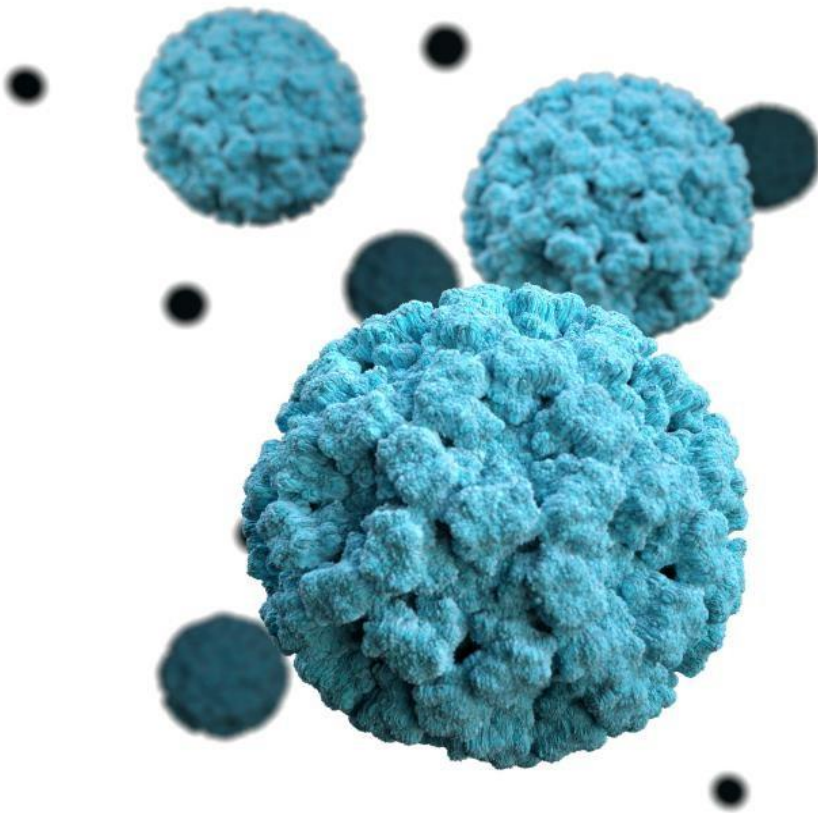




**Wisconsin State  
Laboratory of Hygiene**  
UNIVERSITY OF WISCONSIN-MADISON

# Laboratory-Based Surveillance Plan 2022-2023



**Information, Forms and  
Instructions**



# Table of Contents

<b>Laboratory-based Surveillance Plan (What to submit).....</b>	<b>1</b>
<b>Viral Specimen Submission Form.....</b>	<b>12</b>
<b>Shipping Instructions.....</b>	<b>13</b>
<b>Influenza Confirmatory Testing for Antigen Tests.....</b>	<b>14</b>
<b>Reporting Lab Test Results.....</b>	<b>16</b>
<b>Web-based Lab Reporting.....</b>	<b>17</b>
<b>Fax Reporting Forms.....</b>	<b>22</b>
<b>Influenza Testing Guidance.....</b>	<b>24</b>
<b>Surveillance Graphs.....</b>	<b>29</b>

# Laboratory-based Surveillance in Wisconsin

## Respiratory Pathogen Surveillance

### Background:

Laboratory-based surveillance for influenza and other respiratory pathogens is coordinated by the Wisconsin State Laboratory of Hygiene (WSLH), in collaboration with the Wisconsin Division of Public Health and the Centers for Disease Control and Prevention (CDC). This multi-element laboratory-based surveillance program has enabled us to achieve the four key objectives of routine influenza surveillance that include:

- Providing situational awareness:
  - when season begins/ends
  - types/subtypes/strains of influenza circulating
  - when and where circulating
  - clinical severity
  - community impact
  - age groups targeted
  - # tests performed/positivity rate
  - reliability of diagnostic methods
- Detecting novel or reassortant viruses
- Informing vaccine strain selection by CDC
- Detecting and monitoring antiviral resistance

This surveillance plan is based on a combination of laboratory testing data as well as respiratory specimens submitted to the WSLH for surveillance testing and characterization. Surveillance plans will be modified as the level of influenza and other respiratory virus activity changes and as other circumstances require. Changes in the plans will be announced in the bi-weekly “Laboratory Surveillance Report” which is posted at the WSLH website (<http://www.slh.wisc.edu/wcln-surveillance/surveillance/>).

Following is a description of the contributing elements of the laboratory-based influenza surveillance plan for Wisconsin:

**Rapid Influenza Testing Sites (RIDT):** Rapid influenza (antigen) testing sites account for about 50% of influenza testing in WI. These sites are asked to submit all out of season (summer) influenza positives and the first influenza A or B positive of the season to WSLH. In addition, these sites are asked to submit their testing data on a weekly basis (number tested, number positive) and to notify WSLH of any suspected performance issues (e.g. False Positives/Negatives) as described in Table 1.

**PCR/Molecular Laboratories:** PCR/molecular testing sites include all clinical laboratories performing molecular diagnostic testing for influenza or other respiratory viruses. These sites are requested to submit all out of season and early season influenza positives to WSLH. Once Influenza activity has increased for the start of the

## Laboratory-based Surveillance Plans, Wisconsin, 2021-2022

season (as indicated in the bi-weekly laboratory surveillance report), these sites are requested to submit up-to one influenza-related hospitalization each week. In addition, these sites are asked to submit their testing data on a weekly basis (number tested, number positive) as described in Table 1.

**Enrolled Sentinel Surveillance Sites:** 17 labs throughout the 5 public health regions of Wisconsin are enrolled as Sentinel Surveillance sites. This surveillance network is designed to provide to provide a consistent and randomized supply of specimens from all areas of the state. These sites provide the first 2-3 specimens per week from symptomatic patients (regardless of initial test results). In addition, these sites are asked to submit their testing data on a weekly basis (number tested, number positive) as described in Table 1.

**University Health Clinics:** This surveillance program is used to monitor respiratory pathogens impacting student health, including influenza, SARS-CoV-2, and adenovirus infections. University Health sites are requested to submit up to 3 specimens per week from symptomatic patients. These specimens are tested at WSLH with an enhanced respiratory pathogen panel as described in Table 1.

For all labs in Wisconsin that report weekly data (number tested, number positive) to the WSLH, the WSLH collates and reports this data to the National Respiratory and Enteric Virus Surveillance System (NREVSS) directly, for national surveillance.

All sites are provided with customized forms, instructions, specimen collection and transport supplies, and transport to the WSLH at no cost to them. Please contact our Clinical Orders department at **800-862-1088 to order shipping supplies**.

Weekly web-based and FAX reporting is available for PCR/Molecular and Rapid Influenza Diagnostic Test (RIDT) testing data. Confirmatory testing at WSLH is NOT available unless requested by WSLH. Confirmatory testing, when requested, is available at NO cost.

Information collected will be updated weekly on the WSLH website:

<http://www.slh.wisc.edu/wcln-surveillance/surveillance/virology-surveillance/>

Table 1: Laboratory Testing Data Requested for Respiratory Pathogens

Pathogen	Testing Data requested	Frequency to Report
<b>Respiratory Pathogens - Antigen Detection</b>		
Influenza A/B	Number detected and number tested	Weekly
SARS-CoV-2		
RSV		
<b>Respiratory Pathogens - PCR/Molecular Detection</b>		
Influenza A/B	Number detected and number tested	Weekly
SARS-CoV-2		
Non-influenza respiratory pathogens (RSV, Rhinovirus, etc)		
<i>B. pertussis</i> and <i>parapertussis</i>		
<b>Non-Respiratory Viruses - PCR/Molecular Detection</b>		
Adenovirus (non-respiratory)	Number detected and number tested	Weekly
Enterovirus (non-respiratory)		
Measles		
Mumps		
Rubella		
VZV		
Parechovirus		
Streptococcus Group A		

Table 2: Specimens Requested for Submission to WSLH for Additional Testing

Testing Site:	Season		
	Off Season (June-September)	Early Season (Fall*)	Respiratory Season (Winter/Spring*)
<b>Influenza and Other Respiratory Viruses</b>			
<b>Rapid Testing</b>	<u>ALL</u> influenza positives	First influenza A or B of the year	Influenza A positive specimens with: <ul style="list-style-type: none"> <li>International travel history</li> <li>Swine exposure</li> </ul>
<b>PCR/Molecular</b>	<u>ALL</u> influenza positives	<u>ALL</u> influenza Positives	One influenza-related hospitalization per week AND Unsubtypable influenza A positives (Ct < 35) AND Influenza A positive specimens with: <ul style="list-style-type: none"> <li>International travel history</li> <li>Swine exposure</li> </ul>
<b>Sentinel Surveillance</b>	First 2-3 specimens per week from symptomatic patients (regardless of initial test results)		
<b>University Health</b>	Up to 3 respiratory specimens per week from symptomatic patients		
<b>SARS-CoV-2</b>			
<b>All Sites</b>	Five positive SARS-CoV-2 samples per week for genomic surveillance		

\*Please refer to the bi-weekly "Laboratory Surveillance Report" for current influenza activity in Wisconsin

**Wisconsin Acute Diarrheal Illness Surveillance Program – Data Summaries**

The WSLH, in collaboration with other public health stakeholders, has developed a statewide gastrointestinal pathogen surveillance program in Wisconsin. This program is set up similar to the respiratory surveillance program whereby gastropathogen PCR testing data for enteric targets including bacterial, parasitic and viral pathogens from clinical labs is submitted to WSLH on a weekly basis. The WSLH aggregates the data and provides summary reports in the bi-weekly Laboratory Surveillance Report and on the WSLH website (<http://www.slh.wisc.edu/wcln-surveillance/surveillance/gatropathogen-surveillance/>).

The overarching aim of this surveillance program is to gain awareness of the gastrointestinal pathogens effecting community health in Wisconsin.

**Wisconsin Enteric Pathogens Surveillance – Specimen Submissions**

In addition to monitoring gastropathogen activity, the WSLH actively solicits positive stool specimens or enteric isolates for further identification, serogroup/serotype, molecular subtype or whole genome sequencing. This information is critical for the ability to recognize and respond to clusters and outbreaks of gastropathogens in Wisconsin. The resulting laboratory data is used by epidemiologists at the WDPH to rapidly determine linkage to potential food and environmental point sources.

WSLH requests that clinical laboratories submit clinical isolates and/or enrichment broths or stools in enteric transport medium that were positive using a culture-independent diagnostic test (CIDT), such as PCR or antigen test. The current requested organisms to be submitted to WSLH are listed in Table 3.

**Antimicrobial Resistance Monitoring**

Antimicrobial resistance is increasingly becoming a public health concern as multi-drug resistant bacteria become more common. The WSLH is the Midwest Regional Laboratory for the CDC-coordinated Antimicrobial Resistance Laboratory Network (AR Lab Network) Regional Laboratories. The overarching goal of AR Lab Network testing is rapid identification and containment of resistant pathogens. Isolate submission guidance is listed in Table 4. Data compiled from the AR Lab Network is presented to stakeholders at the Wisconsin Clinical Laboratory Network regional meetings and will be shared on the WSLH website in the future.

**Wisconsin Invasive Bacterial Laboratory Surveillance**

The Wisconsin Invasive Bacterial Laboratory Surveillance program is a laboratory-based surveillance program monitoring for invasive bacterial infections. The program is a partnership between WSLH, the Wisconsin Division of Public Health (WDPH), the Wisconsin State Laboratory of Hygiene (WSLH), hospital and reference laboratories, local health departments, physicians, and infection control practitioners. The WSLH requests prompt submission of isolates of invasive pathogens listed on Table 5. In the absence of an isolate, please submit CSF specimens which have been determined to contain these pathogens by a laboratory CIDT method.

**Vectorborne Pathogen Surveillance (NEW)**

The WSLH works with WDPH to monitor cases of vector borne diseases in our state. WSLH will confirm species identification of key blood borne pathogens and submit specimens to CDC to monitor for drug resistance and emergence of novel pathogens. Specimen submission guidance is outlined on Table 6.



