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HPAI outbreak responses: An integrated One Health approach

Türkiye

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17 – 19 December 2024

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Co-funded by
the European Union



Poultry Population in Türkiye (2023)

Commercial

- Broiler chickens: 254.147.577 (12.974 farms)
 - 2,4 million tons meat prod.
- Layer chickens: 114.476.843 (4.468 farms)
 - 1,2 million tons (19,8 billion eggs)

Backyard (Approx. 40000 village)

- Chicken: 10.646.015
- Turkey: 780.792
- Goose: 1.318.443
- Duck: 346.933
- Pigeon: 425.740
- Other: 91.081



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Control of the Poultry Diseases in Türkiye

- All farms are registered
- Controlled by government(diseases, residue, biosecurity)
- Survey programs are carried out
- Biosecurity programs are implemented
- Training programmes are organised



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The most risk factor of the diseases in Türkiye

- Türkiye is the way of the migratory birds
- Wild life
- Natural parks and lakes
- Backyard
- Movement of infected poultry
- Movement of the people from infected zone to free zone
- Fomits
- Legal or illegal import of poultry from infected country



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Avian Influenza (H5N1) situation in Türkiye

First outbreak of the Avian Influenza:

2005, 2006 (backyard, wild life)

Following outbreaks:

2007 (backyard, wild life)

2008 (backyard)

2015 (commercial)

Free for 8 years



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Avian Influenza (H5N1) situation in Türkiye

Following outbreaks after 8 years free:

2023 (commercial, 2 outbreaks)

2024 (commercial, 5 outbreaks)

(backyard, 2 outbreaks)



Response measures to avian disease outbreak

- There are 81 provinces in Turkey.
- Each province is considered a separate compartment.
- If a disease is detected in a province, the freedom from the disease is lifted for that province and poultry movements are restricted.
- All movements are under control and subject to testing.
- When the disease is detected on a farm, sampling is immediately carried out from other farms in the infected zone and the prevalence of the disease is checked.



Response measures to avian disease outbreak

- If any positivity is detected on a farm, all animals are culled.
- Prevention of spread of disease e.g.:
 - All movements are restricted
 - Biosecurity measures are applied
 - Communication and public awareness are also carried out.
- Costs of response measures
 - Compensation for animal owners for losses incurred by the measures
 - All costs are responsible by Government.



Response measures to avian influenza outbreak - surveillance

- Active surveillance after outbreak
 - Whole province
 - Commercial and backyard farms
 - 28 days after last confirmation, stamping out, disinfection
 - Number of epidemiological unit: depends on province level
 - 20 tracheal and 20 cloacal swaps
 - Tested by Real Time RT-PCR



