

# Central Oregon Public Health Quarterly

Communicable Disease Update for Crook, Deschutes, and Jefferson Counties  
Second Quarter Report, 2023

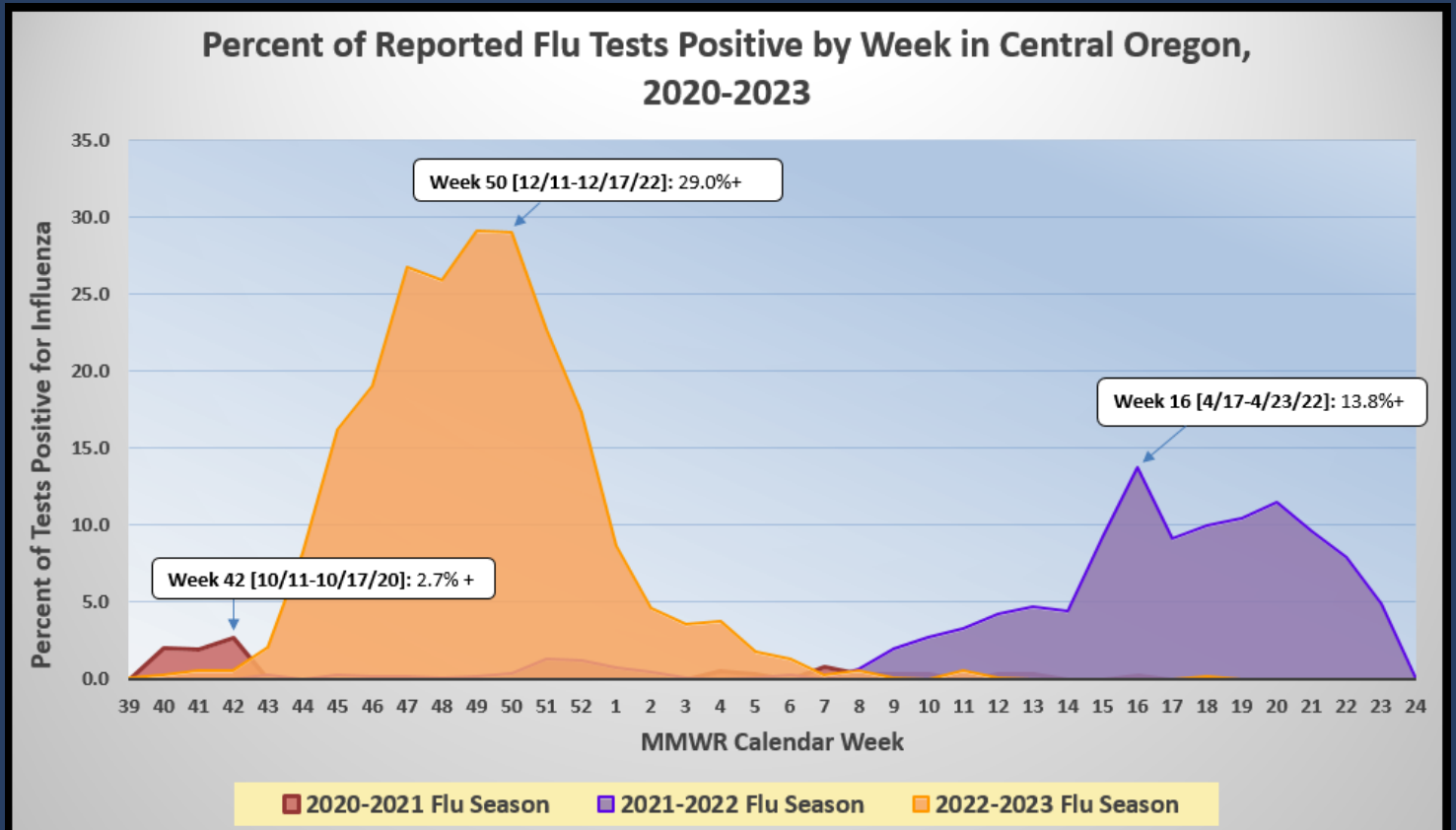
24/7 Communicable  
Disease reporting lines:

Crook  
County:  
541-447-5165

Deschutes  
County:  
541-322-7418

Jefferson  
County:  
541-475-4456

## Overview of 2022-2023 Central Oregon Flu & RSV Season



**Data Source for Central OR lab reporting:** *National Respiratory & Enteric Virus Surveillance System (NREVSS)*, a laboratory-based system that monitors temporal & geographic circulation patterns (occurring in a certain time/place) for an array of respiratory viruses. Participating laboratories (including a few in Central OR) report the total # of weekly aggregated tests; aggregated positive tests; along with specimen type/location & week of collection.

