Start of the 2023–2024 Influenza Season Including COVID-19 and RSV

October 4, 2023



Welcome!

The **2023–2024** influenza surveillance season officially started on Sunday, October 1, 2023

Percentage of Outpatient Visits for Respiratory Illness Reported By The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2022-2023 and Selected Province Seasons

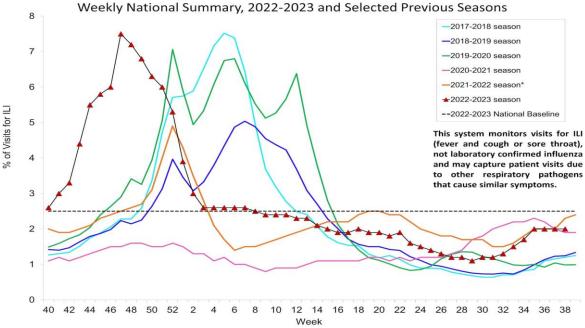
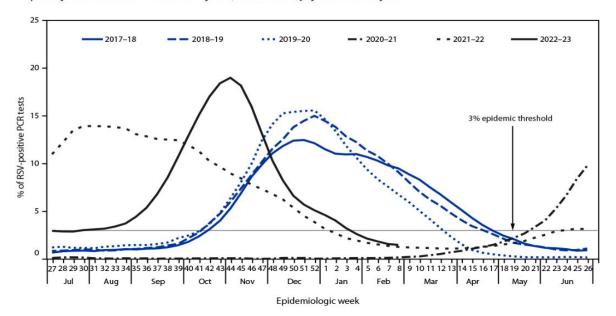
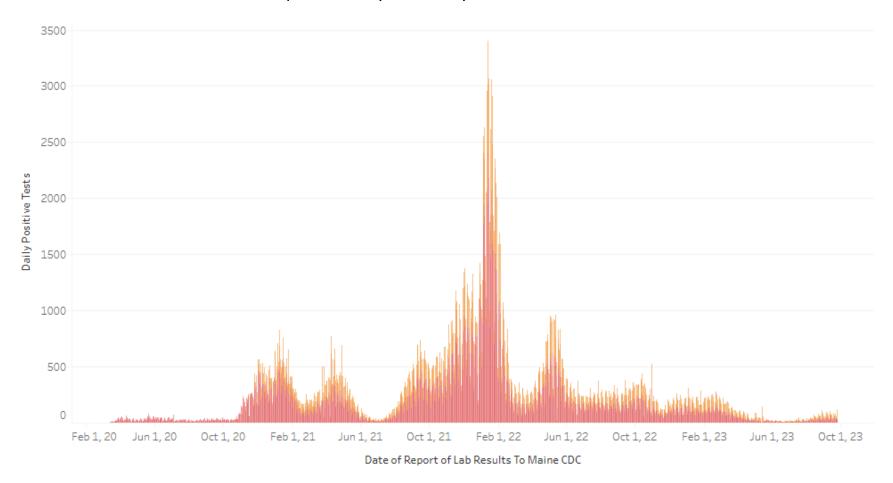


FIGURE 1. Percentage* of polymerase chain reaction test results positive for respiratory syncytial virus, by epidemiologic week — Natior Respiratory and Enteric Virus Surveillance System, United States, July 2017–February 2023