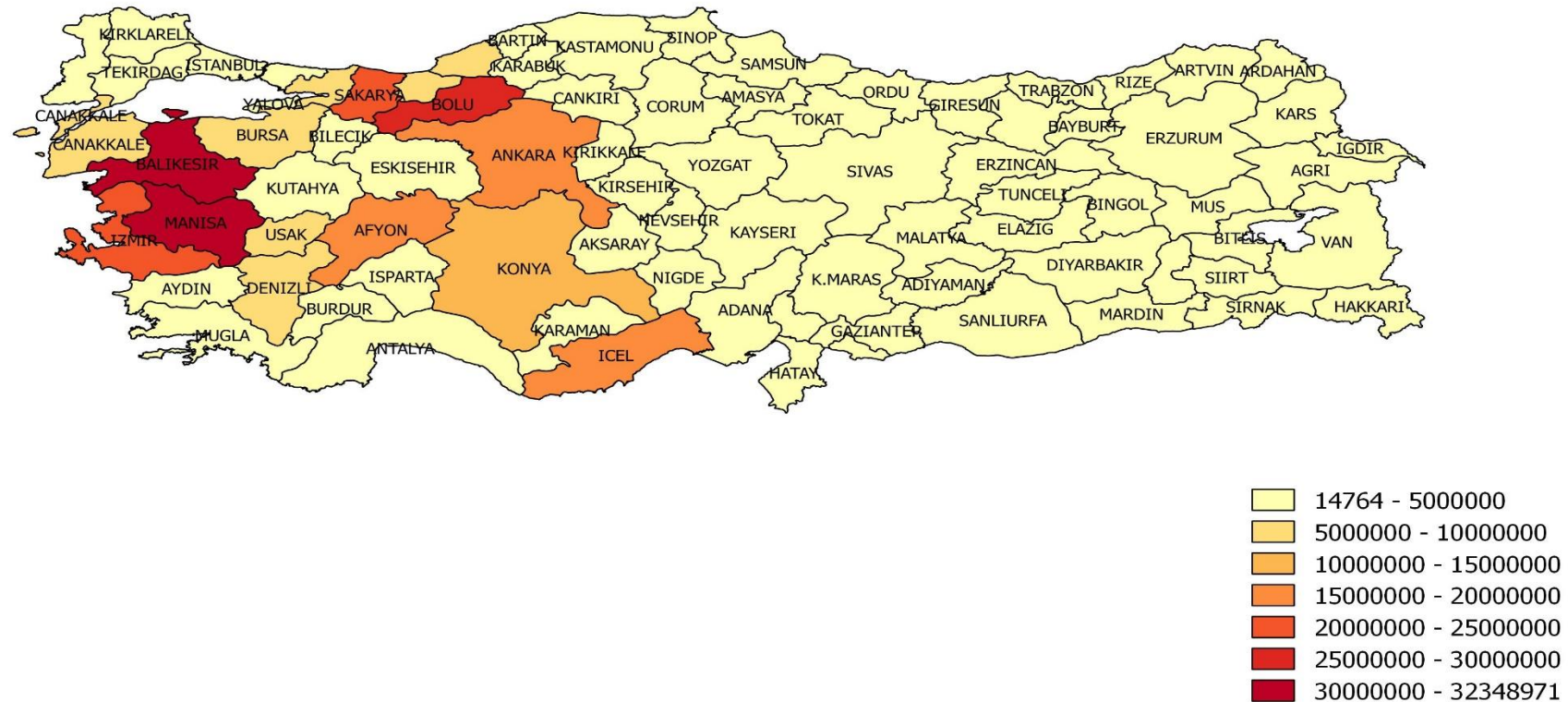
Response measures to avian influenza outbreak - surveillance

- Active surveillance for freedom (routinely)
 - Whole country, two times in a year,
 - Each provinces, both backyard and commercial
 - Epidemiological calculations
 - 20 tracheal and 20 cloacal swaps
 - Real Time RT-PCR



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Distribution of the Number of Chickens by Province in Turkey





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Map of Sampling of Avian Influenza





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Response measures to avian influenza outbreak - surveillance

- Passive clinical surveillance
 - Evaluation of reports received,
 - Monitoring during inspections in commercial poultry
 - Village poultry
 - Wild life in clinical samples



National prevention and control for avian diseases (1)

| Measures | Y/N | Description |
|---|-----|--|
| 1. Programme to control or eradicate disease | Y | Legislation |
| 2. Veterinary legislation | Y | Feel free to use next slides to emphasize certain points |
| 3. Emergency preparedness and response plans | Y | Contingency Plan |
| 4. Disease surveillance | Y | Aktif and passive |
| 5. Disease reporting | Y | National (Vetbis) and WOAHA |
| 6. Detection and management of cases | Y | National legislation |
| 7. Measures to prevent introduction or spread of disease | Y | Survey programmes |
| 8. Vaccination | N | |
| 9. Measures to protect public health | Y | Biosecurity in farms, surveys, awareness |
| 10. Communication and collaboration among all competent authorities | Y | Meetings Simulation exercises |

Laboratory capacity





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Laboratory capacity

- National Reference Laboratory
 - Avian Influenza
 - Newcastle
 - Goose Parvo Viral Enteritis
 - Infectious Laryngotrachitis



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Laboratory capacity

- **Test Capacity**
 - PCR (Conventional, Real Time)
 - ELISA
 - Isolation (ECE, Cell Culture)
 - Conventional Methods (AGID, HA, HAI)



Challenges and solutions in implementing national plan

| Challenges | Solutions |
|---|---|
| A brief description of challenges in implementation of national action plan | A brief description of how your country overcome the challenges |
| Control of migratory birds | Survey on wild life |
| Mitigation of Risk Factors | Training |
| | Survey |
| | Awareness |
| | |



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Thank you

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