Prevention and Control of Influenza and RSV in Los Angeles County Skilled Nursing Facilities in the Context of COVID-19

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Disclosures

There is no commercial support for today's webinar.

Neither the speakers nor planners for today's webinar have disclosed any financial interests related to the content of the meeting.

This webinar is meant for skilled nursing facilities and is off the record. Reporters should log off now.



DISCLAIMER

• This is a rapidly evolving situation so the information being presented is current as of today (12/16/22) that we will review at the end of this presentation.



Outline

- Epidemiology of influenza in LA County
- Influenza management principles and framework
- Influenza Outbreak Management in SNFs
- RSV Outbreak Management in SNFs
- Similarities and Differences: COVID vs. Flu/RSV/other respiratory diseases
- Influenza Vaccination
- Questions



Epidemiology of Influenza in LA County





Influenza Surveillance in LA County

- What do we mean by surveillance?
- Challenges with counting influenza cases
 - Many with mild illness \rightarrow will not present for care
 - Not everyone with flu will get tested
 - Potential false positive results
 - Too many cases to count (~10-15% of population annually)
- Modelling provides more comprehensive estimates of burden
- Track indicators of influenza activity
 - ED visits for influenza-like illness (ILI)
 - Percentage of respiratory specimen positive for influenza
 - Influenza-associated deaths



Estimated Range of Annual Burden of Flu in the U.S. from 2010–2020



*The top range of these burden estimates are from the 2017-2018 flu season. These are preliminary and may change as data are finalized.



INFLUENZA WATCH

Summary of Los Angeles County Department of Public Health (LAC DPH) Influenza and Other Respiratory Disease Surveillance

Updated: 12-09-2022 MMWR Week: 48 Ending on: 12-03-2022

To subscribe to LAC DPH Viral Respiratory Illness Surveillance Updates email "Subscribe" to influenza@ph.lacounty.gov

Influenza Surveillance at-a-Glance

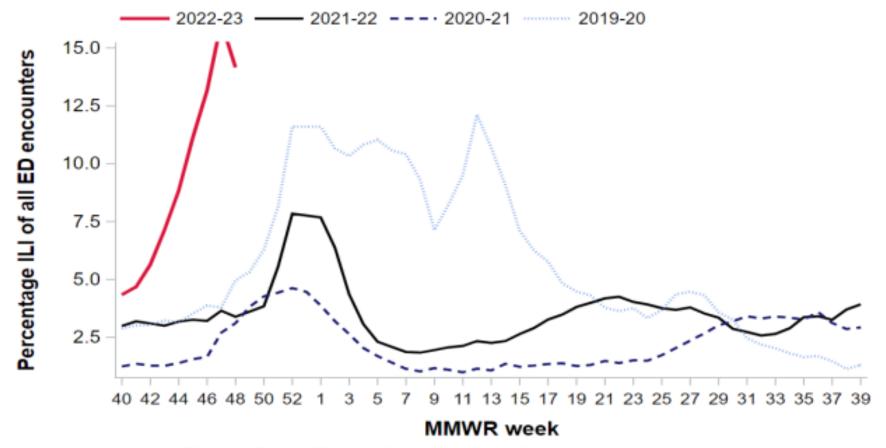
Virology	Illness	Severe Disease
27.6% of specimens tested at LAC sentinel labs were positive for influenza in week 48. This is <i>less than</i> in week 47.	Visits for influenza-like illness accounted for 14.2% of emergency department visits in week 48, which is <i>more</i>	Pneumonia, Influenza, and COVID-19 accounted for 13% of all deaths registered in LAC during week 47, which <i>is more</i> <i>than</i> in week 46.
This season, more Influenza A has been detected than Influenza B.	than in week 47.	19 confirmed influenza- associated death have been reported since the start of the respiratory surveillance season (10/2/22).

* See indicator specific sections for associated methods.

To receive this report, email "Subscribe" to <u>fluwatch@listserv.ph.lacounty.gov</u>.

