



World Organisation  
for Animal Health  
Founded as OIE

# HPAI outbreak responses: An integrated One Health approach [Kingdom of Saudi Arabia]

---

Faisal Ahmed Asiri

Director of Epidemic Animal diseases control department

17 – 19 December 2024

Amman, Hashemite Kingdom of *Jordan*



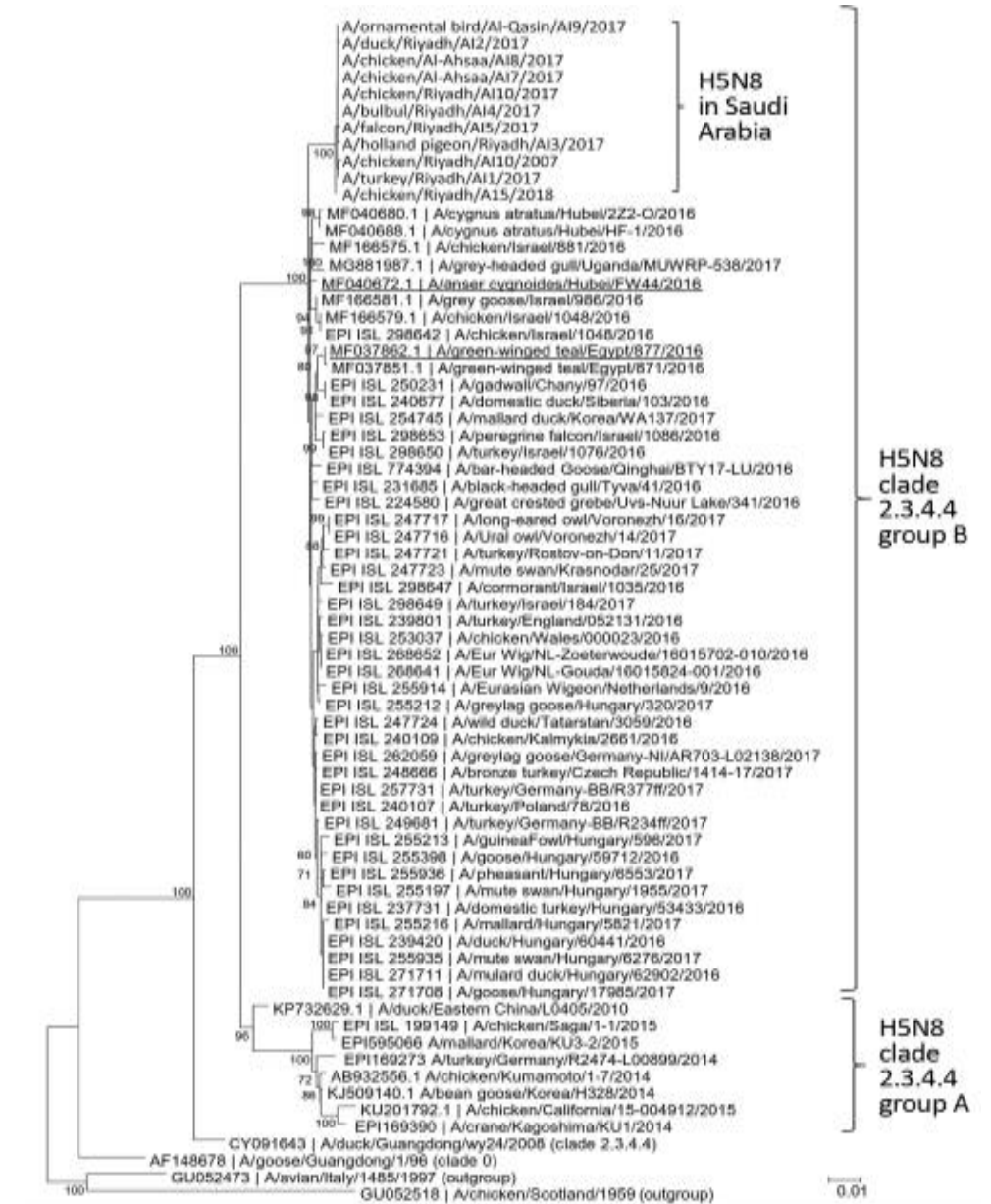
Co-funded by  
the European Union



- **Susceptible population**
- Estimated to be than **1,500,000,000 bird (2023).**
- **Risk for introduction of avian diseases into your country/territory**
- Saudi Arabia lies at the crossroads of three major bird migration routes:
  - East African
  - Eurasian
  - Central Asian
  - West Asian
  - East African flyways.
- Migratory birds, especially waterfowl, are natural reservoirs for avian influenza virus

# Avian disease situations

- The main poultry diseases in KSA are infectious Bronchitis, infectious Bursal Disease and Newcastle Disease
- **2020 outbreak:**
- Host species
  - Domestic chicken.
- Type of samples
- Tracheal and cloacal swabs
- Subtype
- **H5N8**
- Sequence information
- **H5N8 clade 2.3.4.4 group B.**





