

**Subject:** [EXTERNAL] State of Affairs: December 6, 2022  
**Date:** Tuesday, December 6, 2022 at 4:55:25 AM Alaska Standard Time  
**From:** Katelyn Jetelina from Your Local Epidemiologist  
**To:** Phillip A. Zavadil

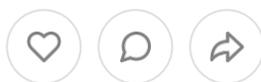
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## State of Affairs: December 6, 2022

KATELYN JETELINA  
DEC 6



SAVE

▶ LISTEN

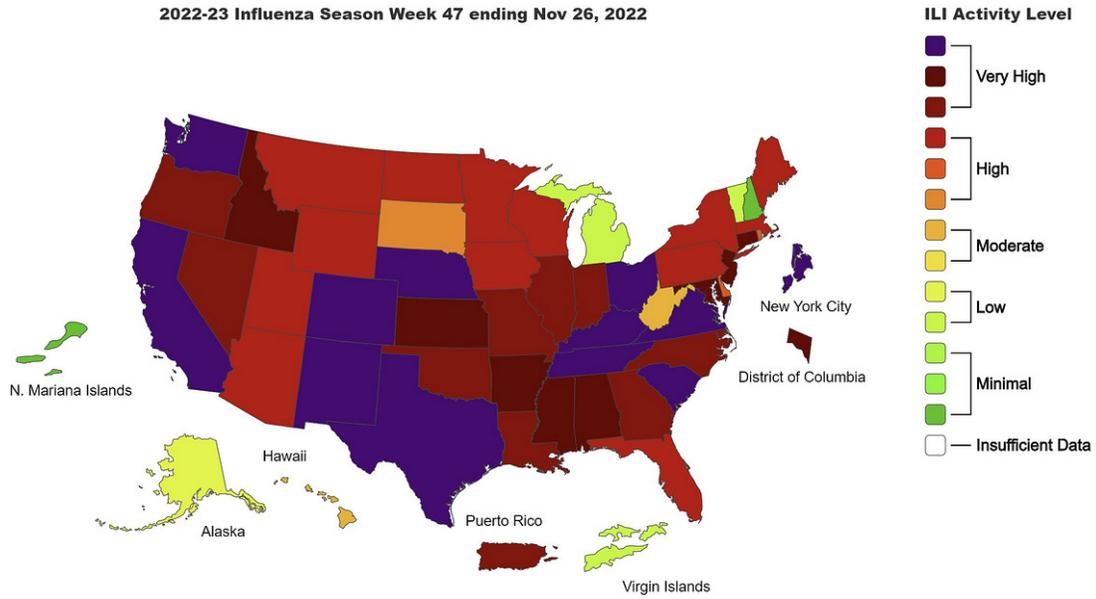
The dreaded and much anticipated triple-demic is finally here—for the first time RSV, flu, and COVID-19 are rising together. And it’s not looking pretty. Here is the current state of affairs.

### Overall

Every Friday the CDC updates their “influenza-like illness (ILI)” data. This is a database in which providers tally patients that presented with ILI—a fever and a cough and/or sore throat—at their office. So these numbers include everything (flu, RSV, COVID-19, etc.) and are a general indication of the climate of respiratory of health in the United States.

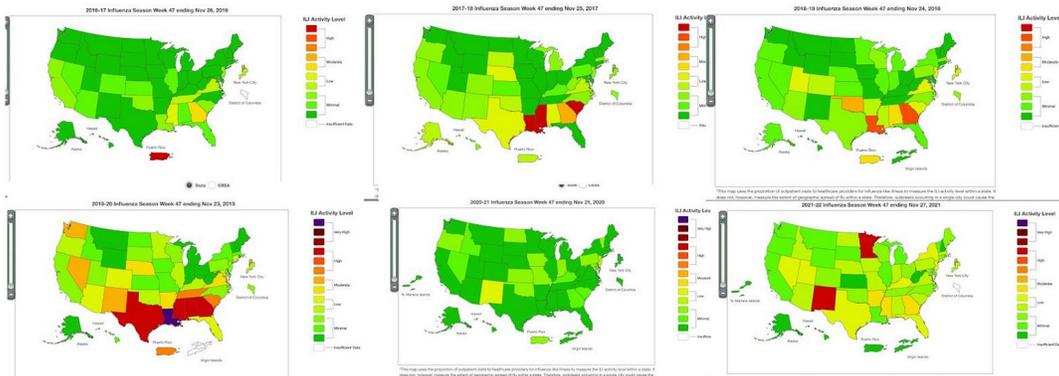
Last Friday Twitter covered [my reaction](#) to the latest data pretty clearly: *Holy crap*. There are a lot of sick people in the United States right now.