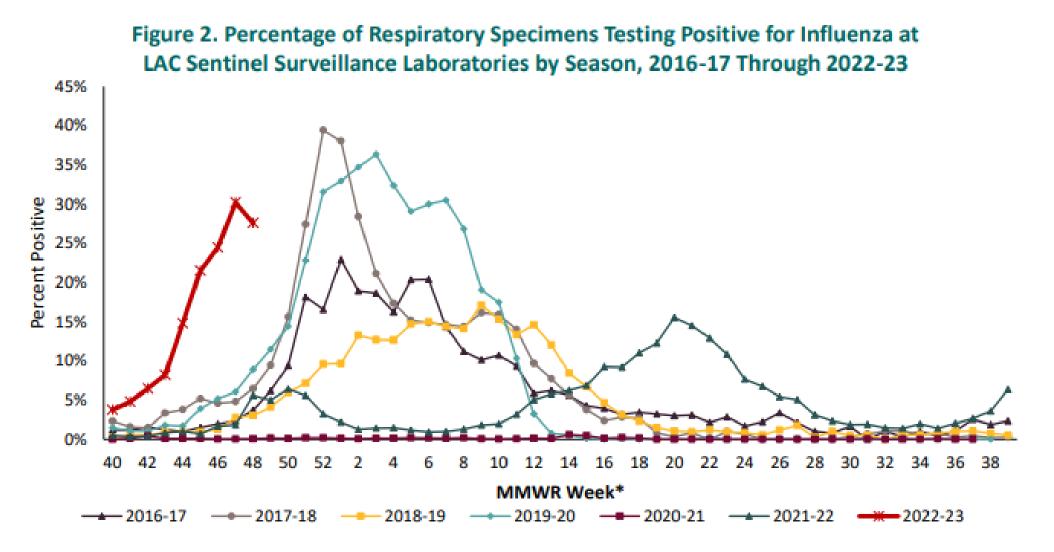


Figure 8. Emergency Department Visits for Influenza-like Illness, Los Angeles County 2019-20 through 2022-23 Influenza Seasons



Acute Communicable Disease Control Program Syndromic Surveillance Unit

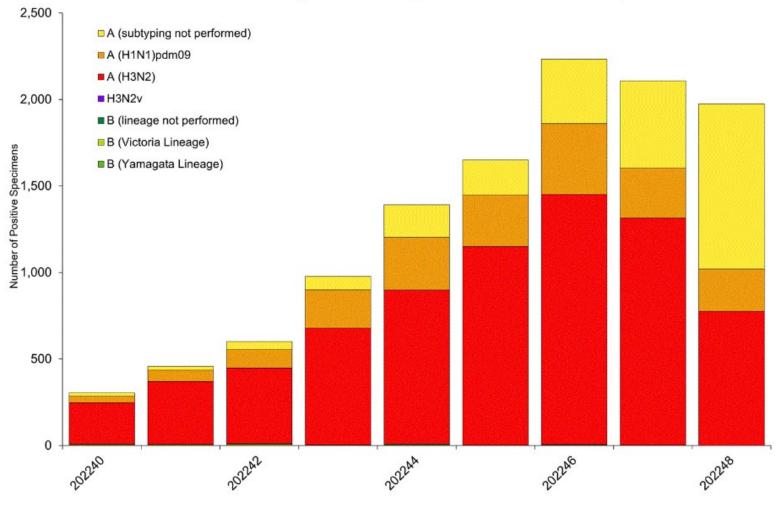




*Data have been shifted so that week 1 aligns across all seasons.



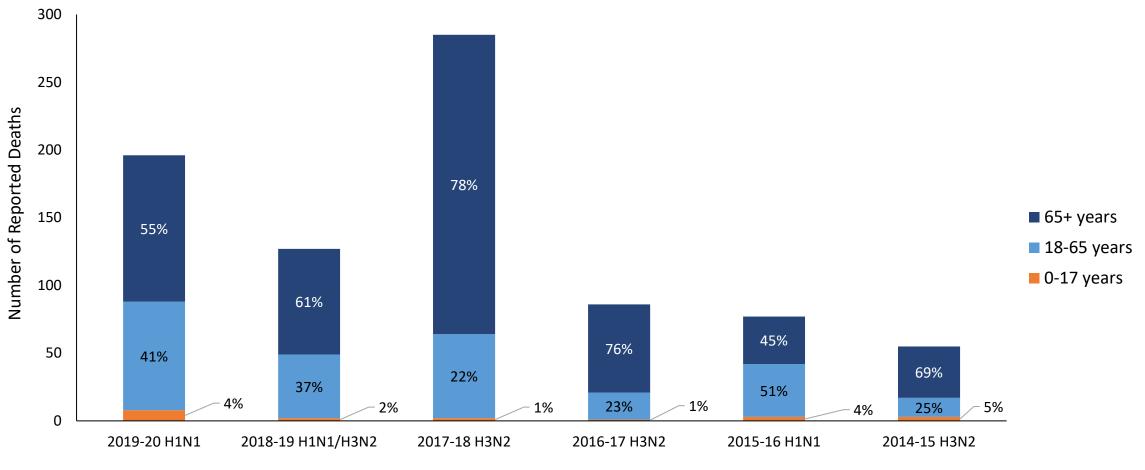
Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, October 2, 2022 – December 3, 2022



