Iowa Influenza Surveillance
Annual Webinar
2022-23 Season

Iowa Department of Health and Human Services,
State Hygienic Laboratory at the University of Iowa
Housekeeping

▪ All participants will be muted during the presentation.
  ▪ Questions can be submitted directly to the facilitator via the Q/A feature located on your control panel
  ▪ All questions submitted will be answered at the end of the presentation

▪ This session will be recorded and made available for reviewing
  ▪ When available, you will receive a follow-up-email on how to access this recording
Presentation Overview

- Influenza Surveillance Description and Summary
- Influenza and Other Respiratory Outbreaks
- Antiviral Update
- Influenza Vaccination Update
- Submitting Specimens to SHL and Survey Test Results
Presenters

- Andy Weigel, LMSW, Influenza Surveillance Coordinator, Iowa HHS
- Andrew Hennenfent DVM, MPH, DACVPM HAI Program Manager, Iowa HHS
- Shelly Jensen, RN, BSN, Immunization Nurse Clinician, Iowa HHS
- Jeff Benfer, MS, MB (ASCP)cm, Supervisor of Virology and Molecular Biology, SHL
Influenza Surveillance

Andy Weigel, Iowa HHS Influenza Epidemiologist
Iowa Respiratory Virus Surveillance Report

Iowa Influenza Surveillance Network (IISN)
Influenza-like Illness (ILI) and Other Respiratory Viruses
Weekly Activity Report
For the week ending May 21, 2022 - MMWR Week 20

All data presented in this report are provisional and may change as additional reports are received.

IDPH will release a mid-SEASON SUMMARY in June 2022 and then publish monthly reports for June through September starting with the June report on July 8, 2022.

Quick Stats for Week 20

<table>
<thead>
<tr>
<th>Predominant Flu at SHL N/A</th>
<th>Lab Survey Flu Positive %</th>
<th>Hospitalization Rate per 10,000</th>
<th>Outpatient ILI %</th>
<th>Cumulative Flu Deaths All Ages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Antigen 2.8% Molecular 0.9%</td>
<td>2.00</td>
<td>1.10%</td>
<td>42</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Predominant Nonflu Rhinovirus/Enterovirus PCR</th>
<th>Schools Reporting 10% Illness %</th>
<th>Weekly School Illness %</th>
<th>Long Term Care Outbreaks</th>
<th>Cumulative Pediatric Flu Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2.2%</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

idph.iowa.gov/influenza/reports
IISN Program Components

- Outpatient influenza-like illness (ILINet)
- Influenza-associated hospitalizations
- Public health and clinical laboratories
- Long-term care facility outbreaks
- Influenza-related mortality
- School absences due to illness

We need more surveillance sites!

Contact Andy Weigel at 515-322-1937 or andy.weigel@idph.iowa.gov if you are interested.
## How Does the 2021-22 Season Compare?

<table>
<thead>
<tr>
<th>Season</th>
<th><strong>Main Subtype</strong>*</th>
<th><strong>Total Hospital</strong></th>
<th><strong>Flu Deaths</strong></th>
<th><strong>LTCF Outbreaks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>16-17</td>
<td>A(H3)</td>
<td>1078</td>
<td>135</td>
<td>56</td>
</tr>
<tr>
<td>17-18</td>
<td>A(H3)</td>
<td>1889</td>
<td>272</td>
<td>90</td>
</tr>
<tr>
<td>18-19</td>
<td>A(H1N1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A H3</td>
<td>876</td>
<td>89</td>
<td>53</td>
</tr>
<tr>
<td>19-20</td>
<td>B(Vic)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A(H1N1)</td>
<td>1157</td>
<td>103</td>
<td>33</td>
</tr>
<tr>
<td>20-21</td>
<td>Flu A?</td>
<td></td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>21-22</td>
<td>A H3</td>
<td>324</td>
<td>47</td>
<td>9</td>
</tr>
</tbody>
</table>

Subtypes/lineages are influenza A(H3) and A(H1N1)pdm09 and B(Victoria lineage)  
Hospital totals are for MMWR weeks 40 -20 for each season
Outpatient Influenza-like Illness (ILINet) 2017-22

Week Ending: 10/1/2022
ILI: 0.56%
Number of Influenza Tests and Positive Percentage By Method

Test Method
- Antigen
- Molecular

Positive Percent by Flu Type %
Influenza Hospitalization Rate per 10,000 by Season and Week 2017-22

- Week ending: 5/21/22
  - Rate / 10K: 2.00
US HHS Protect vs Iowa Hospital Survey

HHS Flu COVID Hospital 2021-22

Iowa Hospital Survey 2021-22
Weekly School Illness by Season 2017-22

- Week ending: 5/21/2022
- Percent Absent: 2.2%
Reporting School Illness

Schools with at least 10 percent illness

- All Iowa schools are required to report to Iowa HHS when percent of illness meets or exceeds 10 percent
- Report using survey https://redcap.link/iowaschool10pct22-23
- Link and instructions available at idph.iowa.gov/influenza/schools

Weekly illness reporting from sentinel sites

Sites volunteer to submit total illness numbers each week
Start reporting your data at https://redcap.link/iowaweeklyschool22-23

We need schools across the state to report weekly illness to better represent school illness in Iowa!