2022-23 Influenza Season Week 47 ending Nov 26, 2022



(Source: [CDC](#))

This level is truly unprecedented; we’ve never seen such high levels of ILI activity at this time of year. The map above is typically green (see below for this time in previous years). In fact, notice that before 2019, we didn’t even have the dark red/purple colors.



ILI Map by Year (Source: [CDC](#)) Note: You will notice that 2020-2021 are very green (although COVID-19 was high). There are many

epidemiological reasons for this, including people avoiding doctors offices at the time.

Yesterday, the CDC Director said: “hospitalizations are the highest now than they have been in the past decade.” This is truly concerning given a backdrop of burnt out healthcare workers and low staff levels.

## Percent of Inpatient Beds Occupied, by Hospital Type

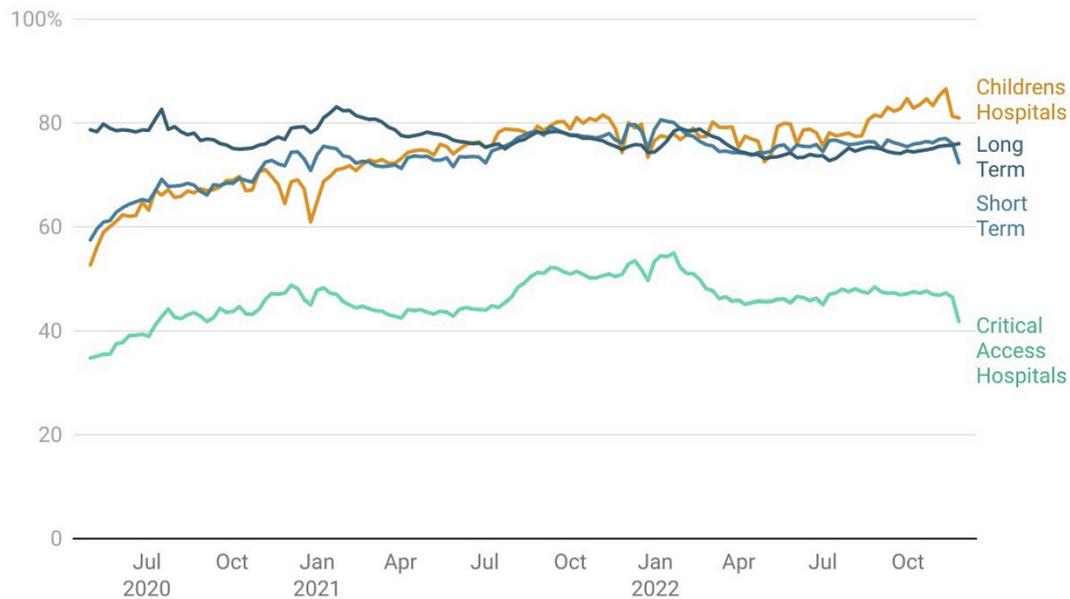


Chart: Benjy Renton • Source: HHS • Created with Datawrapper

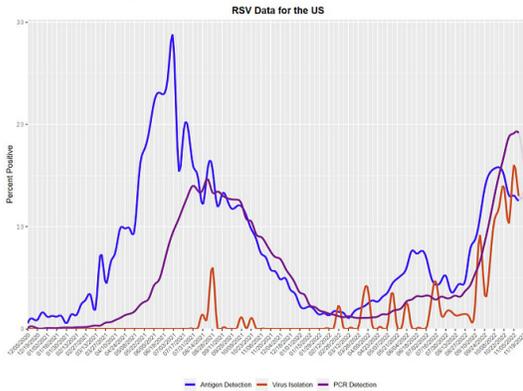
While ILI surveillance gives us a picture of symptoms *overall*, we do have some (imperfect) surveillance for specific diseases.

