



Animal &
Plant Health
Agency

Formation of an Avian influenza and Newcastle disease diagnosis and surveillance subnetwork
(an initiative within the Central Asia Animal Health Network – CAAHN)

Overview of AI Epidemiology in Central Asia

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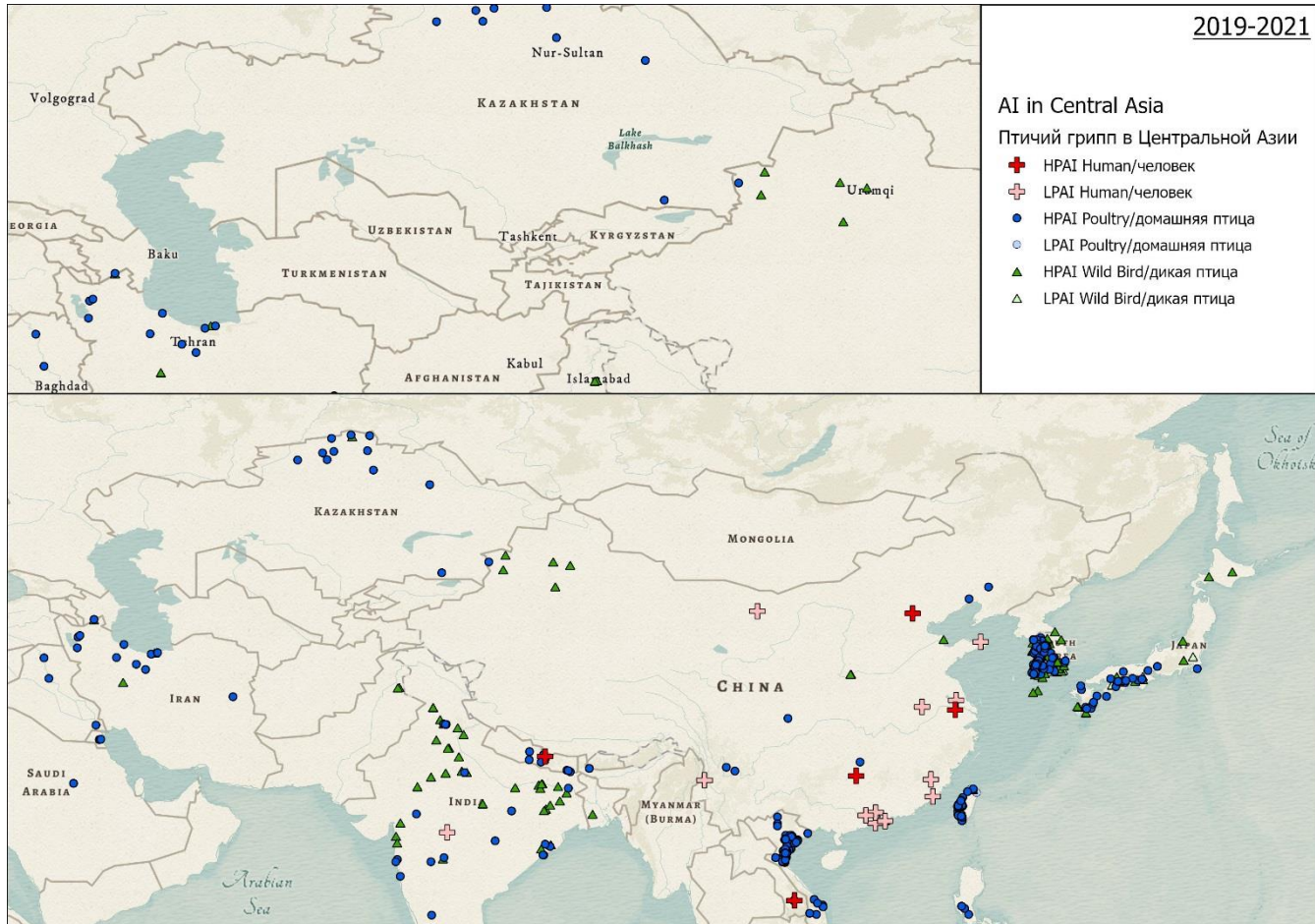