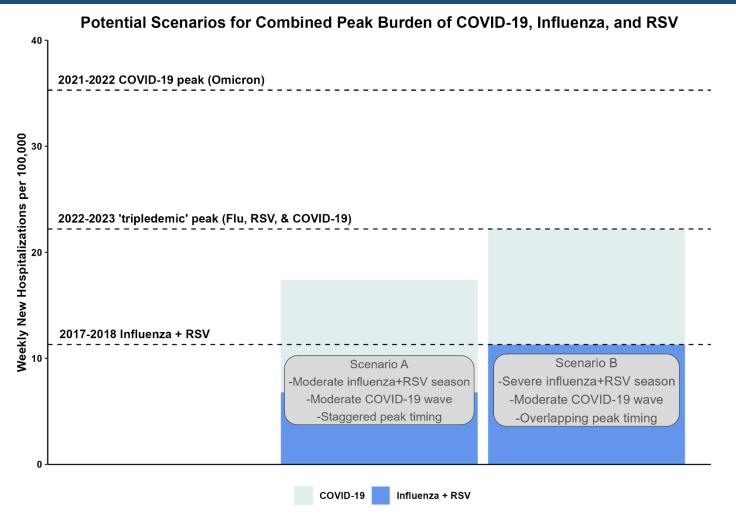


COVID-19 positive daily laboratory results- Maine 2020-2023



Respiratory Season Outlook

Analysis from CDC shows that with the addition of COVID-19 to season influenza and RSV seasons, even an average respiratory season can place significant strain on our healthcare system



2023–2024 Influenza Vaccine Recommendations

- Everyone six months of age and older should get a yearly flu vaccine.
- Children 6 months through 8 years of age, receiving the flu shot for the first time or those who have only previously gotten one dose of vaccine in this age range, should get two doses of vaccine this season—spaced at least 4 weeks apart.
- Adults aged ≥65 years should receive one of the following:
 - Fluzone High-Dose Quadrivalent inactivated influenza vaccine
 - FluBlok Quadrivalent recombinant influenza vaccine
 - Fluad Quadrivalent adjuvanted inactivated influenza vaccine
 - If these vaccines are not available at time of administration, then any other age-appropriate influenza vaccine should be administered.

 Even young, healthy adults

Vaccine Compositions

- All of the 2023–2024 egg-based influenza and LAIV4 vaccine are made to protect against the following four viruses:
 - A/Victoria/4897/2022 (H1N1)pdm09-like virus (Updated)
 - o A/Darwin/9/2021 (H3N2)-like virus
 - o B/Austria/1359417/2021 (B/Victoria lineage)-like virus
 - B/Phuket/3073/2013 (B/Yamagata lineage)-like virus
- For 2023–2024, cell- or recombinant-based vaccines contain:
 - A/Wisconsin/67/2022 (H1N1)pdm09-like virus (Updated)
 - o A/Darwin/6/2021 (H3N2)-like virus
 - o B/Austria/1359417/2021 (B/Victoria lineage)-like virus
 - B/Phuket/3073/2013 (B/Yamagata lineage)-like virus



- Live attenuated influenza vaccine (LAIV)—the nasal spray vaccine—is available for use during the 2023–2024 flu season.
 - The LAIV nasal spray is a quadrivalent vaccine that can be administered to people between 2-49 years of age without contraindications to the nasal spray vaccine.

Recommendations for people with egg allergies have been updated for the 2023–2024 flu season:

- Egg allergy alone necessitates no additional safety.
- All vaccines should be administered in settings in with personnel and equipment needed for treatment of acute hypersensitivity reactions.
- For more information on the changes regarding egg allergies: https://www.cdc.gov/mmwr/volumes/72/rr/rr7202a1.htm



Timing:

For most persons who need only 1 dose of influenza vaccine for the season,
 vaccination should ideally be offered during September or October.



- children aged 6 months through 8 years require 2 doses of influenza vaccine for their first flu season, these children should receive their first dose as soon as possible to allow the second dose (which must be administered ≥4 weeks later) to be received, ideally, by the end of October.
- Pregnant persons in the third trimester may consider vaccinating in July and August because vaccination at this time may protect their infants during the first months after birth.
- For most adults (particularly adults aged ≥65 years): Vaccination during July and August should be avoided unless there is concern that vaccination later in the season might not be possible



Healthcare Workers

- The Centers for Disease Control and Prevention (CDC), the Advisory Committee on Immunization Practices (ACIP), and the Healthcare Infection Control Practices Advisory Committee (HICPAC) recommend that all U.S. health care workers (HCW) get vaccinated annually against influenza.
- Since 2002, Maine state law requires that healthcare facilities report data on seasonal influenza vaccine coverage among healthcare workers in their facilities annually to the Maine Center for Disease Control and Prevention (Maine CDC).
- As of 2021, healthcare workers employed by a licensed nursing facility, residential care facility, Intermediate Care Facility for Individuals with Intellectual Disabilities (ICF/IID), multilevel healthcare facility, hospital, or home health agency licensed by the State of Maine are required to show proof of seasonal influenza vaccination.