Contact Andy Weigel at 515-322-1937 or andy.weigel@idph.iowa.gov if you have questions.
Influenza Immunization in Iowa 2018-2023

Source: https://tracking.idph.iowa.gov/Health/Immunization/Influenza-Vaccine/Influenza-Vaccine-Data
Outbreak Control for Schools and Child Care Centers

- Work with local public health agencies to investigate and collect specimens as needed
- Utilize resources at Iowa HHS and CDC
- Reinforce illness policies
- Increase cleaning and disinfecting of key areas
- Encourage and teach hand hygiene
- Notify and educate parents
- Many of the steps we are taking for COVID-19 will help prevent many other illnesses at school
- Common Child Illness and Exclusion Criteria for Education and Child Care Settings

https://www.idph.iowa.gov/Portals/1/userfiles/128/childhood_illness_1_31_update%20%281%29_1.pdf
Survey Links

Influenza Hospitalizations – sentinel sites
https://redcap.idph.state.ia.us/surveys/?s=JFW3HXKTH7

Iowa Laboratory Survey
Contact Kris Eveland at (319) 335-4279 or Kristofer-eveland@uiowa.edu

Schools – any day with at last 10% illness (in-person)
https://redcap.link/iowaschool10pct22-23

Schools – weekly sentinel sites
https://redcap.link/iowaweeklyschool22-23

Outpatient ILI
Contact Andy Weigel at 515-322-1937 or andy.weigel@idph.iowa.gov
Contact Information

To learn more about our influenza surveillance programs, to become a participant or to sign up for the surveillance report email list, please contact

Andy Weigel, LMSW
Iowa Influenza Epidemiologist
Iowa Department of Public Health
Phone: 515-322-1937
andy.weigel@idph.iowa.gov
Influenza Outbreaks in Long-Term Care Facilities

Investigation and Response

Andrew Hennenfent DVM, MPH, DACVPM HAI Program Manager, Iowa HHS
Long Term Care Outbreaks and COVID-19

- **Influenza**
  - Continue to report any suspected influenza outbreaks (one laboratory-confirmed influenza positive case along with other cases of respiratory illness in a unit of a LTC facility)

- **COVID-19**
  - Long-term care facilities (LTCFs) are required to report COVID-19 positive cases to Iowa HHS. LTCFs report testing results to NHSN

For suspect influenza, COVID-19 or other respiratory illness outbreaks

  call CADE at 1-800-362-2736
Influenza Outbreak Management Guidance for Long-term Care Facilities

- Changes to CDC guidance in 2021 based on 2018 IDSA influenza clinical practice guidelines update
- Antiviral prophylaxis still recommended for some residents but varies based on units affected
- Implement standard and transmission-based precautions
- Cohort and/or isolate ill residents as appropriate
- Restrict ill personnel from patient care
- Limit visitation and new admissions

https://www.cdc.gov/flu/professionals/infectioncontrol/ltcfacility-guidance.htm
https://doi.org/10.1093/cid/ciy866
Influenza Antiviral Medication

2022-2023 influenza season

Source: [www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm](http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm)

Updated September 9, 2022
Priority Groups for Influenza Antiviral Treatment

- Antiviral treatment is recommended as early as possible for any patient with confirmed or suspected influenza who:
  - is hospitalized;
  - has severe, complicated, or progressive illness; or is at higher risk for influenza complications

- Decisions about starting antiviral treatment for patients with suspected influenza should not wait for laboratory confirmation of influenza virus infection. Empiric antiviral treatment should be started as soon as possible in the above priority groups.

- Clinicians can consider early empiric antiviral treatment of non-high-risk outpatients with suspected influenza based upon clinical judgement, if treatment can be initiated within 48 hours of illness onset.
People at Higher Risk for Influenza Complications

- Patients under 2 or over 65 years of age
- Those with chronic conditions, pregnant (through 2 weeks post-partum), children on aspirin therapy, immunosuppressed patients, residents of long term care, extremely obese (BMI $\geq 40$), persons from certain racial and ethnic groups including American Indian or Alaska Native, Hispanic or Latino persons and non-Hispanic Black persons.
- Should be started as soon as possible after illness onset (not waiting for lab results), ideally within 48 hours but there might still benefit for severe, complicated, or hospitalized patients when started after 48 hours.
Antiviral Drug Options

- For hospitalized patients with suspected or confirmed influenza, initiation of antiviral treatment with oral or enterically-administered oseltamivir is recommended as soon as possible.

- For outpatients with complications or progressive disease and suspected or confirmed influenza (e.g., pneumonia, or exacerbation of underlying chronic medical conditions), initiation of antiviral treatment with oral oseltamivir is recommended as soon as possible.

- For outpatients with suspected or confirmed uncomplicated influenza, oral oseltamivir, inhaled zanamivir, intravenous peramivir, or oral baloxavir may be used for treatment, depending upon approved age groups and contraindications.
Co-circulation of Influenza and COVID-19

- Co-infection with influenza A or B viruses and COVID-19 should be considered, particularly in hospitalized patients.
- Use of multiplex assays can distinguish between influenza and COVID-19.
- Do not wait for results of influenza testing to initiate empiric antiviral treatment among priority groups (e.g., hospitalized with respiratory illness; outpatients with severe, complicated, progressive illness or at higher risk for complications).
- Clinical algorithms for the testing and treatment of influenza when SARS-CoV-2 and influenza viruses are circulating are available at https://www.cdc.gov/flu/professionals/diagnosis/index.htm
Table 1. Antiviral Medication Recommended for Treatment and Chemoprophylaxis of Influenza

