



Update on Avian influenza

Animal Health Advisory Committee

9 March 2015

Unit G2 – Animal health
Directorate-General for Health and Food Safety
European Commission, Brussels

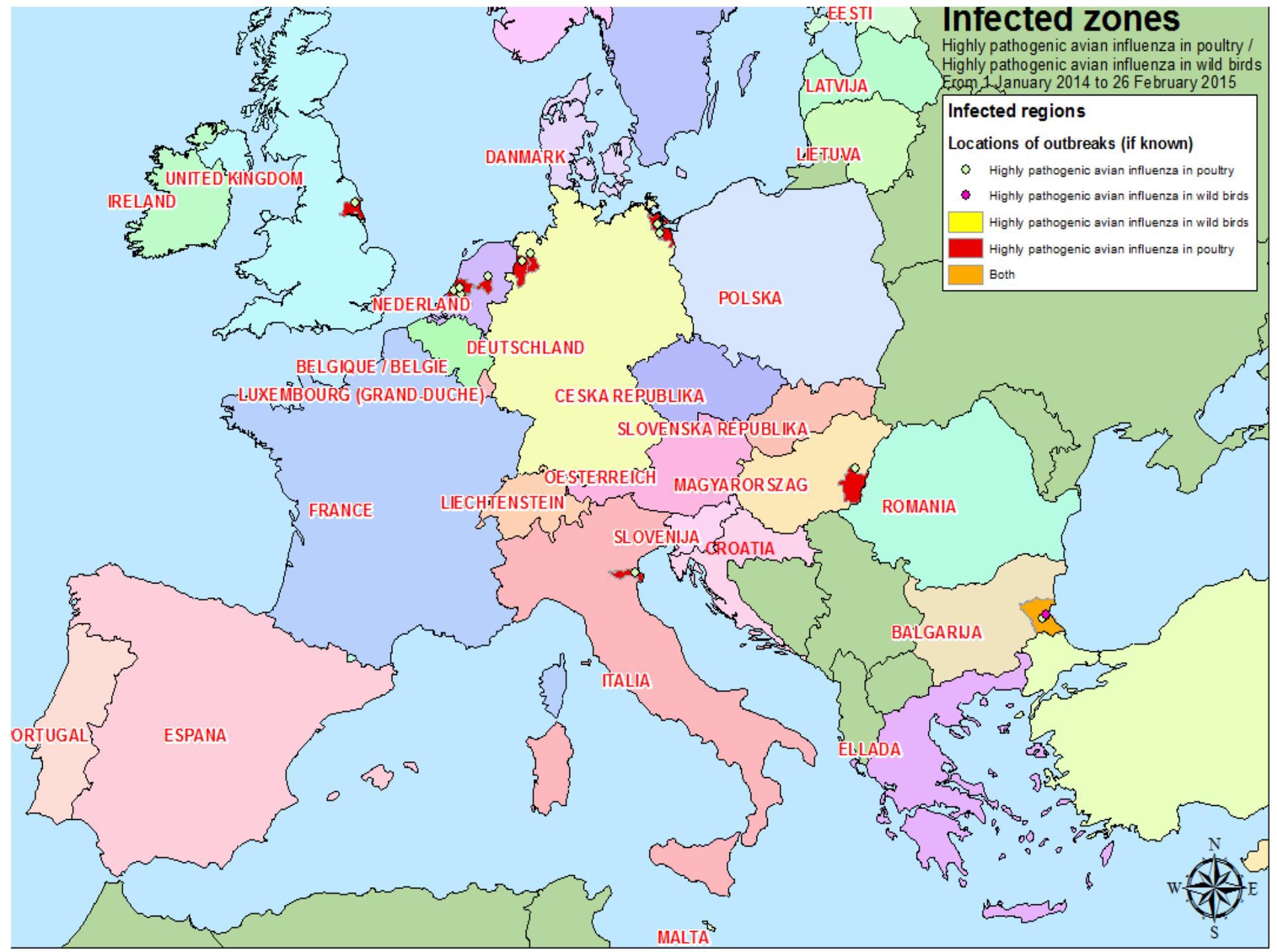
Infected zones

Highly pathogenic avian influenza in poultry /
Highly pathogenic avian influenza in wild birds
From 1 January 2014 to 26 February 2015

Infected regions

Locations of outbreaks (if known)

- Highly pathogenic avian influenza in poultry
- Highly pathogenic avian influenza in wild birds
- Highly pathogenic avian influenza in wild birds
- Highly pathogenic avian influenza in poultry
- Both





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HPAI outbreaks between 05/11/2014 and 24/02/2015

