



# Massachusetts Department of Public Health

## MDPH Tuesday Infectious Disease Webinar Series

### Tools for Local Boards of Health

**May 13, 2025**

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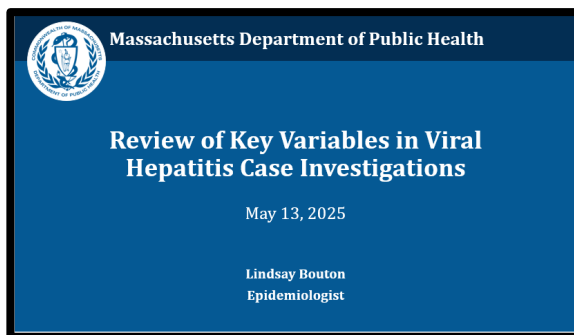
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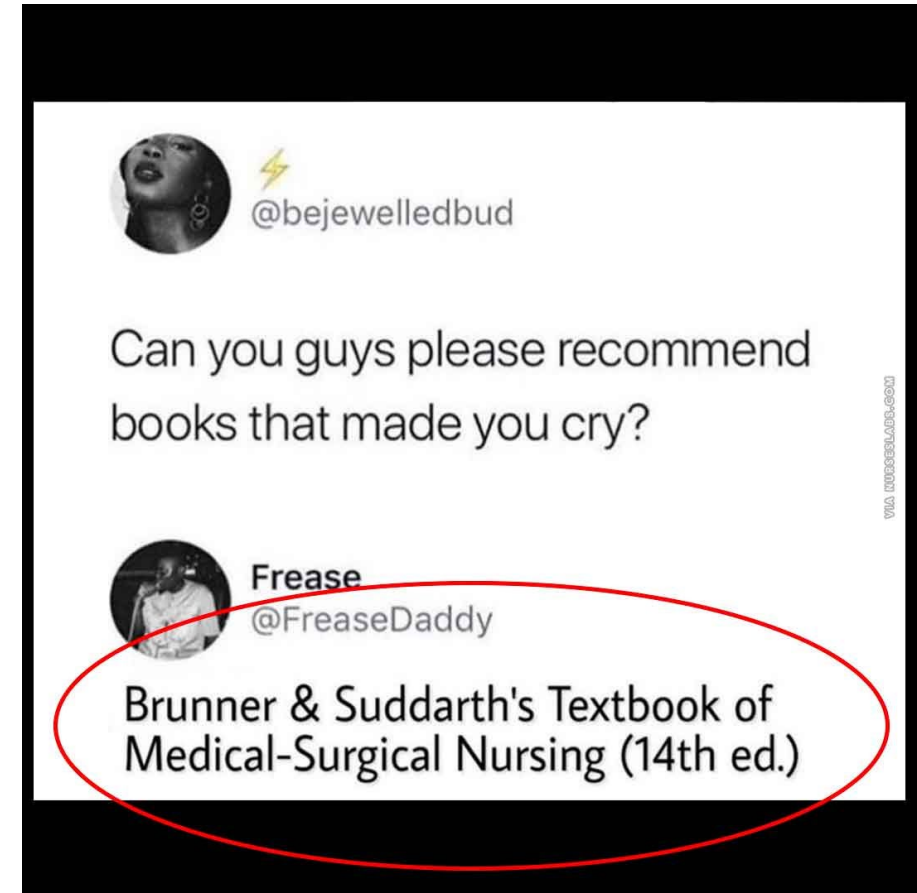
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Senior Surveillance Research Analyst, MAVEN Training Team



# May 13, 2025

- **Happy National Nurses Week!**
- **2025 Immunization Updates Webinar Series – Register Now!**
- **Morbidity Update: Measles**
- **MA Immunization Information System (MIIS) Tips for Looking at Your Vaccination Rates**
- **Morbidity Update: HPAI**
- ***Cyclospora & Vibrio* Season Update**
  - Geena Chiumento & Johanna Vostok
- **Featured Presentation: Review of Key Variables in Viral Hepatitis Case Investigations**
  - Lindsay Bouton, MSc, Hepatitis A and B Surveillance Coordinator, Division of Epidemiology



# Infectious Disease Tools for LBOH Webinar Schedule!

## 2025 Upcoming Schedule!

|                                 |   |
|---------------------------------|---|
| All Registrations:              | <a href="http://tinyurl.com/MAVEN-Webinars">http://tinyurl.com/MAVEN-Webinars</a> |
| 2 <sup>nd</sup> Tues<br>5/13/25 | Viral Hepatitis   |
|                                 | <i>No May Office Hours</i>  |
| 2 <sup>nd</sup> Tues<br>6/10/25 | Arbovirus Season  |
| 4 <sup>th</sup> Tues<br>6/24/25 | 4 <sup>th</sup> Tuesday Office Hours  |
| 2 <sup>nd</sup> Tues<br>7/8/25  | Enteric Diseases (Foodborne)  |
| 4 <sup>th</sup> Tues<br>7/22/25 | 4 <sup>th</sup> Tuesday Office Hours  |
|                                 | <i>August Webinar Break</i>   |
|                                 | <i>Happy Summer!</i>  |

### WEBINAR REGISTRATION PAGE:

<http://tinyurl.com/MAVEN-Webinars>

- You help us identify topics, needs, & content!
- Be sure to send ideas, requests, and questions to Hillary and Scott!