Table 3. Gastropathogen Lab Testing Data and Specimen Submission Requests

Pathogen	Testing Data to Report	Frequency to Report	Send specimens to WSLH
<b>Gastropathogens (PCR or other CIDT)</b>			
<b><i>Aeromonas</i> species</b>	Number detected and number tested	Weekly	Isolates or stool for identification
<b><i>Campylobacter</i> species</b>			Isolates or stool for identification; antimicrobial susceptibility testing and molecular subtyping (WGS) will be performed as necessary
<b>Enterohemorrhagic/ Shiga Toxin-Producing <i>E. coli</i> (EHEC/STEC)</b>			Isolates, stool or enrichment broth for identification, serotyping and molecular subtyping (WGS)
<b><i>Plesiomonas shigelloides</i></b>			Isolates or stool for identification
<b><i>Salmonella</i> species</b>			Isolates or stool for identification, antimicrobial susceptibility testing and molecular subtyping (WGS)
<b><i>Shigella</i> species and Enteroinvasive <i>E.coli</i> (EIEC)</b>			Isolates or stool for identification and antimicrobial susceptibility testing; Molecular subtyping will be performed as necessary

Table 3. Gastropathogen Lab Testing Data and Specimen Submission Requests

Pathogen	Testing Data to Report	Frequency	Send specimens to WSLH
<b>Gastropathogens (PCR or other CIDT)</b>			
<i>Vibrio</i> Species	Number detected and number tested	Weekly	Isolates or stool for identification and referral to CDC
<i>Yersinia</i> species			Isolates or stool for identification
<i>Cryptosporidium</i> species			Stool for identification* and genotyping
<i>Cyclospora cayetanensis</i>			Stool for molecular subtyping and/or referral to CDC
Rotavirus			<u>One positive per week</u> for molecular subtyping/genotyping
<b>Any other organism suspected of being in a cluster or outbreak of public health significance</b>			Consult with Wisconsin Division of Public Health Foodborne Disease Epidemiologists; isolates or stool for identification and molecular subtyping as applicable
<i>Clostridioides difficile</i>			<b>WSLH does not request submission of this organism at this time</b>
Norovirus			<b>WSLH does not request routine submission of this organism at this time unless specifically requested by the WDPH or WSLH</b>

\*Stool specimens positive for *Cryptosporidium* by PCR-based methods will not be confirmed

Table 3. Gastropathogen Lab Testing Data and Specimen Submission Requests

Pathogen	Testing Data to Report	Frequency	Send specimens to WSLH
<b>Gastropathogens (PCR or other CIDT)</b>			
<b>Astrovirus</b>	Number detected and number tested	Weekly	<b>WSLH does not request submission of these organisms at this time unless specifically requested by the WDPH.</b>
<b>Sapovirus</b>			
<b>Adenovirus F (40/41)</b>			
<b>Enteropathogenic, Enteroaggregative and Enterotoxigenic <i>E. coli</i> (EPEC, EAEC and ETEC)</b>			
<b><i>Giardia</i> species</b>			
<b><i>Entamoeba histolytica</i></b>			

Table 4. AR Lab Testing Data and Specimen Submission Requests

Pathogen	Specimens Requested	Frequency	Confirmatory testing available at WSLH
<b>Antimicrobial Resistance (AR)</b>			
Pan-resistant organisms (R to all drugs tested in your laboratory)	AST results and any phenotypic or molecular targets detected submitted with isolate	As detected	Identification, antimicrobial susceptibility testing, AR-targeted PCR and referral to CDC as necessary
<i>Candida auris</i> , <i>C. haemulonii</i> , invasive <i>C. glabrata</i> and unusual* and hard to ID <i>Candida</i>			Identification, antimicrobial susceptibility testing and referral to CDC as necessary
<i>Enterobacteriaceae</i> resistant to carbapenems			Identification, antimicrobial susceptibility testing, carbapenemase screen, AR-targeted PCR and referral to CDC as necessary
<i>Staphylococcus aureus</i> (I or R to Vancomycin)			Identification, antimicrobial susceptibility testing and referral to CDC as necessary
<i>Pseudomonas aeruginosa</i> (Resistant to carbapenems other than ertapenem and non-susceptible to cefepime and/or ceftazadime)			Identification, antimicrobial susceptibility testing, carbapenemase screen, AR-targeted PCR and referral to CDC as necessary
† <i>Acinetobacter baumannii</i> (Resistant to carbapenems)		As detected	Identification, antimicrobial susceptibility testing, AR-targeted PCR and referral to CDC as necessary
<i>Aspergillus fumigatus</i> isolates from invasive infections			

\* Any species other than *C. albicans*, *C. parapsilosis*, *C. dubliniensis*, *C. lusitanae*, *C. tropicalis*, or *C. krusei*

† Statewide (Previously patients hospitalized in Southeastern WI only)

Table 5. Invasive Bacteria Specimen Submission Requests

Pathogen	Frequency to Send	Send Specimens to WSLH for Characterization
<b>Invasive Bacteria (Blood, CSF or other sterile body site)</b>		
<i>Haemophilus influenzae</i>	As detected	Isolates or CSF for identification and serotyping
<i>Listeria monocytogenes</i>		Isolates for identification and molecular subtyping (WGS)
<i>Neisseria meningitidis</i>		Isolates or CSF for identification, antimicrobial susceptibility testing and serogrouping
<i>Streptococcus pneumoniae</i>		Isolates or CSF for identification, antimicrobial susceptibility testing and serotyping*  *serotyping performed upon request on: <ul style="list-style-type: none"> <li>• CSF isolates</li> <li>• Isolates non-susceptible to clinically relevant drugs</li> <li>• Possible failure of therapy or vaccine or outbreak related isolates</li> </ul>
<b>Any other organisms suspected of being in a cluster or outbreak of public health significance</b>		Consult with Wisconsin Division of Public Health Epidemiologists; Isolates for identification and molecular subtyping
<b>Gram negative isolates from sterile body sites that are unidentifiable using commercial systems</b>		Sequenced based and phenotypic identification will be performed

Table 6. Vectorborne Specimen Submission Requests

Pathogen	Specimens Requested	Frequency	Confirmatory testing available at WSLH
<b>Vectorborne Pathogens</b>			
<b>Malaria</b>	Positive thick and thin blood smears, residual EDTA blood	As detected	Species confirmation via microscopy and PCR. Residual EDTA forwarded to CDC for Malarial Drug Resistance Surveillance in <i>Plasmodium falciparum</i>
<b>Babesia</b>			Confirmation of <i>B. microti</i> by PCR. Unknown species forwarded to CDC for confirmation
<b>Ehrlichia (unknown species)</b>	Residual blood and/or nucleic acid		Species identification by PCR (if speciation not available at your lab)

<b>Patient Information</b>		<b>Submitter Information</b>	
Name (Last, First):		Your Institution's Agency Number If Known	
Address:		Your Institution's Name)	
City:	State:	Zip:	Your Institution's Address
Age or Date of Birth:		City, State, Zip Code	
Gender: <input type="checkbox"/> M <input type="checkbox"/> F		Telephone Number	
Patient Telephone Number:		Health Care Provider Full Name:	
Your Specimen ID Number (optional):		<i>WSLH Use Only:</i> VI X SURV / Bill To: Account # <b>74201</b>	
<b>Date Collected:</b>	<b>Specimen Type:</b>		
	<input type="checkbox"/> Nasopharynx Swab (in VTM) <input type="checkbox"/> Throat Swab (in VTM) <input type="checkbox"/> Combined Throat/Nasopharynx Swab (in VTM) <input type="checkbox"/> Other _____		
<b>Reason for submission:</b> <input checked="" type="checkbox"/> <b>Influenza Surveillance</b>			
<b>Your Test Results</b>		<input type="checkbox"/> <b>Negative Influenza A</b> <input type="checkbox"/> <b>Negative Influenza A and B</b> <input type="checkbox"/> <b>Not Tested</b> <input type="checkbox"/> <b>Other (specify):</b> _____	
<input type="checkbox"/> <b>Positive Influenza A</b> <input type="checkbox"/> <b>Positive Influenza B</b> <input type="checkbox"/> <b>Positive Influenza A and B</b> <input type="checkbox"/> <b>Positive Influenza (Unknown Type)</b>			
<b>Please mark the test used:</b>			
<b>Antigen Detection</b>		<b>PCR/NAAT</b>	
<input type="checkbox"/> BD Veritor Influenza A+B <input type="checkbox"/> BD Veritor SARS-CoV-2 & FluA+B <input type="checkbox"/> BinaxNOW Influenza A&B <input type="checkbox"/> QuickVue Influenza A&B <input type="checkbox"/> Xpect Flu A & B <input type="checkbox"/> Sofia 2 Flu + SARS <input type="checkbox"/> Sofia Flu A&B <input type="checkbox"/> Other (specify): _____		<input type="checkbox"/> Abbott ID NOW Flu A+B <input type="checkbox"/> BD Max SARS-CoV-2/Flu <input type="checkbox"/> BioFire FilmArray Respiratory Panel <input type="checkbox"/> Cepheid Xpress Influenza <input type="checkbox"/> Cepheid Xpress SARS-CoV-2/Flu/RSV <input type="checkbox"/> Cepheid Xpert Flu/RSV <input type="checkbox"/> Diasorin Focus Simplexa Flu/RSV <input type="checkbox"/> GenMark Respiratory Panel <input type="checkbox"/> Hologic Fusion SARS-CoV- 2/Flu A/B/RSV <input type="checkbox"/> Hologic SARS-CoV-2/Flu A/B	
		<input type="checkbox"/> LIAT Influenza A+B <input type="checkbox"/> LIAT SARS-CoV-2 & Flu A/B <input type="checkbox"/> Mesa Accula Influenza <input type="checkbox"/> Nanosphere Verigene RV+ <input type="checkbox"/> ProFlu+ <input type="checkbox"/> ProFAST+ <input type="checkbox"/> Roche Cobas SARS-CoV-2 & Flu A/B <input type="checkbox"/> Silaris Influenza <input type="checkbox"/> Solana Influenza A+B <input type="checkbox"/> TaqPath COVID-19 + FluA + FluB <input type="checkbox"/> Other (specify): _____	
<b>Additional Information:</b>			
<b>Hospitalized?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown			
<input type="checkbox"/> <b>Travel history</b> (within 10 days of onset) (Places & Dates): _____			
<input type="checkbox"/> <b>Swine contact</b>			
<b>WISCONSIN STATE LABORATORY OF HYGIENE USE ONLY</b>			
<b>WSLH Test Code: To Be Determined On Receipt</b>			

### Specimen Collection & Shipping Supplies

- Specimen collection and shipping supplies are available at no cost to surveillance sites. Please contact the WSLH Clinical Orders dept. at **800-862-1088** or email [HMSpecimenreceivingclinicalordersstaff@slh.wisc.edu](mailto:HMSpecimenreceivingclinicalordersstaff@slh.wisc.edu) to order supplies.