Week

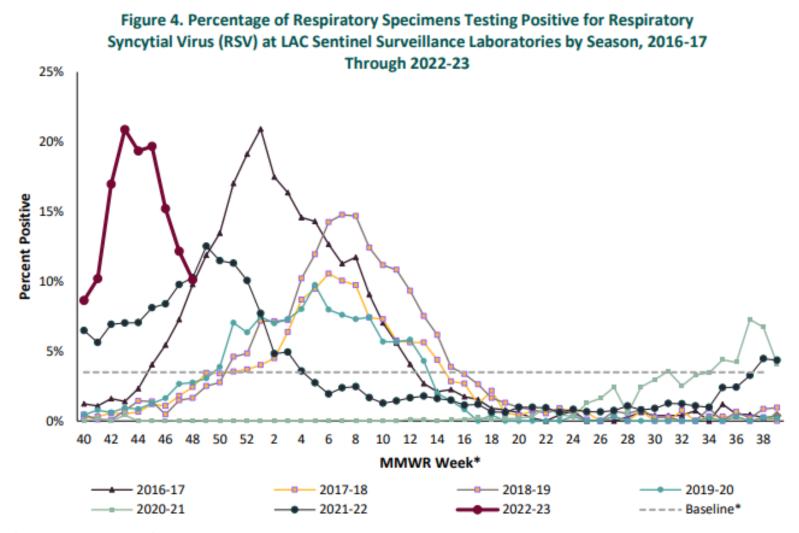


Influenza-Associated Deaths in LA County, 2014-15 to 2019-20



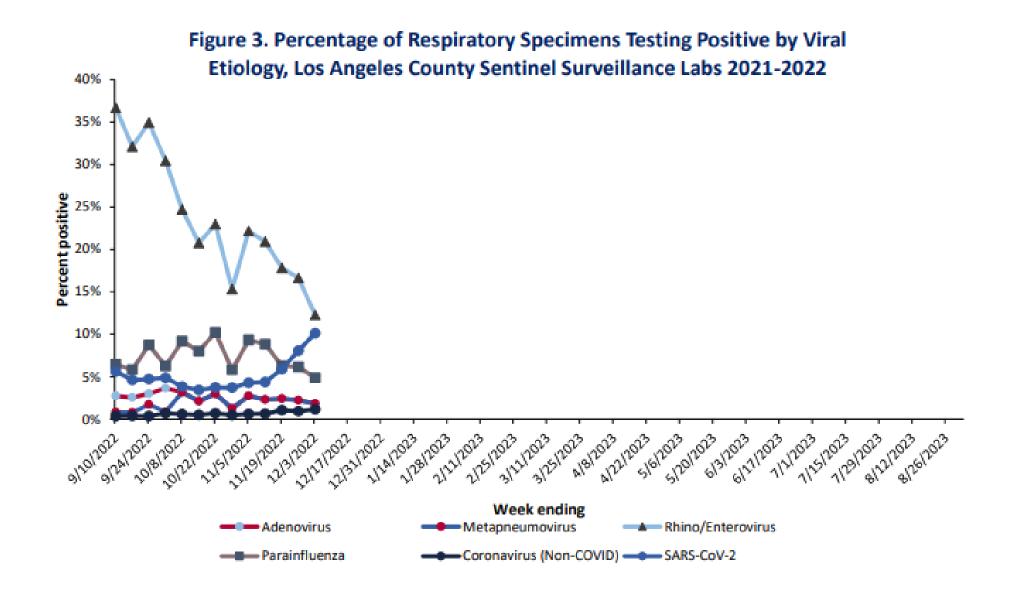
Influenza Season





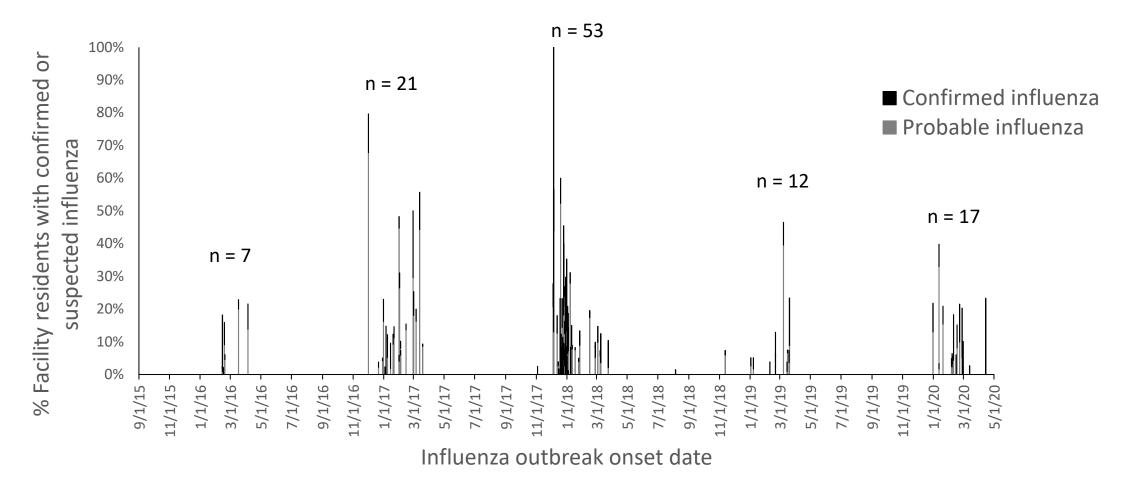
* Data have been shifted so that week 1 aligns across all seasons.







Percentage of Residents with Confirmed or Probable Influenza in Skilled-Nursing Facilities with a Seasonal Influenza Outbreaks — Los Angeles County, 2015–2020. (N = 110)





Outbreaks of Influenza, RSV, or Unknown Respiratory Disease in LA County SNFs (10/01/2022-12/14/22)

Total # of Non COVID-19 Respiratory Disease OBs: 13

Influenza	RSV	OB Unknown Respiratory
6	1	6

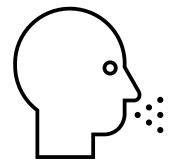


Influenza Management Principles & Framework



Transmission

- Person to person primarily through large-particle respiratory droplet transmission
 - Role of indirect transmission is unclear
- Incubation period 1-4 days
- Viral shedding typically 1 day before to 4 days after
 - Can be up to 2 days before and 10 days after.
- Shedding (and presumably infectivity) greatest when symptomatic peaks <24 hours of symptom onset
 - Shedding is longer if severely ill
 - In LAC assume infectious for 7 days





3 Keys to Early Detection and Containment of Influenza Outbreak in SNFs

- 1. Early identification of infected residents and staff
- 2. Early initiation of antiviral therapy for infected residents and preventive therapy for exposed residents
- 3. Optimal isolation of residents with suspected/confirmed influenza





Early Identification of Influenza

- Daily symptom screening of staff and residents
- Test anyone with symptoms for both COVID-19 and influenza
- Do not test for influenza in asymptomatic residents (different from COVID-19)





How to Test for Influenza?

- Two categories of diagnostic tests
 - Molecular assays include rapid molecular assays and reverse transcription polymerase chain reaction (RT-PCR)