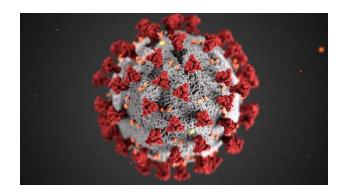
https://www.maine.gov/dhhs/mecdc/infectious-disease/immunization/providers/documents/Immunization%20Requirements%20for%20Healthcare%20Workers.pdf



https://www.cdc.gov/flu/resource-center/shareable-resources.htm

Fall COVID Roll Out

ACIP voted to approve the updated Fall 2023–2024 COVID vaccine on September 12th.



Monovalent vaccine protecting against XBB 1.5 Omicron subvariant

Maine Center for Disease Control and Prevention

Bivalent no longer approved

Do Not Use Deauthorized Products:

Use only COVID-19 vaccine products updated for 2023-24.







Interim Clinical Considerations: 2023–2024 mRNA COVID-19 Vaccine

- 1 dose for everyone 5 years of age and older
- Children 6 months through 4 years of age
 - Initial Vaccination:
 - 2 Doses of Moderna
 - 3 Doses of Pfizer
 - Previously Vaccinated
 - 1 doses of the update mRNA vaccine
- Moderately or severely immunocompromised individuals:
 - Initial vaccination:
 - 3-dose series of updated Moderna or updated Pfizer-BioNTech COVID-19 vaccine
 - Received previous mRNA doses:
 - need 1 or 2 doses of either updated mRNA COVID-19 vaccine, depending on the number of prior doses
 - May receive 1 or more additional updated mRNA COVID-19 vaccine doses

https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html

Presentations:

- Storage and handling the same as previous iterations.
- Pfizer has been simplified to 0.3ml for all presentations.
- All single dose vials/syringes except Pfizer under 5 (3 dose vials) and Novavax (5 dose vial)
- Pfizer/Comirnaty
 - 6 months to 4 years has a yellow cap and needs to be diluted.
 - 5 years to 11 years has a blue cap.
 - 12 years and older has a gray cap.
- Moderna/Spikevax
 - 6 months to 11 years has a blue cap and green label.
 - Moderna for persons 12 years and older has a blue cap and blue label.
- New Novavax product coming soon (not mRNA)

When to vaccinate:

- Majority of people can receive COVID-19 vaccine now
- 2 months after bivalent vaccination
- 3 months after infection
 - Can give sooner if patient may not come back
 - The reason for 3 months is for a more robust immune response

COVID-19 Commercialization

- US Government is no longer the sole provider for COVID-19 vaccine in US
- Vaccine is available on the open market
- Insurance companies expected to reimburse for COVID-19 vaccine
- Federal programs for uninsured and underinsured

Insurance Coverage of Updated COVID-19 Vaccines: A Cheat Sheet

	PRIVATE	MEDICAID	MEDICARE	UNINSURED ADULTS	UNINSURED KIDS
Requirement	Vaccine and associated administration or visit costs must be covered with no costsharing in network. If no in-network provider can deliver the vaccine, health plans must cover the full cost of an out-of-network vaccine.	Must be covered with no cost-sharing.	Must be covered by Part B with no cost-sharing. This includes people in both traditional Medicare and Medicare Advantage plans.	No requirement of coverage or free vaccines. HHS has launched the Bridge Access program as temporary measure.	Guaranteed coverage through Vaccines for Children Program (VFC).
Exceptions	Grandfathered plans and short-term limited duration insurance plans do not have to cover recommended vaccines.	None	None	N/A	May face vaccine administration fee but no eligible child can be turned away due to inability to pay.
Coverage Start Date	Immediately upon FDA approval or authorization. September 11, 2023.	Immediately upon FDA approval or authorization. September 11, 2023.	Immediately upon FDA approval or authorization. September 11, 2023.	N/A	Immediately upon FDA approval or authorization. September 11, 2023.



