

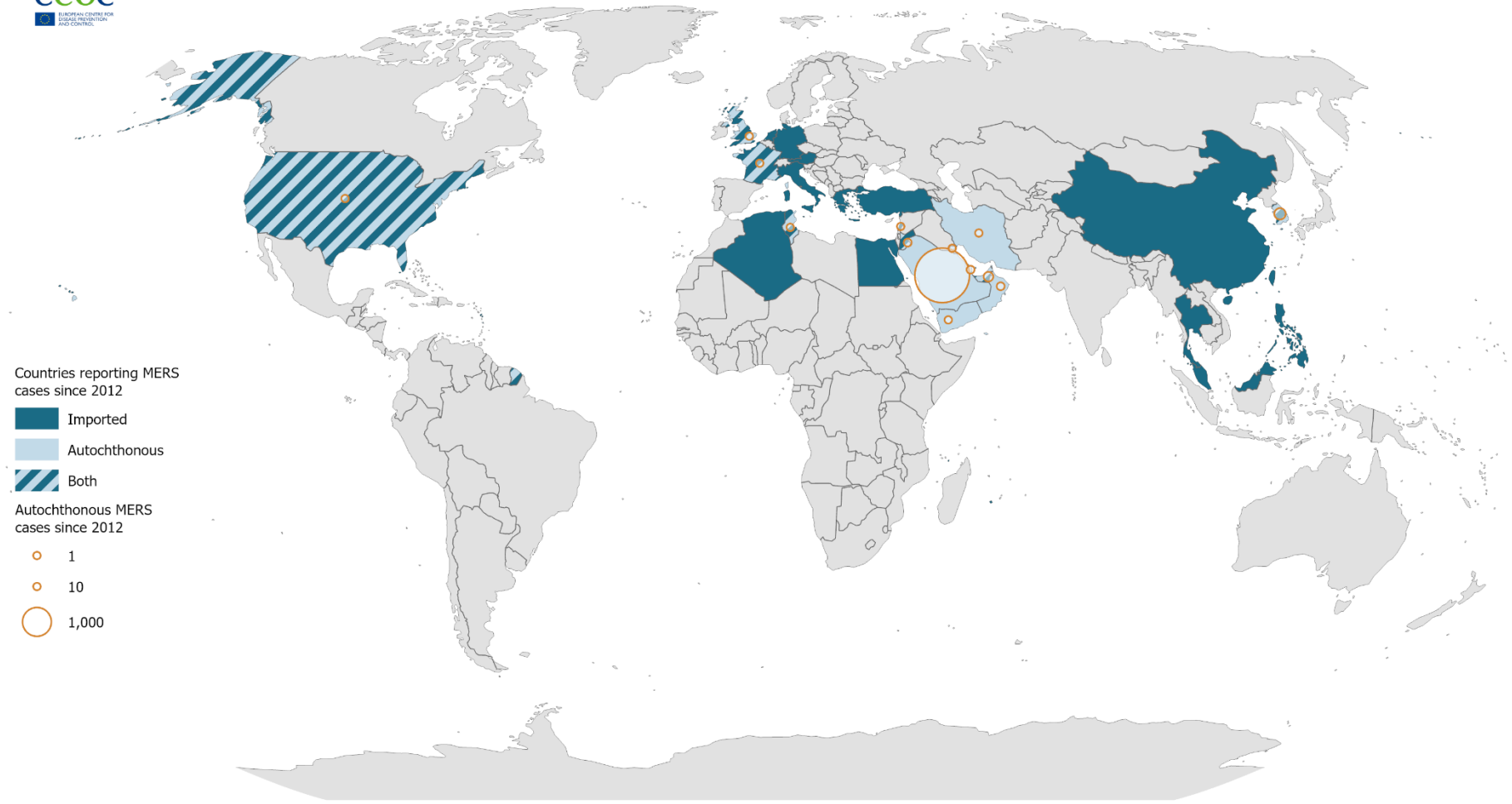
# High Consequence Respiratory Pathogens Epidemiology and Surveillance

ECHO / Dr. Amanda Feldpausch / February 26, 2026

# Epidemiology



## Middle East Respiratory Syndrome (MERS)



Administrative boundaries: ©EuroGeographics ©UN-FAO. The boundaries and names shown on this map do not imply official endorsement or acceptance by the European Union. Map produced by ECDC on 3 February 2026