## RSV

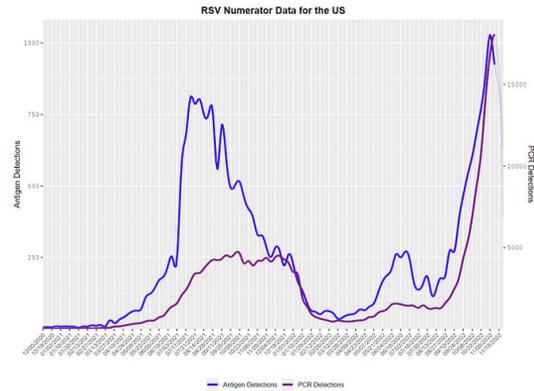
RSV continues to rise. We may be seeing the [first signs](#) of peaking on a national level (bottom right graph). This is expected given that test positivity rates have already clearly peaked (bottom left graph). There are certainly regional differences, as the South has clearly [peaked](#) (at least so far—Thanksgiving activity may change this) and West hasn't [slowed down](#) yet.

# Respiratory Syncytial Virus (RSV)

## Percent Positive



## Detections

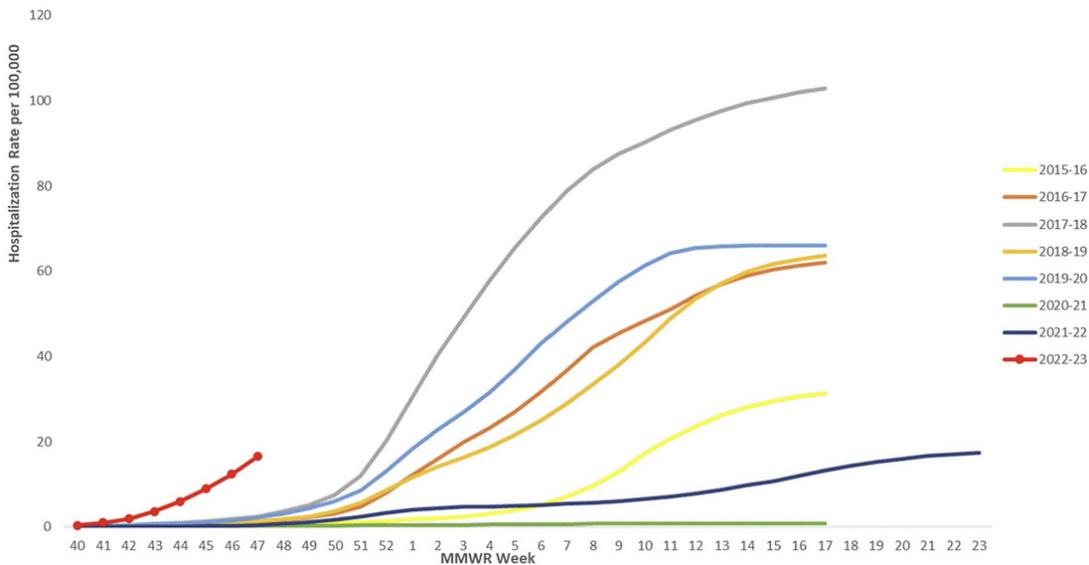


U.S. RSV positivity rates and cases (Source: [CDC](#))

