



ASEAN BIODIASPORA VIRTUAL CENTER

DISEASE ALERT

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Sixth alert: 04 September 2024 | Update on Avian Influenza A (H5N1) in Cambodia

SUB-LOCATIONS AFFECTED

Prey Veng Province



Source: <https://www.promegaconnections.com/how-avian-influenza-crosses-species/>

Event Description

On September 2, 2024, the World Health Organization (WHO) provided an update on the recent human cases of avian influenza H5N1 in Cambodia. Genome sequencing has shown that these cases are caused by a new reassortant virus strain, which has developed from a combination of the older clade 2.3.2.1c and the newer clade 2.3.4.4b of the H5N1 virus.

Epidemiological Information of Cases from Pray Veng Province

- On August 20, 2024, the International Health Regulations (IHR) National Focal Point (NFP) of Cambodia informed the WHO of a human infection case with influenza A(H5N1) in a 15-year-old from Prey Veng Province who had no pre-existing health conditions. The child developed a fever on August 11, 2024, and was admitted to a Severe Acute Respiratory Infection (SARI) sentinel site in Phnom Penh on August 17. Upon admission, the patient exhibited symptoms including fever,

cough, sore throat, and difficulty breathing, and was treated with oseltamivir the same day. Nasopharyngeal and oropharyngeal swab samples were collected on August 17, and the patient passed away on August 20, 2024.

- The swab samples collected on August 17 were sent to the National Institute of Public Health in Cambodia and tested positive for influenza A(H5N1) using quantitative reverse transcription polymerase chain reaction (RT-qPCR) on August 20. The results were confirmed by the Institut Pasteur du Cambodge (IPC) on the same day. The sample was successfully sequenced, revealing that the virus belongs to H5 clade 2.3.2.1c, similar to viruses that have been circulating in Cambodia and Southeast Asia since 2013-2014. However, the internal genes are from H5 clade 2.3.4.4b viruses. This novel reassortant influenza A(H5N1) virus has been identified in human cases in Cambodia since late 2023.
- Preliminary investigations revealed reports of dead poultry in the village about five days before the patient fell ill. The family had received some of these chickens for consumption, and the girl had been exposed to the poultry while preparing food.
- The Cambodian Communicable Disease Control Department (CDC), Ministry of Health, and local Rapid Response Team carried out further investigations. Six close contacts were identified and given oseltamivir. All close contacts are currently being monitored and remain asymptomatic. Ongoing investigations and response efforts are focusing on public health, animal health, and environmental safety. Test results for samples taken from chickens and ducks in the village are still pending.
- Avian influenza A(H5N1) was first detected in Cambodia in December 2003, initially affecting wild birds. Sporadic human cases were reported from then until 2014 due to transmission from poultry to humans, either directly or through contaminated environments. Between 2014 and 2022, there were no reported human infections with A(H5N1) viruses. However, human infections re-emerged in Cambodia in February 2023, with six cases reported that year. This case is one of 10 human cases of influenza A(H5N1) reported in Cambodia in 2024. Two of these cases were fatal, and nine involved individuals under 18 years old. Since 2003, Cambodia has reported 72 human cases of influenza A(H5N1), including 43 deaths, resulting in a case fatality rate (CFR) of 59.7%.

Response Measures:

The Ministry of Health of Cambodia has deployed national and sub-national rapid response teams to further investigate and address the avian influenza outbreak. These response efforts are being carried out in collaboration with local authorities, the Ministry of Environment, and the Ministry of Agriculture, Forestry, and Fisheries.

- Investigations are currently underway to determine the presence of the disease in animals, trace sources of transmission, identify suspected cases in both animals and humans, and prevent the spread within the community.
- Close contacts are being closely monitored and given oseltamivir as a preventive treatment.
- Health education efforts are being carried out in the affected villages.
- Stamping-out measures are in progress, including the culling of poultry, the safe disposal of carcasses and potentially contaminated materials, as well as thorough cleaning and disinfection procedures.

Additional Context

- From 2003 to August 20, 2024, a total of 903 human cases of influenza A(H5N1) infection have been reported to WHO from 24 countries, including this recent case. Nearly all human infections with avian influenza A(H5N1) have been associated with close contact with infected live or dead birds, mammals, or contaminated environments.
- Current epidemiological and virological evidence indicates that A(H5N1) viruses have not gained the ability for sustained human-to-human transmission. As a result, the risk of ongoing human-to-human spread is considered low at this time. However, given that the virus continues to circulate in poultry, particularly in rural areas of Cambodia, further sporadic human cases are expected.
- Close monitoring of the epidemiological situation, detailed analysis of the latest influenza A(H5N1) viruses in both human and poultry populations, and serological studies are essential for evaluating public health risks and adjusting risk management strategies promptly.
- Vaccines for seasonal influenza viruses do not provide protection against influenza A(H5N1) infections in humans. However, some countries have developed candidate vaccines to prevent influenza A(H5) infections in humans as part of pandemic preparedness efforts.

Sources:

1. **BlueDot.** (2024, September 4). BlueDot Portal. Available at: <https://portal.bluedot.global/>.
2. **World Health Organization (WHO).** (2024, September 4). *Disease outbreak news: 2024-DON533*. Retrieved from <https://www.who.int/emergencies/disease-outbreak-news/item/2024-DON533>