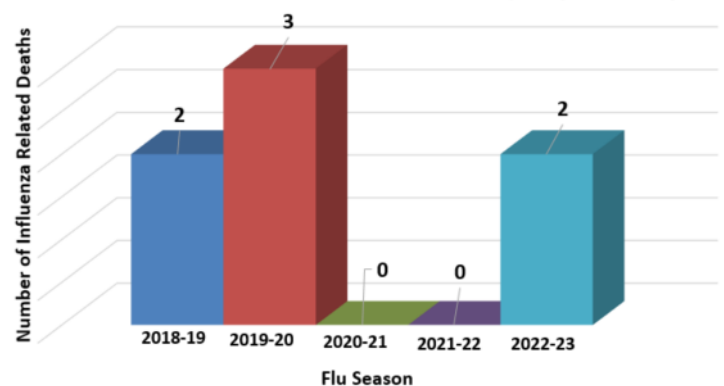
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### 2022-2023 Flu Season Re-Cap:

- **Mid-December Peak:** According to local Central OR labs, flu test positive cases peaked this past season during MMWR week 50 (**Dec 11th-17th, 2022**)—18 weeks earlier than last years season [where a late seasonal spike was observed at week 16 (April 17th-23rd)]
- **More Severe Compared to Previous Seasons:** While the 2020-21 season was extremely dampened compared to previous years & the 2021-22 season was mild & late peaking (CDC attributes these trends to COVID19 mitigation measures\*), this past season (2022-23) was more severe, with an earlier peak in December that then dropped significantly throughout the month of January

\*COVID19 mitigation measures included: masking; school closures; reduced travel; physical distancing; & influenza vaccinations

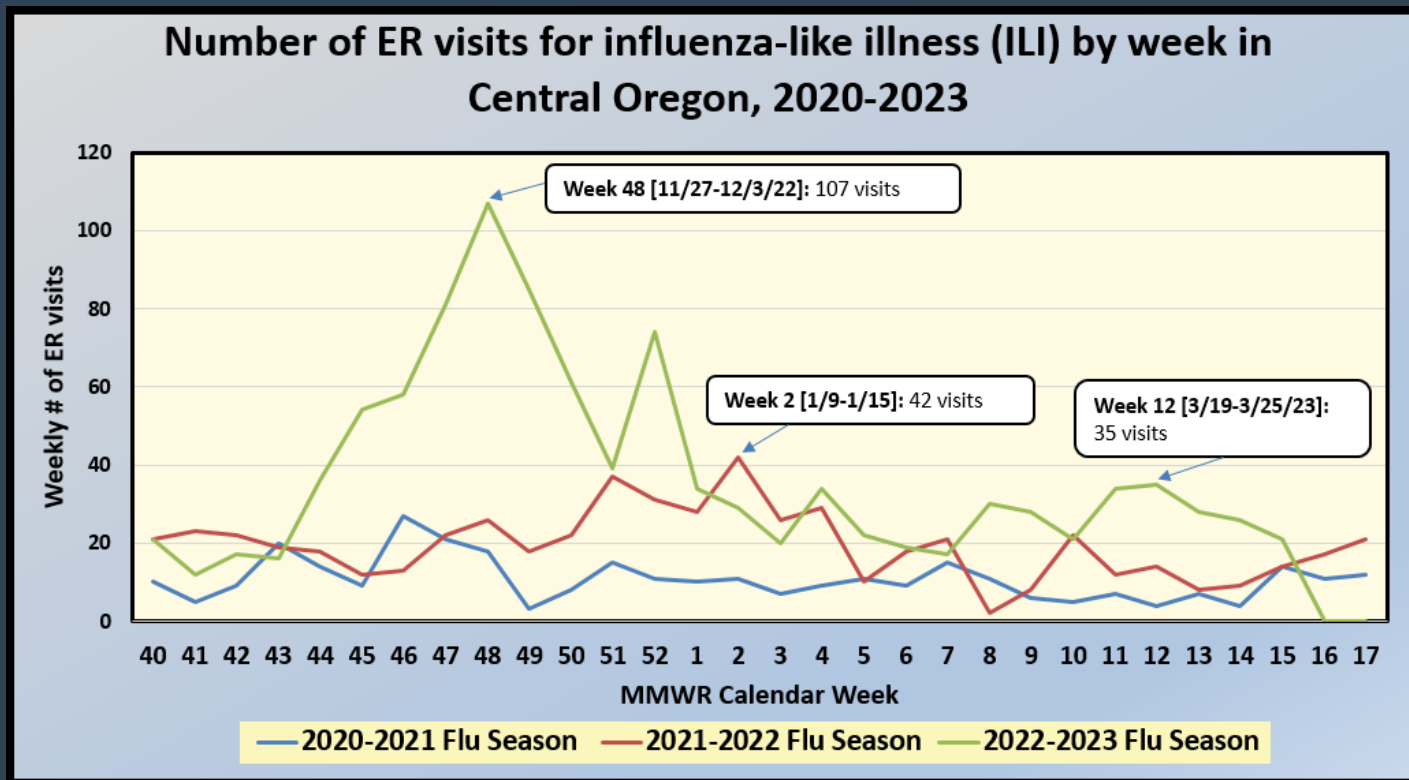
### Number of Pediatric Influenza Related Deaths, OR (2018-2023)



