Surveillance, prevention and disease management of avian influenza in the European Union

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Since 2002, member states of the European Union have been implementing surveys for avian influenza (AI) in domestic poultry and wild birds that are co-financed by the European Commission.

Poultry surveys aim at detecting introduction of low pathogenic avian influenza (LPAI) of H5 and H7 subtypes from the wild bird reservoir and to identify their circulation in poultry, since they have the potential to mutate into highly pathogenic avian influenza (HPAI). Surveys cover different poultry production systems, targeting in particular those at increased risk of AI virus introduction, such as free range. Samples are taken for serological laboratory investigations and positive findings need to be followed up by further clinical, epidemiological and laboratory investigations for virus detection. Wild bird surveys focus on sampling in particular migratory waterfowl and shorebirds representing a well-known reservoir for all LPAI subtypes and are directed specifically towards H5 and H7 subtypes.

Following the westward spread of the Asian lineage HPAI H5N1 to Europe, surveillance in wild birds has been intensified by increased a) active surveillance in living and hunted birds in particular of species migrating from areas affected by HPAI H5N1 outbreaks and presenting a higher risk for AI transmission and b) passive surveillance of wild birds found dead. To date, more than 700 cases of positive findings of HPAI H5N1 in wild birds (mainly swans, ducks, geese and birds of prey) have been identified in 13 member states and four single poultry outbreaks in four member states.

Experience during early 2006 has shown that passive surveillance of sampling dead wild birds has provided an early warning system for the introduction of HPAI H5N1 infection into member states. Once the disease has been identified in wild birds, disease prevention measures and the level of alertness have been strengthened.

Surveillance in poultry and wild birds allows veterinary authorities to modulate prevention and control measures and identify the most risky areas. The measures taken to prevent, early detect and contain H5N1 in the European Union have so far successfully reduced the impact of the disease on animal and human health to a minimum. Still it is difficult to foresee its further evolution. The European Commission and the EU member states are keeping the disease situation and surveillance and control measures under continuous review.

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