

## Animal Disease Outbreaks and News - Asia

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## **COVID-19** Update

## Coronavirus COVID-19 death toll at 6,503,756 and confirmed cases at 610,273,492 worldwide

Date: 5 September 2022

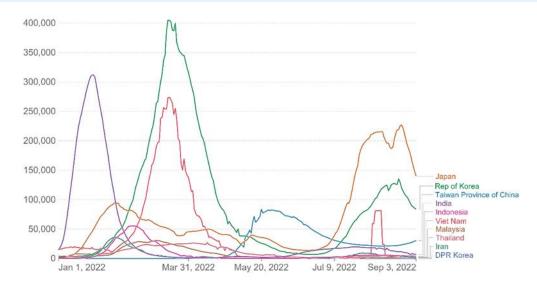
Globally, the death toll from the COVID-19 has reached 6,503,756 while the confirmed case count has reached 610,273,492. In the global scene, the top five countries reporting the total number of cases are USA, India, Brazil, France and Germany. Data sourced from: Worldometers, Government websites and Our World in Data. The table below presents the situation in Asia and the Pacific.

Table: Top ten countries with highest numbers of cumulative COIVD-19 cases in Asia and the Pacific (Source: Worldometers, trusted media sources, Govt. websites).

Countries	Total cumulative cases	New cases in past seven days [1]	Total cumulative deaths	New deaths in past seven days [1]	Total cumulative recovered	New recovered in past seven days [1]	Active cases	Serious/ critical
India	44,460,483	44,760	527,991	192	43,873,430	70,437	59,062	698
Rep of Korea	23,606,740	579,780	27149	531	21,834,203	877,603	1,745,388	562
Japan	19,345,212	838,697	40,829	1,824	17,620,230	1,164,241	1,684,153	523
Viet Nam	11,418,894	15,592	43,120	8	10,211,563	61,441	1,164,211	89
Iran	7,533,087	9,425	143,995	267	7,307,292	23,215	81,800	1,133
Indonesia	6,372,542	26,238	157,647	147	6,173,081	30,643	41,814	2,771
Taiwan Province of China	5,442,981	221,396	10,063	219	4,894,519	150,129	538,399	/
Malaysia	4,791,456	15,262	36,245	47	4,726,250	19,155	28,961	73
DPR Korea	4,772,813	0	74	0	4,772,739	0	0	/
Thailand	4,659,902	12,217	32,425	174	4,612,062	13,228	15,415	1,496
Global Total	610,273,492	4,256,733	6,503,756	15,365	587,122,510	5,609,783	16,647,226	42,314

[1] Number of newly confirmed cases and deaths since past seven days; / indicates the information is not available

Figure 1. Daily new confirmed COVID-19 cases in the top 10 countries with highest numbers of cumulative cases in Asia and the Pacific (Source: Our World in Data sourced from Johns Hopkins University CSSE COVID-19 Data)



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Figure 2. Daily new confirmed COVID-19 deaths in the top 10 countries with highest numbers of cumulative cases in Asia and the Pacific (per million people)

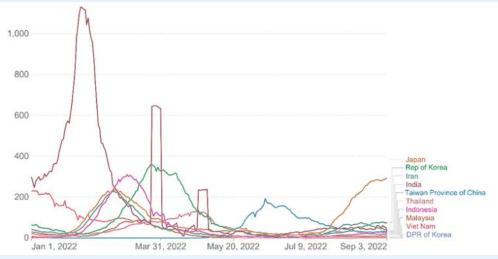
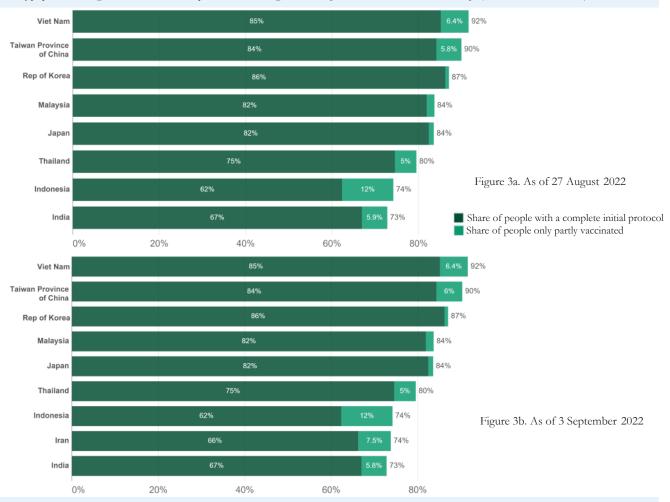