# Flu

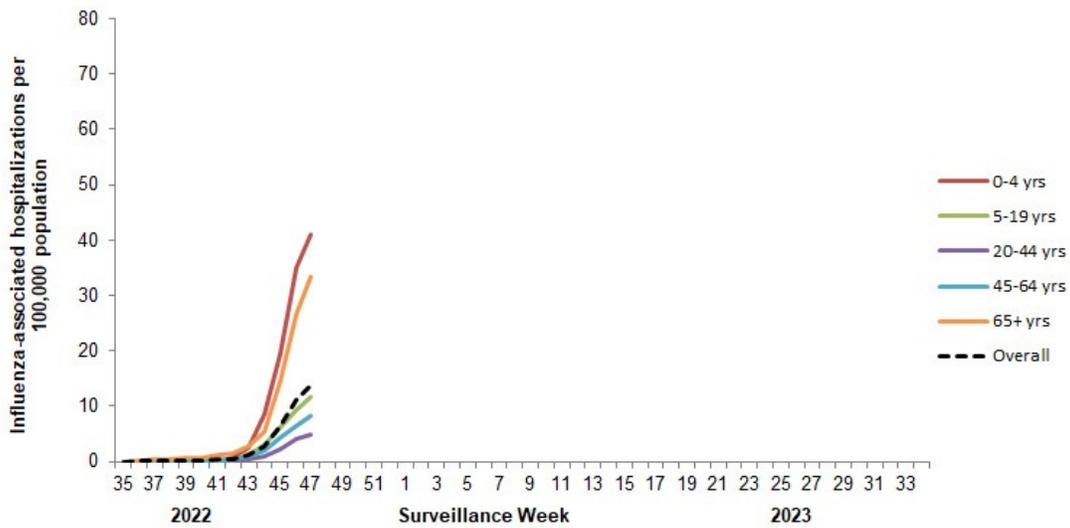
Flu cases are increasing and increasing fast. Flu hospitalizations are lagged (much like COVID-19) but increasing. Flu season outbreaks typically start in schools (hitting healthy children). Then the virus takes time to get to older adults. We expect hospitalizations to continue to rise in weeks to come.

**Cumulative Rate of Laboratory-Confirmed Influenza Hospitalizations among cases of all ages, 2015-16 to 2022-23, MMWR Week 47**



In Canada, hospitalizations by age are clearly tracked. The highest risk for hospitalization is in those under 4 years old and those over 65 years. This likely

reflects U.S. patterns, too.



Influenza related hospitalizations in Canada, by age group. Source [here](#).

As *Inside Medicine* [reported](#), for the first time during the pandemic, flu hospitalizations overtook COVID-19 hospitalizations last week. This may be a one-off occurrence since COVID-19 hospitalizations are increasing now, too, but it is noteworthy.