 - Antigen detection tests including rapid influenza diagnostic tests [RIDTs] and immunofluorescence assays
- Antigen detection assays
 - Low to moderate sensitivity for detecting influenza
 - False positives when prevalence of circulating influenza viruses is low
 - False negatives when the prevalence is high



How to Test for Influenza?

- CDC recommends
 - 1. Rapid RT-PCR or other molecular assays
 - 2. Rapid antigen detection assay. Confirm negative test results in symptomatic persons with RT-PCR/molecular assay.
 - 3. If a resident with acute respiratory illness tests negative for both influenza and SARS-CoV-2, consider additional viral or bacterial testing based on respiratory pathogens known or suspected to be circulating (RSV)



Early Initiation of Antiviral Therapy

- Immediately start antiviral therapy for residents with suspected or confirmed influenza
- Influenza should be strongly suspected in a resident with acute respiratory symptoms if
 - There are other persons with confirmed influenza at the facility, OR
 - LA County influenza surveillance data indicate that >5% of respiratory specimens tested Countywide are positive for influenza.
- Oseltamivir (Tamiflu) is the most commonly used antiviral medication
- Other options: oral baloxavir, inhaled zanamivir, intravenous peramivir





Recommendations for Preventive Antiviral Therapy (Chemoprophylaxis)

- All of the roommates of a resident with confirmed influenza infection
- All residents in the outbreak-affected unit/wing if influenza confirmed in a second resident who was not a roommate of the first case
- All residents in the facility if cases in multiple units/wings (priority given to roommates of confirmed cases if low supply)
- Should be offered to all residents
- Consider for staff if:
 - they are unvaccinated,
 - they received an inactivated influenza vaccine within 14 days prior, or
 - if evidence indicates that circulating influenza viruses not well-matched to seasonal influenza vaccine.