<https://www.ecdc.europa.eu/en/publications-data/geographical-distribution-confirmed-cases-mers-saudi-arabia-probable-region-10>

# Epidemiology

## Middle East Respiratory Syndrome (MERS)



### Probable exposure

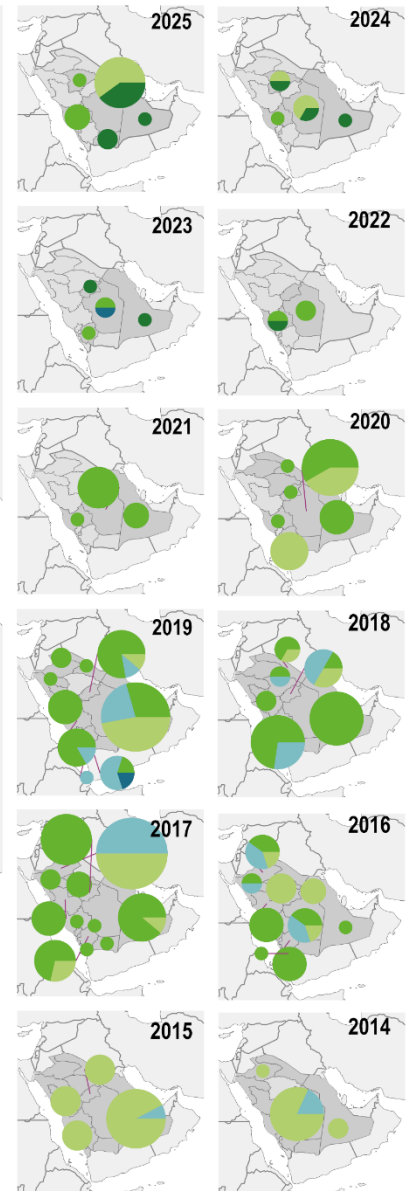


- Camel
- Secondary (household)
- Secondary (nosocomial)
- Secondary (unspecified)
- Unknown

### Number of cases



- Areas with reported human MERS cases
- Non affected areas



Administrative boundaries: © EuroGeographics ©UN-FAO ©Turkstat. The boundaries and names shown on this map do not imply official endorsement or acceptance by the European Union. Map produced by ECDC on 3 February 2026

# MERS, cont.

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## In the United States:

- Only 2 persons have ever tested positive:
  - Both in 2014
  - Both healthcare workers with exposure in Saudi Arabia
- We consult on MERS suspects regularly at DPH in Georgia
  - 2-3 consultations per month
  - Typically, 2-3 persons are approved for testing per year in GA

\*Consider travel and exposures – no tunnel vision!

# Novel Influenza A (ex. Highly Pathogenic Avian Influenza)

- Limited human infections in the United States (and no person-to-person) despite multi-year, large scale outbreaks in avian species and cattle with thousands of human exposures.
- US activity is predominately H5N1.

## National situation summary since 2024



<https://www.cdc.gov/bird-flu/situation-summary/index.html>

# H5N1, cont.

- Over 22,600 persons monitored across the US
- In GA we have had 6 commercial poultry events and 5 “backyard”.
  - >15 people tested
  - Common things are still common (ex. Seasonal Flu, Human Metapneumovirus, Rhinovirus...COVID)
- Viruses circulating in other countries are different.
  - H7N9, H5N6, H7N7
- Minimal concern for person-to-person spread – but has been documented.

## National flu surveillance (since February 25, 2024)

*Note: National flu surveillance data will be updated on the first Friday of every month.*

### Specimens tested

**269,371+** specimens tested that would have detected influenza A(H5) or other novel influenza viruses

### Human cases

**7** cases detected through national flu surveillance

## Targeted H5 surveillance (since March 24, 2024)

*Note: Targeted H5 surveillance data will be updated on the first Friday of every month.*

### Total people monitored

**22,600+** after exposure to infected animals

### Total people tested

**1,020+** after exposure to infected animals

### Human cases

**64** cases detected through targeted H5 surveillance

<https://www.cdc.gov/bird-flu/situation-summary/index.html>

# How will we know? (a few examples)

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- Public Health Surveillance Tools (examples)
  - Wastewater surveillance
  - Syndromic surveillance
  - Environmental (Biowatch)
- Planning and preparedness
  - Working groups
  - District/State, State/State, State/Federal, and Academic partnerships
- **Public Health and Clinical partnership and preparedness**
  - **Identify, Isolate, Inform**