Figure 3. Share of people vaccinated against COVID-19 in the top 10 countries with highest numbers of cumulative cases in Asia and the Pacific (Source: Our World in Data)



#### **Disease Outbreaks**

#### Philippines: Increase in rabies cases / deaths in 2022 reported

Date: 4 September 2022; Disease: Rabies; Location: multiple locations, Philippines

The Philippines Department of Health reported the latest data on human rabies in the country. From the beginning of the year through 13 August, officials reported 222 human rabies cases in 16 of the 17 regions across the country. 100% of the cases ended in death. This is an increase of 17 percent compared to the same period in 2021 (190). The region of Central Luzon reported the most rabies cases with 35, followed by Calabarzon (26), and 22 each in Davao and Soccsksargen. Only the Cordillera Administrative Region

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(CAR) reported no human rabies cases to date. Read more at Outbreak News Today.

#### India: First official report of lumpy skin disease (LSD) in Himachal

Date: 2 September 2022; Disease: LSD; Location: Himachal State, India

LSD outbreak in Cheli Chounala (Maliana) of **Himachal** State has been officially reported. 25 confirmed cases were reported out of 150 animal population. The event is ongoing. Read more at <u>WOAH</u>. LSD in Himachal was reported in media earlier. Shortage of vets, antibiotics hits LSD treatment, reports <u>The Tribune</u>.

LSD has affected 11.2-lakh cattle, including 49,682 deaths, in 165 districts across a dozen states and Union Territories in India as of 30 August 2022, reports The Indian Express. 377 cattle in Bijnor, Uttar Pradesh state have been affected by LSD (Times of India and The Hindu). The number of LSD cases in Uttarakhand state has gone up to 5,251, with 92 deaths reported so far since the first case in July (Times of India). 32 new cases of LSD were reported from Gurugram, Haryana state, the highest single-day jump so far, taking the tally to 94 cases since the first case was reported on 23 August 2022 (Hindustan Times). Rising Kashmir writes 21,976 animals infected with LSD in Jammu and Kashmir, however, the milk production remains unaffected, according to The Kashmir Monitor. Overall milk production, however, is reported to be impacted by the ongoing LSD outbreaks, writes Straits Times. Also read about the upcoming LSD vaccine in India (below).

#### India: First case of Glanders disease in Himachal was reported after Lumpy skin disease (LSD) outbreaks

Date: 31 August 2022; Disease: Glanders; Location: Kullu, Himachal, India

After corona (COVID), lumpy disease in Himachal Pradesh, glanders disease has gained a foothold. After lumpy skin disease in cattle, now a case of glanders disease in horses has been reported. Currently, there is no cure for this disease and the horse dies as symptoms progress. The state government on Tuesday notified it as a scheduled disease in view of the risk of glandular disease in horses. The symptoms of the disease were revealed after the blood sample of a horse in Kullu was tested. These samples were sent to the lab in Hisar and the report has come back positive. Read more at Irshi Videos.