<table>
<thead>
<tr>
<th>Antiviral Agent</th>
<th>Activity Against</th>
<th>Use</th>
<th>Recommended For</th>
<th>Not Recommended for Use in</th>
<th>Adverse Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Oseltamivir</td>
<td>Influenza A and B</td>
<td>Treatment</td>
<td>Any age&lt;sup&gt;1&lt;/sup&gt;</td>
<td>N/A</td>
<td>Adverse events: nausea, vomiting, headache. Post marketing reports of serious skin reactions and sporadic, transient neuropsychiatric events&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chemo- prophylaxis</td>
<td>3 months and older&lt;sup&gt;1&lt;/sup&gt;</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Inhaled Zanamivir</td>
<td>Influenza A and B</td>
<td>Treatment</td>
<td>7 yrs and older&lt;sup&gt;3&lt;/sup&gt;</td>
<td>people with underlying respiratory disease (e.g., asthma, COPD)&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Adverse events: risk of bronchospasm, especially in the setting of underlying airways disease; sinusitis, and dizziness. Post marketing reports of serious skin reactions and sporadic, transient neuropsychiatric events&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chemo- prophylaxis</td>
<td>5 yrs and older&lt;sup&gt;3&lt;/sup&gt;</td>
<td>people with underlying respiratory disease (e.g., asthma, COPD)&lt;sup&gt;3&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Intravenous Peramivir</td>
<td>Influenza A and B&lt;sup&gt;4&lt;/sup&gt;</td>
<td>Treatment</td>
<td>6 months and older&lt;sup&gt;4&lt;/sup&gt;</td>
<td>N/A</td>
<td>Adverse events: diarrhea. Post marketing reports of serious skin reactions and sporadic, transient neuropsychiatric events&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chemo- prophylaxis&lt;sup&gt;5&lt;/sup&gt;</td>
<td>Not recommended</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Oral Baloxavir</td>
<td>Influenza A and B&lt;sup&gt;6&lt;/sup&gt;</td>
<td>Treatment</td>
<td>5 yrs and older&lt;sup&gt;6&lt;/sup&gt;</td>
<td>N/A</td>
<td>Adverse events: none more common than placebo in clinical trials</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chemo- prophylaxis&lt;sup&gt;6&lt;/sup&gt;</td>
<td>Approved for post-exposure prophylaxis in persons 5 yrs and older&lt;sup&gt;6&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm
<table>
<thead>
<tr>
<th>Antiviral Agent</th>
<th>Use</th>
<th>Children</th>
<th>Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Oseltamivir</td>
<td>Treatment (5 days)&lt;sup&gt;1&lt;/sup&gt;</td>
<td>If younger than 1 yr old&lt;sup&gt;2&lt;/sup&gt;: 3 mg/kg/dose twice daily&lt;sup&gt;3,4&lt;/sup&gt; If 1 yr or older, dose varies by child’s weight: 15 kg or less, the dose is 30 mg twice a day. &gt;15 to 23 kg, the dose is 45 mg twice a day. &gt;23 to 40 kg, the dose is 60 mg twice a day. &gt;40 kg, the dose is 75 mg twice a day.</td>
<td>75 mg twice daily</td>
</tr>
<tr>
<td>Chemo-prophylaxis (7 days)&lt;sup&gt;5&lt;/sup&gt;</td>
<td>If child is younger than 3 months old, use of oseltamivir for chemoprophylaxis is not recommended unless situation is judged critical due to limited data in this age group. If child is 3 months or older and younger than 1 yr old&lt;sup&gt;2&lt;/sup&gt; 3 mg/kg/dose once daily&lt;sup&gt;3&lt;/sup&gt;. If 1 yr or older, dose varies by child’s weight: 15 kg or less, the dose is 30 mg once a day. &gt;15 to 23 kg, the dose is 45 mg once a day. &gt;23 to 40 kg, the dose is 60 mg once a day. &gt;40 kg, the dose is 75 mg once a day.</td>
<td>75 mg once daily</td>
<td></td>
</tr>
<tr>
<td>Inhaled Zanamivir&lt;sup&gt;6&lt;/sup&gt;</td>
<td>Treatment (5 days)</td>
<td>10 mg (two 5-mg inhalations) twice daily&lt;sup&gt;5&lt;/sup&gt; (FDA approved and recommended for use in children 7 yrs or older)</td>
<td>10 mg (two 5-mg inhalations) twice daily&lt;sup&gt;5&lt;/sup&gt;</td>
</tr>
<tr>
<td>Chemo-prophylaxis (7 days)&lt;sup&gt;5&lt;/sup&gt;</td>
<td>10 mg (two 5-mg inhalations) once daily&lt;sup&gt;5&lt;/sup&gt; (FDA approved for and recommended for use in children 5 yrs or older)</td>
<td>10 mg (two 5-mg inhalations) once daily&lt;sup&gt;5&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Intravenous Peramivir&lt;sup&gt;7&lt;/sup&gt;</td>
<td>Treatment (1 day)&lt;sup&gt;1&lt;/sup&gt;</td>
<td>(6 months to 12 yrs of age) One 12 mg/kg dose, up to 600 mg maximum, via intravenous infusion for a minimum of 15 minutes (FDA approved and recommended for use in children 6 months or older)</td>
<td>(13 yrs and older) One 600 mg dose, via intravenous infusion for a minimum of 15 minutes</td>
</tr>
<tr>
<td>Chemo-prophylaxis&lt;sup&gt;8&lt;/sup&gt;</td>
<td>Not recommended</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Oral Baloxavir&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Treatment (1 day)</td>
<td>(5 yrs and older weighing &lt;20 kg: single dose of 2 mg/kg by suspension; weighing 20 kg to &lt;50 kg: single dose of 40 mg by tablet or suspension; weighing ≥50 kg: single dose of 80 mg by tablet or suspension)FDA approved and recommended for use in otherwise healthy children 5 yrs and older.</td>
<td>Weight ≤80 kg: One 40 mg dose; weight &gt;80 kg: One 80 mg dose&lt;sup&gt;9&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

**https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm**
Long Term Care Recommendations

▪ If possible, all residents should receive inactivated influenza vaccine (IIV) annually before influenza season. For persons aged ≥65 years, any age-appropriate IIV formulation (standard-dose or high-dose, trivalent or quadrivalent, unadjuvanted or adjuvanted) or quadrivalent recombinant influenza vaccine are acceptable options.

▪ Implement Standard and Droplet Precautions for all residents with suspected or confirmed influenza.

▪ Administer influenza antiviral treatment and chemoprophylaxis to residents and healthcare personnel according to current recommendations.
Long Term Care Recommendations

- All long-term care facility residents who have confirmed or suspected influenza should receive antiviral treatment immediately.
- Initiation of antiviral treatment should not wait for laboratory confirmation of influenza.
- Be aware of the possibility of an antiviral drug-resistant virus.
- Residents receiving antiviral medications who do not respond to treatment or who become sick with influenza after starting chemoprophylaxis might have an infection with an antiviral-resistant influenza virus. Persons receiving chemoprophylaxis who become sick should be switched to treatment dosing.
Influenza Vaccination

2022-2023 Influenza Season
Shelly Jensen, RN, BSN, Immunization Nurse Clinician, Iowa HHS
The Best Shot At Prevention

The best way to prevent the flu is with annual vaccination

Recommended for everyone 6 months of age and older, unless a medical contraindication

Flu vaccine has been shown to reduce flu related illnesses and the risk of serious flu complications that can result in hospitalization or even death
Predicted Vaccine Effectiveness