### Pediatric Influenza Mortality Surveillance:

- **Oregon:** 2 pediatric flu related deaths were reported to OHA this past season (up from the previous 2 seasons)
- **Nationwide:** 155 pediatric flu related deaths reported by CDC this past season (up from 46 in the prior (2021-22) season & 0 reported from 2020-21)

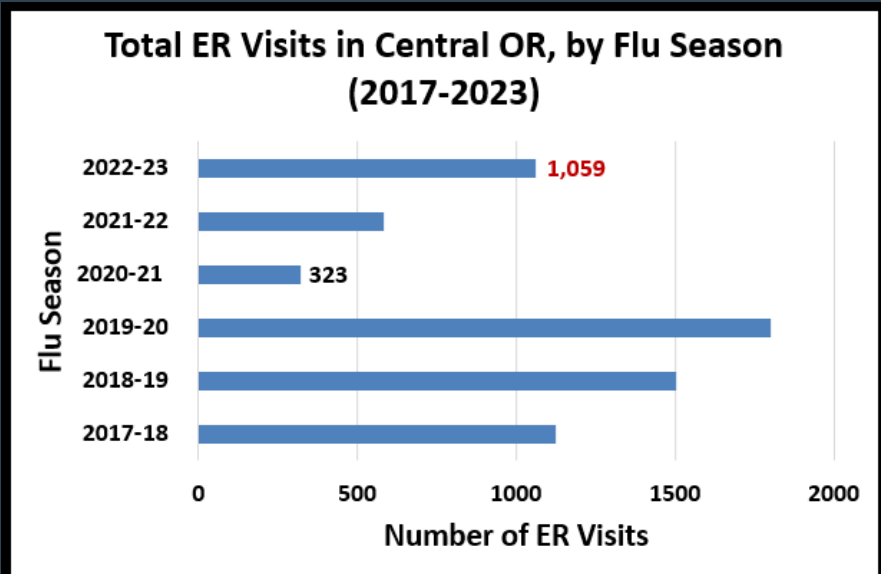
# Emergency Room (ER) Visits in Oregon & Central Oregon Due to ILI (2020-2023 Flu Season Highlights)



Data Source: ESSENCE syndromic surveillance system. Includes visits by Crook, Deschutes, and Jefferson County residents to any emergency room (ER) across Oregon.

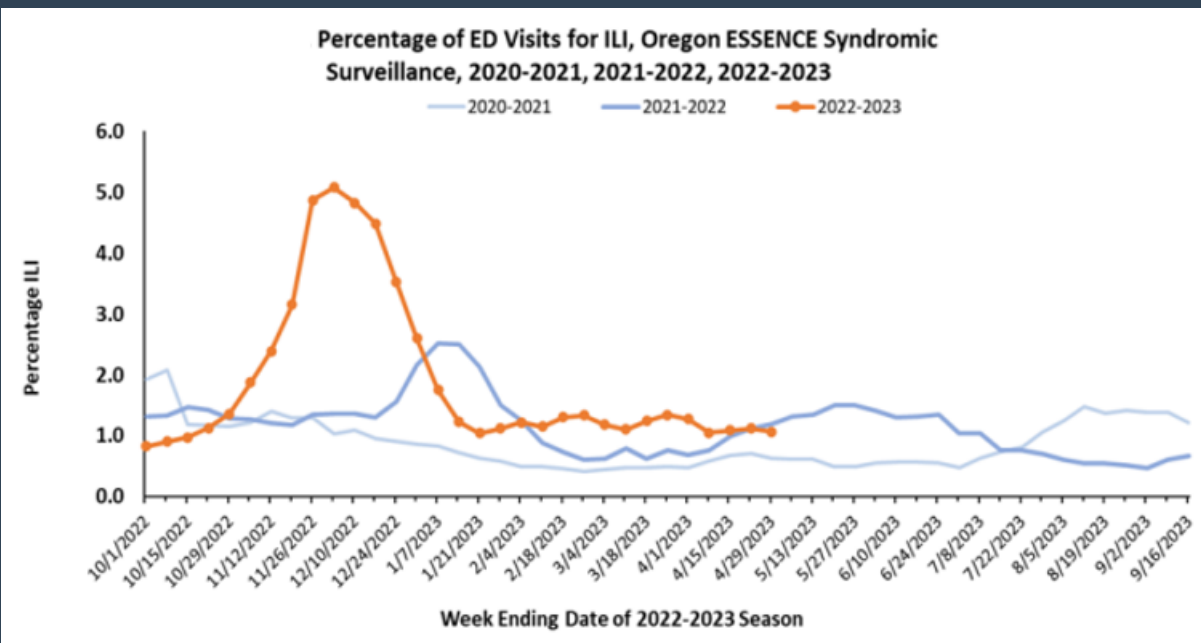
## Total ER Visit Summary for ILI in Central OR:

- Overall ER visits for ILI were up this season compared to the previous 2 seasons: **45%** higher (compared to the 2021-22 season) & **69%** higher (compared to the 2020-21 season)
- ER visits in Central OR due to ILI peaked **MMWR calendar week 48 (11/27-12/3/22): 107 visits**; with another smaller peak at **calendar week 52 (12/25-12/31/22): 74 visits** (fig. above)



## Total Emergency Department (ED) Visit Summary for ILI in Oregon (2022-23 Flu Season):

- The percentage of ED visits for ILI for the state was highest the last week of Nov. (~5%) followed by a steep decline, similar to trends noted for Central OR this past season (see fig. to right from OHA Flu Bites)



# Influenza Outbreaks in Oregon & Central Oregon (2022-2023 Flu Season)

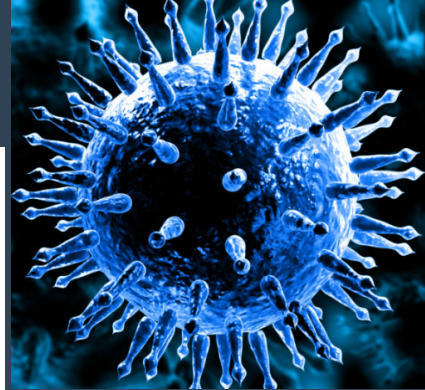
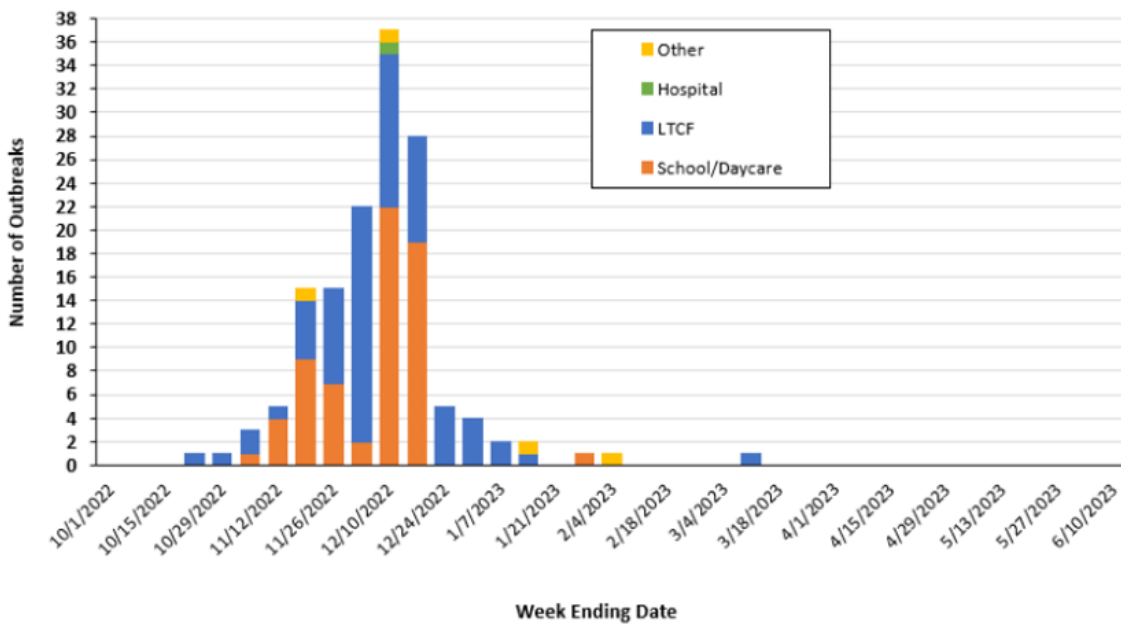


Image Source: [The influenza virus](#)

## Reported influenza outbreaks during the 2022-23 flu season:

- Central OR: 2\*
- Statewide (OR): 146 influenza outbreaks {with the majority occurring in long term care facilities & schools/daycares}

Number of Influenza Outbreaks in Oregon by Setting, 2022-2023 Season



Data Source for Figure above: OHA Flu Bites [Number of influenza outbreaks during 2022-23 season]; LTCF=long term care facilities

\*Note: In addition to the 2 influenza outbreaks (one 'flu A' & another of 'unknown strain'), an additional 2 mixed etiology outbreaks also occurred in Central OR, which included a mix of flu A, parainfluenza, and COVID-19 cases