### Specimen Packaging

- Triple package as “**Biological substance, Category B / UN 3373**” if classified as Category B.
- Securely tape the cap of the specimen container, wrap specimen with absorbent material; place the specimen vial into a biohazard bag; place the completed requisition form into the outer pocket of the bag.
- Place the bagged specimen and form in the Styrofoam mailer with a frozen kool-pak and cushioning.
- Replace lid on the Styrofoam/cardboard box; close and securely tape the cardboard box shut.
- Attach the WSLH address label to the package:  
**Wisconsin State Lab of Hygiene  
Specimen Receiving, Communicable Disease Division  
2601 Agriculture Drive  
Madison, WI 53718**
- Attach the “**Biological substance, Category B / UN 3373**” label to the package.
- Attach your return address label including the **name and telephone number** of the person who knows the content of the package (requirement) with the return address

### Shipping Arrangements

- The WSLH has a contract with Purple Mountain Solutions Gold Cross Couriers for shipment of specimens to the WSLH, with charges billed to the WSLH.
- This Account Is for surveillance specimens or others requested by WSLH. Funding is not available for transport of other samples.
- You are not required to ship via Purple Mountain Solutions Gold Cross Couriers unless you wish to have the transport charges billed to the WSLH.
- Specimens will be picked up during regular working hours, but you must confirm the time with Purple Mountain Solutions Gold Cross Courier.
- Specimens will be delivered to the WSLH the following day. **If you must ship on Fridays or on the day before a holiday, please include an extra coolant.**
- All package preparation should be completed before the courier arrives.
- Contact this courier directly to arrange for a pick-up

**Phone:** 800-990-9668

**Website:** <http://goldcrosscourier.com/contact.html>



- Same day delivery may be available for specific high priority specimens. However, **pre-approval from WSLH is necessary.**



# Influenza Confirmatory Testing at WSLH

The WSLH recommends the following actions when performing rapid antigen tests for influenza:

1. Confirmatory testing for **ALL influenza A positive specimens** during the **summer** months (June-September).
2. During the respiratory virus season, confirm only the first influenza (A or B) positive specimen or until:
  - **Influenza activity has increased in Wisconsin** (as reported in the “*Laboratory Surveillance Report*” and on the WSLH website).
  - Confirmatory testing may require collection of a second specimen. See your kit insert and these examples to see if you should collect a second specimen for confirmatory testing.
    - **Wash or aspirate samples:** submit remaining portion of sample for confirmatory test.
      - If sample was collected in saline, add an equal volume of virus transport medium before submitting to the WSLH for confirmatory testing.
    - **Swab samples:**
      - If swab was collected and immersed in test reagent, collect a second sample for confirmatory testing. Alternatively, swabs may be transferred to VTM. **Swabs should be polyester with plastic shafts.**
      - If swab was diluted in virus transport medium or saline before a portion was removed for testing, submit remaining swab in virus transport medium.



If you experience suboptimal performance of your rapid antigen or rapid molecular assays, please contact the virology group at [virus@slh.wisc.edu](mailto:virus@slh.wisc.edu) or (608-224-4260). The CDC has developed a reporting system to document performance issues (e.g. false negative, false positive).

# Biosafety Considerations

The WSLH recommends the following actions when performing rapid antigen tests for influenza:

### **1. Evaluate biosafety at your testing site using a risk assessment:**

Due to increased awareness of and concern about novel and emerging respiratory diseases (e.g., H3N2v, avian influenza, etc.), we recommend that rapid influenza testing sites do the following:

#### ➤ **Perform a risk assessment:**

- Review your testing practices and lab environment and consider the following strategies to minimize potential staff exposures to aerosols when performing rapid influenza tests.
  - Use a biosafety cabinet or benchtop splatter-shield;
  - Use personal protective equipment (e.g., face shield, gloves, lab coat);
  - Locate your testing in a less-heavily trafficked area to sequester the testing and reduce potential exposures.

#### ➤ **Collect recent history of travel including that of outside the U.S.**

- Communicate to your healthcare providers the need for patient travel history to minimize staff exposure to possible emerging respiratory infections. This information allows the laboratory staff to evaluate the need for additional precautions or forwarding the specimen to a laboratory that can apply additional precautions during testing.
- **If there is a history of travel to a country with human cases of avian influenza within 10 days prior to onset of illness**, contact the Wisconsin Division of Public Health (WDPH) to evaluate the need to submit the specimen to the WSLH for fee-exempt avian influenza testing.
- Contact WDPH at 608-266-5326 (during business hours) or at 608-258-0099 (after business hours) to receive prior approval for testing.
- Collect one throat swab and one nasopharyngeal swab in a single vial of viral transport medium for testing. Maintain the sample at refrigerator temperature (4°C to 8°C) during transport.
- Arrange transport of the specimens on a priority basis, to be received at the WSLH **within 24 hours of collection** to assure a timely diagnosis. Call the WSLH emergency number at 608-263-3280 if you need assistance in arranging prompt delivery of the specimens.

## Reporting Lab Test Results

Weekly reporting of diagnostic testing data to WSLH is important so that the public health stakeholders know what communicable diseases are impacting community health in Wisconsin.

WSLH highly encourages you to report your rapid antigen test and PCR data to the WSLH using the web-based reporting system. Alternatively, the paper-based FAX reporting system is also acceptable, according to your preference. These testing data are compiled weekly and made available on the WSLH website (graphs) and used in the bi-weekly Laboratory Surveillance Report.

Regardless of which reporting method you choose, we ask that you begin reporting as soon as possible and **continue reporting weekly throughout the year**. If you discontinue testing in the spring, please notify us so that our data accurately reflects testing in Wisconsin. Please also report the test method and your detailed test results (e.g. GeneXpert Flu: InfA+, 2009H1N1 +).

For all labs in Wisconsin that report weekly data (number tested, number positive) to the WSLH, the WSLH collates and reports this data to the National Respiratory and Enteric Virus Surveillance System (NREVSS) directly.

**For Web-Based Reporting:** Web-based reporting is the preferred reporting method. Instructions for web-based reporting are included in this packet. Report the number of specimens tested and the number of specimens positive for influenza, RSV, rotavirus, respiratory pathogens, SARS-CoV-2, gastrointestinal pathogens and other pathogens each week. If no tests were performed that week, simply report “0” for the number tested for each of the agent(s). You will need your “Lab ID”, which is included in the FAX report form. See the section “Web Based Reporting of Lab Test Results” for step-by-step instructions.

**For FAX Reporting:** If web-based reporting is not possible, please report by FAX. A report form with faxing instructions is included in this packet. Report the number of specimens tested and the number of specimens positive for influenza, RSV, rotavirus, respiratory pathogens, SARS-CoV-2, and other pathogens each week. If no tests were performed that week, simply report “0” for the number tested for each of the agent(s). Please FAX to WSLH Customer Service by noon Wednesday of each week at **844-390-6233**

**Note: If you are reporting testing data please include the number tested and the number positive.**

Questions or Problems?

Contact: [WCLN@mail.slh.wisc.edu](mailto:WCLN@mail.slh.wisc.edu) or 800-862-1013

# Web Based Reporting of Lab Test Results

**If you have questions or problems** reporting test data by either the web-based system or the fax system, please email us at [WCLN@mail.slh.wisc.edu](mailto:WCLN@mail.slh.wisc.edu) or call Customer Service at 800-862-1013.

- ❖ **Access** the web reporting url/webpage address by one of the following:
  - ◆ Go to the WSLH website <http://www.slh.wisc.edu/wcln-surveillance/surveillance/> then click on “**Click here to report Wisconsin Test Data**” center of the page.

Reporting Your Results



For more information regarding reportable diseases, please see the following:

**OR**

- ◆ Go directly to <http://www.surveygizmo.com/s3/389222/Wisconsin-Laboratory-Surveillance-Reporting>
- ❖ **Enter** your laboratory’s identification number (“**Lab ID**”); *this is a required field.*
  - ◆ Your “**Lab ID**” is a series of letters and numbers that is included on the fax reporting form in this packet. The letters in your Lab ID must be capitalized.
  - ◆ If you cannot find your “**Lab ID**”, please contact us at [WCLN@mail.slh.wisc.edu](mailto:WCLN@mail.slh.wisc.edu) or call 800-862-1013.
  - ◆ Your institution’s name, address, city and telephone number will be entered automatically.
- ❖ **Review** the institution name, address and telephone number for accuracy.
  - ◆ If any of the information is not accurate, enter the correct information and check the box at the bottom of the form “**Check here if any pre-filled information on this page was changed**”.

**Wisconsin Laboratory Surveillance Reporting**  
Survey Gizmo - Wisconsin Laboratory Surveillance Report - Antigen Detection

Please select the reporting week, the number of specimens tested, the number positive, and the test used for the agents listed below. Click "Finished?" Submit your "Survey" when finished. Press tab to move between fields. Please email [wcln@slh.wisc.edu](mailto:wcln@slh.wisc.edu) with questions or corrections.

**Institution ID \***

---

**Institution Information**

**Institution Name**

**Street Address**

**City**      **State**      **Zip Code**

**Phone Number**

- ❖ Select the “**Week Ending Date**” for which you wish to report data.
  - ◆ Click on the “v” symbol; click on the date in the drop-down list. ***This is a required field. It is critical that you select the correct week ending date!***

**Week Ending - 2022/2023 Season** (Saturday)  
Reporting week is Sunday to Saturday

- ❖ Check “Antigen Detection” or “PCR / Molecular” method for the data you would like to enter and click “Next”.

**Select the method below to enter data; you must also select "Next".**

- Antigen Detection
- PCR / Molecular

Back Next

17%

### **If you chose Antigen Detection:**

- ❖ **Report** the number tested and number positive for each of the listed agents for which you perform testing on-site. *There is no need to enter data for tests referred to in-state or out-of-state laboratories. There is also no need to enter data for confirmatory testing of rapid Strep tests.*
  - ◆ ***If you do not perform a test on-site and/or refer specimens to another laboratory***, skip that agent/test section *without entering any data.*
  - ◆ ***If you normally perform that testing on site, but did not test any specimens*** that week, *enter zero “0” for the number tested.* If the “number tested” is “0”, you can skip the “number positive” field.
  - ◆ ***For influenza***, select the test for which you should report as follows:
    - **“Influenza A & B (Differentiated)”**: Report your data here if your influenza test provides a result for influenza A *and* a result for influenza B.

### Influenza A & B (Differentiated) Testing - Antigen Detection

Please report the number of specimens tested and the number positive.

	Number Tested	Number Positive for Flu A	Number Positive for Flu B	Number Positive for Flu A & B
Influenza A & B (Differentiated)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

### RSV Testing - Antigen Detection

Please report the number of specimens tested and the number positive for RSV.

	Number Tested	Number Positive
RSV	<input type="text"/>	<input type="text"/>

- ❖ **Review** for accuracy the test(s) that have been pre-marked for your institution.

**Please verify that the test(s) marked below are accurate.**

**Influenza Test Used: Please check all that apply**

<input checked="" type="checkbox"/> 3M Rapid Detection Influenza A+B	<input type="checkbox"/> QuickVue Influenza
<input type="checkbox"/> BinaxNOW Influenza A&B	<input type="checkbox"/> QuickVue Influenza A+B
<input type="checkbox"/> Biostar OIA Flu	<input type="checkbox"/> SAS FluAlert
<input type="checkbox"/> Biostar OIA Flu A/B	<input type="checkbox"/> TRU FLU
<input type="checkbox"/> Directigen Flu A	<input type="checkbox"/> Xpect Flu A&B
<input type="checkbox"/> Directigen Flu A+B	<input type="checkbox"/> ZstatFlu
<input type="checkbox"/> Directigen EZ Flu A+B	<input type="checkbox"/> Out of State Reference Laboratory
<input type="checkbox"/> OSOM Influenza A&B	
<input type="checkbox"/> Other (specify): <input style="width: 200px;" type="text"/>	

- ◆ If the marked test is not the test your facility used, click on the marked test to “un-check” it, then click on the correct test. Please check the box at the bottom of the form **“Check the box below if any pre-filled information on this page was changed.”**

**Check the box below if any pre-filled information on this page was changed.**

Pre-filled information was changed.

- ❖ **To make a copy of the data you have entered, you must do so before you leave the page.**
  - Right-click the computer mouse and left-click on “Select All” in the drop-down list
  - Right-click the computer mouse on any highlighted area and left-click on “Copy” in the drop-down list.
  - Open a Word document and right-click to see the drop-down list, then left-click on “Paste”.
  - Edit the document and save or print.
- ❖ **Check “PCR / Molecular”** to enter more data or check “Finished entering data” to finish, and then click “Next”.

**Select the method below to continue entering data or select "Finished entering data" if done; you must also select "Next".**

- PCR / Molecular
- Finished entering data

33%

### **If you chose PCR/Molecular :**

- ❖ **Report** the number tested and number positive for each of the listed agents for which you provide on-site tests. *There is no need to enter data for tests referred to in-state or out-of-state laboratories. There is also no need to enter data for confirmatory testing of rapid Strep tests.*
- ◆ **If you do not perform a test on-site and/or refer specimens to another laboratory**, skip that agent/test section without entering any data.
- ◆ **If you normally perform that testing on site, but did not test any specimens** that week, enter zero "0" for the number tested. If the "number tested" is "0", you can skip the "number positive" field.