https://www.kff.org/infographic/insurance-coverage-of-updated-covid-19-vaccines-a-cheat-sheet/

COVID-19 Vaccine for Children

- Routine business for VFC providers
- Maine's Childhood Universal Vaccine Program will cover all children through age 18 years
 - VFC for uninsured and underinsured
 - Universal program assessment for insured

The Bridge Program is administered by the Federal Pharmacy Program and the State Programs:

Pharmacy:

- CVS
- Walgreens
- eTrueNorth

MIP:

- Providers can no longer be COVID only
 - Must meet all MIP requirements
- Currently recruiting
 - FQHCs
 - Indian Health Service
 - Public Health Departments
 - Community Pharmacy
 - Jails/Correctional Facilities



RSV Vaccine for Infants

- Nirsevimab, trade name Beyfortus, is a "vaccine"/monoclonal antibody approved for infants up to 24 months designed to protect infants from severe RSV disease.
 - This is the first vaccine approved broadly for this population
- Who should get the vaccine:
 - Infants born during or entering their first RSV season
 - Children up to 24 months of age who remain vulnerable to severe RSV disease through their second RSV season.

RSV Infant Vaccine Dosing

- Administered by intramuscular injection.
- Single dose vial/pre-filled syringe (50mg and 100mg)
 - 50mg for those weighing less than 5kg
 - 100mg for those weighing over 5kg
 - For older infants, up to 24 months, who remain at increased risk for RSV in their second RSV season, a single 200mg does is recommended
- One dose per RSV season
- Provides protection for at least 5 months (the average length of one season)



RSV Vaccine for Older Adults

ACIP and CDC recommend that adults ages 60 years and older may receive a single dose

- shared clinical decision making
- no preferential recommendation
- recombinant vaccine using the RSV F protein antigen

Arexvy (GSK)

- Dosing: Single dose, once reconstituted is 0.5ml
- Efficacy of 86.2% for the first season

Abrysvo (Pfizer)

- Dosing: Single dose, once reconstituted is 0.5ml
- Efficacy of 88.9% for the first season



RSV Vaccine for Pregnant People

ACIP approved administration of Abrysvo to pregnant people in the third trimester to provide protection to infants for the first five months after birth.

Contraindications

- Those with a history of serious hypersensitivity reactions, including anaphylaxis
- Those with history of serious reaction to any of the vaccine's ingredients

Precautions

- Hypersensitivity Including Anaphylaxis: Serious hypersensitivity reactions, including anaphylaxis, have been observed with other human IgG1 monoclonal antibodies.
 - Initiate appropriate medications and/or supportive therapy.

Adverse Reactions

- Rash (0.9%)
- Injection site reactions (0.3%)

RSV Vaccine Roll Out

Infants

- Included in the VFC program
- Maine Vaccine Board to vote on whether to include in Universal Program
- Possibly available late October

Adults

- MIP plans to carry for uninsured and underinsured persons
- Possibly towards the end of the year

Coadministration

Providers may simultaneously administer COVID-19, influenza, and respiratory syncytial virus (RSV) vaccines to eligible patients.

Immunization Resources

- Information on Influenza vaccine: https://www.cdc.gov/flu/prevent/flushot.htm
- Shareable Influenza Resources: https://www.cdc.gov/flu/resource-center/shareable-resources.htm
- Information on RSV vaccine: https://www.cdc.gov/vaccines/vpd/rsv/index.html
- AAP Guidance on Palivizumab: https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/interim-guidance-for-use-of-palivizumab-prophylaxis-to-prevent-hospitalization/
- Information on COVID-19 vaccine: https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html
- MIP Website: https://www.maine.gov/dhhs/mecdc/infectious-disease/immunization/
- To find vaccination locations: https://www.vaccines.gov/

