



Food and Agriculture Organization
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Impact of COVID-19 on the delivery of veterinary services and animal disease reporting

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SUMMARY

COVID-19 was first identified in humans in December 2019 and has since affected almost 68 million people causing over 1.5 million deaths worldwide. The control measures implemented to manage the pandemic, such as lockdowns and movement restrictions, have had an impact on all sectors, including animal health. The aim of the first survey presented below was to assess the impact of COVID-19 on the delivery of state (and private) veterinary services. The objective of the second survey was to understand how the COVID-19 pandemic may have affected the routine activities of animal disease reporting and surveillance for early detection in the countries using EMA-i (Event Mobile Application).

Both surveys' participants reported that movement restriction due to COVID-19 was implemented in their respective countries which resulted in a negative impact on the activities of the veterinary services. In the first survey, 93 percent reported their veterinary services had been negatively impacted by COVID-19 and 70 percent reported it was more difficult for field agents to conduct surveillance activities and field investigations. This result was similar to the second survey, where 74 percent of participants confirmed that movement restriction due to COVID-19 had affected their work on disease reporting and, 69 percent declared that they had been granted special authorization of free movement to perform their duties.

In summary, both surveys highlighted the direct impacts on account of movement restrictions, and a fear of becoming infected with the virus, and indirect impacts which resulted from resources being directed away from animal health surveillance activities to COVID-19-related activities.

INTRODUCTION

The coronavirus disease 2019 (COVID-19) pandemic has changed the lives of individuals, communities, and societies around the world, including those working in the animal health sector. To further examine the impact of COVID-19 on the activities of animal health workers and their ability to report animal disease, the Food and Agriculture Organization of the United Nations (FAO) Emergency Management Centre for Animal Health (EMC-AH) and the Emergency Prevention System (EMPRES) for transboundary animal and plant pests and diseases, Animal Health (EMPRES-AH) conducted surveys to collect and analyse data on the topic. To do so, EMPRES-AH designed a survey for the countries using the Event Mobile Application (EMA-i) tool, which was developed by FAO to support veterinary services in real-time disease reporting, whereas EMC-AH developed a specific survey for veterinary services that was circulated through national Chief Veterinarian Officers (CVOs) with support from FAO regional offices. This brief presents a breakdown of both surveys, the methodology behind them and a summary of the feedback.

ASSESSING THE IMPACT OF THE COVID-19 PANDEMIC ON VETERINARY SERVICES

In January 2020, EMC-AH established an Incident Coordination Group (ICG) to focus on the then-unknown but rapidly circulating virus that was officially announced as 'severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)' on 11 February 2020. During the weekly ICG meetings, participants, composed of FAO country and regional offices, in addition to various external partners such as OIE, WHO, INTERPOL, IAEA and many others, were quick to share their main concern at that time: what is the impact of COVID-19 on the delivery of state (and private) veterinary services? To address this pressing query, a questionnaire was developed by the EMC-AH team to survey member countries. The survey, which included 12 main questions, was