### **Respiratory Pathogens PCR testing**

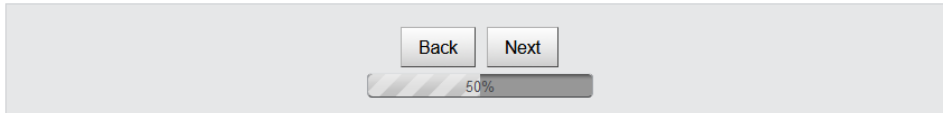
Please report the number of specimens tested and the number positive.

	Number Tested	Number Positive
Adenovirus	<input type="text"/>	<input type="text"/>
Bocavirus	<input type="text"/>	<input type="text"/>
Chlamydia pneumonia	<input type="text"/>	<input type="text"/>
Coronavirus 229E	<input type="text"/>	<input type="text"/>
Coronavirus HKU1	<input type="text"/>	<input type="text"/>
Coronavirus NL63	<input type="text"/>	<input type="text"/>
Coronavirus OC43	<input type="text"/>	<input type="text"/>
human Metapneumovirus (hMPV)	<input type="text"/>	<input type="text"/>
Influenza A (subtyping not performed)	<input type="text"/>	<input type="text"/>
Influenza A 2009 (H1)	<input type="text"/>	<input type="text"/>
Influenza A (H3)	<input type="text"/>	<input type="text"/>

- ❖ **Check “Antigen Detection”** to enter more data or check “Finished entering data” to finish and then click “Next”.

**Select the method below to continue entering data or select “Finished entering data” if done; you must also select “Next”.**

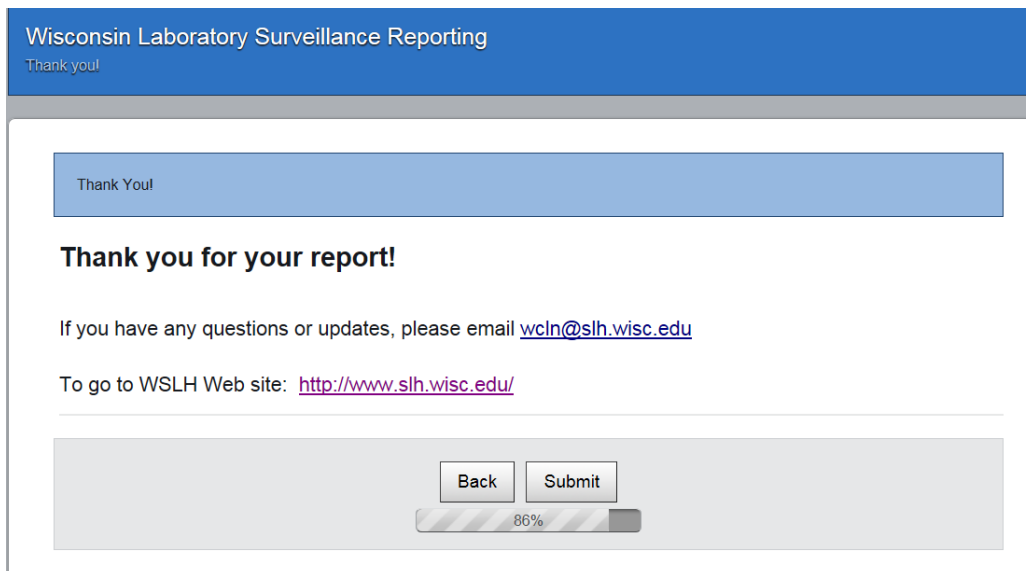
- Antigen Detection
- Finished entering data



A screenshot of a web form. At the top, there are two radio buttons: "Antigen Detection" and "Finished entering data". Below the radio buttons, there are two buttons: "Back" and "Next". At the bottom, there is a progress bar showing 50% completion.

**If you chose “Finished entering data”:**

- **To save and submit your data**, click on “**Submit**”. You will be returned to the WSLH Laboratory-Based Surveillance web page. **The data you entered will not be saved or transmitted until you click “Submit”.** **Do not use the red “X” button to close** or the data you entered will not be saved or submitted.



A screenshot of a web page titled "Wisconsin Laboratory Surveillance Reporting". The page has a blue header with the text "Thank you!". Below the header, there is a blue box with the text "Thank You!". The main content area has the text "Thank you for your report!". Below this, there is a link to email: "If you have any questions or updates, please email [wcln@slh.wisc.edu](mailto:wcln@slh.wisc.edu)". Below that, there is a link to the WSLH Web site: "To go to WSLH Web site: <http://www.slh.wisc.edu/>". At the bottom, there are two buttons: "Back" and "Submit". At the very bottom, there is a progress bar showing 86% completion.

- **If you want to report data for another week**, you must access the website again, enter your “Lab ID” again, and repeat the data entry process for the new week. **To save and submit your data** report for the additional week, again click on “**Submit**”. You will again be returned to the WSLH Laboratory-Based Surveillance web page.



## WISCONSIN TESTING FAX REPORT

Please FAX by **noon Wednesday** of each week to:

**Customer Service or Virology, Wisconsin State Laboratory of Hygiene at 844-390-6233**

Contact WSLH Customer Service (800-862-1013) with questions.

Please report the number of specimens tested and the number of specimens positive for each **Sunday through Saturday week throughout the year even if no specimens were tested.**

## WISCONSIN TESTING FAX REPORT

Identification Number:

Your Institution's Name, Address & Telephone Number:

<b>«Lab_ID»</b>
-----------------

«InstitutionName»	«Telephone_»
«Address»	
«City», «St» «Zip»	

Change of Institution Address: \_\_\_\_\_

Report For Week (Sunday through Saturday) Ending: \_\_\_\_\_

<b>Antigen Detection - Virus / Bacteria</b>	Number Tested	Number Positive			
		No. Pos.	Influenza		
			A	B	A & B
Influenza A and B (Differentiated) <i>Testing provides 2 results – 1 result for A &amp; 1 result for B</i>					
RSV					
Rotavirus					
Rapid Strep (Streptococcus Group A)					
SARS-CoV-2					

<b>PCR/Molecular - Virus / Bacteria</b>	Number Tested	No. Pos.	Number Positive				
			Influenza			B pertuss	B para-pertuss
			A	B	A & B		
Influenza A and B (Differentiated)							
RSV							
Bordetella							
Gastrointestinal Pathogen Panel Test Used _____			# Positive / Positive Pathogen				
SARS-CoV-2							
Other _____							

Please indicate the test used at your institution on the following page.

***Thank you for your report!***

Identification Number:

Your Institution's Name, Address & Telephone Number:

«Lab\_ID»

«InstitutionName»  
«Address»  
«City», «St» «Zip»

**Influenza Rapid Test Used: Please check all that apply.**

- |                                                           |                                                 |
|-----------------------------------------------------------|-------------------------------------------------|
| <input type="checkbox"/> 3M Rapid Detection Influenza A+B | <input type="checkbox"/> QuickVue Influenza A+B |
| <input type="checkbox"/> BD Veritor Influenza A+B         | <input type="checkbox"/> SAS FluAlert A&B       |
| <input type="checkbox"/> BinaxNOW Influenza A&B           | <input type="checkbox"/> Sofia Influenza A+B    |
| <input type="checkbox"/> Directigen Flu A+B               | <input type="checkbox"/> Xpect Flu A&B          |
| <input type="checkbox"/> Directigen EZ Flu A+B            | <input type="checkbox"/> ZstatFlu               |
| <input type="checkbox"/> Meridian Tru FLU                 | <input type="checkbox"/> Other                  |
| <input type="checkbox"/> OSOM Influenza A&B               | (specify): _____                                |

**RSV Rapid Test Used: Please check all that apply.**

- |                                            |                                       |
|--------------------------------------------|---------------------------------------|
| <input type="checkbox"/> Binax NOW RSV     | <input type="checkbox"/> QuickVue RSV |
| <input type="checkbox"/> Clearview RSV     | <input type="checkbox"/> Sofia RSV    |
| <input type="checkbox"/> Directigen EZ RSV | <input type="checkbox"/> Sure-Vue RSV |
| <input type="checkbox"/> Directigen RSV    | <input type="checkbox"/> Xpect RSV    |
| <input type="checkbox"/> Meridian TRU RSV  | <input type="checkbox"/> Other        |
|                                            | (specify): _____                      |

**Rotavirus Rapid Test Used: Please check all that apply.**

- |                                                     |                                                 |
|-----------------------------------------------------|-------------------------------------------------|
| <input type="checkbox"/> Immunocard Stat! Rotavirus | <input type="checkbox"/> Sure-Vue Rota          |
| <input type="checkbox"/> Pathfinder Rotavirus EIA   | <input type="checkbox"/> Xpect Rotavirus        |
| <input type="checkbox"/> Premier RotaClone          | <input type="checkbox"/> Other (specify): _____ |
| <input type="checkbox"/> SAS Rota                   |                                                 |

**Strep Rapid Test Used: Please check all that apply.**

- |                                                      |                                                   |
|------------------------------------------------------|---------------------------------------------------|
| <input type="checkbox"/> Aceava Strep A              | <input type="checkbox"/> ImmunoCard STAT! Strep A |
| <input type="checkbox"/> BD Chek Group A Strep       | <input type="checkbox"/> McKesson Strep A Twist   |
| <input type="checkbox"/> BinaxNOW Strep A            | <input type="checkbox"/> OSOM Ultra Strep A       |
| <input type="checkbox"/> Clearview Strep A Exact II  | <input type="checkbox"/> QuickVue+ Strep A        |
| <input type="checkbox"/> CONSULT Strep A Dipstick    | <input type="checkbox"/> SAS StrepAlert           |
| <input type="checkbox"/> Directigen EZ Group A Strep | <input type="checkbox"/> Sure-Vue Strep A         |
| <input type="checkbox"/> ICON SC Strep A             | <input type="checkbox"/> Other (specify): _____   |

**Influenza PCR/Molecular Test Used: Please check all that apply.**

- |                                                               |                                                           |
|---------------------------------------------------------------|-----------------------------------------------------------|
| <input type="checkbox"/> Abbott ID NOW Flu                    | <input type="checkbox"/> Luminex xTAG RVP                 |
| <input type="checkbox"/> Cepheid GeneXpert                    | <input type="checkbox"/> Mesa Biotech Accula Flu          |
| <input type="checkbox"/> Cepheid Xpert Xpress Flu             | <input type="checkbox"/> ProFast+                         |
| <input type="checkbox"/> DiaSorin Focus Simplexa FluA/B & RSV | <input type="checkbox"/> ProFlu+                          |
| <input type="checkbox"/> eSensor RVP                          | <input type="checkbox"/> ResPlex II RVP                   |
| <input type="checkbox"/> FilmArray Respiratory Panel          | <input type="checkbox"/> Silaris Influenza                |
| <input type="checkbox"/> Liat Influenza A/B (Cobas)           | <input type="checkbox"/> Solana Influenza A+B (Quidel)    |
| <input type="checkbox"/> Luminex ARIES FluA/B&RSV+SARS-CoV-2  | <input type="checkbox"/> Verigene Respiratory virus (RV+) |
|                                                               | <input type="checkbox"/> Other (specify): _____           |

# Unsubtypable Influenza A Notification Guidance

### Background:

Any clinical specimen that produces a positive result for influenza A, but fails to subtype as seasonal H3 or 2009 H1N1, may signal the emergence of a novel strain of influenza A virus. **Repeat Testing is recommended** for laboratories that encounter an unsubtypable influenza A virus when subtyping was attempted for both 2009 pdm H1N1 and seasonal H3.

- If the influenza A specimen fails to subtype after repeat testing **AND** the influenza A Ct is <35, then **notify the Wisconsin State Laboratory of Hygiene by email at [virus@slh.wisc.edu](mailto:virus@slh.wisc.edu)**.
- Please send the sample to the WSLH, according to guidelines included in this packet.