Influenza Antiviral Medications

- Treatment is recommended as soon as possible for any patient with suspected or confirmed influenza who:
 - Is hospitalized;
 - Has severe, complicated, or progressive illness; or
 - Is at higher risk for influenza complications (including those ≥65 years).
- Should not wait for laboratory confirmation of influenza.
- Oral oseltamivir, oral baloxavir, inhaled zanamivir, and intravenous peramivir can be used for older adults.
 - Zanamivir not recommended for people with underlying respiratory disease (e.g., asthma, chronic obstructive pulmonary disease).
- Additional information on use of antivirals for treatment and chemoprophylaxis is available at:
 - Influenza Antiviral Medications: Summary for Clinicians

CDC Interim Clinical Considerations for COVID-19 Treatment in Outpatients

- There is strong scientific evidence that <u>antiviral treatment</u> of outpatients at risk for severe COVID-19 reduces their risk of hospitalization and death.
- The antivirals Paxlovid (ritonavir-boosted nirmatrelvir) and Veklury (remdesivir)
 are the preferred treatments for eligible adult and pediatric patients with positive
 results of a COVID-19 test who are at high risk for progression to severe COVID-19.
 - Lagevrio (molnupiravir) is an alternative therapy for patients who cannot get a preferred treatment due to eligibility, interaction, or availability.
- Consider COVID-19 treatment in non-hospitalized patients who meet all 4 criteria:
 - Test positive for SARS-CoV-2 (with PCR or antigen test, including at-home tests)
 - Have symptoms consistent with <u>mild-to-moderate COVID-19</u>. (People with mild COVID-19 experience symptoms such as fever, sore throat, cough, or headache that do not affect the lungs and breathing. People with moderate illness have symptoms that affect the lungs like shortness of breath or difficulty breathing.)
 - Are within 5 days of symptom onset for Paxlovid or 7 days of symptom onset for Veklury
 - Have one or more risk factors for severe COVID-19

CDC Underlying Medical Conditions Associated with Higher Risk for Severe COVID-19

- Risk factors for severe COVID-19 include:
 - Age over 50 years, with risk increasing substantially at age 65+
 - Being unvaccinated or not up to date on COVID-19 vaccinations
 - Specific <u>medical conditions and behaviors</u>
- Clinicians can consider other factors when evaluating risk for severe COVID-19 and use of outpatient therapeutics
 - Some people from racial and ethnic minority groups are at risk of being disproportionately affected by COVID-19 from many factors, including limited access to vaccines and healthcare.

U.S. CDC: Underlying Medical Conditions Associated with Higher Risk for Severe COVID-19: Information for Healthcare Professionals

Key Messages for Patients

- Get a seasonal influenza vaccine <u>and</u> an updated COVID-19 vaccine if you are 6 months and older
- Get an RSV vaccine if you are an older adult (60 years and older), a young child (≤ 12 months, or ≤ 24 months and at higher risk), or a pregnant woman
- If you have respiratory symptoms, seek testing and treatment for influenza <u>and</u> COVID-19: treatment prevents severe disease, even if you're vaccinated
- Cover coughs/sneezes, frequent handwashing, wear masks, improve air quality, stay home if you are sick

Key Messages for Clinicians

- This is the first fall/winter virus season where vaccines are available for the viruses leading to most hospitalizations: influenza, COVID-19, and RSV.
- You are your patients' most trusted source of information on vaccines.
 The respiratory virus season is here. Talk to your patients NOW about how to protect themselves and their loved ones from severe respiratory illness.
- Encourage everyone 6 months and older to get the seasonal influenza
 vaccine <u>and</u> the updated COVID-19 vaccine, and encourage older adults,
 young children, and pregnant women to get an RSV vaccine.
- Co-administration of influenza, COVID-19, and RSV vaccine on the same day is acceptable. There is no required interval between these vaccines.
- Test patients for influenza <u>and</u> COVID-19. Treat to prevent severe illness.
- Reinforce basic information on respiratory hygiene and cough etiquette.
- Educate patients about disease risks, prevention, testing, and treatment.