Influenza and COVID-19 Treatment

- Initiate empiric treatment for influenza with oseltamivir ASAP in symptomatic individuals <u>without</u> waiting for testing results during a known influenza outbreak
- Antiviral treatment for influenza is the same for all patients regardless of SARS-CoV-2 coinfection
- No clinically significant drug-drug interactions between the outpatient treatment options for COVID-19 and the influenza antiviral agents
 - But manage any Paxlovid drug-drug interactions with other medications
- Prepare order sets for both influenza chemoprophylaxis and treatment dose regimens to minimize delays



This is an official CDC HEALTH ADVISORY

Distributed via the CDC Health Alert Network December 14, 2022, 4:00 PM ET CDCHAN-00482

Interim Guidance for Clinicians to Prioritize Antiviral Treatment of Influenza in the Setting of Reduced Availability of Oseltamivir

Institutional Settings

- When an influenza outbreak is not occurring, prioritize oseltamivir for early treatment of influenza in residents of congregate settings such as long-term care facilities (LTCFs), who test positive for influenza.
- In the setting of laboratory confirmed <u>influenza outbreaks in LTCFs:</u>
 - Early empiric antiviral treatment of suspected influenza in residents is <u>recommended</u> [4]. Once an influenza diagnosis is confirmed through testing, post-exposure antiviral chemoprophylaxis of exposed residents is <u>recommended</u> [4].
 - Because institutional outbreaks can be prolonged, consider using a limited duration treatment dosage (twice daily for 5 days) for postexposure oseltamivir instead of extended use of oseltamivir chemoprophylaxis (once daily), with ongoing active daily monitoring and influenza testing for all residents with new illness signs and symptoms.
 - o If oseltamivir is not available, baloxavir, zanamivir, or peramivir may be used for treatment of influenza.
 - Although baloxavir may be used for treatment, there are no available data on using baloxavir in LTCFs for treatment or post-exposure chemoprophylaxis.



Framework for Prevention and Control of Influenza in Context of COVID-19

- Review of isolation for COVID-19
 - Isolate residents with confirmed COVID-19 in a physically separated Red Cohort *
 - Response testing of asymptomatic individuals *
 - Residents who are close contacts no longer need to quarantine
 - LAC DPH <u>Guidelines for Preventing & Managing COVID-19 in SNFs</u> was recently updated Dec 12, 2022
- * Infection control for influenza differs from COVID-19
 - Interventions to mitigate influenza
 - Morbidity is lower for influenza
 - Influenza is less transmissible



Isolation Recommendations for Influenza

- Consider isolating residents with confirmed influenza in a private room
- If a private room unavailable, then isolate suspect and confirmed cases and roommates in current rooms
 - Spatial separation of at least 6 feet
 - Privacy curtain between residents
 - Change gloves and perform hand hygiene between residents
- Avoid movement of residents with suspected or confirmed influenza between COVID-19 cohorts, to other rooms, or to other areas of the facility that could lead to new exposures.



Influenza Outbreak Management in SNFs





Influenza Outbreak Definition

- ILI (Influenza-like illness) case definition = Fever (≥100° F or 37.8° C) plus cough and/or sore throat.
- Outbreak definition
 - At least one case of laboratory-confirmed influenza
 - In the setting of a cluster (≥2 cases) of ILI
 - Occurring within a 72-hour period
- Single cases of influenza is not reportable, but outbreaks are reportable. When in doubt, contact Public Health (<u>LACSNF@ph.lacounty.gov</u>).