MAVEN Help has Guidance Documents and Previous Webinars:

<http://www.maven-help.maventrainingsite.com/toc.html>



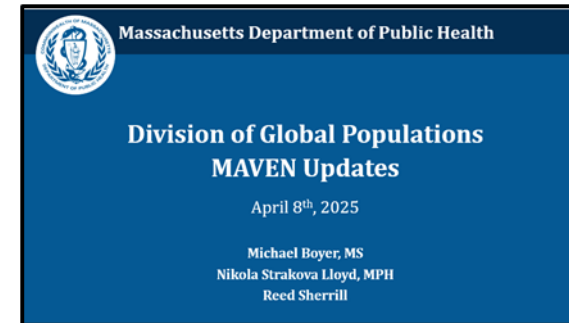
**You can always contact**  
**[mavenhelp@mass.gov](mailto:mavenhelp@mass.gov) or**  
**The MDPH Epi Program**  
**at 617-983-6800 with**  
**specific questions.**

**No May Office Hours**  
**Next Webinar Tuesday, June 10, 2025 @11:00!**

# Updates – A quick recap for May 13, 2025

## April 8, 2025:

- General Updates
- 2025 Immunization Updates Webinar Series Dates Announced!
- Morbidity Updates (Measles, HPAI)
- **Featured Presentation:** Division of Global Populations, TB MAVEN Updates
  - Michael Boyer, MS
  - Nikola Strakova Lloyd, MPH
  - Reed Sherrill



Presentation: [PDF Slides](#), [Recording](#)



Always Remember you  
can see recent  
webinar recordings  
and slides in MAVEN  
Help.

Bookmark the URL!



MAVEN Help: <http://www.maven-help.maventrainingsite.com/toc.html>

# Happy National Nurses Week!

Celebrating  
National  
Nurses Week  
May 6-12,  
2025



“

Let us never consider  
ourselves finished nurses...  
***we must be learning all of  
our lives***

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**FLORENCE  
NIGHTINGALE**





# 2025 Immunization Updates Series Coming!

## The Immunization Updates - a series of immunization-related webinars for health care providers:

- 5/7 - Immunization 101
- 5/21 - Immunization Schedule Updates (two 45-minute webinars)
  - Register for the Pediatric session or the Adult session or both
  - Pediatric update at 11:30 a.m., followed by Adult update at 12:20 p.m.
- 5/28 - Epidemiology of Vaccine Preventable Diseases in Massachusetts
- 6/4 - Vaccine Confidence
- 6/11 – Massachusetts Immunization Information System (MIIS)
- 6/18 - VFC Compliance/Vaccine Storage and Handling (for your VFC certificate!)
- Registration to open in April.

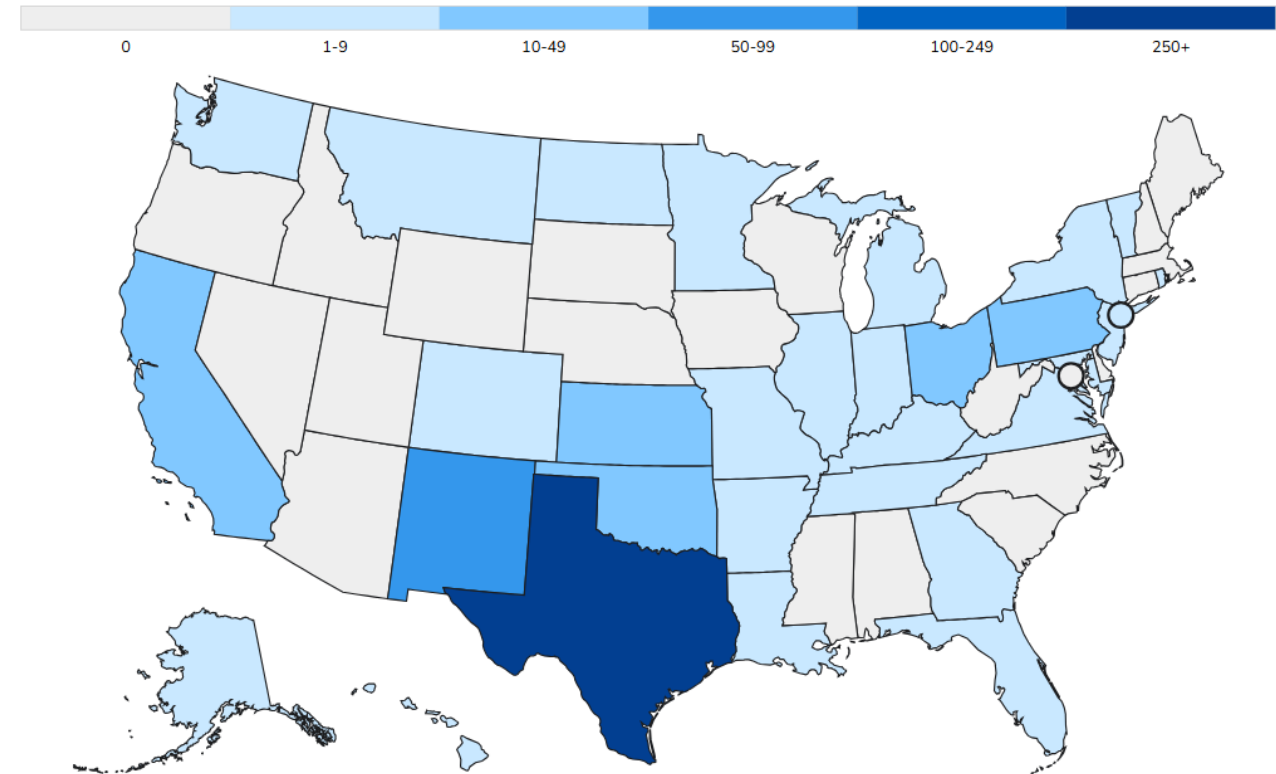
All webinars are virtual, and will run from noon to 1 p.m., except where noted. To obtain your VFC Certificate now, [watch this video](#) and pass the post-test.