### New COVID-19 vs. Influenza Admissions

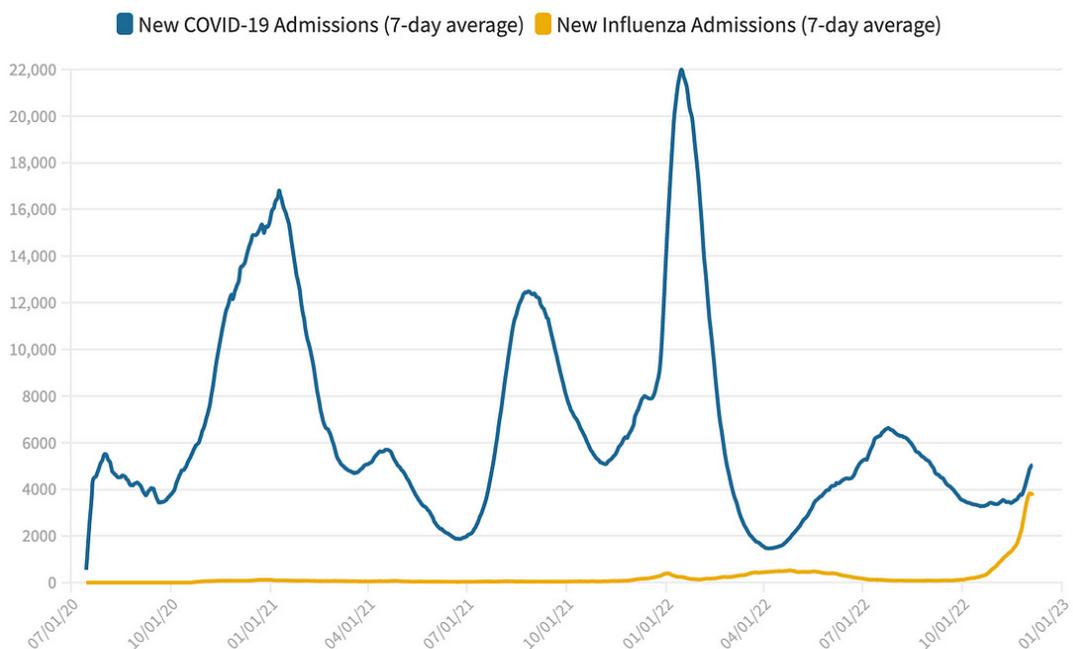
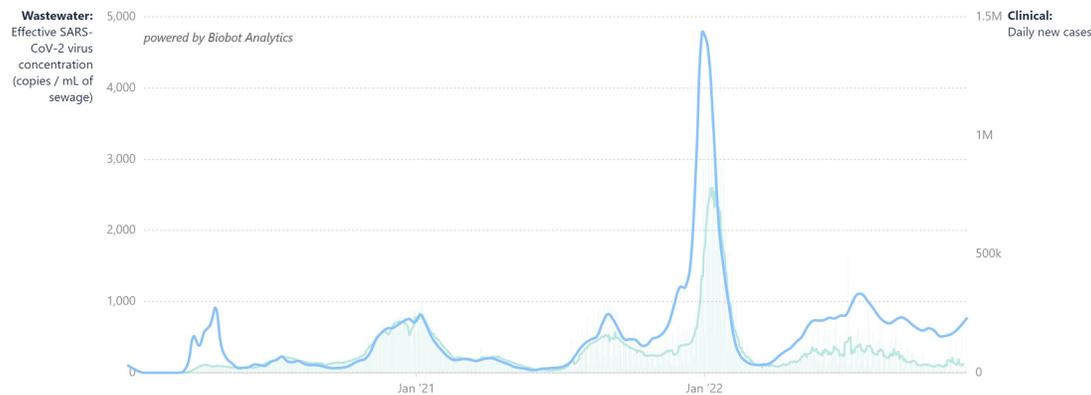


Image: Benjy Renton for *Inside Medicine*. [Source here.](#)

We don't know if this will be the "worst flu season we've ever seen." The Southern Hemisphere (Australia specifically) had a high number of flu cases but moderate levels of hospitalizations. Epidemiologists are crossing our fingers that this is what the Northern Hemisphere will see, too.