- Variable depending upon:
  - age and health status of vaccine recipient
  - the match between circulating virus strains and strains included in the vaccine
ACIP Recommendation

Routine annual influenza vaccination for all persons aged ≥6 months who do not have contraindications
Preferential Recommendation

**Adults > 65 years of age** should preferentially receive any of the following higher dose or adjuvanted flu vaccines:

- Fluzone High-Dose Quadrivalent inactivated flu vaccine (HD-IIV4)
- Flublok Quadrivalent Recombinant flu vaccine (RIV4) or
- Fluad Quadrivalent Adjuvanted flu vaccine (aIIV4)

* If none of these vaccines is available at an opportunity for vaccine administration, any other age appropriate flu vaccine should be administered.
Benefits of Flu Vaccination

- **Flu vaccination** can keep you from getting sick
- **Flu vaccination** has been shown in several studies to reduce severity of illness in people who get vaccinated, but still get sick
- **Flu vaccination** can reduce the risk of flu-associated hospitalizations
- **Flu vaccination** is an important preventative tool for people with chronic health conditions
- **Flu vaccination** helps protect pregnant people during and after pregnancy
- **Flu vaccination** can be lifesaving for children
- **Flu vaccination** can protect not only yourself, but may also protect people around you

https://www.cdc.gov/flu/prevent/vaccine-benefits.htm
Timing

Optimally, vaccination should occur prior to flu circulating in the community; ideally by the end of October

BUT- getting vaccinated later is still beneficial (throughout the entire flu season)

It is never too late to vaccinate!
Timing continued

- For **non-pregnant adults**, influenza vaccination during July and August should be avoided unless there is a concern that later vaccination may not be possible. Early vaccination might be associated with decreased vaccine effectiveness before the end of flu season, particularly among older adults.

- **Children aged 6 months-8 years** who require 2 doses should receive their 1st dose as soon as vaccine becomes available to allow 2nd dose to be received by the end of October.

- Vaccination soon after vaccine becomes available may be considered for **pregnant women during the 3rd trimester**.

- **NO recommendation is made for revaccination** (i.e., booster dose) later in the season of persons who have already been fully vaccinated for the season regardless of when in the current season vaccine was received.
Communication Tips for Promoting Flu Vaccination

▪ Keep it simple: “flu vaccine helps reduce the risk of illness, hospitalizations and death”
▪ “Flu vaccination not only protects you, but others around you”
▪ Use a presumptive approach: “Today we will administer your annual flu vaccine”
▪ Stress importance of protection against influenza amid COVID-19 and other circulating illnesses
Influenza and COVID-19

With both influenza and SARS-CoV-2 circulating, getting **BOTH vaccines** is important for prevention of severe disease, hospitalization, and death. Routine administration of all age-appropriate doses of vaccines simultaneously is recommended as best practice for people for whom no specific contraindications exist at the time of the healthcare visit.
Vaccination of Persons with Suspected or Confirmed COVID-19

Persons in quarantine or isolation should not be brought into vaccination setting if doing so could expose others to COVID-19.

For those who have moderate or severe COVID-19, vaccination should be deferred until they have recovered.

For individuals who have mild or asymptomatic COVID-19, further deferral might be considered to avoid confusing COVID-19 symptoms with postvaccination reactions.
Co-Administration of Flu Vaccine and Other Vaccines

- IIV4s and RIV4 may be administered simultaneously or at any interval before or after other inactivated or live vaccines.

- LAIV4 can be administered with other live or inactivated vaccines at the same visit. However, if 2 live vaccines are not given simultaneously, they must be separated by at least 4 weeks.

- Influenza vaccine and COVID-19 vaccine may be administered at the same time or any interval before or after each other.
Considerations for Co-Administration

- Be mindful of potential for increased reactogenicity of COVID-19 vaccines and flu vaccines. If administered simultaneously, COVID-19 vaccines and flu vaccines that might be more likely to cause a local reaction (e.g., high dose flu or adjuvant flu vaccine-Fluad) should be administered in different limbs if possible.

- **Best Practices for Multiple Injections:**
  - Label each syringe with the name and dosage of the vaccine, lot number, initials of preparer, and the exact beyond-use time, if applicable.
  - Separate injection sites by one inch or more if possible.
  - Administer vaccines that are more likely to cause a local reaction (adjuvanted vaccines and tetanus-toxoid containing vaccines) in different limbs, if possible.
Children 6 months - 8 years

- If a child received at least two doses of influenza vaccine before July 1, 2022 only one dose is needed for 2022-2023. Doses do not need to be in the same flu season or consecutive seasons.

- If a child is receiving influenza vaccine for the first time or if they have not received at least two doses before July 1, 2022, two doses are needed for optimal protection.

- Separate doses by at least 4 weeks.

For children aged 8 years who require 2 doses of vaccine, both doses should be administered even if the child turns 9 years between receipt of dose 1 and dose 2.
Persons With Egg Allergy

- **Hives only**: may administer any licensed, recommended, flu vaccine appropriate for age and health status.

- **Symptoms other than hives**: may administer any licensed, recommended flu vaccine that is otherwise appropriate. If a vaccine other than cclIV4 or RIV4 is used, vaccines should be administered in an inpatient or outpatient medical setting. A health care provider who is able to recognize and manage severe allergic conditions should supervise.