### [Registration](#) for Immunization Updates Series

Webinar materials and recordings will be posted [here](#) once available.

# U.S. Measles Cases, 2025

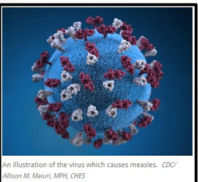
- **No cases of measles in Massachusetts**
- As of May 8, 2025, a total of **1,001\*** confirmed measles cases were reported by 31 jurisdictions.
  - \*CDC believes this is an undercount – many cases are not getting tested in some outbreak areas
  - **285 cases were reported in 2024**
- There have been **14 outbreaks** (defined as 3+ related cases) reported in 2025, and 93% of cases are outbreak-associated.
- **3 confirmed deaths**
  - All three deaths were among unvaccinated individuals.



Data as of 5/8/2025. Source: <https://www.cdc.gov/measles/data-research/index.html>

# Measles Preparedness Reminders

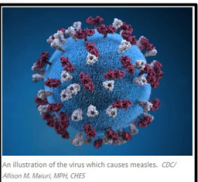
- **Review the Measles training on MAVEN Help**
- What is the LBOH's role?
  - Measles case investigation and control is a **partnership between MDPH and the LBOH**
  - Control measures start at minute 20 of the recording
  - Suspect Case Follow-Up:
    - We are receiving a lot of suspect cases due to the increase in cases nationwide.
    - In general, the State Epidemiologists organize specimen collection/pick-up and then contact locals with next steps.



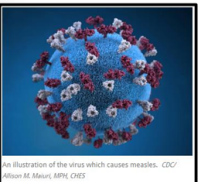
Introduction to Measles Case Investigation and Follow-Up for LBOHs

**February 14, 2023**

Hillary Johnson, MHS  
Joyce Cohen, MPH



Division of Epidemiology and Immunization  
Massachusetts Department of Public Health  
305 South Street  
Jamaica Plain, MA 02130-3597



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[Intro to Measles Case Investigation and Follow-up Slides](#)  
[Intro to Measles Case Investigations and Follow-up Recording](#)



# epiENGAGE Measles Outbreak Simulator

- **epiENGAGE Measles Outbreak Simulator**
  - Modeling Hypothetical Outbreak Scenarios
  - Simulator: <https://epiengage-measles.tacc.utexas.edu/>
- Discussed on OLRH Measles Special Topic Webinar 4/29/25. [Slides](#)
- For questions about the simulator tool or underlying model:
  - [Laura.Jones@mass.gov](mailto:Laura.Jones@mass.gov)
  - [Andrew.Tibbs@mass.gov](mailto:Andrew.Tibbs@mass.gov)

*Office of the State Epidemiologist and Support for Science*

### Model Inputs

School enrollment

Students initially infected

Vaccination rate (%)