#### Iraq: Crimean-congo hemorrhagic fever (CCHF) cases rise to 299

Date: 21 August 2022; Disease: CCHF; Location: multiple locations, Iraq

In a follow-up on the CCHF outbreak in Iraq, the Ministry of Health has reported 299 confirmed cases and 55 deaths nationwide since the beginning of the year. This is up from 289 cases and 52 deaths reported last week. Health officials say Dhi Qar governorate is the governorate in which hemorrhagic fever is most prevalent with 130 cases and 31 deaths. Reade more at Outbreak News Today.

#### **Neighbouring Countries**

#### Russian Federation: Recurrence of African swine fever (ASF)

Date: 2 September 2022; Disease: ASF; Location: Miratorg-Kursk, Russian Federation

An outbreak of ASF in a pig farm has resulted in the death of 6 pigs among 24 confirmed cases out of the susceptible population of 2936 animals. The event is ongoing. Read more at <u>WOAH</u>.

#### News and Updates

### Single-dose infectious bronchitis virus (IBV) vaccine under development

Date: 5 September 2022

Scientists at UK's The Pirbright Institute have developed a potential vaccine for IBV that could protect chickens from severe disease with just one dose. IBV is a coronavirus that causes a highly contagious disease in poultry, resulting in respiratory symptoms which affect the reproductive tracts of birds, in turn threatening the health and welfare of the birds, and food security. Past research at Pirbright highlighted important targets in the virus genome that could be investigated to create safer vaccines. And now recent research, published in the Journal of Virology, aimed to explore these targets, and understand the mechanisms of weakening a virus to create a vaccine, a process known as attenuation. Read more at Poultry World.

#### How ICAR's new vaccine against lumpy skin disease (LSD) will work

Date: 4 September 2022

The Indian Council of Agricultural Research (ICAR) is aiming to commercially launch in "four-five months" its indigenously-developed vaccine against the LSD virus that has killed around 50,000 heads of cattle in several states since April. Bhupendra Nath Tripathi, Deputy Director-General (Animal Sciences) of ICAR, said that Agrinnovate India, the commercialisation arm for products and technologies developed by ICAR institutes, had issued an expression of interest document for the vaccine, 'Lumpi-ProVacInd', last month, and that three companies had shown interest. Read more at <u>The Indian Express</u>.

#### Thailand: Lumpy skin disease (LSD) cases decrease sharply this year

Date: 1 September 2022

Thailand has successfully reined in LSD afflicting cattle, Agriculture and Cooperatives Minister announced. He said the number of reported LSD cases had declined substantially this year when compared to 2021. This year's average monthly incidents numbered 389,

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down by as much as 99.4 per cent from 62,654 last year. Between 1 January and 30 August, only 3,115 cattle were reported to be ill from LSD, most of which were young animals that had not been vaccinated, the minister said. Read more at <u>The Nation Thailand</u>.

#### African swine fever (ASF) Asia and Pacific situation update

Date: 1 September 2022

Highlights from the most recent ASF situation update in the Asia and Pacific region includes the reports of the second ASF outbreak of 2022 in a domestic pig farm in the Republic of Korea; temporary suspension of the use of NAVET-ASFVAC vaccine in three provinces of Viet Nam; and detection of ASF virus in wild boars in Yeongju City for the first time in the Republic of Korea. Read more at FAO.

#### New approach predicts disease transmission among wildlife and humans

Date: 1 September 2022

The rate that emerging wildlife diseases infect humans has steadily increased over the last three decades. Viruses, such as the global coronavirus pandemic and recent monkeypox outbreak, have heightened the urgent need for disease ecology tools to forecast when and where disease outbreaks are likely. A University of South Florida assistant professor helped develop a methodology that will do just that - predict disease transmission from wildlife to humans, from one wildlife species to another and determine who is at risk of infection. Read more at Science Daily.