A previous severe allergic reaction to flu vaccine, regardless of the component suspected of being responsible for the reaction, is a contraindication to future receipt of the vaccine.
Contraindications and Precautions Related to Previous Severe Allergic Reaction to Influenza Vaccines

▪ For egg-based IIV4s and LAIV4: Severe allergic reaction to a previous dose of any influenza vaccine is a contraindication

▪ For ccIIV4: Severe allergic reaction to any ccIIV is a contraindication; to any other influenza vaccine (any egg-based IIV, RIV, or LAIV) is a precaution

▪ For RIV4: Severe allergic reaction to any RIV is a contraindication; to any other influenza vaccine (any egg-based IIV, ccIIV, or LAIV) is a precaution

▪ Where a precaution is present, if potential benefit of vaccination is thought to outweigh potential risk of a severe allergic reaction
  ▪ Vaccination should occur in a medical setting supervised by a provider who can recognize and manage a severe allergic reaction
  ▪ Providers can also consider consulting an allergist to help identify the vaccine component responsible for the previous reaction
Flu Vaccine Contraindications and Precautions for Persons With a History of Severe Allergic Reaction to a Previous Dose of Flu Vaccine

Influenza Vaccine Contraindications and Precautions for Persons With a History of Severe Allergic Reaction to a Previous Dose of an Influenza Vaccine* Advisory Committee on Immunization Practices, United States, 2022-23 Influenza Season

| Vaccine (of any valency) associated with previous severe allergic reaction (e.g., anaphylaxis) | Available 2022-23 Influenza Vaccines |
|---|---|---|---|
| Any egg-based IIV or LAIV | Contraindication† | Precaution§ | Precaution§ |
| Any ccIIV | Contraindication† | Contraindication† | Precaution§ |
| Any RIV | Contraindication† | Precaution§ | Contraindication† |
| Unknown influenza vaccine | | | Allergist consultation recommended |

https://idph.iowa.gov/immtb/immunization/influenza/recommendations
# Contraindications and Precautions to Use of Flu Vaccine (ACIP)

## Public Health

**IOWA HHS**

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**Contraindications and Precautions to the Use of Influenza Vaccines**

*Advisory Committee on Immunization Practices, United States, 2022-23 Influenza Season*

<table>
<thead>
<tr>
<th>Vaccine Type</th>
<th>Contraindications</th>
<th>Precautions</th>
</tr>
</thead>
</table>
| Egg-based IIV4s | - History of severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine† or to a previous dose of any influenza vaccine (i.e., any egg-based IIV, cIIV4, RIV, or LAIV)§ | - Moderate or severe acute illness with or without fever  
- History of Guillain-Barré syndrome within 6 weeks of receipt of influenza vaccine |
| cIIV4 | - History of severe allergic reaction (e.g., anaphylaxis) to a previous dose of any cIIV4 or any component of cIIV4§ | - Moderate or severe acute illness with or without fever  
- History of Guillain-Barré syndrome within 6 weeks of receipt of influenza vaccine  
- History of severe allergic reaction to a previous dose of any other influenza vaccine (i.e., any egg-based IIV, RIV, or LAIV)§ |
| RIV4 | - History of severe allergic reaction (e.g., anaphylaxis) to a previous dose of any RIV or any component of RIV§ | - Moderate or severe acute illness with or without fever  
- History of Guillain-Barré |

https://idph.iowa.gov/immtb/immunization/influenza/recommendations
Screening Checklists for Contraindications

https://www.immunize.org/handouts/influenza-vaccines.asp
Standing Orders

STANDING ORDERS FOR Administering Influenza Vaccine to Adults

Purpose
To reduce morbidity and mortality from influenza by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention’s Advisory Committee on Immunization Practices.

Policy
Where allowed by state law, standing orders enable eligible nurses, pharmacists, and other healthcare professionals to assess the need for vaccination and to vaccinate adults who meet any of the criteria below.

Procedure
1. Assess Adults for Need of Vaccination against Influenza
   a. All adults are recommended to receive influenza vaccination each year.
   b. Adults age 65 and older should preferentially receive one of the following higher dose or adjuvanted influenza vaccines: quadrivalent high-dose inactivated influenza vaccine (HD-IIV4), quadrivalent recombinant influenza vaccine (rIIV4), or quadrivalent adjuvanted IIV (LAIV4). If none of these three vaccines are available, then any other age-appropriate influenza vaccine should be used.
   c. Adults who are or will be pregnant during the influenza season. Administer any recommended, age-appropriate quadrivalent IIV4 or LAIV4 to pregnant people in any trimester.
   d. Adults who do not recall whether they received influenza vaccine in the current vaccination season should be vaccinated.
   e. Adults who recently received or are planning to receive COVID-19 vaccine may be administered influenza vaccine either simultaneously (on the same day, at separate anatomic sites) or at any time before or after COVID-19 vaccine.

2. Screen for Contraindications and Precautions
   a. Contraindication for use of all influenza vaccines:
      i. Do not give any age-based (inactivated influenza vaccine [IIV]) to a person who has experienced a serious systemic or anaphylactic reaction to any component of the vaccine except egg, or to a prior dose of any influenza vaccine (i.e., egg-based IIV, cell culture-based IIV, or LAIV) or have a history of a severe allergic reaction that required hospitalization or was life-threatening.
      ii. Do not give a non-LAIV vaccine to a person who has experienced a serious systemic or anaphylactic reaction to any component of LAIV or to a prior dose of any LAIV.
      iii. Do not give any LAIV to a person who has experienced a serious systemic or anaphylactic reaction to any component of LAIV or to a prior dose of any LAIV.
      iv. Do not give any LAIV to a person who has experienced a serious systemic or anaphylactic reaction to any component of LAIV or to a prior dose of any LAIV.
      v. Do not give any LAIV to a person who has experienced a serious systemic or anaphylactic reaction to any component of LAIV or to a prior dose of any LAIV.
      vi. Do not give any LAIV to a person who has experienced a serious systemic or anaphylactic reaction to any component of LAIV or to a prior dose of any LAIV.

3. Screen for Contraindications and Precautions
   a. Contraindications for use of all influenza vaccines:
      i. Do not give any age-based (inactivated influenza vaccine [IIV]) to a child or teen who has experienced a serious systemic or anaphylactic reaction to any component of the vaccine except egg, or to a prior dose of any influenza vaccine (i.e., egg-based IIV, cell culture-based IIV, or LAIV) or have a history of severe allergic reaction that required hospitalization or was life-threatening.
      ii. Do not give a non-LAIV vaccine to a child or teen who has experienced a serious systemic or anaphylactic reaction to any component of LAIV or to a prior dose of any LAIV.
      iii. Do not give any LAIV to a child or teen who has experienced a serious systemic or anaphylactic reaction to any component of LAIV or to a prior dose of any LAIV.
      iv. Do not give any LAIV to a child or teen who has experienced a serious systemic or anaphylactic reaction to any component of LAIV or to a prior dose of any LAIV.
      v. Do not give any LAIV to a child or teen who has experienced a serious systemic or anaphylactic reaction to any component of LAIV or to a prior dose of any LAIV.