Key Information for Clinicians for Fall/Winter Viral Respiratory Season

Influenza	 Vaccination of all persons aged ≥6 months who do not have contraindications is recommended. Changes: Updated U.S. influenza vaccine composition for 2023–2024 Adults 65+ should get a high-dose or adjuvated flu vaccine Persons with egg allergy: Should receive influenza vaccine no additional safety measures required
COVID-19	 Updated COVID-19 vaccines recommended for everyone aged ≥6 months The mRNA-based vaccines from Pfizer and BioNTech are the preferred option
	 The updated Novovax COVID-19 vaccine is considered a second-line option for people 12 years and older who are unable or choose not to get an updated Pfizer or Moderna COVID-19 vaccine
	 The vaccines are covered by insurance: uninsured and underinsured children and adults have access to vaccines through VFC or Bridge Program
	 Everyone ages 5 years and older recommended for a single 2023–2024 dose No additional dose for age 65+ recommended at this time
RSV	 Adults 60 years old and older may receive an RSV vaccine based on shared clinical decision-making Nirsevimab is recommended for infants born during or entering their first RSV season and for children
	up to 24 months old who remain vulnerable to severe RSV disease through their second RSV season.
	 Children who have received nirsevimab should not receive palivizumab for the same RSV season. Maternal RSV vaccine is recommended for pregnant people at 32–36 weeks gestation, using seasonal administration, to prevent RSV lower respiratory tract infection in infants.

Key Messages for Healthcare Facilities

- Prepare for healthcare strain (high burden, low capacity) in hospitals, long-term care, other healthcare settings
- Offer updated seasonal influenza vaccine and updated COVID-19 vaccine to staff, patients/residents, community
- Ensure availability of rapid testing and treatment for influenza and COVID-19 for inpatients and outpatients
- Strengthen sick leave policies (reduce presenteeism)
- Consider vaccination policies that encourage staff to get this year's COVID-19 vaccine and influenza vaccine
- Consider infection control policies that implement masking based on community viral disease activity

Infection Prevention and Control

Have a plan for how to identify, respond, and manage respiratory viral illnesses.

Process/Actions/Resources within the plan (includes but not limited to):

- Respiratory hygiene and cough etiquette
- Source Control when appropriate
- Ability to identify patients/residents with concerning respiratory illness symptoms
- Implementation of Transmission-Based Precautions & Placement
- Communication within facility and during transfers
- Personal Protective Equipment
- Hand Hygiene staff, patients, and residents
- Environment of Care
 - Cleaning and Disinfection
 - Air handling/HVAC and Airborne Infection Isolation Rooms capabilities
- Vaccination
- HCW Work Restrictions
- Testing
- Surge planning think potential for multiple illness types

Laboratory

- Respiratory Virus Real Time PCR Testing Capability
 - ➤Influenza A/B
 - >SARS-CoV-2
 - **≻**Adenovirus
 - > Enterovirus
 - ➤ Parainfluenza 1–4
 - > Rhinovirus
 - > RSV

Laboratory

- Any facility or provider can order the testing
- Requires the HETL form to accompany sample
 - No charge for Influenza and SARS-CoV-2
 - Respiratory Panel: \$110 per agent; \$550 total

Laboratory

- Influenza surveillance
- Provide Maine HETL with positive A and B throughout the season.
- 3 A and 1 B per week if possible
- Questions? Call Virology section at 287-1722

Reporting Requirements

- ILI, COVID-19, and RSV outbreaks
- Pediatric influenza-associated deaths
- Influenza-related hospitalizations
- Novel influenza infections
- Positive SARS-CoV-2 laboratory results