### Example Test Results:

Inf A result	Seasonal H3	2009 pdm A/H1	Action
+ (Ct<35)	Neg	Neg	<b>Notify WSLH</b>

**Shipping: *There is NO cost for shipping influenza surveillance specimens, including specimens which fail to subtype, when the instructions included in this packet are followed.***

Packages should be addressed to:

Wisconsin State Laboratory of Hygiene  
Communicable Disease Division  
Specimen Receiving  
2601 Agriculture Dr  
Madison, WI 53718

## Influenza A (H1v/H3v) Variant Virus Testing

### **Situational Update**

Sporadic cases of influenza “variant” viruses continue to be reported in multiple states each summer. All of these cases are directly related to swine exposure. If a patient with suspected influenza has come in contact with swine, please contact the Wisconsin Division of Public Health for guidance.

### **Background**

Influenza viruses normally circulate in pigs and are referred to as swine influenza viruses. When one of these swine influenza viruses infects a human it is termed a **variant** influenza virus. On occasion, influenza viruses from pigs can infect humans. These variant viruses are denoted with a “v” at the end of the name (e.g. H1N1v, H1N2v and H3N2v).

### **Transmission**

Influenza viruses from swine normally do not infect humans; however, cases do occur sporadically and are typically associated with close contact with infected pigs. There have been no reports of sustained human transmission of these variant viruses as of August 2022. Public health officials are closely monitoring the current situation through enhanced surveillance activities.

### **Human cases**

According to the Centers for Disease Control and Prevention (CDC), there have been sporadic human cases of influenza A variant viruses in the US since 2012. The majority of cases have occurred in children.

### **Specimen Collection**

There are no special requirements for specimen collection from suspect cases. Nasopharyngeal (NP) and/or oropharyngeal (Throat) specimens should be collected with Dacron or polyester tipped plastic shafted swabs and placed together in virus transport medium (VTM) for PCR testing at WSLH. Specimens should be refrigerated after collection and transported using cold packs to maintain the cold chain.

### **Transport**

WSLH provides no cost specimen transport if your facility does not have a courier system. Shipping instructions using Gold Cross Courier can be found in this packet.

Specimen collection supplies (e.g. VTM) and specimen shippers are also available at no cost. Orders can be placed by contacting the WSLH Clinical Orders department at **800-862-1088** or email [HMSpecimenreceivingclinicalordersstaff@slh.wisc.edu](mailto:HMSpecimenreceivingclinicalordersstaff@slh.wisc.edu).

### **Laboratory Diagnostic Testing**

#### *Rapid Influenza Diagnostic Tests (RIDTs):*

The CDC has evaluated the performance characteristics of some of the commercial RIDTs to detect the H3N2 variant viruses. The result of this study are published in the Morbidity and Mortality Weekly Report (MMWR) and are available at

[http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6132a4.htm?s\\_cid=mm6132a4\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6132a4.htm?s_cid=mm6132a4_w)

#### *PCR Tests:*

The performance characteristics of commercial PCR assays to detect H1NXv and H3N2v viruses have not been evaluated at this time. However, clinical laboratories performing PCR may not be able to distinguish seasonal H1 and H3 from the H3N2v and H1NXv viruses. The PCR assay that WSLH and other public health labs use provided by the CDC has the capability to distinguish these viruses. Clinicians that suspect influenza variant viruses from patients with close contact to swine should contact their local health departments or the Wisconsin Division of Public Health for approval for testing at WSLH.

### **Additional Information**

The WSLH provides weekly updated information throughout the year on influenza activity on our website: <http://www.slh.wisc.edu/wcln-surveillance/surveillance/virology-surveillance/>

The CDC also has many guidance documents and information pertaining to variant influenza viruses on its website: <http://www.cdc.gov/flu/swineflu/variant.htm>

### **Contact Information**

Please contact the **WSLH Virology Laboratory** at 608-224-4259 or the **WSLH Customer Service Department** at 800-862-1013 or if you have questions regarding laboratory testing for influenza variant viruses.

## Specimen Collection for Avian Influenza Testing

### **Situational Update:**

In late 2014, avian influenza H5N2 and H5N8 emerged in North America commercial poultry flocks. In 2015, numerous Wisconsin commercial poultry farms were infected. Sporadic flock infections continue to occur. Although there have been no documented human cases, people that have close contact with sick poultry infected with avian influenza (H5Nx) may be at increased risk for severe disease. In spring 2022, a very large H5N1 avian influenza outbreak emerged worldwide, including in North America. This affected many poultry farms in Wisconsin. Lastly, influenza H7N9 and H9N2 continues to cause human infections in China, mainly in persons with close contact with poultry, and H5N8 viruses are circulating in many parts of the world and can also cause human infections.

**If you suspect a symptomatic patient is at increased risk of being infected with **Avian Influenza** notify the**

**Wisconsin Division of Public Health (WDPH)**

**7:45 AM - 4:30 PM Monday-Friday, call 608-266-5326**

**After-hours, ask for “Communicable Disease  
Epidemiologist on-call” at 608-258-0099**

### **Specimen Collection Recommendations:**

- Obtain one oropharyngeal (throat) swab AND one nasopharyngeal (NP) swab; place in the same tube of viral transport medium (VTM). Use swabs with a Dacron or polyester tip and aluminum or plastic shaft.
- For patients with lower respiratory illness, a lower respiratory tract specimen is also recommended (e.g. BAL).

- Place specimens at 4°C (40°F) immediately, and maintain specimens at refrigerator temperatures during transport.
  - Complete Wisconsin State Lab of Hygiene (WSLH) **OUTBREAK INVESTIGATION FORM** found on the WSLH website:  
<http://www.slh.wisc.edu/wcln-surveillance/surveillance/virology-surveillance/>
- Arrange transport so that specimens arrive at the WSLH within 24 hours of collection. Testing is usually completed within 24 hour after receipt.

There is NO cost for specimen shipping or testing for WDPH-approved specimens.

Please contact the **WSLH Virology Laboratory at 608-224-4259** or the **WSLH Customer Service Department** at 800-862-1013 or if you have questions regarding laboratory testing.

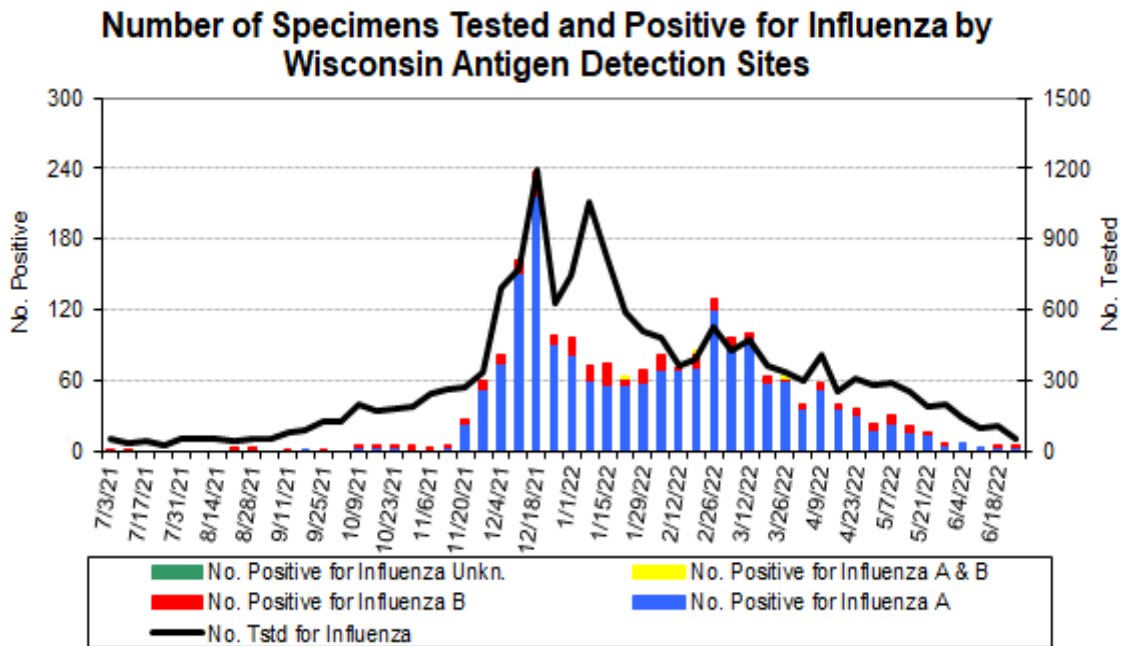
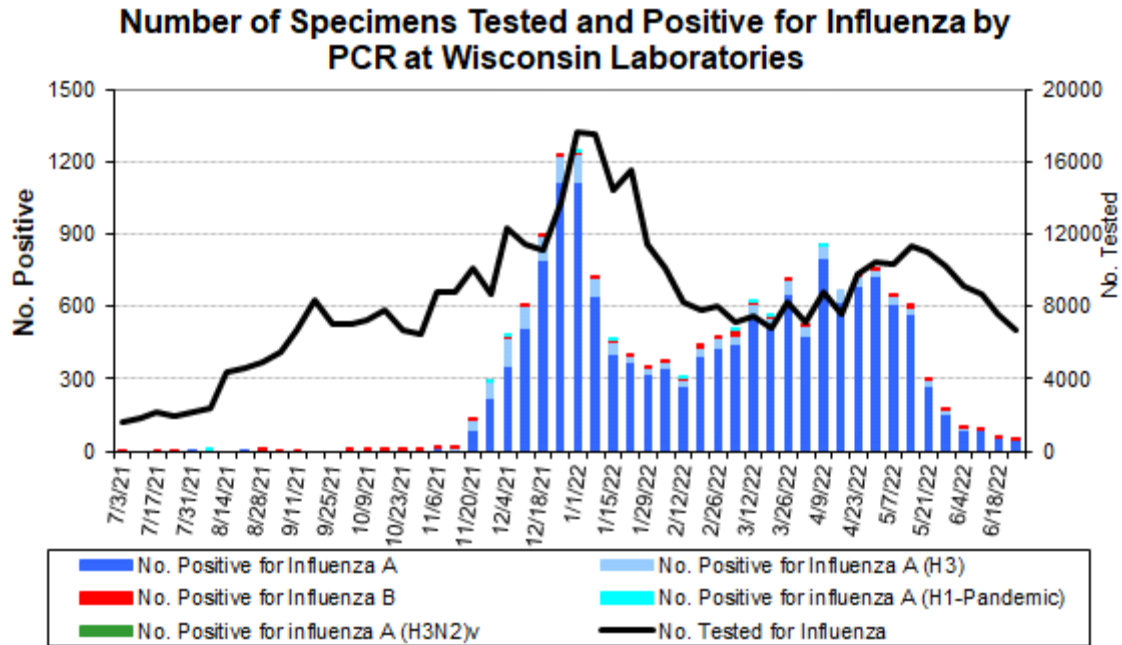
### Additional Information:

Wisconsin Division of Public Health (2015). Avian Influenza (H5N2)-Bird Flu General Information. Available at: <https://www.dhs.wisconsin.gov/influenza/avian-h5n2.htm>

CDC (2013) *Interim Guidance for Specimen Collection, Processing, and Testing for Patients Who May be Infected with Novel Influenza A (e.g. H5N1 & H7N9) Virus*. Available at: <http://www.cdc.gov/flu/avianflu/h7n9/specimen-collection.htm>

CDC (2022) Bird Flu Current Situation Summary. Available at: <https://www.cdc.gov/flu/avianflu/avian-flu-summary.htm>