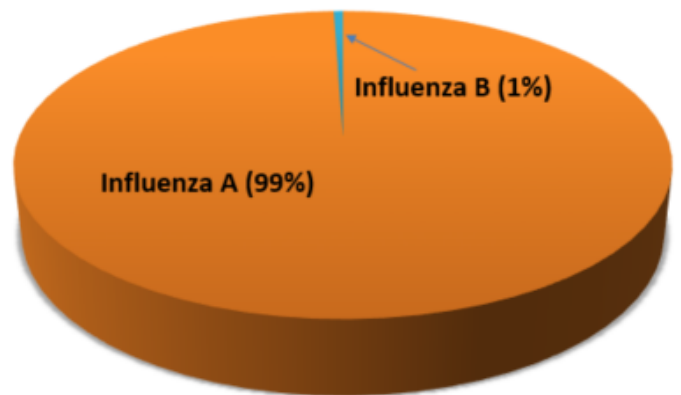
## Influenza Viral Detections by Subtype: Global & Central Oregon Trends

- For this past flu season in Central OR, influenza subtype **A** dominated (~99%), with the majority of **A** sub-variants within the 'unknown' (*non-typed*) category:

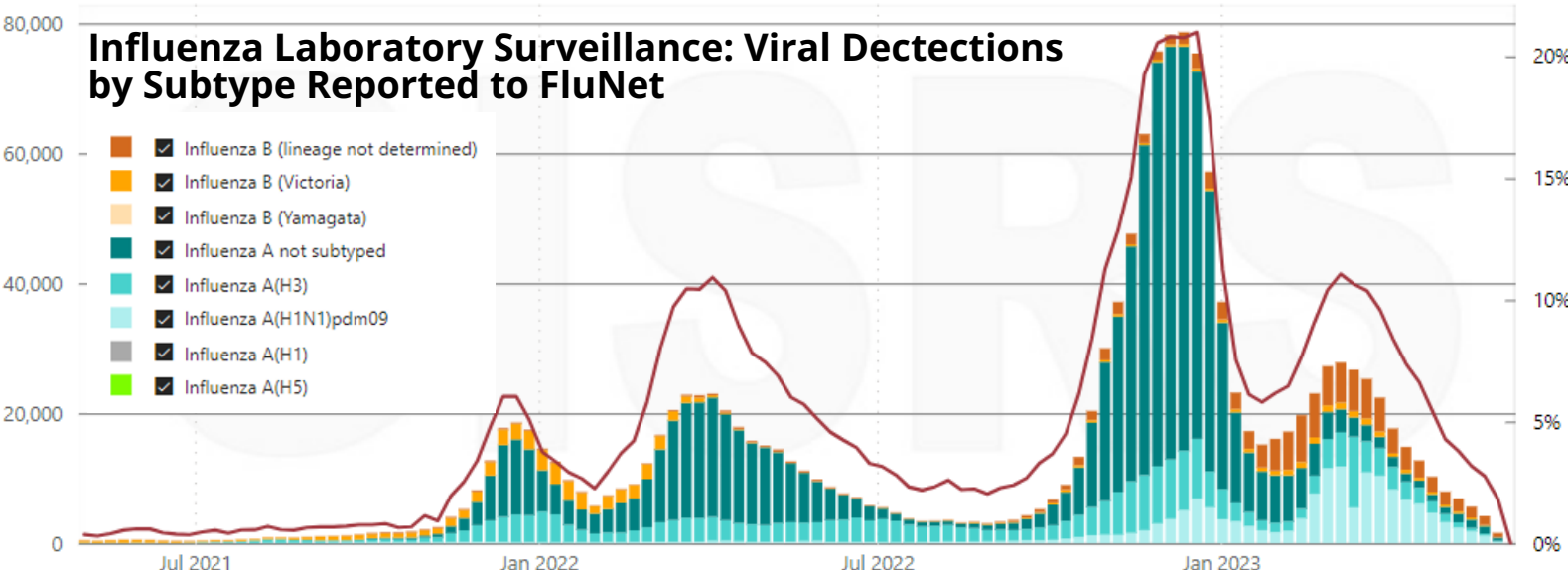
- Influenza A (H1N1): 0%
- Influenza A (H3N2): 16%
- Influenza A (Unknown): 83%
- Influenza B: 1%

- Globally, this past flu season was dominated by varieties of non-subtyped *Influenza A* variants (similar to what we observed locally) particularly in the **Dec/Jan** time frame; with a 2nd (smaller peak) noted in **Mar/Apr** dominated by *Influenza A(H1N1)pdm09*, *H3* & *B (non-determined)* variants (see below)