Outbreak Definitions

Facility type	Influenza	COVID-19	RSV
Childcare	≥ 15% absenteeism among students where the majority of those absent report influenzalike illness and no other etiology has been identified	5 or more COVID-19 cases, from different households, within a 14-day period	3 or more cases, from different households, within an 8-day period
K-12 schools	≥ 15% absenteeism among students where the majority of those absent report influenzalike illness and no other etiology has been identified	≥ 15% absenteeism among students or staff where the majority of those absent are due to COVID-19 and no other etiology has been identified	≥ 15% absenteeism among students or staff where the majority of those absent are due to RSV and no other etiology has been identified
Acute care	One or more lab confirmed influenza cases in a patient 48 hours post-admission	5 or more cases of COVID-19 in staff or patients admitted at least 4 days prior to infection within a 14-day period	A sudden increase of RSV over the normal background rate in this population.
Long-term care	Two or more residents with ILI within 72 hours of each other	5 or more COVID-19 cases, from different households, within a 14-day period	A sudden increase of RSV over the normal background rate in this population.
Others	A sudden increase of influenza- like illnesses over the normal background rate in this population.	5 or more COVID-19 cases, from different households, within a 14-day period	A sudden increase of RSV over the normal background rate in this population.

Pediatric influenza-associated deaths

A death in a person younger than 18 years old resulting from a clinically compatible illness that is confirmed by an appropriate laboratory test.

There should be no period of complete recovery between the illness and death.

Influenza-related hospitalizations

A hospitalization (inpatient admission) due to influenzarelated illness that is laboratory-confirmed.

Reporting options

- REDCap survey
- Faxed or emailed line list or individual report
- Phone

Novel influenza A infections

Novel influenza A viruses are viruses that do not normally circulate in humans

examples: avian influenza, swine influenzas

Most laboratory tests would identify this as influenza A but would be unable to subtype.

Send all unsubtypable specimens to HETL for further analysis

Novel Influenza A is immediately reportable by phone

Reporting Methods

Maine CDC appreciates all reports of positive influenza test results and requires reporting of all positive SARS-CoV-2 tests



1-800-821-5821



(207) 287-8186 **OR** (207) 287-6865



<u>Disease.Reporting@maine.gov</u> (no patient information)

Health Care System Resource Tracking

- The Maine CDC's Hospital Preparedness Program (HPP) can monitor bed availability within hospitals and other health care facilities using EMResource.
- Health care system emergency managers can identify additional resources within facilities via resource tracking, including blood products, amputation kits, facility generator and associated fuel statuses, etc.



Nate Riethmann

Emergency Communication Systems Coordinator nathaniel.riethmann@maine.gov

Office: (207) 287-6551 | Mobile: (207) 592-2287



Supply Chain / Medical Surge Support

- To report any above-average antiviral shortages:
 - Contact the Northern New England Poison Center (NNEPC) at 1-800-222-1222
- To request logistical support from the Health Care Coalition of Maine (HCCME) during an influenza surge event, please contact us at HCCME@maine.gov.



- Emergency communications
- Strategic National Stockpile (SNS) resources such as medical countermeasures
- Medical volunteers
- PPE
- Fit Testing







Resources

Surveillance

- Maine weekly influenza surveillance reports: www.maine.gov/dhhs/flu/weekly
- Maine COVID-19 Data: https://www.maine.gov/dhhs/mecdc/infectious-disease/epi/airborne/coronavirus/data.shtml
- Maine and National RSV trends: https://www.cdc.gov/surveillance/nrevss/rsv/state.html

Infection control

- SARS-CoV-2: https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html
- Influenza: https://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm
- RSV: https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.html#R
- General Education: https://maineinfectionpreventionforum.org/

Communication

Maine Health Alert Network System (HAN): <u>www.mainehan.org</u>

Additional information

- General influenza information: www.maineflu.gov
- General RSV info: https://www.cdc.gov/rsv/index.html
- General COVID-19 info: https://www.cdc.gov/coronavirus/2019-ncov/index.html
- CDC respiratory virus updates: https://www.cdc.gov/respiratory-viruses/whats-new/index.html
- Maine CDC influenza-specific email address: <u>influenza.dhhs@maine.gov</u>
- Respiratory season orderable posters: https://www.maine.gov/dhhs/order

Questions?

Disease.Reporting@Maine.gov 1-800-821-5821



Maine Department of Health and Human Services
Maine Center for Disease Control and Prevention