

Avian influenza in Vietnam: Surveillance, control, and lessons learned

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Statement of the Problem:

Vietnam was among the first countries to report cases of highly pathogenic Avian influenza at the start of the current panzootic. In December 2003, after the first confirmed cases of H5N1 in animals, the disease was detected throughout the country. From April to December 2005, there were 276 infected communes in 28 provinces and since 2004 more than 50 million birds have been culled. With the effort of the communicable disease surveillance system, the disease was rather well controlled, however, sporadic outbreaks have been often emerged during the time since the year 2007 up to now. The challenges we have to face in the fighting against avian influenza are: (i) backyard poultry production systems and poultry product transports management; (ii) duck farming system, scavenging

ducks as avian influenza virus carriers without symptoms; (iii) uncontrolled poultry products transport from China through the borders and migratory birds from the epidemic regions; (iv) fast changes in antigens and pathogenicity of avian influenza virus strains.

Methodology & Theoretical

Orientation: Establish a collaboration system between MOST, MOH and MARD including different organizations to develop and implement “Integrated Operational program for Avian influenza surveillance and control”. Molecular surveillance and develop poultry influenza vaccine and Human influenza vaccine based on newly emerged strains.

Findings: With Avian influenza continuous surveillance, we found that the continued spread of highly pathogenic avian influenza virus (HPAIV) subtype H5N1 among poultry in Vietnam poses a potential threat to animals and public health. New clade (clade 2.3.2.1b) and Novel Reassortant (clade 1.1.2 reassortant virus) emerged, so we need to develop the vaccine based on the newly isolated strains.

Conclusion & Significance:

Avian influenza outbreak in Vietnam poses a potential threat to animals and public health. Community-based active surveillance model on AI should be implemented to prevent and control the disease. Lessons learned on the successful AI control in Vietnam: good collaborations between MOST, MARD and MOH and other social organizations to form an “Integrated system for Avian Influenza surveillance and control”.

Biography

Le Minh Sat was a manager for the human and animal health programs in the Department of the Ministry of Science and Technology (MOST), Government of Vietnam, when he was a Vice Director of this Department. During the time of the emerging infectious diseases outbreaks, such as avian influenza (AI) and Severe Acute Respiratory Syndrome (SARS), he was a member of the National Committee for combating against Avian Influenza and EIDs and he was working as a Scientific Adviser and Policy Maker for disease control and prevention. During the time of AI outbreaks (since the end of 2003) and pandemic influenza (2009-2010) many Projects for influenza control and prevention, such as disease surveillance and diagnosis, influenza vaccine production were carried out under leading of the MOST collaborated with the Ministry of Health (MOH) and the Ministry of Agriculture and Rural Development (MARD) and Vietnam has successfully controlled the disease outbreaks.

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