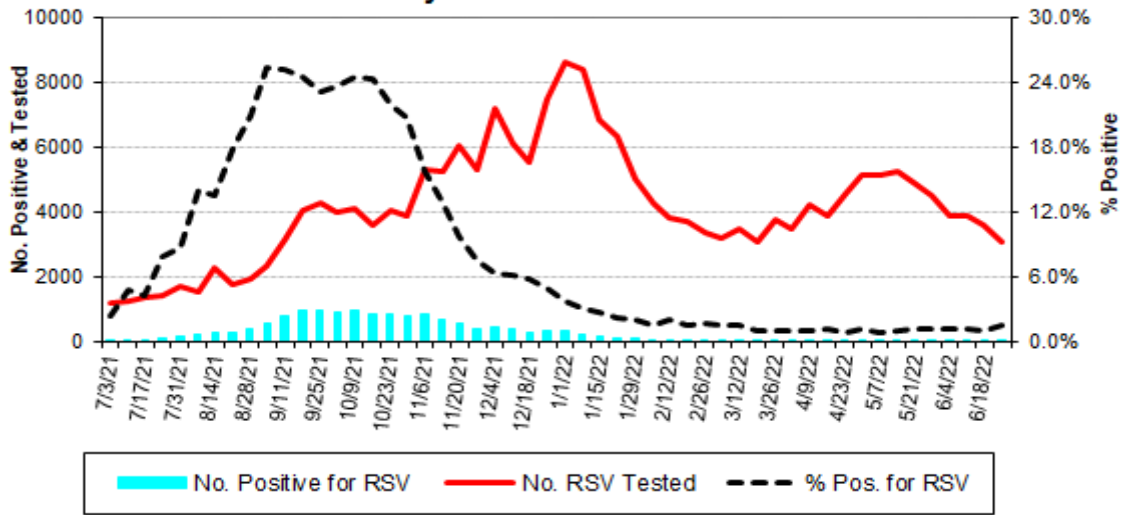
### Laboratory Surveillance Graphs, 2021-2022