Additional contraindications for use of LAIV only:
   i. Do not give LAIV to a child or adolescent who
      a. Is pregnant
      b. Is age 2 through 4 years who has received a diagnosis of asthma or who has experienced wheezing or asthma within the past 12 months, based on a healthcare provider’s statement or medical record
      c. Has functional or anatomic asplenia, or a cochlear implant
      d. Has active communication between CSF and the meninges, nose, or ear or any other cranial CSF leak

https://www.immunize.org/handouts/influenza-vaccines.asp
# Available Vaccine Products

**Influenza Vaccine Information by Age Group 2022-23 Influenza Season**

<table>
<thead>
<tr>
<th>Trade Name</th>
<th>Manufacturer</th>
<th>Presentation</th>
<th>Mercury from Thimerosal (µg per 0.5 mL)</th>
<th>Age Group</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inactivated quadrivalent (IIV4s), standard-dose-egg based</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afluria Quadrivalent</td>
<td>Seqirus</td>
<td>0.5 mL PFS+</td>
<td>0.0</td>
<td>≥ 3 years</td>
<td>IM$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.0 mL MDV+</td>
<td>24.5</td>
<td>≥ 6 months</td>
<td>IM$</td>
</tr>
<tr>
<td>Fluarix Quadrivalent</td>
<td>GlaxoSmithKline</td>
<td>0.5 mL PFS</td>
<td>0.0</td>
<td>≥ 6 months</td>
<td>IM$</td>
</tr>
<tr>
<td>Fluvalaval Quadrivalent</td>
<td>GlaxoSmithKline</td>
<td>0.5 mL PFS</td>
<td>0.0</td>
<td>≥ 6 months</td>
<td>IM$</td>
</tr>
<tr>
<td>Fluzone Quadrivalent</td>
<td>Sanofi Pasteur</td>
<td>0.5 mL PFS**</td>
<td>0.0</td>
<td>≥ 6 months</td>
<td>IM$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.5 mL SDV</td>
<td>25</td>
<td>≥ 6 months</td>
<td>IM$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.0 mL MDV</td>
<td>25</td>
<td>≥ 6 months</td>
<td>IM$</td>
</tr>
<tr>
<td><strong>Inactivated quadrivalent (cIIV4), standard-dose-cell culture based</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluolvex Quadrivalent</td>
<td>Seqirus</td>
<td>0.5 mL PFS</td>
<td>0.0</td>
<td>≥ 6 months</td>
<td>IM$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.0 mL MDV</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Inactivated quadrivalent high-dose, egg based (HD-IIV4)</strong></td>
<td>Sanofi Pasteur</td>
<td>0.7 mL PFS</td>
<td>0.0</td>
<td>≥ 65 years</td>
<td>IM$</td>
</tr>
</tbody>
</table>

Updates to Flu Vaccines for 2022-2023

- The age indication for the cell culture based inactivated influenza vaccine, Flucelvax Quadrivalent (ccIIV4) is now approved for persons aged ≥ 6 months

- Afluria Quadrivalent will not be available in 0.25mL syringe. When using this for children aged 6-35 months (who require 0.25 mL dose) the dose must be obtained from a multi-dose vial
### Approved Ages and Dose Volumes

Approved ages and dose volumes for intramuscular influenza vaccines (IIV4s and RIV4):

Fluzone is approved as either 0.25mL or 0.5mL dose size for 6-35 months of age.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Approved Ages</th>
<th>Dose volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afluria Quadrivalent</td>
<td>6 through 35 months ≥3 years</td>
<td>0.25 mL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.5 mL</td>
</tr>
<tr>
<td>Fluarix Quadrivalent</td>
<td>≥6 months</td>
<td>0.5 mL</td>
</tr>
<tr>
<td>FluLaval Quadrivalent</td>
<td>≥6 months</td>
<td>0.5 mL</td>
</tr>
<tr>
<td>Fluzone Quadrivalent</td>
<td>6 through 35 months ≥3 years</td>
<td>0.5 mL (see below)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.5 mL</td>
</tr>
<tr>
<td>Flucelvax Quadrivalent</td>
<td>≥6 months</td>
<td>0.5 mL</td>
</tr>
<tr>
<td>Flublok Quadrivalent</td>
<td>≥18 years</td>
<td>0.5 mL</td>
</tr>
<tr>
<td>Fluzone High-Dose Quadrivalent</td>
<td>≥65 years</td>
<td>0.7 mL</td>
</tr>
<tr>
<td>Fluad Quadrivalent</td>
<td>≥65 years</td>
<td>0.5 mL</td>
</tr>
</tbody>
</table>
Vaccination and Influenza Antiviral Medications

- IIV4 and RIV may be administered to persons receiving influenza antiviral medications
- Influenza antivirals may reduce the effectiveness of LAIV4 if given before or after LAIV4. Persons who receive influenza antivirals during the following periods should be revaccinated with an age appropriate IIV4 or RIV4 (intervals may be longer in conditions where medication clearance is delayed):

<table>
<thead>
<tr>
<th>Influenza Antiviral</th>
<th>Estimated window for potential LAIV interference (based upon half-life reported in package insert)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oseltamivir and Zanamivir</td>
<td>48 hours before to 2 weeks after LAIV4</td>
</tr>
<tr>
<td>Peramivir</td>
<td>5 days before to 2 weeks after LAIV4</td>
</tr>
<tr>
<td>Baloxavir</td>
<td>17 days before to 2 weeks after LAIV4</td>
</tr>
</tbody>
</table>
Tips and Reminders

▪ Flu vaccines should be refrigerated between 2°C to 8°C (36°F to 46°F). Do not freeze. Protect from light

▪ When using multi-dose vials, only withdraw the number of doses indicated in the manufacturer’s package insert

▪ Single dose vials should not be accessed for more than one dose

▪ Prefilling syringes is discouraged. Consider using manufacturer-supplied prefilled syringes

▪ Vaccines in multi-dose vials that do not require reconstitution may be used through the expiration date printed on the label as long as the vaccine is not contaminated unless otherwise indicated by the manufacturer
Tips and Reminders

- Live vaccines, including LAIV, must be administered on the same day or separated by at least 4 weeks.