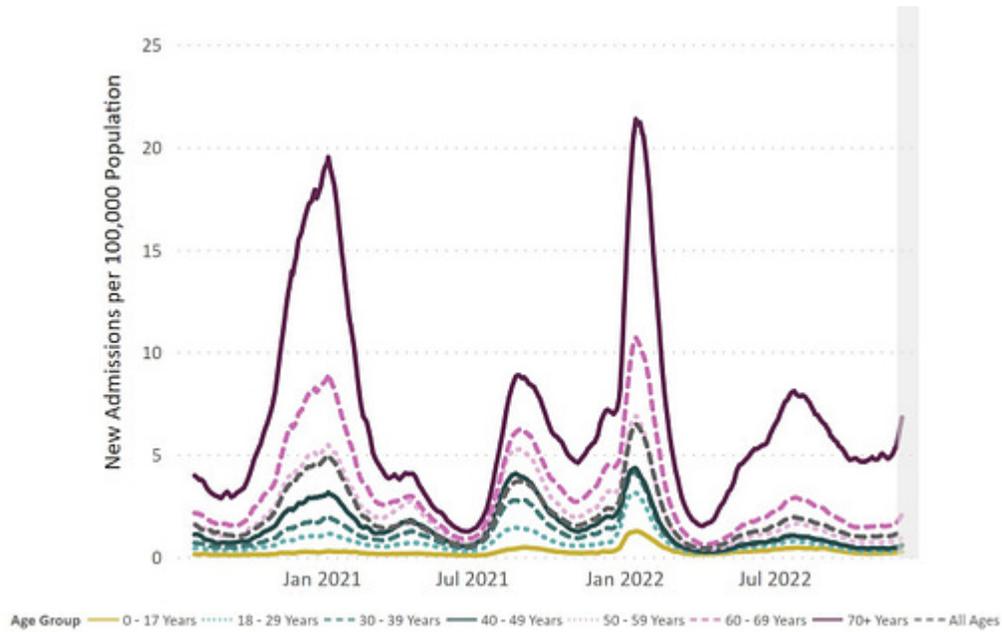
### COVID-19

COVID-19 is on the rise across the globe due to the combination of seasonal changes, behaviors changes, and the variant soup. In the U.S., all signs point to the beginning of a wave. For example, SARS-CoV-2 in wastewater is rapidly **increasing** across **all regions**.



SARS-CoV-2 National Wastewater Trends, over time. Dark blue= wastewater; Light blue/green= Reported cases (Source: [Biobot Analytics](#))

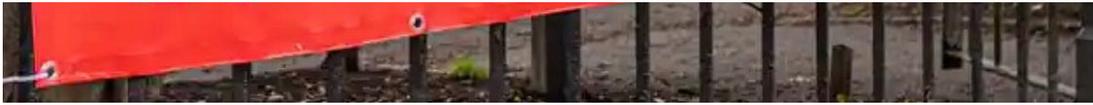
One major concern is the rapid rise in hospitalizations among older adults, which has exponentially increased **28%** in the past two weeks. In many states, like California, the rate of hospitalizations is **higher** than the BA.5 wave, BA.2 wave, and/or Delta wave.



New Hospital Admissions, over time ([CDC](#))

This is partly (or wholly) due to abysmal vaccination rates—only 1 in 3 adults over the age of 65+ have their fall COVID-19 booster. A public health failure. Without a recent booster, many people are technically vaccinated but not protected. I appreciated a recent U.K. public health campaign displaying the best messaging I’ve seen thus far.





(Source: [Sean Kennedy](#))

Thanksgiving was 1.5 weeks ago, and because of it, many social networks expanded, providing new opportunities for viruses to spread. For COVID-19, it takes about ~2 weeks to see the epidemiological impact of holidays. The recent COVID-19 uptick may be partially explained by a “Thanksgiving effect,” although we are seeing an uptick in other countries that don’t celebrate Thanksgiving. I expect Thanksgiving will springboard us into more RSV and flu, too, but this surveillance is delayed.

### **Bottom line**

This viral season is like no other. I’m running out of adjectives to describe it. (*Unprecedented. Worrisome. A pain. Exhausting.*) Unfortunately, we don’t know how long this will last or how bad it will get. I’m especially concerned for hospital systems, kids under 5, and adults over the age of 65, as they are at highest risk.

There’s a lot we can do: mask, test before seeing loved ones, get that airflow moving, stay home when you’re sick. The *least* you can do for a healthy season is get a flu and fall COVID-19 booster. If you haven’t gotten one yet, it’s never too late.

Love, YLE

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*“Your Local Epidemiologist (YLE)” is written by Dr. Katelyn Jetelina, MPH PhD—an epidemiologist, data scientist, wife, and mom of two little girls. During the day she works at a nonpartisan health policy think tank and is a senior scientific consultant to a number of organizations, including the CDC. At night she writes this newsletter. Her main goal is to “translate” the ever-evolving public health science so that people will be well equipped to make evidence-based decisions. This newsletter is free thanks to the generous support of fellow YLE community members. To support this effort, subscribe below:*

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