*Enter value or select from Lookup.*

# Determining Vaccination Rates

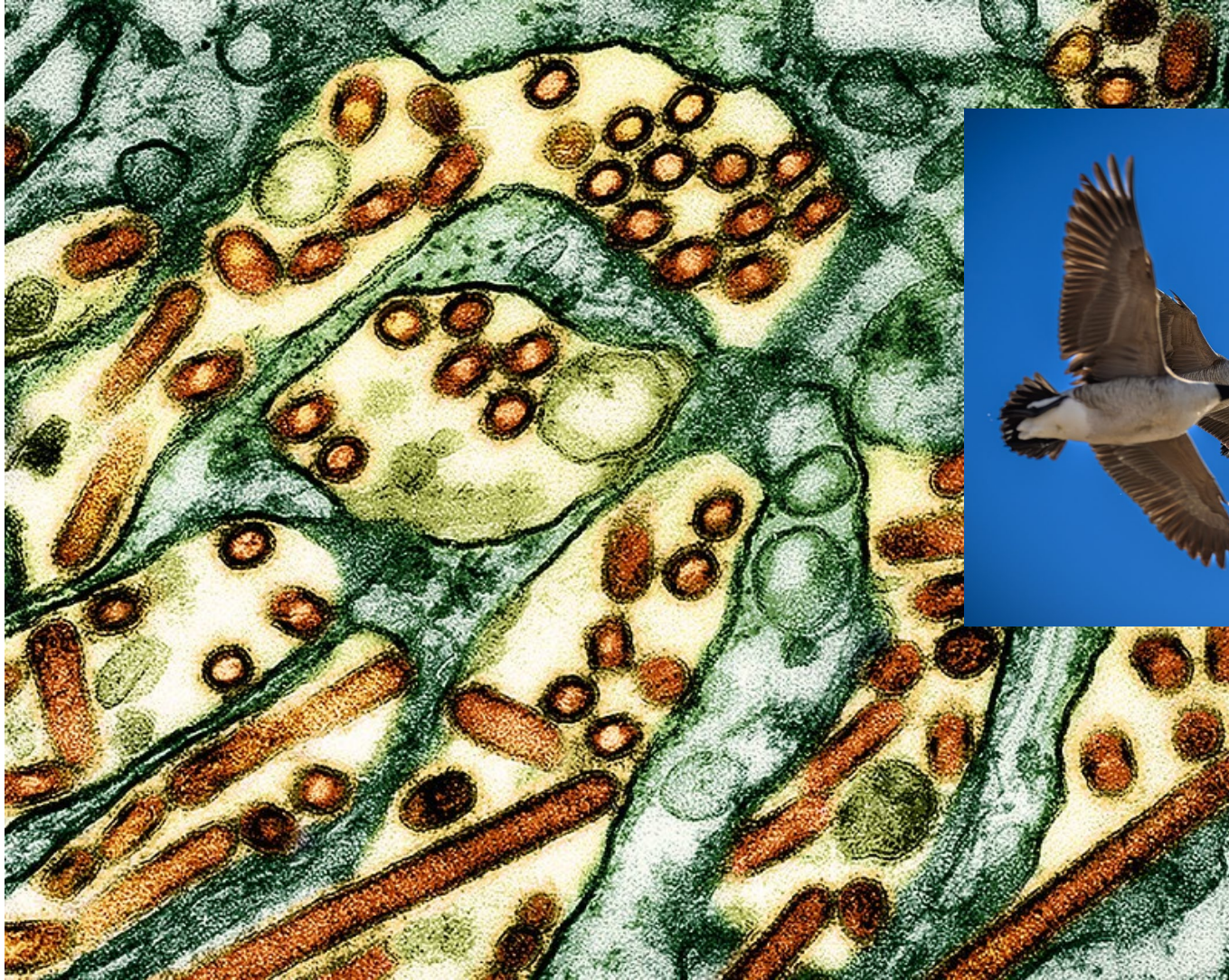
- **School nurses report vaccination rates for specific grades (like in kindergarten, 7th grade and 12th grade). How would overall vaccination rates be determined for a school?**
  - At this time there is no way to determine full school coverage using the MIIS alone.
  - While the Massachusetts School Immunization Survey gathers data for a select number of grades, the school entry requirements affect every grade, including grades that are not surveyed. Schools should be collecting updated immunization information from their students each year.
    - **Compliance reports run by a school's health information system would provide the most accurate picture of overall immunization coverage.**
  - School survey data from previous years may be helpful in providing a general estimate of the immunization coverage of a specific cohort.
    - **These data can be accessed by logging into the MIIS and reviewing previously submitted data for your school, or by referencing the archived school survey data present at the following link:**
    - <https://www.mass.gov/info-details/archive-of-school-immunization-data-and-exemption-rates>

# Community Vaccination Rates

- **Is there a report we can run on MIIS to create a list of unvaccinated folks?**
  - There are two reports that may assist in determining unvaccinated/undervaccinated individuals within your jurisdiction.
    - **Custom coverage reports** can be used to specify the number and type of vaccination coverage desired throughout your jurisdiction:
      - [MIIS Coverage Report Tip Sheet](#)
    - **Reminder/recall reports** can be used to identify residents missing specific vaccinations and generate reminders:
      - [MIIS Reminder/ Recall Report Tip Sheet](#)
  - Please note that in order for a patient to appear on these reports, they must have received at least one immunization that has been reported to the MIIS and have an address that matches your jurisdiction.
  - Many adults are missing historical immunization records in the MIIS. This can cause the number of those who appear to be due for a particular vaccine to be higher than expected.