Outbreak investigation steps

- Confirm that outbreak definition is met
 - Obtain RT-PCR confirmation of etiology if not already done
 - Contact Public Health: <u>LACSNF@ph.lacounty.gov</u>
- Create a line list: <u>EXCEL</u> template from LAC DPH
- Maintain surveillance (daily symptom screening + testing of symptomatic persons) for at least 1 week after last case



Infection Control Summary

- 1. Vaccinate staff and residents. It is not too late.
- Implement <u>droplet</u> + <u>standard precautions</u> for any residents who are suspect or confirmed cases for 7 days after illness onset OR until 24 hrs after the resolution of fever without fever reducing meds + symptom improvement, whichever is longer
- 3. Place cases in a single occupancy rooms, if available
- 4. If single occupancy rooms are unavailable:
 - Cohort with other lab confirmed cases
 - Maintain distance of 6 feet between beds + privacy curtains
 - Change gloves and perform hand hygiene between contacts with each resident
- 5. Antiviral therapy for cases: start within 48 hrs of symptom onset
- 6. Antiviral prophylaxis for non-ill staff and residents (prioritize roommates when short supply)
 - Minimum 2 weeks and 7 days after last case



Infection Control Basics: Standard Precautions

- Use masking for source control
- Consider masking all residents when outside of room during influenza and/or COVID outbreaks
- Hand hygiene with alcohol-based hand rubs







Infection Control Basics: Standard Precautions

- Respiratory hygiene/cough etiquette
 - Education of visitors
 - Avoid crowds



Resp hygiene: https://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm



https://www.health.state.mn.us/

people/cyc/hcpposter.html



COVER YOUR COUGH Stop the spread of germs and keep others from getting sick.



If you don't have a tissue

and nose with a tissue when you cough or sneeze Throw the tissue in the trash

cough or sneeze into you upper sleeve or elbow. Don't sneeze into your hand



You may be asked to Wash hands often with soap

wear a facemask to and warm water for 20 seconds. protect others. If soap and water aren't available, use alcohol-based hand sanitize



http://www.lapublichealth.org/acd/d ocs/CoverCough.pdf





RSV Outbreak Management in SNFs





Respiratory Syncytial Virus (RSV) Outbreak Definition

- Individual cases of RSV are not reportable (unless the case is a death and < 5 years of age), however outbreaks are reportable
- Outbreak definition: at least one case of laboratory-confirmed respiratory pathogen, other than influenza, in the setting of a cluster (≥2 cases) of Acute Respiratory Illness (ARI- referred to as an illness characterized by any two of the following: fever, cough, rhinorrhea (runny nose) or nasal congestion, sore throat, or muscle aches) within a 72-hour period **OR**
- Respiratory outbreak of unknown etiology definition: A sudden increase of ARI cases over the normal background rate in the absence of a known etiology



Infection Control Measures for RSV Outbreak Management

- Contact and droplet precautions for at least 7 days and until symptoms improve and fever free for 24 hours
- RSV contacts to a confirmed case:
 - If the residents are asymptomatic, they would not need to be put on isolation or tested for RSV
 - If the residents are symptomatic, they should be put on contact isolation and droplet precautions and tested



Infection Control Measures for RSV Outbreak Management cont.

- Clearance testing is NOT recommended due to prolonged shedding of viral particles
- Ensure staff is performing proper hand hygiene with hand washing for at least 20 seconds or using an appropriate alcohol based hand sanitizer
- Increase environmental cleaning and disinfection with appropriate EPA listed agents in areas where residents are receiving care (resident room, shared bathrooms if any, rehab gym equipment, high touch surfaces, etc.)



RSV Resources

- Los Angeles County Dept of Public Health (LAC DPH) RSV webpage: <u>http://publichealth.lacounty.gov/acd/diseases/RSV.htm</u>.
- CDC has updated their website to include guidance on RSV prevention. They have dedicated pages to <u>Transmission</u>, <u>Prevention</u>, and the impact of RSV on <u>Older</u>
 <u>Adults</u>. They have also issued a <u>Health Alert</u>. Please take the time to read through some or all of these pages for information to keep our elderly residents safe during the winter season.



Similarities and Differences COVID vs. Flu/RSV/other respiratory diseases





Clinical presentation & transmission

<u>Flu</u>

- Fever, cough, shortness of breath
- Incubation period: 1-4 days
- Droplet transmission

COVID-19

- Fever, cough, shortness of breath + change/loss of taste or smell is more frequent.
- Incubation period can be longer:
 2-5 days and up to 14 days
- Presymptomatic, asymptomatic, and symptomatic transmission
- Droplet and small particle (airborne) transmission