#### Hong Kong SAR: Novel Zoonotic Avian Influenza Virus A(H3N8) Virus in Chicken

Date: 29 August 2022

Zoonotic and pandemic influenza continue to pose threats to global public health. Pandemics arise when novel influenza A viruses, derived in whole or in part from animal or avian influenza viruses, adapt to transmit efficiently in a human population that has little population immunity to contain its onward transmission. Viruses of previous pandemic concern, such as influenza A(H7N9), arose from influenza A(H9N2) viruses established in domestic poultry acquiring a hemagglutinin and neuraminidase from influenza A viruses of aquatic waterfowl. We report a novel influenza A(H3N8) virus in chicken that has emerged in a similar manner and that has been recently reported to cause zoonotic disease. Although they are H3 subtype, these avian viruses are antigenically distant from contemporary human influenza A(H3N2) viruses, and there is little cross-reactive immunity in the human population. It is essential to heighten surveillance for these avian A(H3N8) viruses in poultry and in humans. Read more at CDC (full text) or PubMed.

### Philippines: Aurora bans hogs and pork products from African swine fever (ASF) hit areas

Date: 27 August 2022

The entry of pigs and pork products from areas hit by ASF is banned in Aurora province starting 30 August 2022. In an executive order signed on 22 August, the governor said the ban, especially for pigs and pork products from Bulacan, Pampanga and Tarlac, would be in effect until 30 September. He said the three provinces are among the areas under the red zone classification from 16 July to 4 August. The governor said that Aurora is undergoing recovery from the effect of ASF and is now classified under yellow based on the national zoning and movement plan. Read more at Philstar Global.

# China: Phylogenetic and epidemiological characteristics of H9N2 avian influenza viruses in Shandong Province from 2019 to 2021

Date: 27 August 2022

H9N2 avian influenza virus (AIV) has widely circulated in poultry worldwide and sporadic infections in humans and mammals. During our surveillance of chicken from 2019 to 2021 in Shandong Province, China, we isolated 11 H9N2 AIVs. Phylogenetic analyses showed that the 8 gene segments of the 11 isolates were closely related to several sublineages of Eurasian lineage: BJ/94-like clades (HA and NA genes), G1-like clades (PB2 and M genes), and SH/F/98-like clades (PB1, PA, NP and NS genes). The isolates showed mutation sites that preferentially bind to human-like receptors (HA) and mammalian fitness sites (PB2, PB1 and PA), as well as mutations in antigen and drug resistance sites. Moreover, studies with mice revealed 4 isolates with varying levels of pathogenicity. The average antibody titer of the H9N2 AIVs was 8.60 log2. Based on our results, the epidemiological surveillance of H9N2 AIVs should be strengthened. Read full text at Science Direct.

# Thailand: Molecular identification and characterization of Lumpy skin disease (LSD) virus emergence from cattle in the north-eastern part of Thailand

Date: 9 August 2022

LSD, a disease transmitted by direct and indirect contact with infected cattle, is caused by the Lumpy skin disease virus (LSDV). The disease affects cattle herds in Africa, Europe, and Asia. The clinical signs of LSD range from mild to the appearance of nodules and lesions in the skin leading to severe symptoms that are sometimes fatal with significant livestock economic losses. This study aimed to characterize LSDV strains in the blood of infected cattle in Thailand based on the GPCR gene and determine the phylogenetic relationship of LSDV Thailand isolates with published sequences available in the database. The study concluded that the LSD outbreak in Thailand was confirmed, and a phylogenetic tree was constructed to infer the branching pattern of the GPCR gene from the presence of LSDV in Thailand. This is the first report on the molecular characterization of LSDV in cattle in Thailand. Read more at Journal of Veterinary Sciences (full text) or PubMed.

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#### **Upcoming Events**

#### 2nd MFDS global conference on foodborne antimicrobial resistance

Date: 27-28 September 2022; Location: Sofitel Ambassador Seoul, Republic of Korea

Second MFDS (Ministry of Food and Drug Safety) global conference is a two day event going to be held in Seoul, Republic of Korea with the theme "International endeavours to reduce foodborne antimicrobial resistance". Click here to learn more about the event.

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