Total Influenza Strains from 2022-2023 Flu Season in Central OR



## Influenza Laboratory Surveillance: Viral Detections by Subtype Reported to FluNet

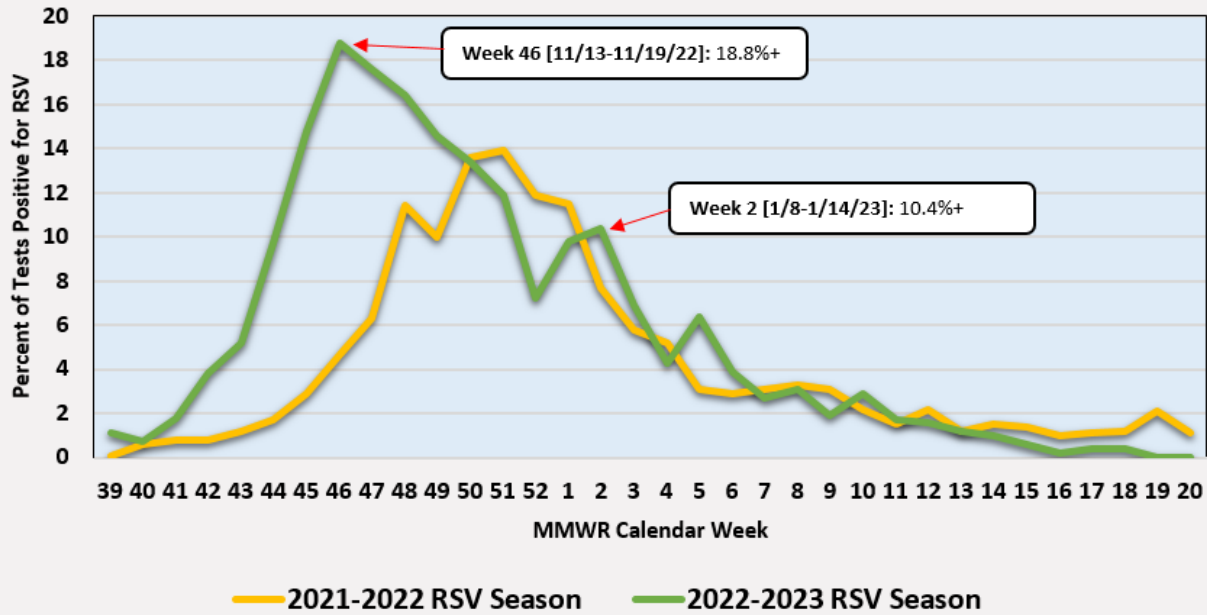


Data (in graphic immediately above) provided by: WHO's FluNet, a global web-based tool for influenza virological surveillance across participating countries reporting to the Global Influenza Surveillance & Response System (GISRS)

■ **Interim Estimates of 2022-23 Vaccine Effectiveness:** Based on data from 2 concurrent studies in Wisconsin, influenza vaccine effectiveness was 54% for preventing infection among persons <65yrs & 71% for preventing symptomatic influenza A among children/adolescents <18yrs

# Respiratory Syncytial Virus (RSV) Highlights, 2021-2023

## Percent of Reported RSV Tests Positive by Week in Central Oregon, 2021-2023



**Data Source for Central OR lab reporting:** *National Respiratory & Enteric Virus Surveillance System (NREVSS)*, a laboratory-based system that monitors temporal & geographic circulation patterns (occurring in a certain time/place) for an array of respiratory viruses. Participating laboratories (including a few in Central OR) report the total # of weekly aggregated tests; aggregated positive tests; along with specimen type/location & week of collection. **Note:** For 2020-21 season, 0 cases of RSV were recorded in NREVSS in Central OR

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## Un-Seasonable Rebound in RSV this Past Season

- Respiratory syncytial virus (RSV) (another contagious virus known to cause respiratory tract infections) also had higher levels of circulation this past season. As with trends in flu, RSV appeared earlier this season compared to previous years. Following relaxation of lockdowns & restrictive measures taken during the COVID-19 pandemic, a significant un-seasonable rebound in RSV was noted across the country.