## Response measures to avian disease outbreak

- **Tracing in-contact animals**
- Birds, hatching eggs and feed that left the infected project during the incubation period of the disease (21 days) were recorded and tracked, and samples were collected. If they were positive, they were considered as a new infection.
- **Eliminating of source of pathogenic agent e.g., killing or slaughter of infected/suspected cases**
- A total of (5,392,256) bird were culled during the outbreak

- **Movement restrictions**

KSA provinces were divided into 3 zones (A, B and C) according to the epidemiological situation.

movement of live poultry from one zone to another was not allowed and even movement inside one zone required a permission from the veterinary authority.

- **Biosecurity**

- Biosecurity measures in poultry farms were intensified in the whole Kingdom.

- **Vaccination, treatment, etc.**

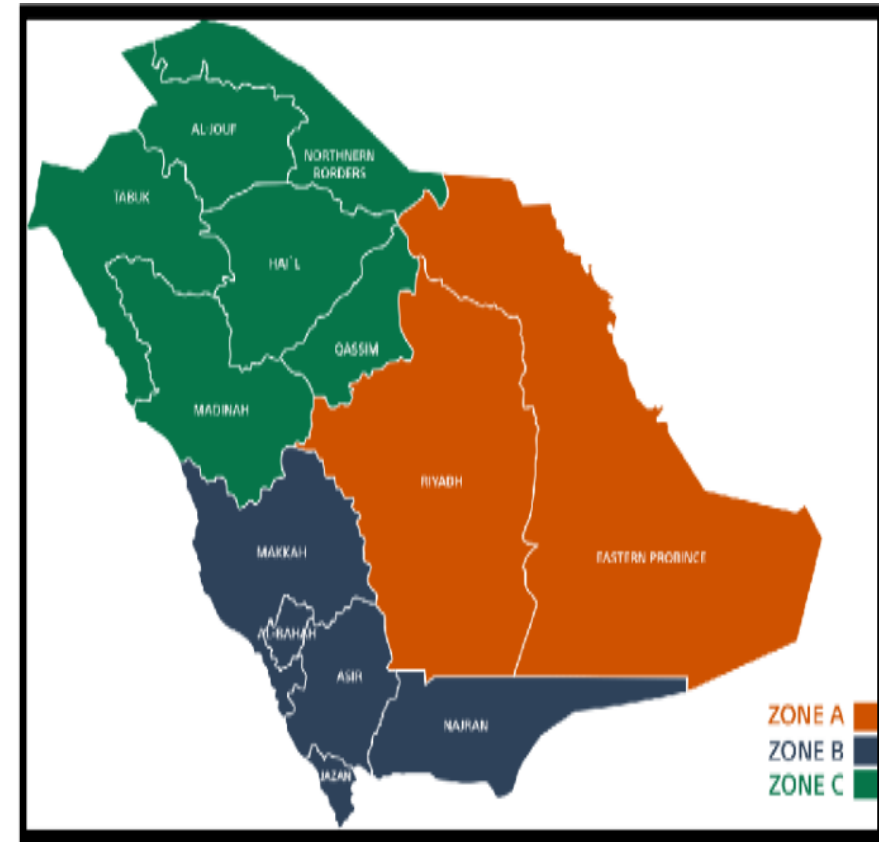
- No vaccination was performed during or post outbreak (prohibited)

- **Communication and public awareness.**

- Awareness campaigns using the available media.

