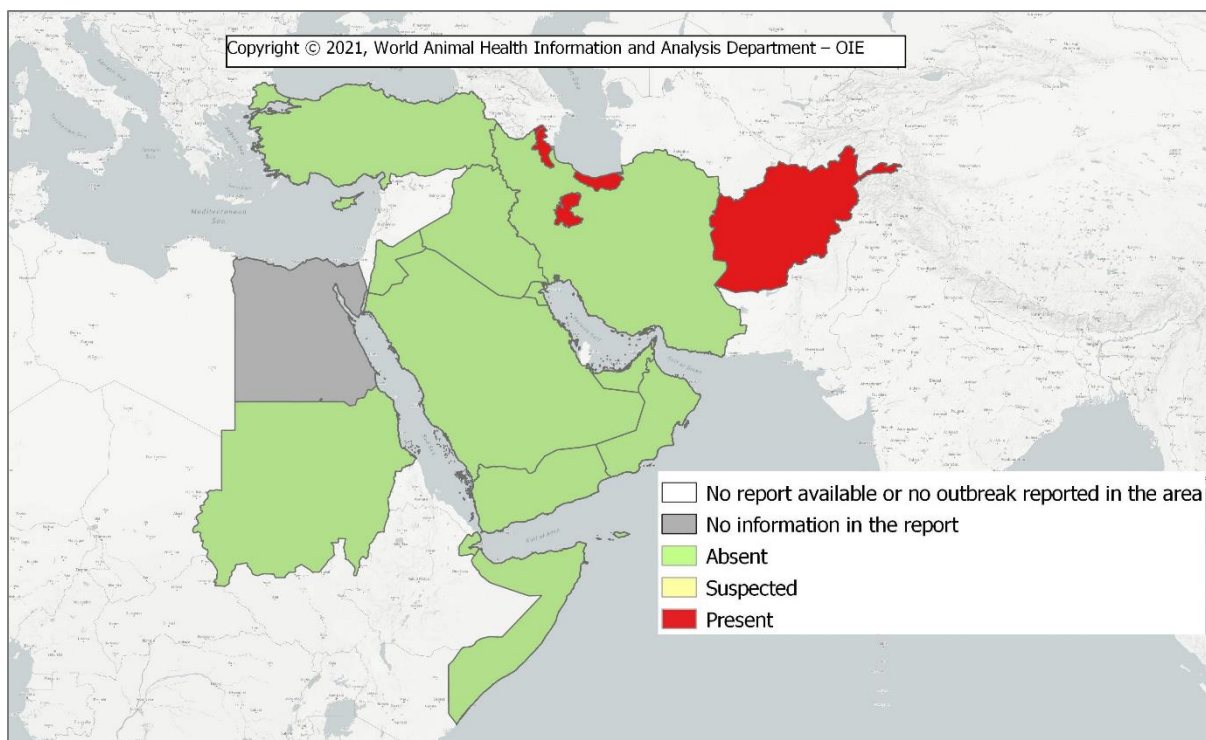


Figure 7. Distribution of infection with high pathogenicity avian influenza (HPAI) viruses in non-poultry including wild birds in the Middle East Region, as reported during the period 1 January 2020 to 13 September 2021 (source = OIE-WAHIS)

The disease is mainly reported in the Region by means of immediate notifications and follow-up reports. Additional details on the situation for the different categories of HPAI and the strains involved are reported below.

HPAI in poultry: during the period 1 January 2020 to 13 September 2021, five Members in the Region submitted a total of seven immediate notifications to report the occurrence of the disease. All the submitted reports were related to the recurrence of the disease in the country. All the notifications reported the occurrence of subtype H5N8.

HPAI in birds other than poultry, including wild birds: During the period 1 January 2020 to 13 September 2021, one Member in the Region submitted an immediate notification to report the occurrence of the disease. Also in this case, the notification reported the recurrence of the disease, involving H5N8 subtype.

The notifications submitted through immediate notifications and follow-up reports in 2020 and 2021 have shown the circulation of a single subtype (H5N8), which is also the main strain reported in other Regions in recent years. Figure 7 shows the number of outbreaks reported in the Region through immediate notifications and follow-up reports, by subtype. In the period 2005-2008, H5N1 was the only circulating subtype. Between 2009 and 2014, very few outbreaks were reported to the OIE and, since 2016, H5N8 has progressively become the dominant subtype. This trend is also observed in other Regions, with the spread of H5N8 most likely facilitated by its higher capacity to infect wild birds²².