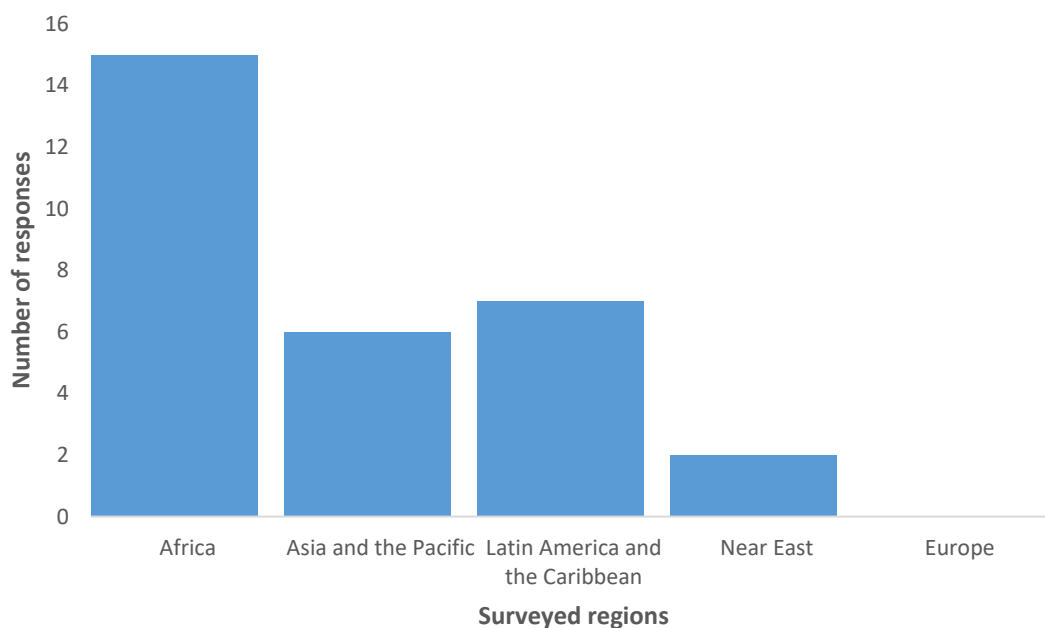
translated into English, French, Russian and Spanish. It was sent to all (187) CVOs on the FAO email list in early July 2020, and recipients had until mid-August to respond, with two email reminders communicated to the CVOs prior to the deadline.

A total of 30 responses (16 percent) were received. Having sent the survey to a global audience, response rates varied greatly between regions (see Figure 1).

Low response rate

The low response rate may be attributed to several factors. In the early phase of the pandemic, many countries simply may not have been able to identify how COVID-19 was impacting their veterinary services. Many countries were also likely to have had their resources stretched and were not able to commit time to respond. There were also several other COVID-19-related surveys being conducted at the same time – for example, no responses were received from Europe probably as the European Commission for the Control of Foot-and-Mouth Disease (EuFMD) had recently conducted a similar survey among their member states.

FIGURE 1 | Response rate by FAO region



Breakdown of results

Of those countries that did respond, 93 percent (28/30) confirmed that their veterinary services had been negatively impacted by COVID-19. When asked if veterinary laboratories were currently engaged in COVID-19 diagnostic support, 23 percent (7/30) reported that they were. Of those that were not involved in COVID-19 laboratory work:

- 35 percent (8/23) reported they did not have the capacity to support COVID-19 laboratory work;
- 35 percent reported that they could help but currently were not; and
- 30 percent reported that they were not authorised to assist.

In addition, 55 percent (16/29) reported their laboratory diagnostic capacity had been reduced, and of those:

- 56 percent (9/16) stated it was due to staff travel restrictions;
- 75 percent (12/16) had decreased laboratory reagents; and
- 88 percent (14/16) reported receiving fewer samples.

When asked if current restrictions on people's movements could delay disease notification, 71 percent (20/28) of respondents said it did. Of those:

- 70 percent (14/20) reported it was more difficult for field agents to conduct surveillance activities and field investigations; and
- 50 percent (10/20) said that it was difficult for private veterinarians to carry out their normal level of visits to livestock farms.

Six countries (30 percent, or 6/20) reported that it was more difficult for livestock keepers to perform their normal daily level of health inspection of their animals.

As to whether COVID-19 had increased the risk of incursion or spread of animal diseases in livestock in their country:

- 50 percent (13/26) thought it did;
- 19 percent thought it had decreased the risk; and
- 31 percent thought it had no impact on risk.

When asked if they thought COVID-19 had increased the number of unreported cases of animal diseases:

- 25 percent (7/28) thought it had;
- 18 percent thought it had decreased; and
- 57 percent thought it had had no impact.

Twenty countries (71 percent – 20/28) reported that COVID-19 had affected the supply chain of veterinary medical products. Of those:

- 80 percent (16/20) reported decreased importation;
- 65 percent reported having decreased distribution of products; and
- 30 percent saying that there had also been decreased production of veterinary products.