- **Costs of response measures**

- The cost of all control measures or the compensation of owners was covered 100% by Saudi government.





## Response measures to avian influenza outbreak - surveillance

- **Period/duration**
  - 2020 – 2023
- **Type of surveillance (active or passive)**
  - Both active and passive surveillance are used.
- **Target species**
  - Domestic and wild birds
- **Number of collected samples**
  - 10,354 samples
  - During 2024 (1033) samples were collected
- **Viruses detected**
  - No virus has been detected since 2020.



## National prevention and control for avian diseases (1)

Measures	Y/N	Description
1. Programme to control or eradicate disease	Y	KSA has been declared free from HPAI since 2023 and there is emergency plan to deal with any future outbreaks which includes culling of all birds in the affected holdings ,safe disposal of carcasses and all contaminated material; cleaning and disinfection; zoning movement restriction, intensifying biosecurity measures and surveillance.
2. Veterinary legislation	Y	The Agriculture Law gives veterinary authorities the power to impose preventive and control and eradication measures, , reporting, monitoring, disease surveys, restriction of animal movement, culling and safe sanitary disposal, and cleaning and disinfection procedures.
3. Emergency preparedness and response plans	Y	There is an emergency plan to deal with HPAI outbreak
4. Disease surveillance	Y	Early warning, Passive surveillance , Active surveillance
5. Disease reporting	Y	Disease notification is mandatory according to the agricultural law
6. Detection and management of cases	Y	Any suspected case should be dealt with within three hours and diagnostic specimens will be collected and sent to the lab and stamping out will be applied upon Positive results.
7. Measures to prevent introduction or spread of disease	Y	Veterinary quarantine at borders, Early warning , Awareness raising Risk assessment
8. Vaccination	N	Vaccination against HPAI is prohibited in KSA
9. Measures to protect public health	Y	Awareness, PPE, closure of live birds markets
10. Communication and collaboration among all competent authorities	Y	Ministry of Municipalities and Housing, National Center for Wildlife and Ministry of Health.
11. Awareness programme for relevant stakeholders	Y	Workshops ,radio, TV social media, brochure, stands, posters, banners, pamphlet, leaflets, official website information meetings, conferences and seminars.



## Laboratory capacity

- WEQAA labs have the capacity to test 15 avian diseases:
  - 1. Avian Salmonellosis
  - 2. Infectious Bursal Diseases.
  - 3. Marek disease
  - 4. Avian infectious Larygeotracheaitis (ILT)
  - 5. Avian Mycoplasmosis
  - 6. Avian tuberculosis
  - 7. Duck virus hepatitis
  - 8. Fowl cholera
  - 9. Fowl pox,
  - 10. Newcastle disease
  - 11. Avian chlamydiosis
  - 12. Fowl Typhoid
  - 13. Avian infectious bronchitis
  - 14. Avian influenza
  - 15. Coccidiosis -

### Type of diagnostic test

- Molecular, serological and gene sequencing.



# Challenges and solutions in implementing national plan

Challenges	Solutions
Saudi Arabia is considered a migration corridor for many migratory birds, which represents a constant threat for the entry of the virus.	continuous Monitoring and surveillance of migratory birds
High cost of control measures and compensation	Creating a partnership between the public and private sectors to cover the costs of control and compensation measures



World Organisation  
for Animal Health  
Founded as OIE

# Thank you

---

Faisal Ahmed Asiri

Director of Epidemic Animal diseases control department



**Co-funded by  
the European Union**