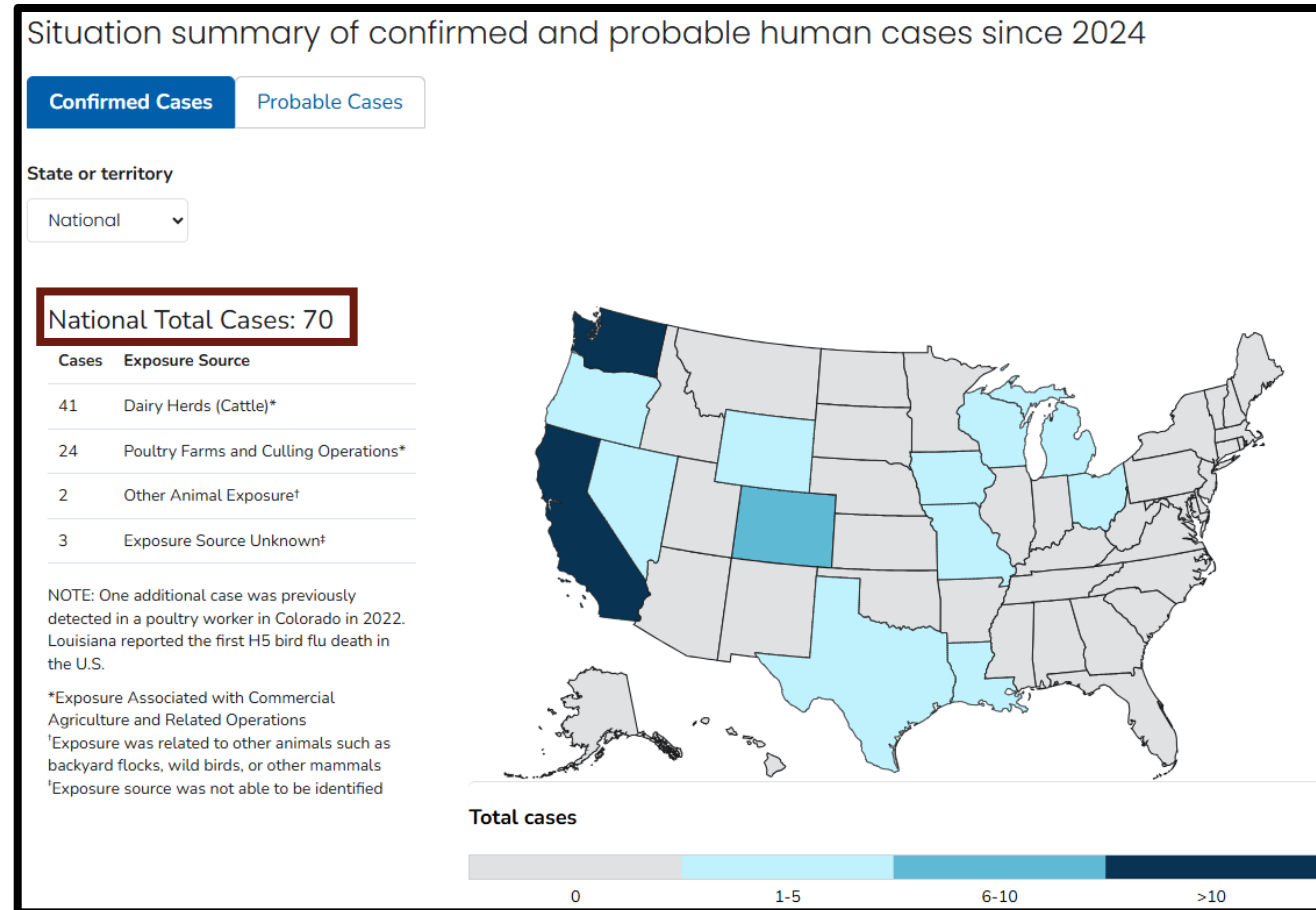
# H5N1 Avian Influenza Updates





# U.S. H5N1 Cases in Humans, since 2024

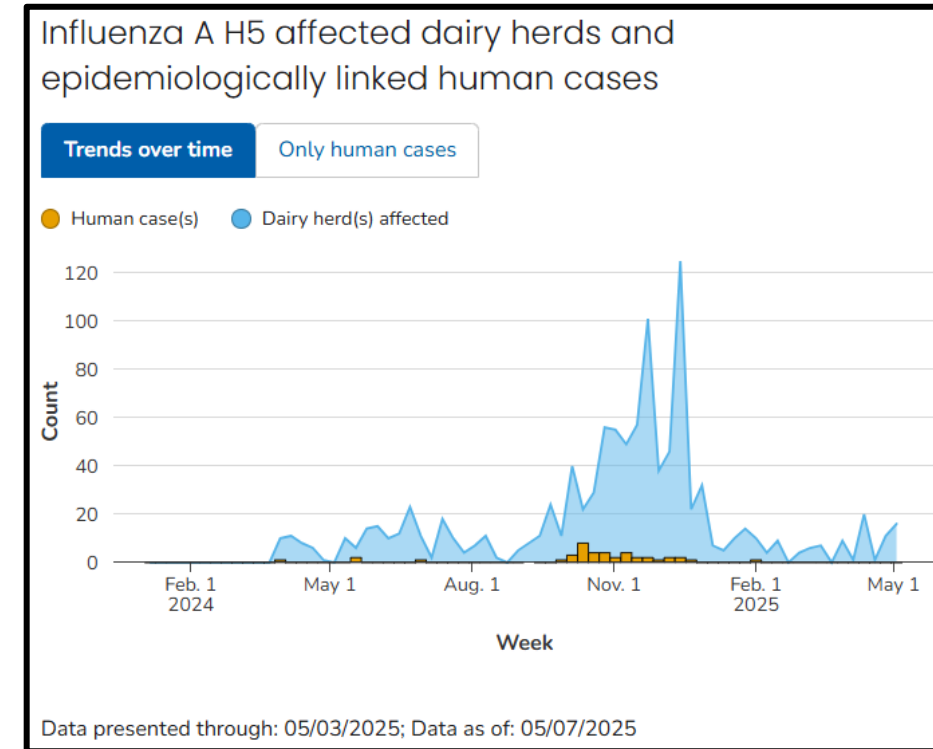
- HPAI H5N1 remains primarily a Zoonotic Disease (animal to human)
- H5N1 human cases have been rare in the US and have been primarily associated with direct contact with infected commercial poultry or dairy cattle
- **No human cases in Massachusetts.**
- In the US:
  - 70 human cases
  - 1 death
- Risk to the general public is low.
  - No human-to-human transmission



Data as of 5/9/2025. Source CDC: <https://www.cdc.gov/bird-flu/situation-summary/index.html>

# H5N1 Outlook

- **Detections of H5N1 avian influenza have slowed in both animals and humans.**
  - Dairy cattle cases surged over the fall and early winter but eased in January.
  - Cases in poultry flocks fell after February and came down last month in backyard flocks.
- Is there a seasonality?
  - The distribution of the virus among wild birds follows migratory patterns (more circulation of H5N1 in wild birds in the fall and early winter when birds migrate south)
- Federal cuts have impacted national animal and human surveillance efforts.
  - Continued surveillance is warranted – the US continues to have an incomplete picture of the situation.
- Overall risk to the public remains low. Those at the greatest risk are those with close, prolonged exposure to infected animals.