A total of 59 percent (16/27) reported that vaccination campaigns had been affected with 56 percent (9/16) having postponed campaigns and 38 percent having suspended campaigns. The reasons for vaccination campaigns being affected were:

- movement restrictions being imposed (81 percent);
- decreased vaccine availability (31 percent); and
- reduced vaccination staff (31 percent).

In addition, 59 percent (17/29) of respondents said veterinary food safety and inspection services had been affected.

Eleven countries (39 percent) said that their animal disease emergency response system had been engaged to support COVID-19 response, while 70 percent (19/27) said that their capacity to respond to a new disease outbreak or natural disaster had been reduced. The most common reasons were:

- a lack of PPE or laboratory reagents (100 percent);
- reduced laboratory capacity (68 percent);
- movement restrictions (63 percent); and
- unavailability of staff (58 percent).

Twenty countries (69 percent) reported that their planned veterinary emergency preparedness activities had been affected, and of those:

- 80 percent (16/20) said staff training was affected;
- 70 percent (14/20) said simulation exercises had been affected; and
- 45 percent (9/20) said development of emergency plans had been affected.

Seventeen countries (63 percent) reported that they had developed and implemented a national COVID-19 business continuity plan to perform pre-selected priority activities amid the current pandemic.

In the aforementioned survey carried out across Europe by EuFMD during the first phase of the pandemic, similar results were obtained with reference to the impact of COVID-19 on surveillance and response to transboundary animal diseases, specifically:

- a) the ability to ramp up diagnostics in animal health laboratories involved in COVID-19 testing was a major challenge, together with the re-supply of reagents;
- b) the scaling up of critical veterinary and animal health human resources was negatively impacted, due to internal and international travel restrictions, as well as the potential for surveillance teams to be further reduced following requirements to isolate, or because of illness;
- c) the potential for conflict in the prioritization of resources needed in the control of COVID-19 and the control of transboundary animal diseases by local disease control operations and national inter-agency coordination was also a concern; and

The outcomes of the EuFMD survey and the comments provided by participating countries highlighted the need to model the potential impacts of reduced human resources and others, due to COVID-19, on the emergency response capacity to similar transboundary animal diseases.

THE IMPACT OF THE COVID-19 PANDEMIC ON ANIMAL DISEASE REPORTING IN NINE AFRICAN COUNTRIES

Context

In parallel with the EMC-AH survey, FAO's Global Early Warning System (GLEWS) of EMPRES-AH developed a survey to measure the impact of the COVID-19 pandemic on animal disease reporting by veterinary services in countries using the EMA-i tool. By the time of the survey, This tool has been implemented in nine countries across Africa to enhance real time disease reporting. The aim of the survey was to understand how the COVID-19 pandemic may have affected the routine activities of animal disease reporting and surveillance for early detection in countries using EMA-i. The survey reflects the situation of nine countries in Africa during the four months following the declaration of COVID-19 as a Public Health Emergency of International Concern on 30 January 2020 and it assesses:

- the impact on animal disease reporting;
- the impact on animal health laboratories; and
- the impact on the activities of veterinary services such as field investigations and animal disease control.