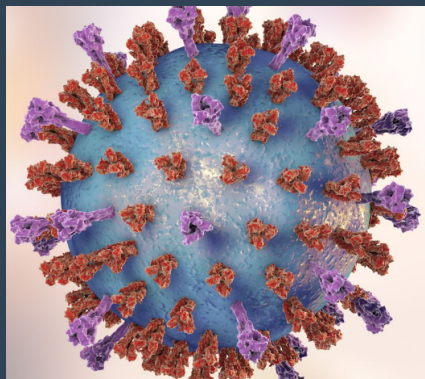


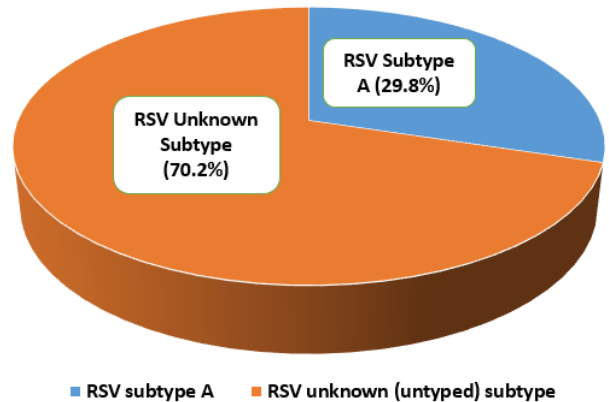
Image Source (above): The RSV virus

## RSV Trends in Central Oregon (2022-23 Season)

- Similar to trends noted within the state & nationally, RSV in Central OR peaked late last fall during MMWR week 46 (11/13-11/19/22) with **18.8%** tests+ for RSV reported by local Central OR labs during that period (this was **5 weeks earlier** than the peak observed in the previous season, occurring during week 51 (12/19-12/25/21))
- RSV Subtypes:** In examining RSV subtyping trends in Central OR this past season, the majority of strains were of unknown (untyped) subtype (~70%), while ~30% were RSV subtype A

Symptoms	COVID-19	RSV	Flu
Onset of symptoms	Gradual onset then sudden escalation	Mild onset with sudden escalation	Abrupt onset
Severity of symptoms	Mild to severe	Mild to severe	Mild to severe
Length of symptoms	7-25 days	3-7 days	7-14 days
Loss of taste and/or smell	Common	Rare	Rare
Trouble breathing	Sometimes (can be severe)	Common	Not common
Cough	Common (usually dry)	Common	Common (usually dry)
Sneezing	Not common	Common	Rare
Runny/stuffy nose	Not common	Common	Sometimes
Sore throat	Sometimes	Common	Common
Fever	Common	Common	Common
Fatigue	Sometimes	Sometimes	Common
Headaches	Sometimes	Rare	Common