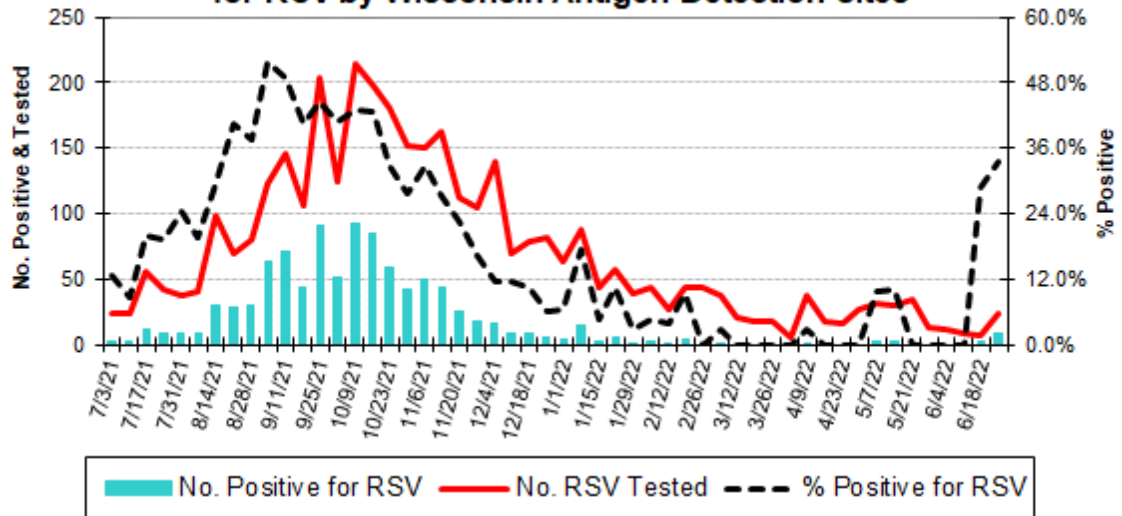


## Laboratory Surveillance Graphs, 2021-2022

### Number of Specimens Tested, Positive and the Percent Positive for RSV by PCR at Wisconsin Laboratories

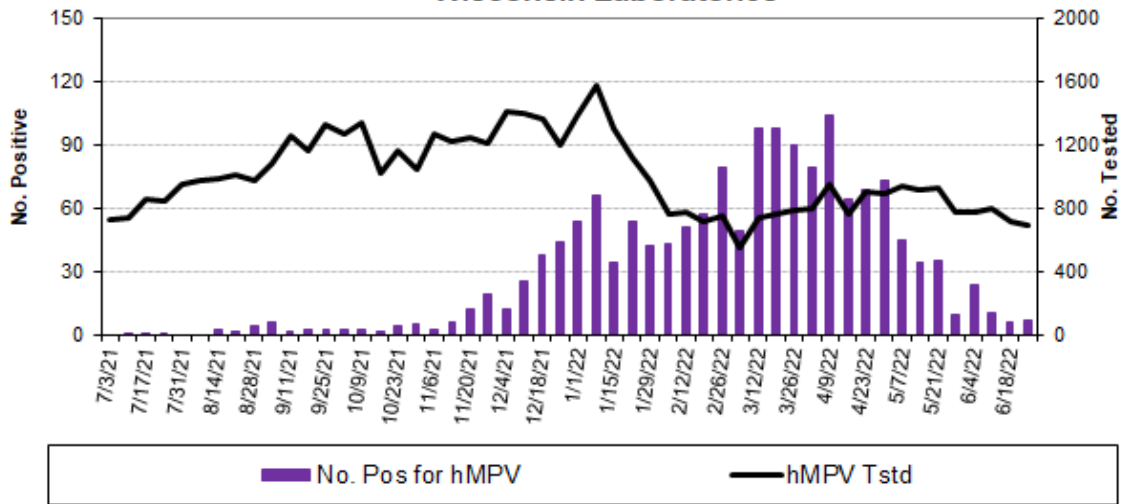


### Number of Specimens Tested, Positive and Percent Positive for RSV by Wisconsin Antigen Detection Sites

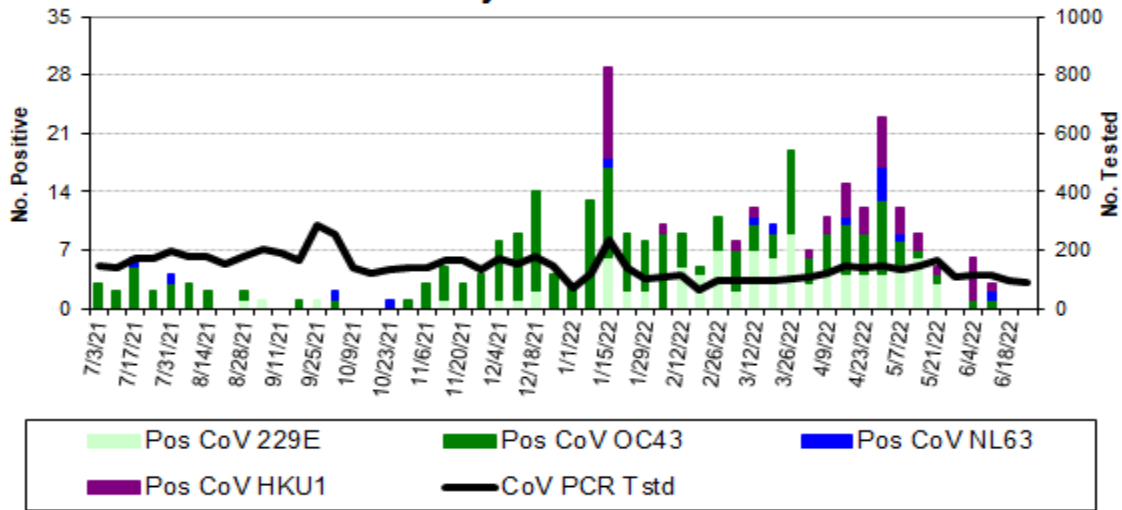


## Laboratory Surveillance Graphs, 2021-2022

### Number of Specimens Tested and Positive for hMPV by PCR at Wisconsin Laboratories

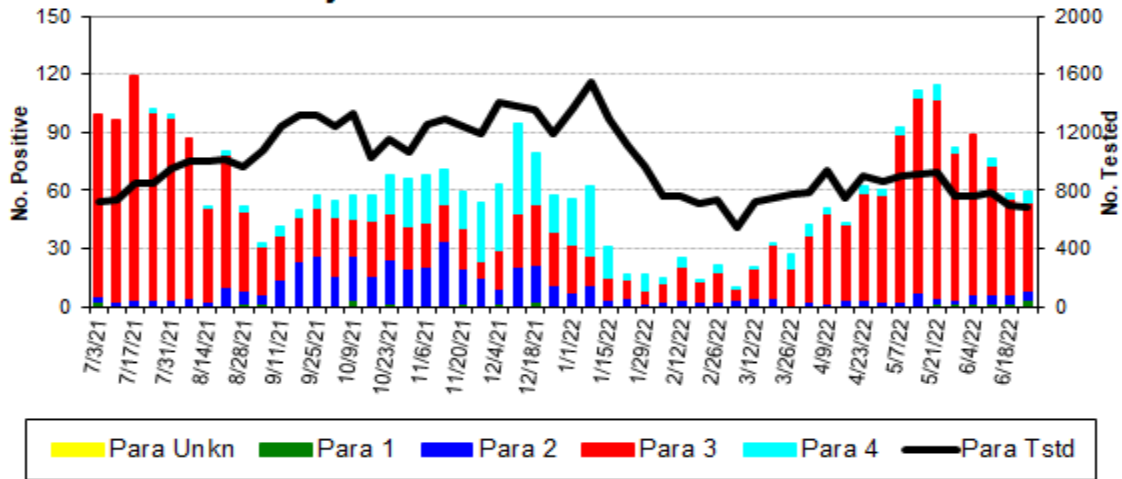


### Number of Specimens Tested, Positive and Percent Positive for Coronavirus by PCR at Wisconsin Laboratories

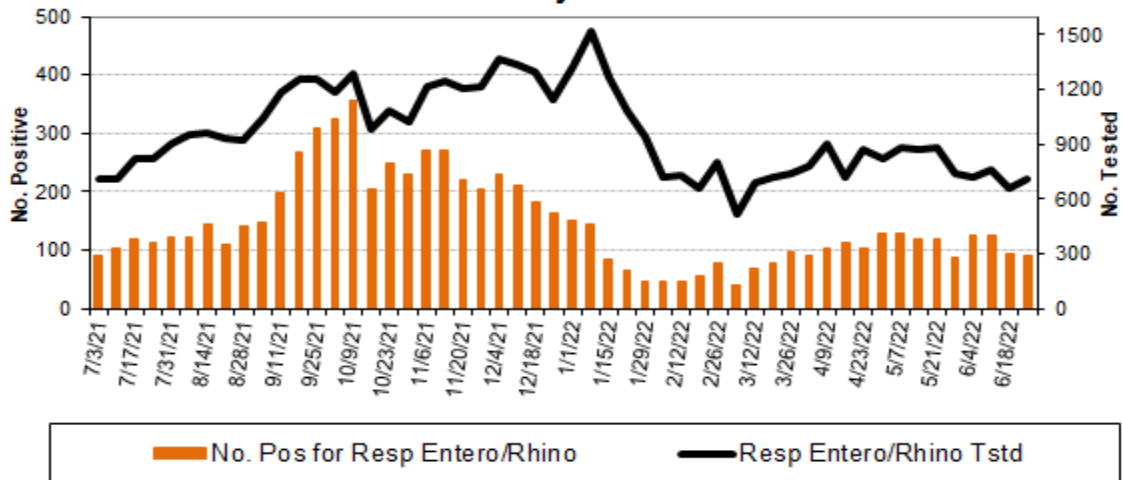


**Laboratory Surveillance Graphs, 2021-2022**

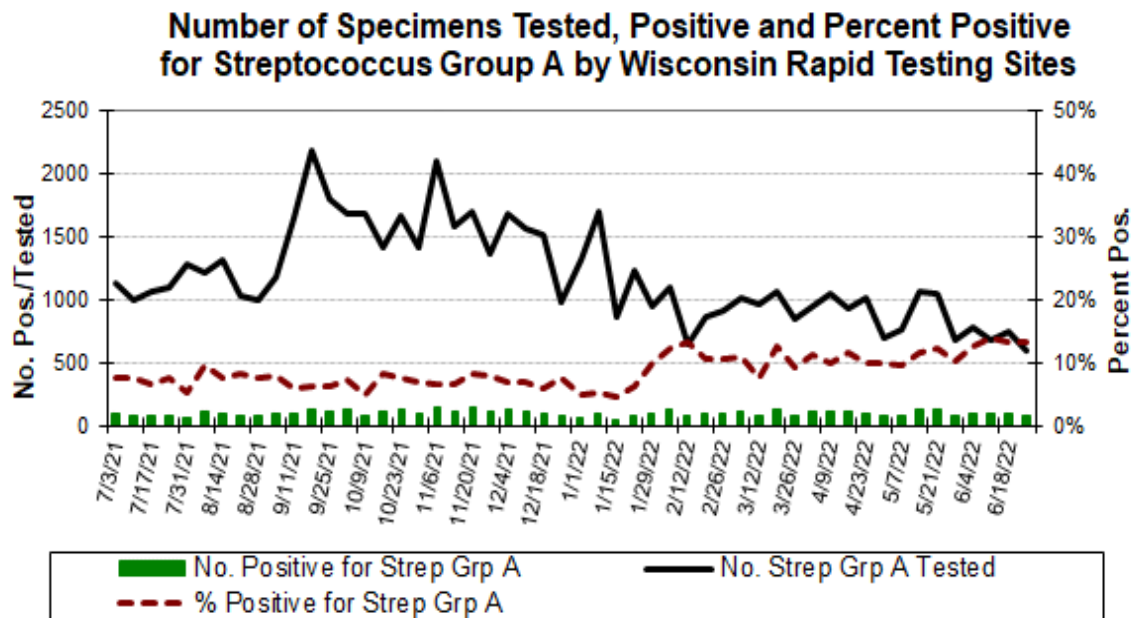
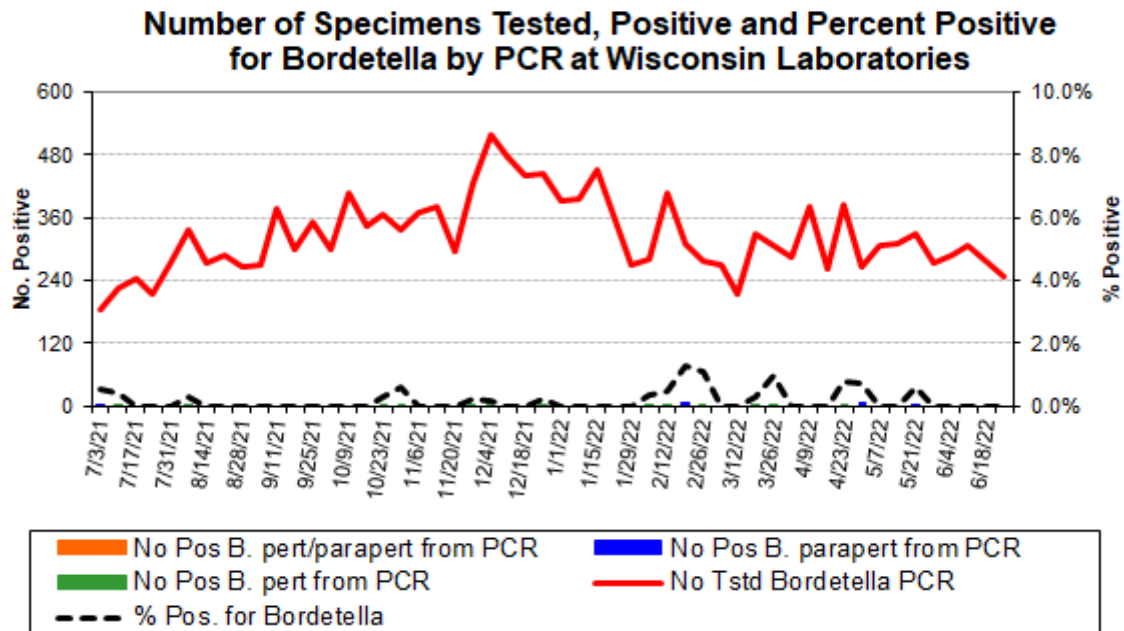
**Number of Specimens Tested and Positive for Parainfluenza by PCR at Wisconsin Laboratories**



**Number of Specimens Tested and Positive for Enterovirus/Rhinovirus by PCR at Wisconsin Laboratories**

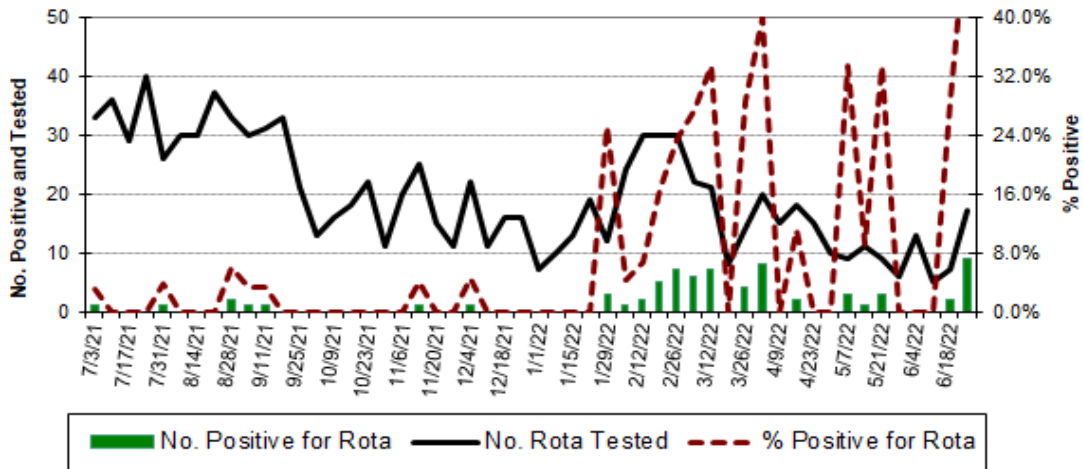


## Laboratory Surveillance Graphs, 2021-2022

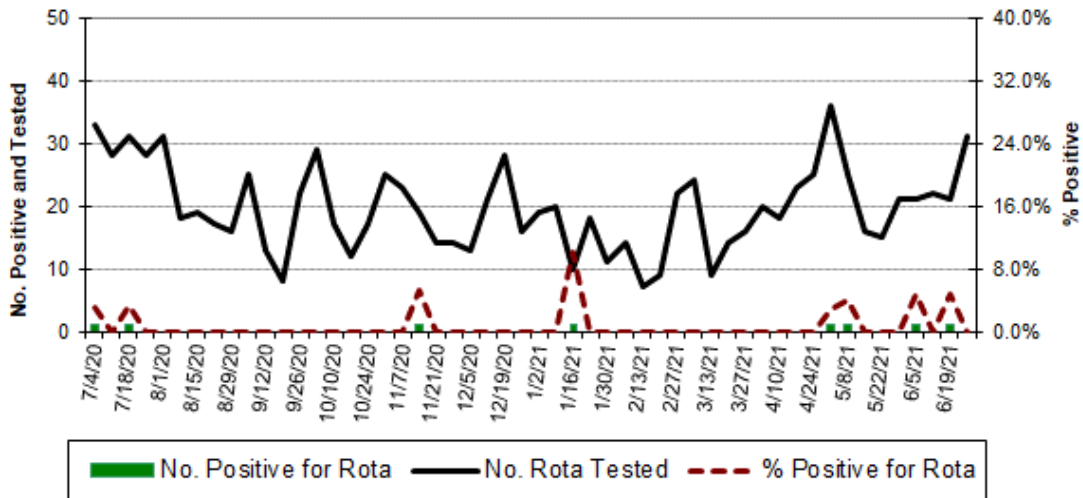


## Laboratory Surveillance Graphs, 2019-2022

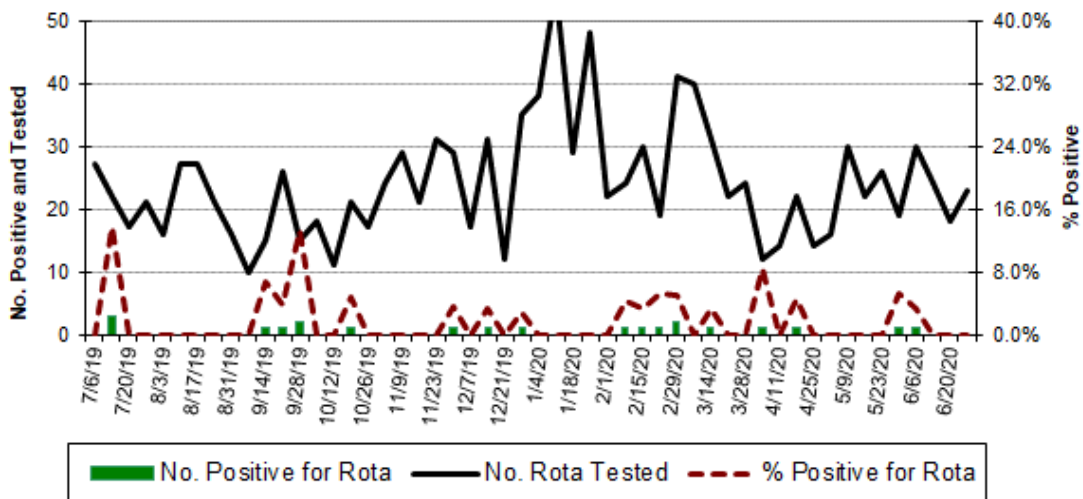
**Number of Specimens Tested, Positive and Percent Positive for Rotavirus by Antigen Detection at Wisconsin Laboratories 2021-2022**



**Number of Specimens Tested, Positive and Percent Positive for Rotavirus by Antigen Detection at Wisconsin Laboratories 2020-2021**

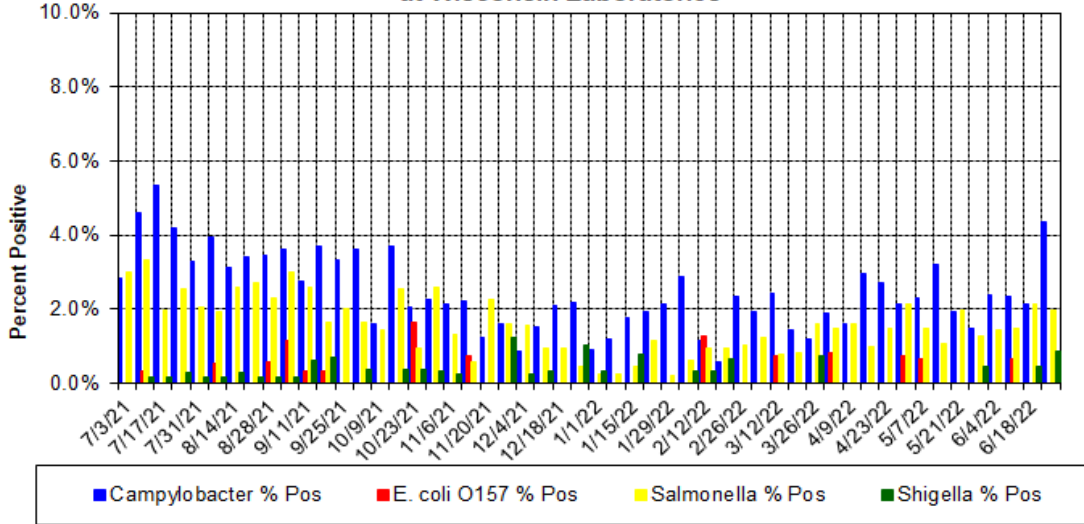


**Number of Specimens Tested, Positive and Percent Positive for Rotavirus by Antigen Detection at Wisconsin Laboratories 2019-2020**