²² Caliendo, V., Leijten, L., Begeman, L., Poen, M.J., Fouchier, R.A., Beerens, N. and Kuiken, T., 2020. Enterotropism of highly pathogenic avian influenza virus H5N8 from the 2016/2017 epidemic in some wild bird species. *Veterinary Research*, 51(1), pp.1-10.

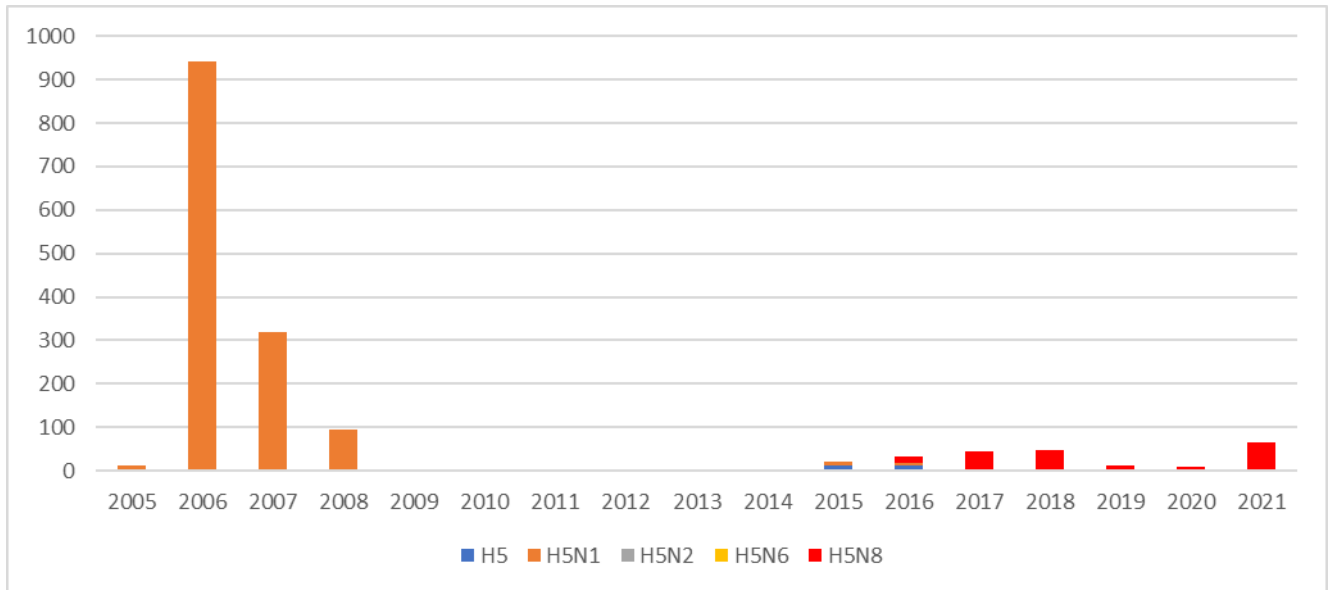


Figure 7. Number of HPAI outbreaks reported to the OIE in the Middle East Region through immediate notifications and follow-up reports during the period 2005-2021, by subtype

Apart from the subtype dynamics, it is also interesting to observe that out of 1601 HPAI outbreaks, only 2.3% (37/1601) were reported in wild birds, raising some questions about the regional capacity to monitor HPAI in wildlife.

In terms of disease seasonality, Figure 8 shows the number of outbreaks reported at global level and in the Middle East Region, during the period 2005-2021, cumulated by month. In general, most of the outbreaks were reported during winter, with a peak in March (global curve) or in January (Middle East curve), and in autumn, with the start of the “epidemic” period in October for both the global and Middle East curves.