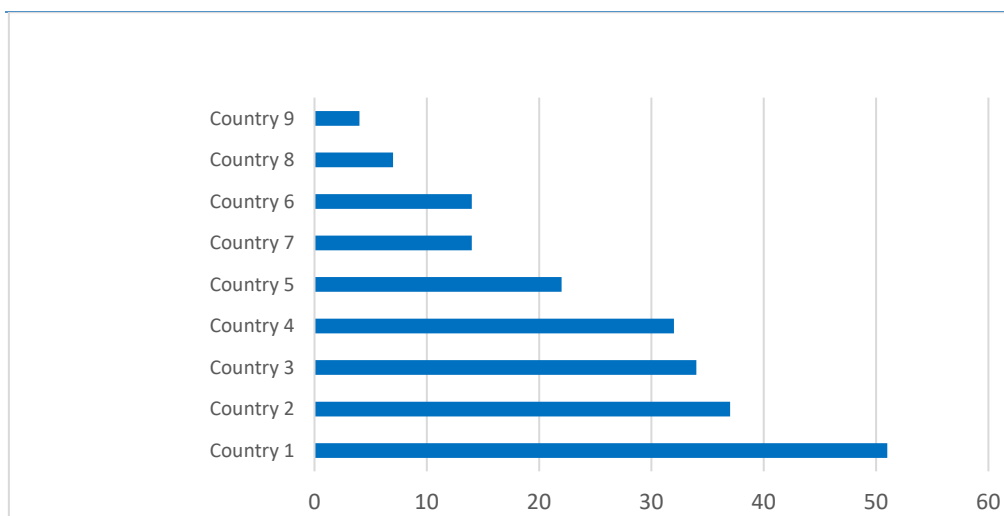
Methodology

The survey included 13 questions administered using a Google template. The survey, which was drafted in English and French, was shared with 632 EMA-i users from nine countries across Africa: Côte d'Ivoire, Ghana, Guinea, Lesotho, Mali, Sierra Leone, United Republic of Tanzania, Uganda and Zimbabwe. The participants of the survey covered the national animal disease reporting level including officers from the field, provincial (sub-national level) and from the central veterinary services level. Laboratory officers involved in disease reporting also participated. The survey covered the period between 25 May and 8 June 2020.

Results

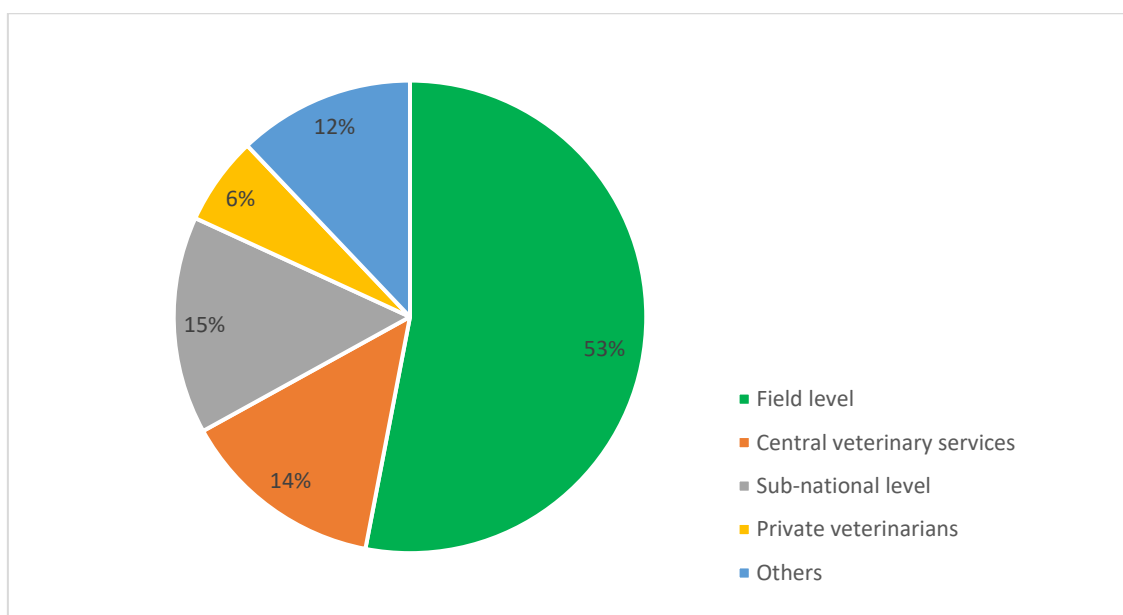
The survey's participation reached 34 percent (n = 215). Among the participants, 80 percent were male and 20 percent were female. Country 1 contributed 24 percent (n = 51), (see Figure 1) to the survey.

FIGURE 2 | Distribution of participants by country



Among the participants, 53 percent (114/215) were EMA-i users from field level, 15 percent (32/215) from sub-national level, 14 percent (30/215) were from central veterinary services and 6 percent were private veterinarians. The distribution of the survey's participants is representative of the distribution of their roles within the EMA-i workflow. The category of others (12 percent) includes laboratory experts, Community Animal Health Workers (CAHWs) and partners (26/215) (see Figure 3).

