

Avian influenza A(H5) virus circulation in live bird markets in Vietnam, 2017–2022

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September 19, 2023

Abstract

Background: Highly pathogenic avian influenza A(H5) human infections are a global concern, with many A(H5) human cases detected in Vietnam, including a case in October 2022. Using avian influenza virus surveillance from March 2017–September 2022, we described the percent of pooled samples that were positive for avian influenza A, A(H5), A(H5N1), A(H5N6), and A(H5N8) viruses in live bird markets in Vietnam. Methods: Monthly at each LBM, 30 poultry oropharyngeal swab specimens and five environmental samples were collected. Samples were pooled in groups of five and tested for influenza A, A(H5), A(H5N1), A(H5N6), and A(H5N8) viruses by real-time reverse-transcription polymerase chain reaction. Trends in the percent of pooled samples that were positive for avian influenza were summarized by LBM characteristics and time and compared to the number of passively detected avian influenza outbreaks using Spearman’s rank correlation. Results: A total of 25,774 pooled samples were collected through active surveillance at 167 LBMs in 24 provinces; 36.9% of pooled samples were positive for influenza A, 3.6% A(H5), 1.9% A(H5N1), 1.1% A(H5N6), and 0.2% A(H5N8). Influenza A(H5) viruses were identified January–December and at least once in 91.7% of sampled provinces. In 246 A(H5) outbreaks in poultry; 20.3% were influenza A(H5N1), 60.2% A(H5N6), and 19.5% A(H5N8); outbreaks did not correlate with active surveillance. Conclusions: In Vietnam, influenza A(H5) viruses were detected by active surveillance in LBMs year-round and in most provinces sampled. In addition to outbreak reporting, active surveillance for A(H5) viruses in settings with high potential for animal-to-human spillover can provide situational awareness.

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