# Surveillance - wastewater surveillance (WWS)...

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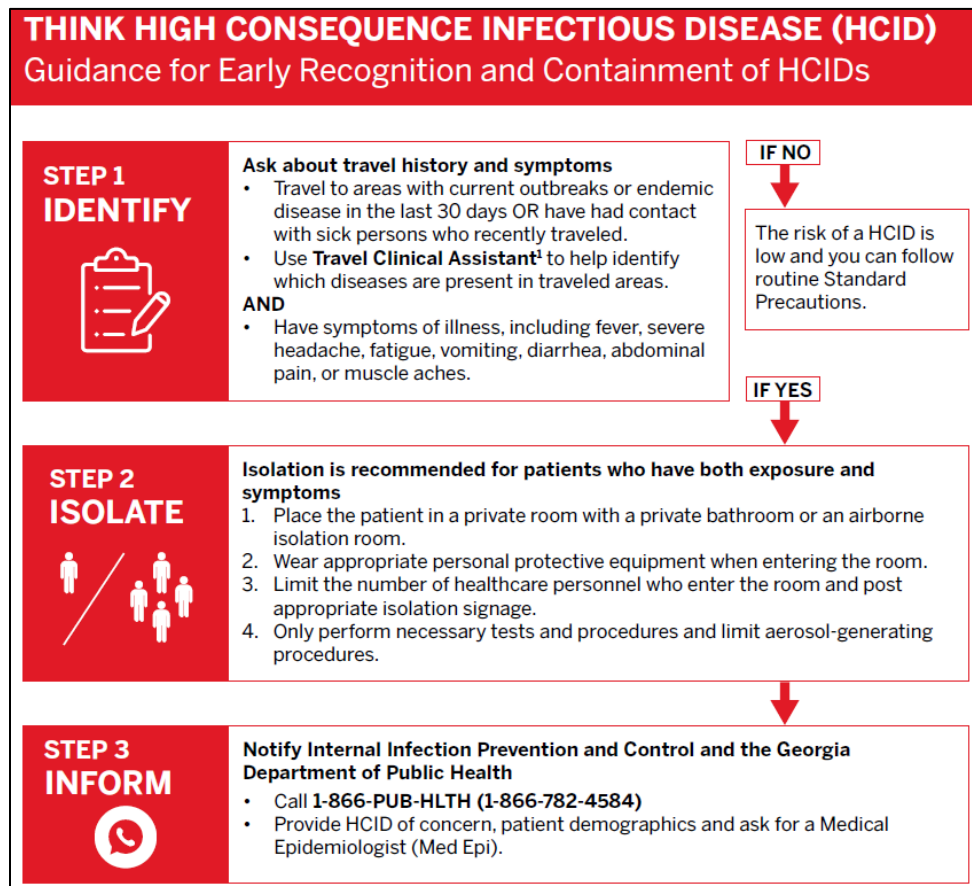
- **CAN** provide high-level information on trends and levels of certain pathogens in wastewater
- **MUST** be used in conjunction with other epidemiological data
  - *e.g., case, outbreak, geographical trends, etc.*

- **MAY** serve as an early warning sign
  - *However, this can only be defined retrospectively*
  - *Use of wastewater data in real time is complicated, and states are still learning what is actionable and what is not.*

- **IS NOT** a case finding tool
- **CANNOT** tell us
  - The precise **timing** of infection
  - The exact **location** or **source** of the contribution
  - The exact **number** of people infected
  - Whether the detection is a result of fecal or urine contribution during **active infection** or **prolonged shedding** during recovery

# Think High Consequence Infectious Disease

## HCID Screening Tool



## Think HCID Magnet

Healthcare Providers

Think High Consequence Infectious Diseases

1. Identify
2. Isolate
3. Inform

Make Travel History Part of Your Routine

Travel History + Symptoms = **1-866-PUB-HLTH**  
(1-866-782-4584)  
Follow prompts to ask for med epi



Scan for  
Travel Clinical  
Assistant



# Summary

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No need to reinvent the wheel! Nationally and locally, we have the tools and can lean on existing infrastructure, partnerships, and enhance those to achieve the goal of protecting lives.

**Most importantly: No one is doing this alone!**

# Thank you

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