FIGURE 3 | Distribution of participants by role in the national disease reporting system



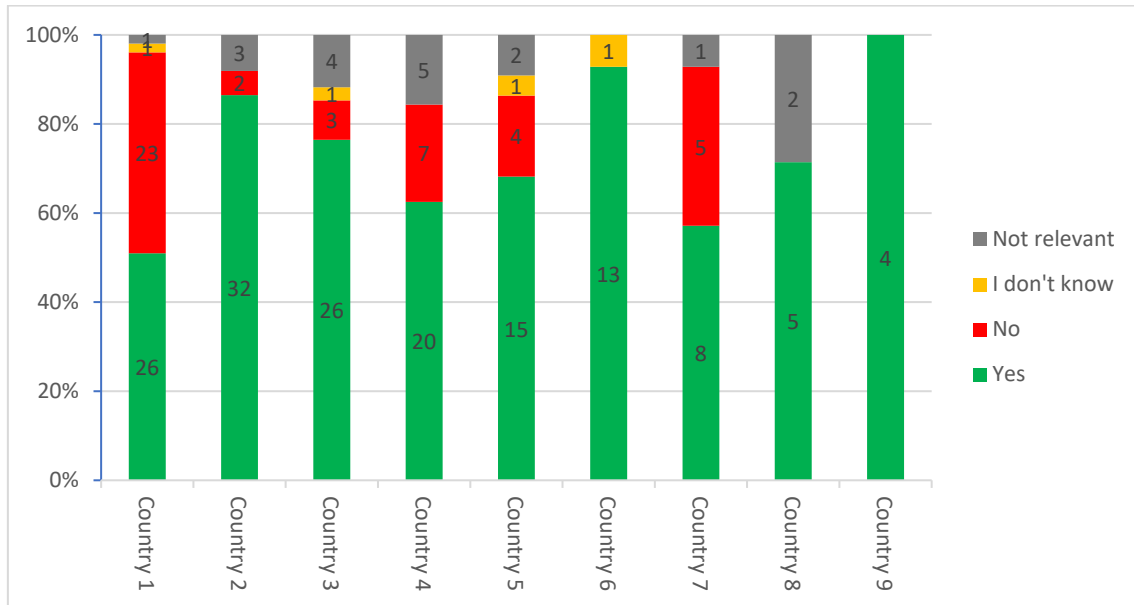
Impact of COVID-19 pandemic on animal disease reporting

When asked if veterinary services activities have been impacted by the current COVID-19 pandemic and the control measures applied, 87 percent (186/213) of participants confirmed the need for movement outside the office and 98 percent (112/114) of field officers said it was mandatory for their daily work. Only 13 percent (27/213) of participants declared that their daily work does not require movement, among those, 19 participants work at central veterinary services and at sub-national level. In addition, 91 percent (196/215) confirmed that they visited farms for disease investigation regularly prior to the pandemic.

A total of 75 percent (162/215) of participants confirmed that movement restriction was implemented in their respective countries due to the pandemic. On the question of whether the movement restriction had affected disease reporting, 74 percent (159/215) confirmed that it had affected their work on disease reporting. At the same time, despite the pandemic, 83 percent (179/215) confirmed that veterinary services continue to receive information on animal disease occurrence from farmers and animal keepers.

Among the participants, 69 percent (149/215) declared that they had been granted special authorization of free movement to perform their duties (see Figure 4).