- Administer the appropriate vaccine and dosage based on the patient’s current age at the time of the visit.

- Observe all patients for at least 15 minutes following vaccination.

- Current Influenza VIS date: 8/6/21. Separate VIS for live flu vaccine and inactivated or recombinant flu vaccine.
Influenza (Flu)

About the Flu
- Influenza Immunization Brochure
- Flu Symptoms (CDC)
- How is flu different from a cold (CDC)
- What if I think I have the flu (CDC)

Flu Vaccine Recommendations
- Communication Tools and Resources for Healthcare Professionals

Key Facts About Flu Vaccine (CDC)
- Flu Vaccination
- Who Needs a Flu Vaccine and When
- Vaccine Benefits
- Types of Flu Vaccines
- Misconceptions about Flu Vaccine
- Healthy Habits to Prevent Flu

Flu Prevention
- People at High Risk for Flu Complications (CDC)
- Guide for Parents (CDC)
Influenza Vaccine for Health Professionals

Influenza (Flu) - Flu Vaccine Recommendations

Flu Vaccine Information for Health Professionals

- 2022-2023 Influenza Dosing Algorithm for Children
- 2022-2023 Influenza Vaccine Products
- 2022-2023 Contraindications and Precautions to the Use of Influenza Vaccines
- 2022-2023 Contraindications and Precautions for Persons with Severe Allergic Reaction
- 2022-2023 Recommendations for Persons Who Report Allergy to Eggs
- How to administer intramuscular, intradermal, and intranasal influenza vaccine
- Influenza Immunization Brochure
- Flu Vaccine Label Examples
- Standing Orders Templates (Immunization Action Coalition)

Resources

- 2022-2023 Influenza Recommendations
- MMWR: Prevention and Control of Seasonal Influenza
- Vaccine Information Statement - Inactivated Influenza
- Vaccine Information Statement - Live, Intranasal Influenza
- Screening Checklists
Resources

- Prevention and Control of Seasonal Influenza with Vaccines—Recommendations of the Advisory Committee on Immunization Practices, United States, 2022-23 Influenza Season: https://www.cdc.gov/mmwr/volumes/71/rr/rr7101a1.htm?s_cid=rr7101a1_w
- Immunize.org: http://www.immunize.org/
- CDC 22-23 Influenza Flu Vaccine Labels: https://www.cdc.gov/vaccines/hcp/admin/storage/guide/vaccine-storage-labels-flu.pdf
- Iowa Immunization Program: https://idph.iowa.gov/immtb/immunization/vaccine
- Vaccine Information Statements (VIS): http://www.immunize.org/vis/
  - https://www.cdc.gov/vaccines/hcp/vis/vis-statements/flu.html
  - https://www.cdc.gov/vaccines/hcp/vis/vis-statements/flulive.html
We Are Here to Support YOU

Shelly Jensen RN BSN
Immunization Nurse Consultant
1-800-831-6293 or
515-423-3341
Shelly.Jensen@idph.iowa.gov

https://idph.iowa.gov/immtb/immunization
Laboratory Influenza Surveillance in Iowa

Submitting Specimens to SHL

Survey Test Results

Jeff Benfer, Molecular Biology Supervisor, SHL
Overview

- All of the labs that do influenza testing throughout the state play an important role in influenza surveillance and the ability for CDC to develop vaccine recommendations and detect antiviral resistance. With the specimens that labs submit to SHL submits a strategic subsampling of those specimens every two weeks for sequencing to detect antiviral resistance, we have not had any antiviral resistance in Iowa in the past 10 years.

- Currently, Influenza A(H3N2) hemagglutinin (HA) clade 2a.2 emerged and is circulating globally. This is expected to predominate this fall. The previous H3 vaccine component covered 2a.1 viruses but this year’s vaccine is a better fit for 2a.2 viruses.

- In the US last year there were two peaks of activity: December 2021 and April 2022.

- 2020-2021 SHL was only able to submit 9 influenza specimens for further characterization, however 3 of them were variants. One A(H1N1)v, one A(H3)v, and one A(H1N2)v which are all associated with prolonged exposure to pigs.
Overview cont.

- US influenza was predominantly A(H3N2) which continued to circulate during low levels over the summer. Recently there has been a small increase in A(H1N1) viruses and one detected at SHL last week.
- 2022 spring we did HPAI H5 rule outs
- Some swine variant viruses have been detected this summer but none in Iowa.
- This season we are participating in a CDC Flu specimen collection project to assist CDC validating updates to subtyping assay and 510K study for FDA approval of the current EUA Flu/SC2
- SHL is adding a Fee For Service Flu/SC2 assay on the Hologic Panther-fee will be based on Medicaid reimbursement rate which is $142.63
Global Summary- what’s potentially coming to US this fall

- Globally influenza activity continues to be low. The southern hemisphere season has been declining and the northern hemisphere season has not taken off yet. Highlights from WHO FluNet reports are as follows: Australia had an early start to their season predominated by A(H3N2) viruses with activity that dropped off quickly at the end of the season. They did see some A(H1N1)pdm09 viruses.

- South Africa had an influenza A(H3N2) increase during mid-season and more recently they have been seeing a mix of A(H3N2) and B viruses.

- South America saw more activity reported earlier in the season, much of that driven by Argentina, who peaked about the same time as the US second peak in April.

- Asia has had a mix of A(H1N1)pdm09 (India and Nepal) and A(H3N2) viruses. China has been seeing quite a bit of A(H3N2) activity after a strong wave of B/Victoria.
State Hygienic Laboratory and Iowa Department of Public Health
Influenza Surveillance Testing Guidance 2022/2023

Contact IDPH or SHL for guidance in the event of an ILI outbreak

- All Labs-submit ONE positive flu specimen per week
- Preferentially submit Flu B positives

SHL influenza/ SARS-CoV-2 surveillance testing and sequencing serves the following purposes:
- Demonstrates predictive value and accuracy of other tests
- Novel virus detection and monitor for variants of interest or concern
- Contribute samples to CDC and WHO–antiviral resistance, vaccine strain selection and match to current vaccine
- Surveillance testing is provided at no cost and is partially supported by the Centers for Disease Control and Prevention

Thank you for your support of this program!