**OIE/FAO Reference Laboratory for Avian Influenza,
Newcastle Disease and Swine Influenza**





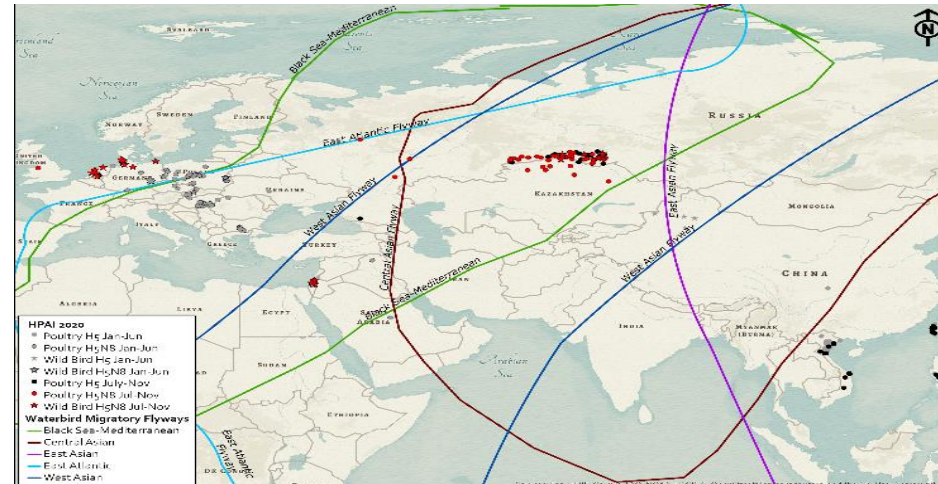
Epidemiology/эпидемиология





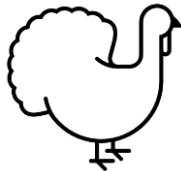
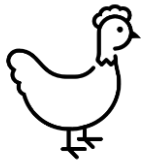
Epidemiology

- Epidemiology of HPAI in Asia and Europe is driven by migratory waterbirds moving from their breeding grounds in Siberia to wintering sites in Europe, SE Asia and North America.
- Initial spillover into domestic poultry populations is sporadic but generally more frequent in areas of high poultry and wild bird density.
- Secondary transmission to other poultry farms is commonly due to lapses in biosecurity. A strong focus on cleaning and disinfection on commercial sites will minimise risk to poultry of HPAI and also other pathogens.

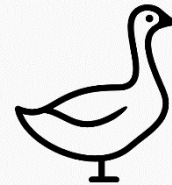
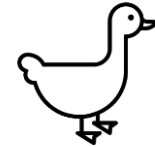




HPAI Clinical Presentation



Chickens and turkeys are very susceptible to HPAI and will likely show significant clinical signs and mortality. This makes detection in these species simpler through clinical inspection and testing.



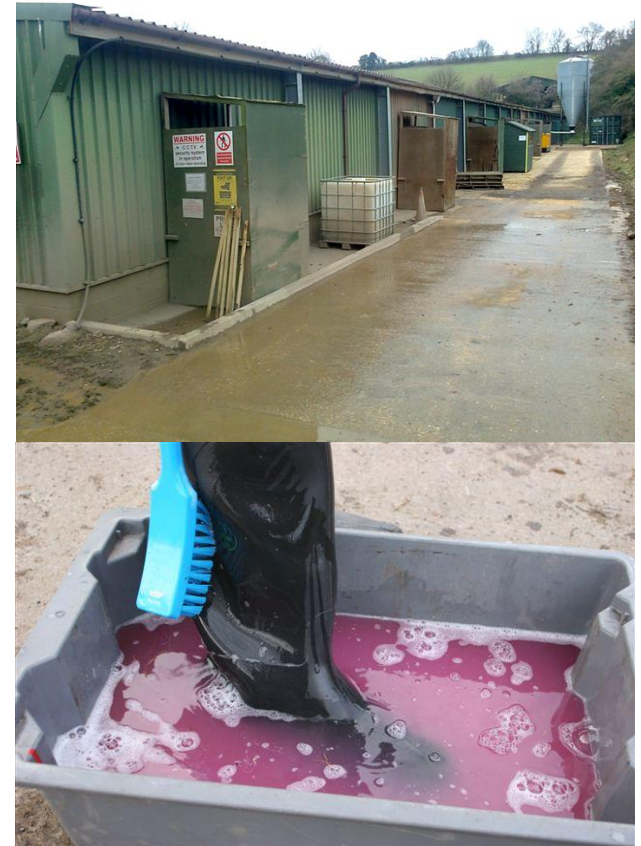
Ducks and geese may present reduced clinical signs and reduced mortality. This can hinder detection as other pathogens may be initially suspected. Veterinarians should be made aware of the risks of spread of HPAI and include testing for it as they investigate.