| Country | Affected region | HPAI subtype | Outbreak | Confirmation date | Flock size | Species / Production type |
|-----------------------|--|--------------|----------|-------------------|------------|-----------------------------|
| Germany | Mecklenburg-Western Pomerania | H5N8 | 1 | 05/11/2014 | 30939 | fattening turkeys indoor |
| | Mecklenburg-Western Pomerania, island | H5N8 | | 21/11/2014 | 1 | common teal live bird |
| | Lower Saxony, Cloppenburg | H5N8 | 1 | 16/12/2014 | 17887 | fattening turkeys indoor |
| | Lower Saxony, Emsland | H5N8 | 1 | 20/12/2014 | 10102 | fattening ducks indoor |
| | Sachen-Anhalt, Anhalt-Bitterfeld | H5N8 | | 20/12/2014 | 1 | mallard dead bird |
| | Rostock | H5N8 | 1 | 07/01/2015 | 496 | zoo, white stork dead bird |
| | Mecklenburg- Western Pomerania, Anklam | H5N8 | 1 | 20/01/2015 | 196 | backyard |
| | Mecklenburg- Western Pomerania, Anklam | H5N8 | 2 | 26/01/2015 | 36 | backyard |
| Netherlands | Utrecht province, Hekendorp | H5N8 | 1 | 16/11/2014 | 150000 | laying hens indoor |
| | Zuid-Holland province, Ter Aar | H5N8 | 1 | 21/11/2014 | 43000 | laying hens indoor |
| | Overijssel province, Kamperveen | H5N8 | 1 | 21/11/2014 | 10000 | broiler breeder indoor |
| | Overijssel province, Kamperveen | H5N8 | 2 | 23/11/2014 | 14600 | fattening ducks indoor |
| | Zuid Holland province, Zoeterwoude | H5N8 | 1 | 30/11/2014 | 28000 | laying hens indoor |
| | Utrecht province, Kamerik | H5N8 | | 01/12/2014 | 2 | Eurasian widgeon live bird |
| United Kingdom | East Riding of Yorkshire | H5N8 | 1 | 16/11/2014 | 6178 | breeding ducks indoor |
| Italy | Veneto, Rovigo | H5N8 | 1 | 15/12/2014 | 31985 | fattening turkeys indoor |
| Bulgaria | Burgas Region, Poda protected area | H5N1 | | 26/01/2015 | 1 | Dalmation pelican dead bird |
| | Burgas Region, Konstantinovo | H5N1 | | 02/02/2015 | 22 | backyard |
| | Burgas Region, Poda protected area | H5N1 | | 06/02/2015 | 2 | dove / gull dead bird |
| Hungary | Békés County, Füzesgyarmat | H5N8 | 1 | 24/02/2015 | 21170 | fattening ducks indoors |



Epidemiology (1)

EFSA – Report published on 15/12/2015

- Entry of H5N8 HPAI into Europe and subsequent spread are separate events and may involve different routes
- No known direct migration routes of wild birds from East Asia to Western Europe
- Long distance transmission could occur via cross infection of different species and populations, although full evidence is lacking



Epidemiology (2)

- H5N8 HPAI appears to be less pathogenic than H5N1
- HPAI in some wild waterfowl and domestic ducks, although showing high pathogenicity in chickens and turkeys
- Clinical presentation in ducks and geese is challenging – may be inapparent infection
- Multiple incursions to holdings in Europe with indoor poultry emphasising potential role for fomite spread and improvements in biosecurity
- Environmental persistence
 - **H5 HPAI 4°C >50 days**

HPAI

Outbreaks from 03/08/2014 to 30/01/2015

Data source: EMPRES-I



SPECIES

- captive
- domestic
- wild

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HPAI in Canada and USA in poultry and wild birds

Multiple detections of H5Nx HPAI

Unprecedented intercontinental spread – along the Pacific flyway

Multiple reassortants with North American lineage viruses

Mid 12/2014: H5N2 HPAI in chicken and turkey holdings in Canada (British Columbia) and in backyard poultry and wild mallard, northern pintail in USA

H5N8 HPAI in commercial turkeys, backyard poultry, captive falcons, wild ducks (wigeon, green-winged teal, mallard and gadwall) in USA

H5N1 HPAI in Canada in poultry and in green-winged teal in USA

06/03: HPAI H5N2 in turkey breeders in Minnesota

First finding in the Mississippi flyway!

Several Commission Decisions/Regulations adopted to apply regionalisation for imports of poultry and poultry products from these two countries

Challenges - Biosecurity

- First line of defence against AI virus introduction in poultry flocks, but
- Solid scientific evidence about the real efficacy of these measures is often lacking or is not quantified
- Poultry with open air access and indoor farms affected
- Need for protection against direct and indirect virus introduction



Challenges - Surveillance

- EU wide in poultry and wild birds
- since 2003
- risk-based
- fit for purpose, affordable
- clearly defined objectives
- inform risk manager in order to trigger veterinary action
- appropriate to species and poultry production systems
- wild bird surveillance
EFSA/EURL recommend active & passive

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Annual Report

on surveillance for avian influenza in poultry and in wild birds in Member States of the European Union in 2013



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Challenges

Vaccination against AI

- ***Emergency and preventive vaccination***
 - Member States' decision
 - Surveillance and control of movements
- ***Currently very little use of vaccination in poultry and zoo birds***
- ***Member States do not see the advantages in using emergency vaccination with currently available vaccines***
 - cumbersome, costly application
 - onset of immunity too slow, protection not always satisfactory
 - trade implications although internationally recognised measure

Some conclusions on avian influenza

- Response to AI outbreaks works well
- Robust emergency procedures and contingency plans in place
- AI disease control are generally well accepted
- Good balance between prescription and flexibility for Member States
- No major shift in legislation (AHR) foreseen
- Fine-tuning of existing measures



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***Thank you for
your
attention!!***

http://ec.europa.eu/food/animal/diseases/controlmeasures/avian/index_en.htm

<http://www.efsa.europa.eu/en/efsajournal/pub/3941.htm>

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