Purpose of specimens submitted to SHL

- For surveillance purposes only, please submit up to ONE positive flu specimen per week (COVID neg). The goal for this is to have consistent low/moderate level of specimen submission over the course of the entire respiratory season for subtyping and further characterization.

- Additionally, we are especially interested in Flu positive patient specimens if unusual illness or exposure to animals. The goal/purpose of this is to potentially identify novel or increase virulence influenza viruses.

- The reason we preferentially want Flu B positives this season is because Flu B/Yamagata may be extinct and its very important to conduct lineage typing to detect potential B/Yamagata lineage viruses because it may have undergone considerable evolution since the last one was analyzed. However, there is a challenge for diagnosis of influenza B/Yamagata due to the live attenuated influenza vaccine (LAIV), which has a Yamagata component. If it is known that the patient recently had LAIV please do not submit.
For Flu Surveillance testing this year SHL will use:

CDC Flu/SC2 combination aka multiplex PCR test (other methods for COVID testing will remain, Saliva at Home, Panther, PCR- please continue to use those routes if you are using for COVID diagnostic/screening)

Specimens submitted for Influenza PCR testing will also receive a COVID PCR result

If positive for Flu A they will be reflexed to Flu A subtyping (H3, H1, or possible variants)  
If positive for Flu B they will be reflexed to Flu B genotyping (Victoria, Yamagata)
Ordering collection kits

- [www.shl.uiowa.edu](http://www.shl.uiowa.edu)
- Click the green box “Order A Test”
- Click “Order Clinical Kits”
- Fill out your contact info and select your facility from scroll down
- Fill out your shipping info
- In the drop down called “Type of kit” select “Virus Isolation and Detection Kit”
- Enter “Qty. of Kits”
- If you only need certain components, you can type that in the “Comments” section.
- Kit contains M4-RT viral transport medium and swabs, absorbant and biohazard bag
Order Influenza testing using your State Hygienic Lab OpenELIS Web Portal account at: [https://www.shl.uiowa.edu/openelisweb/OpenELIS.html](https://www.shl.uiowa.edu/openelisweb/OpenELIS.html). Click on the "COVID-19 Electronic Test Request Form" button and select the "Influenza SARS-CoV-2 (Flu SC2) Multiplex" test.
Specimen Collection

- Please do not send specimens used for other testing because they may contain a lysis buffer that could react negatively with ours
- Preferred Specimen Types: Nasopharyngeal (NP) swab, Combined Nasopharyngeal/Throat swab
- **Nasopharyngeal (NP) Swab:** Insert swab through the nostril into the nasopharynx until tip reaches the posterior nasopharynx (a distance equivalent to that from the ear to the nostril of the patient). Leave the swab in place for 10 - 30 seconds. Slowly remove with a rotating motion. Place swab in M4-RT transport medium.
- **Combination Swabs:** Nasal - Place Dacron-tipped or flocked swab in each nostril and allow to remain in place for several seconds. Place the swabs in tube containing M4-RT transport medium. Throat - Rub the tonsils and posterior pharynx with Dacron-tipped or flocked swab. Place the swabs in tube containing M4-RT transport medium.
Specimen Collection Cont.

- Specimens for testing should be collected within three days of onset of symptoms
- PCR is a very sensitive test, and precautions should be taken to not cross-contaminate specimens
- Wear gloves and change before and after collecting specimen
- Avoid contact with environmental surfaces
- Fold in half printed eForm and place in the side pocket of biohazard bag (not inside biohazard with specimen)
- Make sure the specimen tube contains 2 identifiers, name and DOB is good
- Send via courier (most already have in place with COVID testing) or can mail in a styro container with ice pack.
Iowa Respiratory Survey - Submitting Your Labs Test Results

- Iowa Respiratory Virus Test Results - Clinical Laboratories
- Contact Kris Eveland at (319) 335-4279 or Kristofer-eveland@uiowa.edu if you are interested
- SHL will send you a link to the public survey
  - Each week, we’ll send you the combined results from the previous week
- Benefit
  - Situational awareness - what’s circulating in your local area
  - Data is used by Iowa HHS for the weekly respiratory virus report.
  - Positive predictive value of rapid influenza tests relies on prevalence in your local community
- We need COVID-19 data too now that negatives are not reportable
- We need more labs around the state for better geographic representation
Please give IDPH permission to pass your weekly lab totals to NREVSS:
via link below or in the survey

https://redcap.idph.state.ia.us/surveys/?s=49LDNXMYFC
Thank you for participating in NREVSS!
Laboratory Contact Information

Molecular section phone: 319-335-4376
SHL general phone: 319-335-4500
Jeff Benfer, M.S., MB (ASCP)cm, Supervisor of Molecular Biology and Virology
jeff-benfer@uiowa.edu
P:319-335-4276
F:319-335-4555

THANK YOU FOR PARTICIPATING!!!
Poll question

SHL is developing a fee for service test to detect flu and SARS CoV2 on panther for $142.63

Would your facility be interested in using this services? Yes / No

If yes,

Please estimate the average volume of testing per week that you would send to SHL for flu/COVID combination testing:

- < 10
- 10-20
- 20-50
- 50 or more
To get your Continuing Education Unit (CEU)

Session CODE:

439-004-22

Here is a brief summary describing how to use the ASCLS CE Organizer:

2. Select either the Member or Non-Member log-in box.
   a. ASCLS members will log in using the same username and password used to enter the Members Section of the ASCLS website.
   b. If you are not an ASCLS member, and do not have an account in CE Organizer already, click the “Register Here” link to create a username and password.
3. Once logged in, click on Claim Credit.
4. In the list of Other P.A.C.E. Programs click on “439 State Hygienic Lab of the University of Iowa.”

You will be asked to fill out a survey and then can download your certificate.

If you have questions, please email Laina Edwards at laina-edwards@uiowa.edu