Recommended PPE

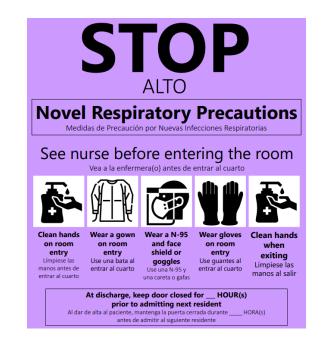
Flu, RSV, other respiratory illness

- Surgical mask; gown and gloves if high contact activity
- N95 respirator if aerosol generating procedure (Flu)



<u>COVID-19</u>

• N95 respirator, eye protection, gown, gloves





Managing contacts

Flu, RSV, other respiratory illness

- Manage in place
- Post-exposure prophylaxis: antivirals (Flu)
- Surveillance: 7 days post last case (Flu)

COVID-19

- Manage in place
- No post-exposure prophylaxis for close contacts (Evusheld is only for preexposure prophylaxis)
- Surveillance: 14 days post last case

Avoid movement of suspected or confirmed residents that could lead to new exposures.



Influenza Vaccination



Why immunization against influenza is more important than ever:

- 1. Protect family, friends, co-workers and community.
- 2. Protection against death, medical complications, social disruptions, economic hardships, work absenteeism.
- 3. Co-infection with influenza and COVID-19 increases complications, hospital length of stay and mortality.





U.S. Licensed Influenza Vaccines 2022-23 Flu Season

Trade name (manufacturer)	Presentations	Age indication	μg HA (IIV4s and RIV4) or virus count (LAIV4) for each vaccine virus (per dose)	Route	Mercury (from thimerosal, if present), µg/0.5 mL	
IIV4 (standard-dose, egg	g-based vaccines ⁺)					
Afluria Quadrivalent	0.5-mL PFS⁵	≥3 yrs⁵	15 μg/0.5 mL	IM¶	_**	
(Seqirus)	5.0-mL MDV [§]	≥6 mos [§] (needle/syringe) 18 through 64 yrs (jet injector)	7.5 μg/0.25 mL 15 μg/0.5 mL	IM¶	24.5	cclIV4 (star
Fluarix Quadrivalent (GlaxoSmithKline)	0.5-mL PFS	≥6 mos	15 μg/0.5 mL	IM¶	-	Flucelvax C (Seqirus)
FluLaval Quadrivalent (GlaxoSmithKline)	0.5-mL PFS	≥6 mos	15 μg/0.5 mL	IM¶	-	HD-IIV4 (hi
Fluzone Quadrivalent	0.5-mL PFS++	≥6 mos++	15 μg/0.5 mL	IM¶	_	Fluzone Hi Quadrivale (Sanofi Pas
(Sanofi Pasteur)	0.5-mL SDV++	≥6 mos++	15 μg/0.5 mL	IM¶	_	
	5.0-mL MDV++	≥6 mos++	15 μg/0.5 mL 7.5 μg/0.25 mL	IM¶	25	allV4 (stand

https://www.cdc.gov/flu/professionals/acip/2022-2023/acip-table.htm#print

Provide adults aged ≥65 yo high potency quadrivalent vaccines per ACIP recommendation, but if unavailable at the time of the vaccination opportunity, provide **any other age-appropriate** vaccine.

Bottom line – get vaccinated ASAP!

cclIV4 (standard-dose, cell culture-based vaccine)									
Flucelvax Quadrivalent (Seqirus)	0.5-mL PFS	≥6 mos	15 µg/0.5 mL	IM¶	—				
	5.0-mL MDV	≥6 mos	15 µg/0.5 mL	IM¶	25				
HD-IIV4 (high-dose, egg-based vaccine ⁺)									
Fluzone High-Dose Quadrivalent (Sanofi Pasteur)	0.7-mL PFS	≥65 yrs	60 <i>µ</i> g/0.7 mL	IM¶	—				
allV4 (standard-dose, egg-based ⁺ vaccine with MF59 adjuvant)									
Fluad Quadrivalent (Seqirus)	0.5-mL PFS	≥65 yrs	15 <i>µ</i> g/0.5 mL	IM¶	—				
RIV4 (recombinant HA vaccine)									
Flublok Quadrivalent (Sanofi Pasteur)	0.5-mL PFS	≥18 yrs	45 μg/0.5 mL	IM¶	—				
LAIV4 (egg-based vaccine ⁺)									
FluMist Quadrivalent (AstraZeneca)	0.2-mL prefilled single-use intranasal sprayer	2 through 49 yrs	10 ^{6.5-7.5} fluorescent focus units/0.2 mL	NAS	—				

The Vaccine Triple Play

COVID-19 Bivalent Booster

ATTIC

- COVID-19 vaccines are effective at preventing severe illness, hospitalization, and death.
- Boosters are additional doses that help maximize your protection against COVID-19.
- The updated boosters are called bivalent because they protect against both the original virus that causes COVID-19 and the Omicron variants BA.4 and BA.5.
- The Centers for Disease Control and Prevention (CDC) recommends everyone stay up to date with COVID-19 vaccines.