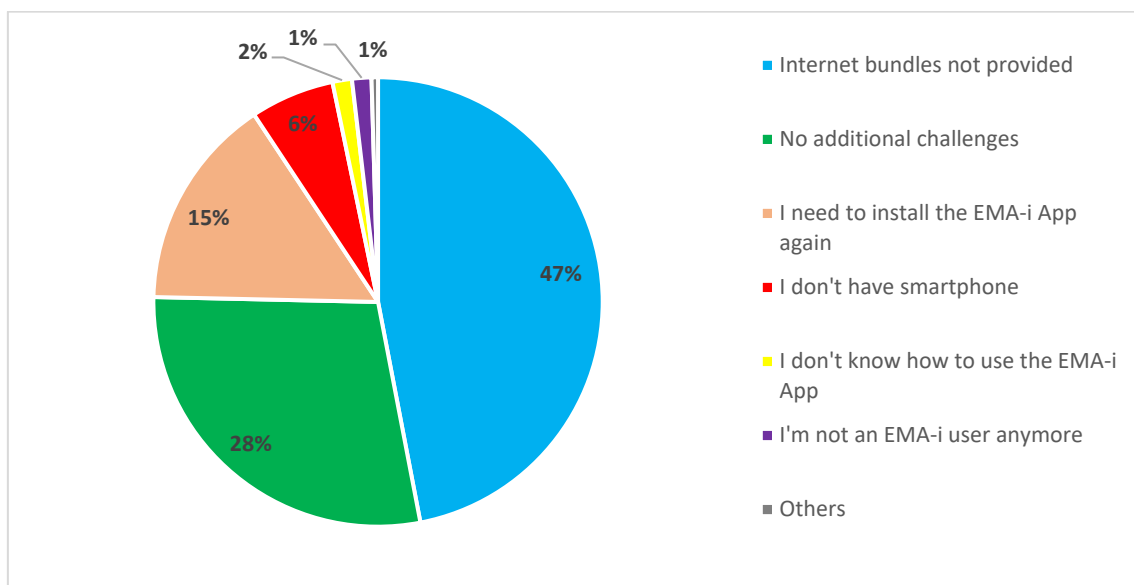
FIGURE 4 | Distribution of participants by country based on the acquisition of movement authorization for veterinary services to perform investigations



Additional challenges reported during the COVID-19 pandemic

This survey was also an opportunity to identify additional challenges faced by veterinary services for timely disease reporting using EMA-i. The main challenge reported by EMA-i users is the lack of support for internet bundles for 47 percent of users. However, 28 percent of survey participants did not report any additional challenges to using EMA-i as an animal disease reporting system (see Figure 5).

FIGURE 5 | Challenges in using EMA-i not directly related to COVID-19



In addition, a free text section allowed participants to report other challenges related or unrelated to COVID-19, which indicated:

- In terms of the impact of the COVID-19 pandemic: fear of COVID-19 transmission risk from sick animals; fears related to meeting with strangers to investigate disease events; lack of availability of personal protective equipment (PPE) to protect from COVID-19; prioritization of COVID-19-related activities to the detriment of other activities; and transfer of resources to the public health sectors (such as vehicles).
- In terms of challenges not directly related to COVID-19: lack of financial support (for transportation to the site for investigation; PPE (to protect from COVID); lack of phones for CAHWs to notify disease suspicions to the District Veterinary Officers; limited internet coverage in some remote areas; discontinuous availability of electricity; limitation of self-customization support available on EMPRES-i/EMA-i.

A free text section allowed participants to give suggestions on how to address the challenges:

- Suggestions related to the impact of COVID-19 indicated that: public awareness regarding COVID-19 within the community to tackle the fear of contamination by potentially sick livestock.
- Suggestions not directly related to the impact of COVID-19 were related to further improvement and use of the EMA-i tool.

CONCLUSION

Although the results from both surveys may lack statistical weight, they do provide a clear indication as to where and how veterinary services are being impacted by COVID-19. In addition to the direct impacts of the global pandemic, such as changes in activities due to restrictions on movement and a fear of becoming infected with the virus, indirect impacts include the prioritization of resources for COVID-19 response to the detriment of animal health surveillance activities. Additional challenges have been identified and further actions are needed at country, regional and global levels to tackle the challenges to further strengthen timely animal disease reporting.

These impacts are likely to grow as the pandemic continues, with a potential decrease in livestock production to follow. It is therefore encouraging to see that several countries have already enacted their business continuity plans which may partially mitigate the impact of COVID-19 on their veterinary services. Countries without business continuity plans are likely to fair far worse. These results may help shape the design of future EMC-AH and EMPRES-AH work to increase FAO's capacity to provide support.

ACKNOWLEDGEMENTS

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