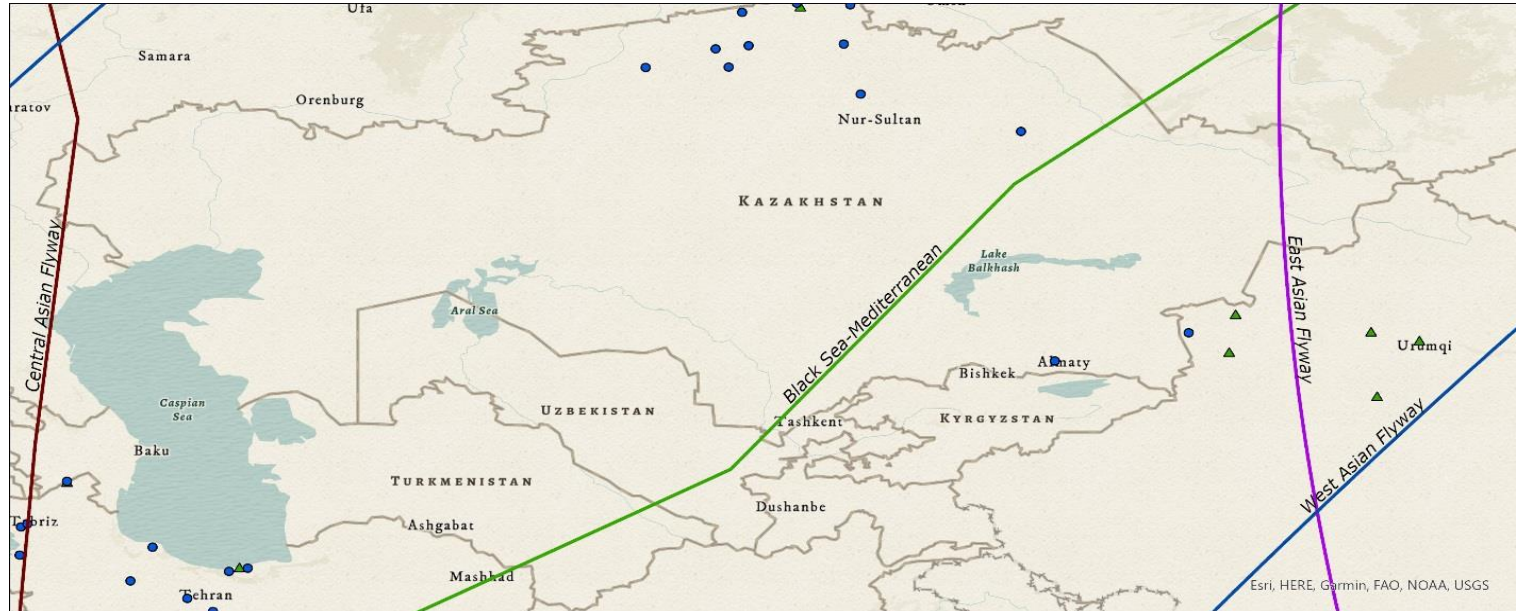
Surveillance

- Encouraging poultry keepers to report suspicion of disease to enable sampling and testing (via PCR) for disease will help prevent transmission.
- Active disease surveillance on commercial premises using serological tests will help to prove disease freedom for trade purposes and may detect disease in species less likely to show significant disease.
- Vaccination with an effective vaccine may be cost-effective but care should be taken to confirm that the vaccine is effective on currently circulating strains. Use of vaccines is unlikely to be useful in conjunction with serological testing.





Wild Bird Migration



Migratory flyways such as the Black Sea-Mediterranean play a key role in disease incursion.

Surveillance of dead wild birds near waterbodies on migratory routes provide a valuable early warning system for HPAI arrival and trigger enhanced surveillance in poultry