<https://www.cdc.gov/bird-flu/h5-monitoring/>

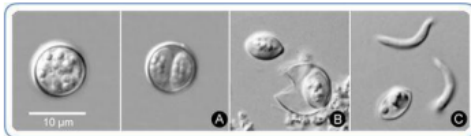


# Cyclospora & Vibrio Seasonal Update

## What is Cyclospora?

**Cyclospora cayetanensis** (Cyclo) is a foodborne/waterborne parasite that causes gastrointestinal illness in humans when ingested

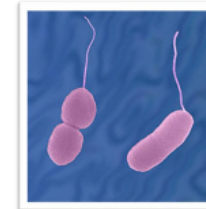
- Infection with *Cyclospora* is known as **Cyclosporiasis**



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## What is Vibrio?

- **Vibrio bacteria** naturally live in coastal waters (salt or brackish water) and are present in higher concentrations May-October when water temperatures are warmer. *Vibrio* is not an indication of pollution.
  - People can develop infection from consuming raw or undercooked seafood or shellfish harvested from the water.
- **Vibrio parahaemolyticus (Vp)** is the most common serogroup reported in Massachusetts
  - Documented in shellfish on Cape Cod as early as 1972\*
- Other commonly reported serogroups include: *V. alginolyticus*, *V. fluvialis*, *V. cholerae*



\*Earle and Crisley  
*Appl. Environ.  
Microbiol.*, 1975

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Cyclospora and Vibrio Case Investigations (June 2022) [Slides](#), [Recording](#)

# *Cyclospora* & *Vibrio*: Seasonal switch from routine to immediate on May 1<sup>st</sup>

| Jan | Feb | Mar | Apr | May   | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|-----|
|     |     |     |     | <i>Cyclospora</i>   |     |     |     |     |     |     |     |
|     |     |     |     | <i>Vibrio parahaemolyticus</i> or <i>Vibrio</i> species from stool* |     |     |     |     |     |     |     |

\*Additional nuances based on test method. An MDPH epidemiologist will write a note indicating the follow up needed.

## **As an immediate disease:**

- Expectation to conduct case investigation within 1 business day of report
- Prioritize over routine investigations
- An MDPH epidemiologist will also be assigned to the case to ensure prompt case investigation and assist with follow-up as needed

# Why the seasonal switch?

**Goal: To quickly conduct case interview and obtain an accurate food history.**

This allows for identification of common exposures among cases, and prevention of additional illness.

## *Cyclospora*

- No routine whole genome sequencing to identify cases likely to have a shared exposure.
- Foods or restaurants commonly reported across cases are investigated.
- Implicated foods are recalled and removed from the food supply.

## *Vibrio parahaemolyticus* or *Vibrio* species from stool

- Bacteria naturally increase in coastal water during the summer.
- Shellfish exposures reported by cases are shared with the MDPH Division of Food Protection for prompt traceback.
- Commonly implicated harvest areas may have a voluntary or regulatory closure to prevent further illnesses.

For a more in-depth  
review:

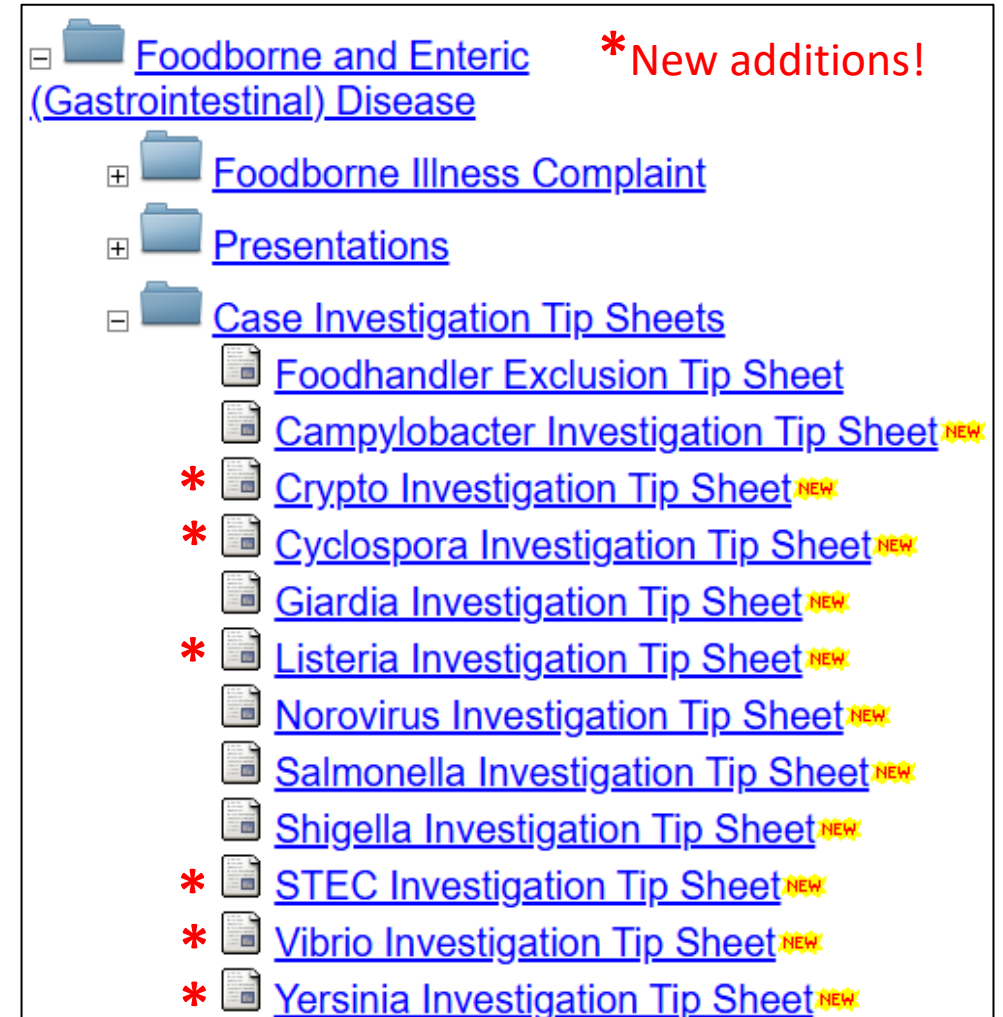
Cyclospora and Vibrio Case Investigations (June 2022) [Slides](#), [Recording](#)  
**NEW** [Cyclospora](#) and [Vibrio](#) Case Investigation Tip Sheets