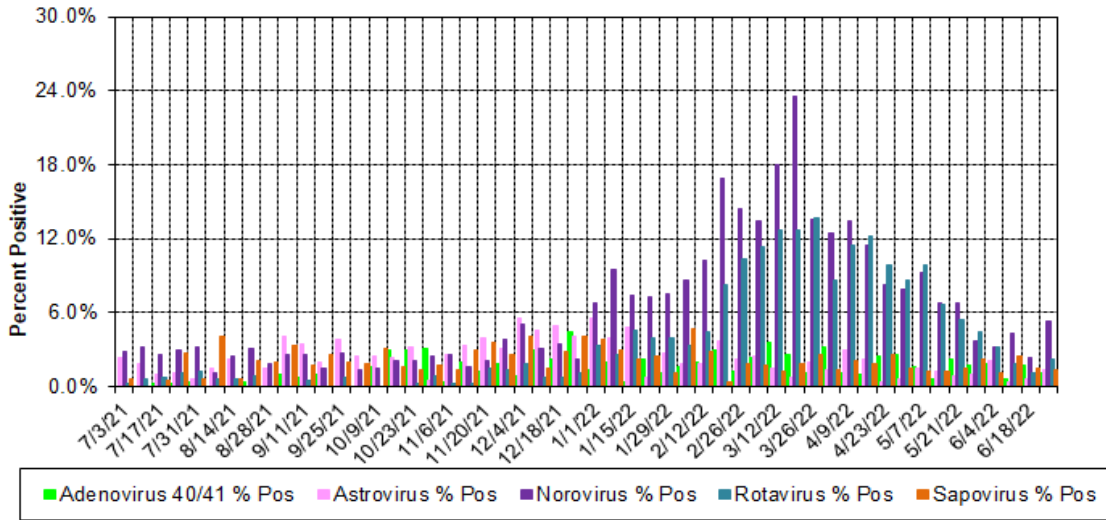


## Laboratory Surveillance Graphs, 2021 -2022

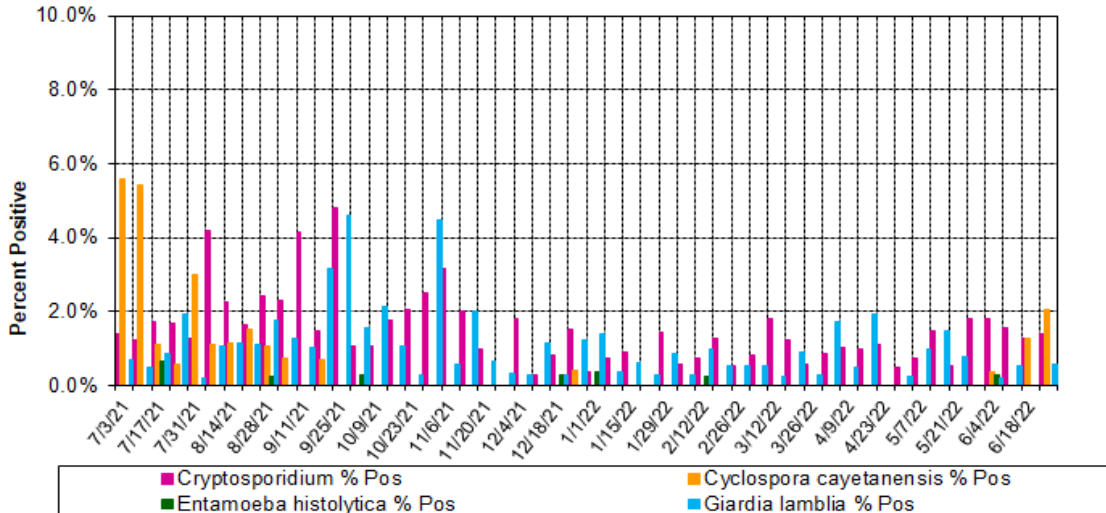
### Positivity of Bacterial Enteric Pathogens by PCR at Wisconsin Laboratories



### Positivity of Viral Enteric Pathogens by PCR at Wisconsin Laboratories

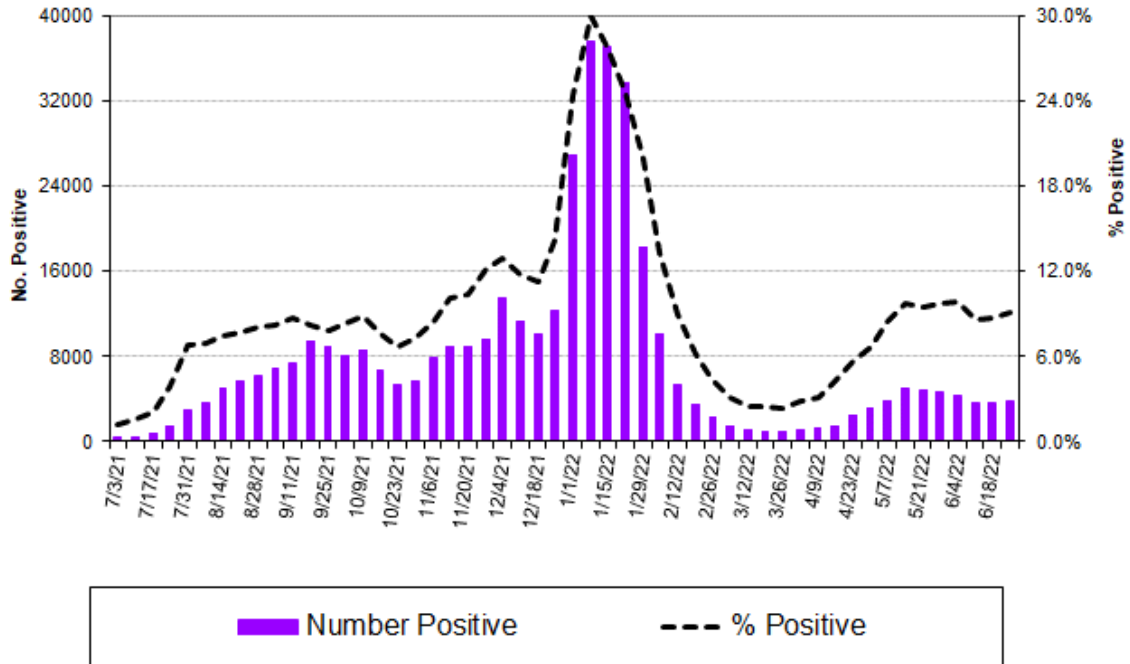


### Positivity of Parasitic Enteric Pathogens by PCR at Wisconsin Laboratories

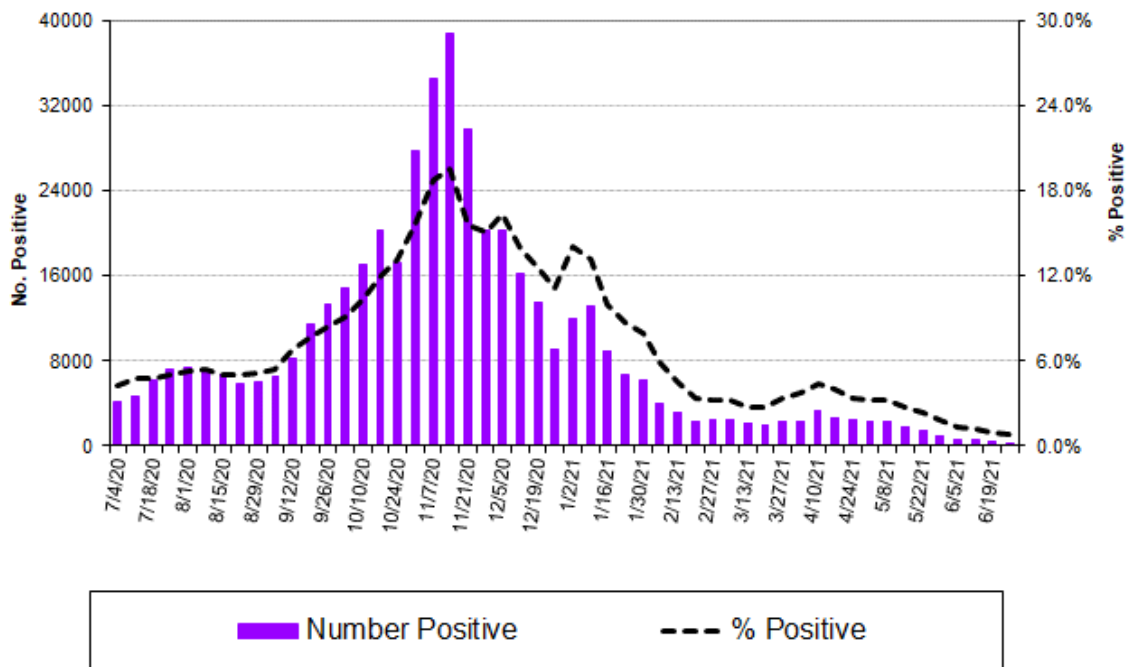


## Laboratory Surveillance Graphs, 2020-2022

**Number of Specimens Tested, Positive and the Percent Positive for COVID-19 by PCR at Wisconsin Laboratories 2021-2022**



**Number of Specimens Tested, Positive and the Percent Positive for COVID-19 by PCR at Wisconsin Laboratories 2020-2021**



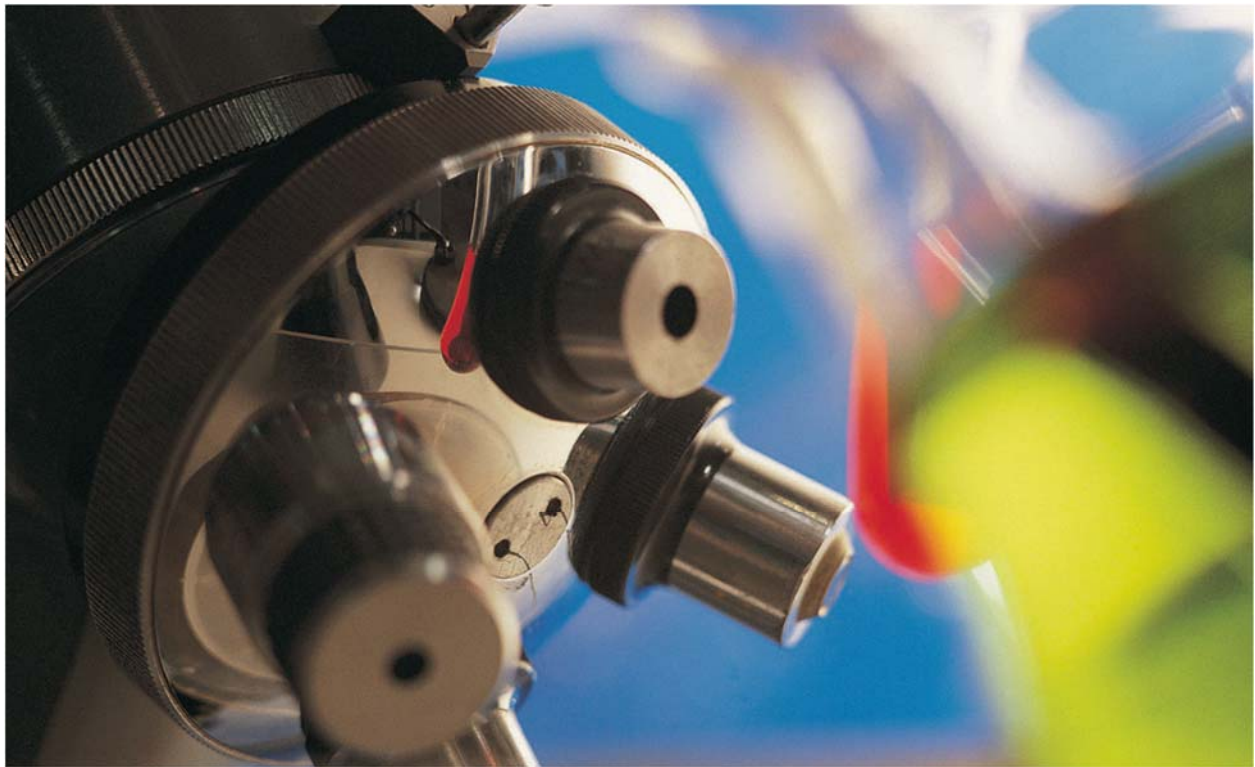






**Wisconsin State  
Laboratory of Hygiene**  
UNIVERSITY OF WISCONSIN-MADISON

**Communicable Disease Division  
2601 Agriculture Drive  
Madison, WI 53718  
Customer Service: 800-862-1013**



***WWW.SLH.WISC.EDU***