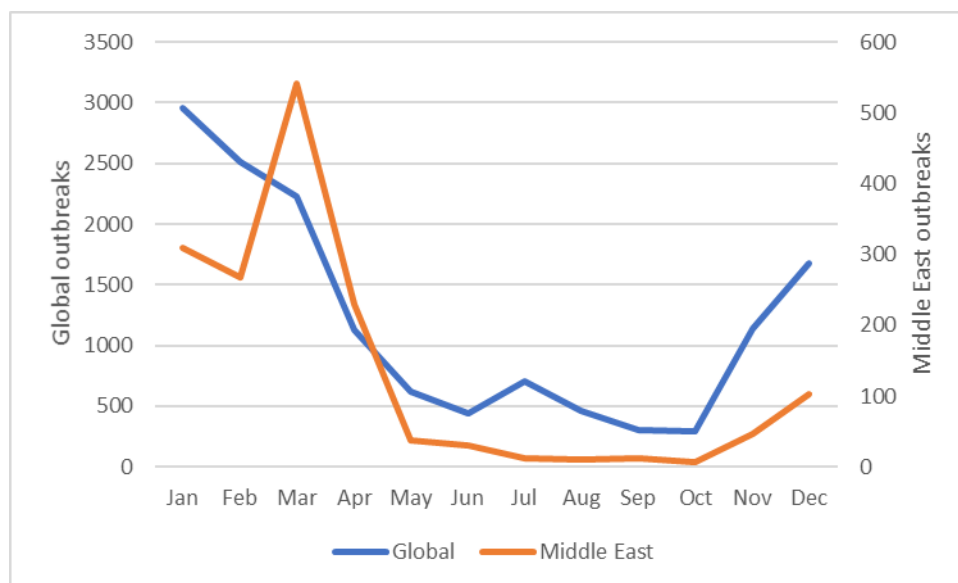


Figure 8. Number of HPAI outbreaks reported at global level and in the Middle East Region, during the period 2005-2021, by month

Finally, it should be noted that at the 88th General Session of the OIE in May 2021, Chapter 10.4. of the *Terrestrial Animal Health Code* was updated and its title and scope amended to “Infection with high pathogenicity avian influenza viruses”. The revision of the chapter has a direct impact on notification obligations and surveillance requirements, notably for low pathogenicity avian influenza viruses. Under the terms of the revised chapter, the disease names associated with avian influenza have been modified to a) “Infection with high pathogenicity avian influenza viruses” and b) “Infection of birds other than poultry, including wild birds, with influenza A viruses of high pathogenicity”. In addition, a new disease name was added: “Infection of domestic and captive wild birds with low pathogenicity avian influenza viruses having proven natural transmission to humans associated with severe consequences”.

The new and revised articles of Chapter 10.4. include the following:

- Safe commodities;
- Definition of “compartment free from high pathogenicity avian influenza”, and recommendations for its establishment;
- Recovery of free status;
- Amendments to the recommendations for safe trade and for inactivation of HPAI viruses.

Among the other important modifications, the provisions for recovery of free status state that, if infection with a high pathogenicity avian influenza virus has occurred in poultry, Members now have the possibility to regain free status (in the whole country and/or in a zone) after a minimum period of 28 days (this period was “3 months” before the change), provided compliance with *Terrestrial Animal Health Code* requirements.

- The relevant regional poultry production and the impact on public health highlight the importance of avian influenza for the Middle East Region.
- The capacity of AI viruses to quickly evolve is reflected in the dramatic variation in the composition of circulating subtypes, with H5N8 now being the only subtype currently reported through immediate notifications, while Egypt continues to report H5N1 outbreaks through six-monthly reports.
- The disease is quite widespread in the Region, with around 25% of Members reporting the occurrence of HPAI outbreaks during the period 1 January 2020 to 13 September 2021.
- The outbreak dynamics indicate that the period at higher risk for HPAI occurrence begins in October and continues until April of the following year.
- The occurrence and geographic distribution of the disease in poultry and in non-poultry including wild birds are apparently very different (six affected countries vs one affected country), but this is likely due to a lack of proper surveillance in wildlife. This is also confirmed by the very limited number of outbreaks historically reported in wild birds in the Region.
- Considering the epidemiological role that wild birds can play in the disease dynamics, the OIE encourages its Members to improve surveillance in wildlife, as also highlighted by the recently approved OIE Wildlife Health Framework.
- Robust monitoring and surveillance are of pivotal importance to support early detection and rapid response to potential threats to animal and public health.

C. Update on OIE-WAHIS

On 9 March 2021, OIE-WAHIS Release 1 went live (available at <https://wahis.oie.int/>). The main functionalities of the first release available to users were:

- Immediate notifications and Follow-up reports
- Six-monthly reports
- Public Interface (including Analytics and Dashboards)
- Mapping functionalities

Globally, during the period from 9 March up to and including 13 September, Members and non-members submitted through the system 1917 immediate notifications and follow-up reports and 279 six-monthly reports (154 terrestrial six-monthly reports and 125 aquatic six-monthly reports).

The platform was launched with the vision to deliver various outstanding improvements progressively after go-live. Since then, several improvements have been made to the platform. This work will continue over the next few months. Performance of the platform is the highest priority and actions are underway to address identified issues. Development of the Annual Report module started in August 2021, with a view to enabling submission of annual reports in 2022. The new Alert Mobile App should be available in 2022 and will ensure the integration of all essential functionalities for users.