# MORE Disease-Specific Tip Sheets

- Can't remember the difference between *Shigella* and *Salmonella*?
- Has it been a while since you investigated a case of *Cryptosporidium*?
- Are you responsible for investigating so many different diseases and could use a quick reference to remember which is which?

**There's a Tip Sheet for that!**

<https://www.maven-help.maventrainingsite.com/toc.html>



# Example Tip Sheet

Quick disease and  
transmission refresher



## MAVEN Help Tip Sheet Folders

How you get notified



Resources to help you get prepared



List of items to ask when you reach  
out to the ordering provider



### TIP SHEET for *Vibrio* Case Investigations

- **Disease:** *Vibrio* is a bacterium that can cause different clinical syndromes including gastroenteritis (primarily from *V. parahaemolyticus*, toxigenic and non-toxicogenic *V. cholerae*), wound infection (*V. vulnificus*, *V. alginolyticus*), and septicemia (*V. vulnificus*). Gastroenteritis is the most common syndrome, with individuals experiencing watery, non-bloody stools, abdominal pain, low-grade fever, headache, and chills with spontaneous symptom recovery within 2 to 5 days. Severe wound infections from *V. vulnificus* can progress to necrotizing fasciitis.
- **Transmission & Incubation Period:** *Vibrio* bacteria naturally inhabit marine and estuarine environments with most infections occurring in summer and fall when water temperatures are warmer causing *Vibrio* bacteria to thrive. Individuals become ill by swallowing the bacteria via ingestion of raw or undercooked seafood, especially shellfish, or by getting contaminated water or seafood drippings into an open wound. Most *V. cholerae* infections reported in MA residents are non-toxicogenic (not cholera disease). Toxigenic *V. cholerae* infections are rare and typically acquired via international travel. Person-to-person spread has not been documented. The incubation period for gastroenteritis is typically 24 hours (range of 5 to 92 hours) and for wound infections and septicemia is 1 to 7 days.

|                                      |  |
|--------------------------------------|--|
| ①<br>Notification                    | <ul style="list-style-type: none"><li>• LBOHs have primary responsibility to investigate cases of <i>Vibrio</i> in their jurisdiction.</li><li>• Cases with <i>V. cholerae</i> isolated by culture warrant immediate follow up year-round.</li><li>• From May 1 to October 31 ("Vibrio season"), all other <i>Vibrio</i> cases will flow into your "LBOH Notification for Immediate Disease" workflow.<ul style="list-style-type: none"><li>◦ Immediate follow up is requested for cases with <i>Vibrio parahaemolyticus</i> or <i>Vibrio</i> species (not further speciated) detected in stool. This is to facilitate the prompt collection of any shellfish exposures. Due to warming coastal waters, immediate follow up is also requested for <i>Vibrio vulnificus</i> infections to identify any local waters that may be associated with infection.</li><li>◦ An MDPH epidemiologist will add a note indicating what follow up needed. For cases warranting immediate investigation, an MDPH epidemiologist will be assigned to ensure complete case follow up.</li></ul></li><li>• Outside of these months, cases warrant routine investigation. New events will flow into your "LBOH Notification for Routine Disease" workflow.</li></ul> |
| ②<br>Get Prepared                    | <ul style="list-style-type: none"><li>• Familiarize yourself with the disease: <a href="#">MDPH Fact Sheets</a>, <a href="#">MDPH Guide to Surveillance</a></li><li>• Review foodhandler exclusion criteria from 105 CMR 300 for cases and their household contacts. <a href="#">Implementing the Exclusion of Food Handlers with Reportable Conditions</a><br/>A food handler is defined as any person directly preparing or handling food; any person handling clean dishes or utensils; any person who dispenses medications by hand, assists in feeding, or provides mouth care.<ul style="list-style-type: none"><li>• <b>In healthcare:</b> this includes those who set up trays for patients to eat, feed or assist patients in eating, give oral medications or give mouth/denture care.</li><li>• <b>In child care programs, schools, and community residential programs:</b> this includes those who prepare food for clients to eat, feed or assist clients in eating, or give oral medications.</li></ul></li><li>• Review demographic and laboratory information available in MAVEN for the case.</li></ul>   |
| ③<br>Contact<br>Ordering<br>Provider | <ul style="list-style-type: none"><li>• The name and facility of the ordering provider can be found in the lab tab in the case's MAVEN event. If ordering provider is a hospital, reach out to the hospital Infection Preventionist.</li><li>• During call with provider's office:<ul style="list-style-type: none"><li>◦ Confirm case's contact information, collect additional phone number(s) or email address</li><li>◦ Obtain symptom onset date and clinical presentation</li><li>◦ Collect information on any potential exposures identified during visit (e.g., travel)</li></ul></li></ul>  |