That means that everyone 5 years of age and older should receive one updated (bivalent) booster if it has been at least 2 months since their last COVID-19 vaccine dose.

- Those at highest risk of getting and dying from COVID-19 include:
- Seniors 65 years of age and over.
- Individuals with chronic medical conditions, such as heart disease, obesity, and diabetes.
- People residing in congregate living.

CDC. COVID-19-www.cdc.gov/coronavirus/2019-ncov/vaccines/stay-up-todate.html

Contact your healthcare provider today for more information and to schedule your vaccination.

Annual Flu Vaccine

- Flu is a contagious respiratory disease that can cause severe illness, hospitalization, and even death.
- Those at higher risk of serious complications from flu include:
- Seniors 65 years of age and over.
- People of any age with certain chronic medical conditions, such as asthma, diabetes, or heart disease.
- Pregnant women and children under 5 years of age.
- Getting an annual flu vaccine is the best way to protect yourself and your loved ones from flu.

CDC. Flu-www.cdc.gov/flu/prevent/whoshouldvax.htm



- Pneumococcal disease (pneumonia) is a name for any infection caused by bacteria called Streptococcus pneumoniae or pneumococcus.
- If you are 65 years of age or older, or 19–64 years of age with certain medical conditions or other risk factors, you should receive a pneumonia vaccine.
- Ask your healthcare provider which pneumonia vaccine is right for you.

CDC. Pneumococcal-www.cdc.gov/vaccines/vpd/pneumo/index.html



COUNTY OF LOS ANGELES Public Health

https://www.hsag.com/contentassets/c70f21dce19d49c0b369391f77024171/ hsagtriplevaccineflyer.pdf



Annual Influenza Reporting Requirement

- The Influenza Vaccination Coverage among healthcare personnel (HCP) Measure was finalized in the fiscal year (FY) 2023 skilled nursing facility (SNF) Prospective Payment System (PPS) Final Rule.
- Centers for Medicare & Medicaid Services (CMS)-certified SNFs are required to report annual HCP influenza vaccination summary data through the NHSN Healthcare Personnel Safety (HPS) Component.
- Centers for Disease Control and Prevention (CDC)/NHSN encourages that HCP influenza vaccination summary data be updated on a monthly basis. However, CMS only requires a single influenza vaccination summary report at the conclusion of the measure reporting period (Oct. 1–Mar. 31) to meet the minimum data requirements for NHSN participation.

Data must be entered by May 15, 2023





Resources

- LAC DPH <u>Testing & Isolation/Quarantine for Influenza in the Context of COVID-19:</u> <u>Principles & Framework for Skilled Nursing Facilities</u>
- CDPH <u>Recommendations for the Prevention and Control of Influenza in California</u> <u>Skilled Nursing Facilities (SNF) during the COVID- 19 Pandemic (PDF) -Updated</u> <u>October 2020, Last Reviewed October 25, 2021</u>
- CDC <u>Testing and Management Considerations for Nursing Home Residents with Acute</u> <u>Respiratory Illness Symptoms when SARS-CoV-2 and Influenza Viruses are Co-</u> <u>circulating</u>
- CDC Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2022–23 Influenza Season



Resources con't

• LAC DPH Influenza Outbreak toolkit for SNFs

http://www.ph.lacounty.gov/acd/SNFToolKit.htm

- LAC DPH's homepage on influenza: <u>http://publichealth.lacounty.gov/acd/flu.htm</u>
 - Includes dashboard showing influenza case rates in the county, resources and materials for healthcare providers, information on vaccines and their availability, and other educational materials
- LAC DPH Influenza Healthcare Personnel Health Officer Order:

http://publichealth.lacounty.gov/ip/Docs/Influenza 2022/Influenza HCP HOO 2022.pdf

Resources/FAQs:

http://publichealth.lacounty.gov/acd/SNFToolkit.htm#Health_Officer_Order_Resources

• LAC DPH standardized transmission-based precaution signage for LTCFs (including droplet precautions for Flu and RSV):

http://publichealth.lacounty.gov/acd/TransmissionBasedPrecautions.htm



Questions?