A dedicated support desk (wahis-support@oie.int) was launched in December 2020 to assist users with any queries arising during cut-over, go-live and post go-live. Members and other users are invited and encouraged to provide feedback on improvements to the platform or report any issues with the platform functionalities.

The central email address information.dept@oie.int continues to be the point of contact to respond to queries regarding reports (immediate notifications, follow-up reports and six-monthly reports, as well as simulation exercises).

Following OIE-WAHIS go-live, the platform was actively promoted, and the number of visits to the platform had already reached 5000 per day in September 2021.

Users wishing to consult historical data on Annual Reports and the Voluntary Report for non OIE-listed diseases of Wildlife are invited to contact the OIE World Animal Health Information and Analysis Department (information.dept@oie.int) as this information is not for the time being available in OIE-WAHIS. Members are requested not to send any outstanding Annual Reports or Voluntary Reports for non OIE-listed diseases of Wildlife until further notice.

Change in provider – including the anticipated roadmap up to the end of 2021: taking into account the digital transformation pillar of the OIE Seventh Strategic Plan, the OIE made a strategic move to a new IT partner, with effect from 30 March 2021. As a result, the project transitioned to full agile methodology and allowed onboarding priorities in a more flexible manner.

In collaboration with the OIE-WAHIS project team, the provider built a roadmap which sets out a plan for delivering functionalities until the end of December 2021, taking into consideration business priorities, adding business value, improving user experience, as well as time and resource availability. The elements considered are as follows:

1. Putting in place the necessary processes to ensure adequate running and maintenance of the live platform (completed).

2. Fixing of highest priority anomalies and implementing improvements (including platform performance) (ongoing).
3. Gradual optimisation of Immediate Notification and Follow-up Report functions (ongoing, due for completion in December 2021), which should then be integrated in the production environment.
4. Establishing basic interoperability enabling data injection into OIE-WAHIS. The Application Programming Interface (API) will be updated, in time for a go-live of interconnection with the European Commission's Animal Disease Information System (ADIS). ADIS is the pilot, which will be a proof of concept for further interoperability initiatives.
5. Annual Report: develop a section on zoonotic diseases, veterinary capacities, and animal population as a priority. A section on laboratories and vaccination will be delivered later.
6. Mapping components will be further improved to enable the integration of new country maps in OIE-WAHIS.

Additional development will be envisaged for the first six months of 2022; this could include the following: (i) develop remaining sections of the Annual Report; (ii) develop open API access; (iii) launch the Alert Mobile App; (iv) optimise the Six-Monthly Report, and (v) implement additional mapping functionalities.

The agreed roadmap for delivery is reviewed on a monthly basis to ensure priorities are properly aligned with the complexity of deliverables.

Data sharing/interoperability: data available to users on the OIE-WAHIS platform will gain value when combined with other data sources within and outside the OIE. In this era of big data, the OIE must strengthen its position and approach to data stewardship by implementing strong data governance principles, which will enable data sharing in a responsible manner. This in turn will inform policy makers in their risk-based decision-making to improve animal and public health globally.

- Two features in particular are of importance to facilitate collaboration between OIE-WAHIS and Regional initiatives. **Dedicated dashboards** within the analytics section of the platform enable users to track the progress of diseases and control efforts at a national, regional or global level. **Interoperability** will enable users to extract targeted information from OIE-WAHIS using open API functionality. It is envisaged that full API functionality available to all public users will be in place in 2022. The project team continues to have preliminary meetings with interested stakeholders to update them on what will be available and how it will work.
- OIE-WAHIS has been redesigned and upgraded in a technologically advanced yet user-friendly format, providing comprehensive information about the global situation regarding animal health and important animal diseases. An innovative geospatial system allows for more precise reporting, making it easier to control outbreaks. Easy access and visualisation of information facilitates the overview and analysis of the state of animal health in countries and regions, and world-wide. In 2021 and 2022, OIE-WAHIS will continue to improve platform functionalities, which will facilitate reporting, improve the use and interpretation of the official information collected, with a long-term vision of making it an essential tool for tackling One Health-related challenges that threaten global health security.
- The exchange and sharing of information are essential to allow existing data from various public and private sources to be transformed into relevant information facilitating decision-making to improve societal outcomes. OIE Members and non-members are invited to continue actively using the OIE-WAHIS platform to report animal disease events in a transparent manner.

- OIE-WAHIS makes information on animal health more easily available and usable for everyone who needs it – government agencies, trade partners, international organisations, industry, researchers, academics, journalists, and society in general –, making it the reference platform for information on important animal disease events.