RSV Strains from 2022-23 Season in Central OR

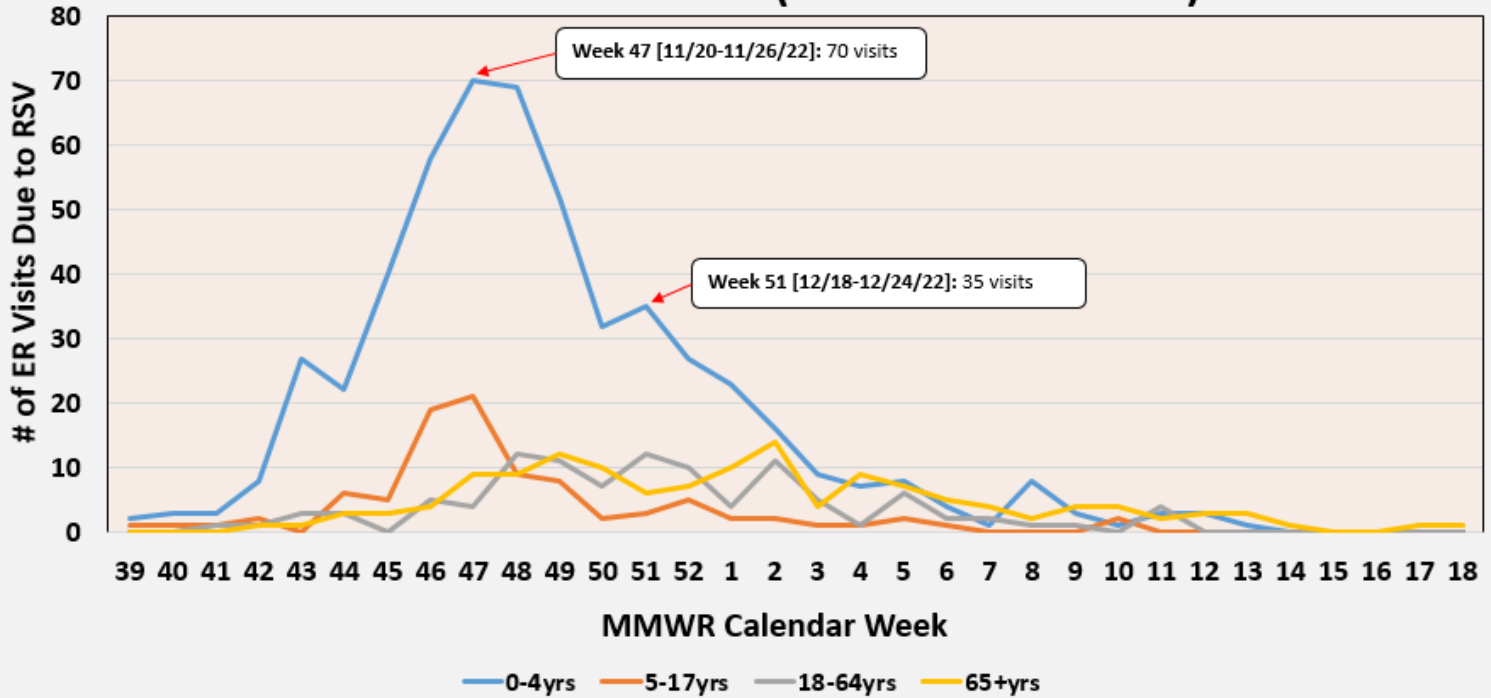


Assessing 3 respiratory illnesses based on symptomology

Data Source (pie chart above): *National Respiratory & Enteric Virus Surveillance System (NREVSS)*  
 Source for figure to right: *The Children's National Hospital*

# RSV Emergency Room Visits in Central Oregon, 2022-2023

## Number of ER Visits for RSV-like illness by Age Group Among Central OR Residents\* (2022-23 RSV Season)

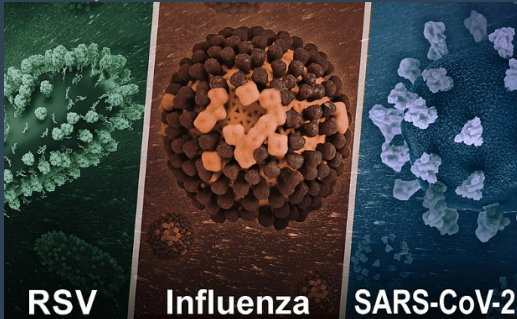


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## Pediatric Care Crisis

- In the fall of 2022, following continuing relaxation of public health precautionary measures related to the COVID-19 pandemic, an overwhelming number of hospitals in both Oregon & many areas of the U.S. experienced high numbers of *pediatric patients* affected primarily by RSV (in addition to other respiratory viruses)



### Ages Most Impacted by RSV:

- While any age can be affected by RSV, it is *the single most common cause of respiratory hospitalization in infants* (& many adults are often infected later in life)
- As can be seen in graphic above, the age group most impacted in Central OR was **0-4 yr olds**
- ER visits for young children peaked in late Nov. (MMWR week 47) (see graphic above)

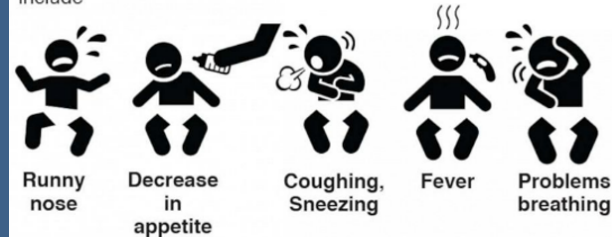
## ⚠️ RSV Surge Nov. 2022

### RSV surge in children's hospitals

Children's hospitals in parts of the U.S. are seeing a surge in a common respiratory illness that can cause severe breathing problems for babies.

#### Symptoms of RSV

People infected with RSV usually show symptoms within 4 to 6 days after getting infected. Symptoms of RSV infection usually include



#### Care

There's no specific treatment, so it's a matter of managing symptoms and letting the virus run its course. Doctors may prescribe oral steroids or an inhaler to make breathing easier.

Source: CDC, AP

**Viral Image Source:** The National Institute of Allergy & Infectious Diseases (NIAID)



### State of Emergency Declared in Oregon, Nov 13th, 2022 Due to Spread of Respiratory Viruses in Children & Related Strain on Hospital Capacity

- In addition to steep increases in flu & COVID-19 hospitalizations late last fall, RSV pediatric hospitalizations surpassed previous records in Oregon, with more than 90 pediatric hospital admissions during the week ending on Nov. 19th, 2022 (see Executive Order No. 22-24)



**Note:** While RSV is not a mandatory reporting disease in Oregon, OHA provides RSV surveillance for Oregon & Southwest Washington via 23, voluntary sentinel laboratories reporting for 36 hospitals. RSV updates are provided by OHA during the RSV season (beginning with the 2 consecutive weeks during which the mean percentage of specimens testing positive for RSV anitgen  $\geq 10\%$  (see more on OHAs RSV surveillance [here](#)))

## Tips for Preventing RSV\*



- Cover coughs & sneezes with a tissue or upper shirt sleeve (not hands)
- Wash hands with soap & water for at least **20 seconds**
- Avoid touching your face with unwashed hands
- Avoid close contact with individuals suffering from cold-like symptoms
- Clean frequently touched surfaces (e.g. phones & doorknobs) [CDC: [RSV Prevention](#)]

**\*Note:** While no vaccine currently exists for RSV, there are some vaccines under development. For high risk infants/children, an Rx called *palivizumab* is available to prevent severe RSV illness