# Example Tip Sheet

Which question packages to complete with some reminders



Reminders for handling high-risk settings to prevent further transmission



[MAVEN Help](#)  
[Tip Sheet](#)  
[Folders](#)

When you should notify DPH



Recommendations regarding call attempts to case, information to collect if they cannot be reached



Additional resources



|                                   |  |  |
|-----------------------------------|--|--|
|                                   | <ul style="list-style-type: none"><li>○ Request case's occupation and employer, if available</li><li>○ Ask if the case has been informed of their diagnosis</li><li>• If the ordering provider cannot be reached in a timely manner, proceed to case interview.</li></ul>  |  |
| ④<br>Contact Case                 | <ul style="list-style-type: none"><li>• Introduce yourself, why you are calling, what you will use information for, and who has access to the information they provide.</li><li>• Complete all questions in the Demographic and Clinical question packages.</li><li>• Complete all questions in the Risk/Exposure question package for the <b>7 days prior to symptom onset</b>.<ul style="list-style-type: none"><li>○ If the case experienced gastrointestinal illness and the specimen is stool, blood, or urine, ask them about consumption of high-risk animal products, including molluscan shellfish (clams, mussels, oysters, quahogs, etc.) and how they were prepared.</li><li>○ If the case experienced a skin, ear, wound, or soft tissue infection, ask them about exposures to high-risk materials (e.g., where they went swimming).</li></ul></li><li>• To improve the recall of activities or restaurants they may have dined at, encourage the case to look at their work and/or personal calendars, credit card or bank statements, and photos on their phone.</li></ul> |  |
| ⑤<br>Prevent Further Transmission | Food handlers  | <ul style="list-style-type: none"><li>• If individual meets the 105 CMR 300 definition of a food handler (see definition in "Get Prepared" above), they must be excluded from food handling duties until meeting clearance criteria:<ul style="list-style-type: none"><li>○ For cases with <i>V. cholerae</i> isolated via culture: In non-outbreak circumstances: after diarrhea has resolved, <b>two</b> negative stool specimens produced 48 hours after completion of any antimicrobial therapy.<ul style="list-style-type: none"><li>○ An MDPH foodborne epidemiologist can review whole genome sequencing data to identify if case has toxigenic <i>V. cholerae</i> warranting this exclusion.</li></ul></li><li>○ For all other <i>Vibrio</i> spp.: After diarrhea has resolved.</li><li>○ <a href="#">Implementing the Exclusion of Food Handlers with Reportable Conditions</a></li></ul></li></ul> |
| ⑥<br>Notify DPH as Needed         | <ul style="list-style-type: none"><li>• <b>Suspected outbreaks are reportable to MDPH within 24 hours.</b> If case investigation indicates that two or more people from different households became ill with similar symptoms after a common exposure, notify the Division of Epidemiology: (617) 983-6800</li><li>• <a href="#">Create a MAVEN foodborne illness complaint</a> if the case reports the following during their incubation period:<ul style="list-style-type: none"><li>○ Eating seafood or shellfish obtained from any retail food establishment (e.g., restaurant, seafood market, grocery store) with sufficient details available (name of establishment, location, and date of purchase/consumption)</li></ul></li></ul>   |  |
| Other Notes                       | <ul style="list-style-type: none"><li>• It is recommended that three call attempts are made at different times of day to reach a case for interview. Consider texting or emailing a case requesting a call back if they are not responsive.<ul style="list-style-type: none"><li>○ If a case <b>cannot be reached</b>, the following information should be collected from the ordering provider before closing out the case: symptom onset and clinical presentation, occupation and employer, and any exposure information available in the medical notes.</li></ul></li><li>• Completion of all exposure questions in the MAVEN Risk Question Package is essential for detecting outbreaks and preventing further transmission. Many exposure questions for this disease will appear as child questions based upon specific answers in earlier questions.</li></ul>  |  |
| Additional Resources              | <ul style="list-style-type: none"><li>• June 2022 webinar: <i>Cyclospora</i> and <i>Vibrio</i> Case Investigations <a href="#">Slides</a>, <a href="#">Recording</a></li><li>• MDPH Division of Epidemiology: (617) 983-6800</li></ul>   |  |



# QUESTIONS?

