I-VAC Learning Collaborative for COVID-19 Vaccination

Please use your first name and health center name when you join the session

Use the **“chat”** feature to let us know if you have a question

Please remember to **mute your microphone** unless speaking

If you can’t connect audio via computer or lose computer audio at anytime, you can call in to session at **(669) 900-6833, Meeting ID 822 0588 8102##**

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Disclosures

- No one in a position to control the education content of the activity has any relevant financial disclosures with ineligible companies to disclose
- What gets said here today may change based on new data and recommendations
  - Knowledge is shared more rapidly through ECHO

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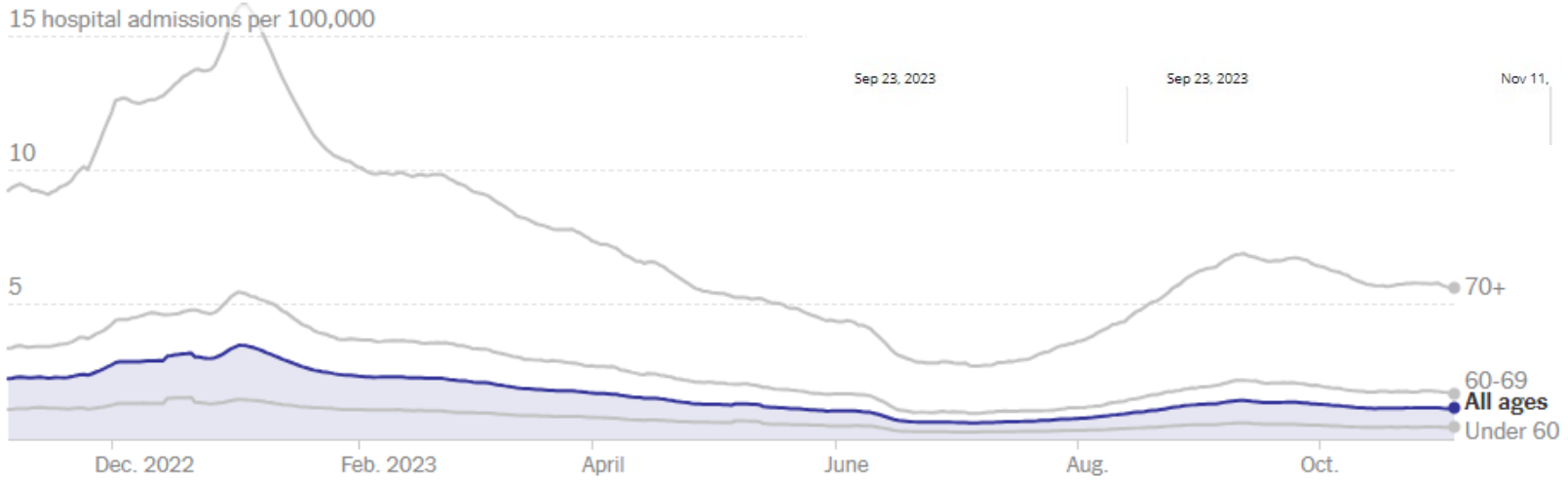
Track Covid-19 in the U.S.

Updated Nov. 21, 2023

Daily Covid hospital admissions

Avg. on Nov. 4: 3,712

14-day change: −3%



Early Indicators

Test Positivity

% Test Positivity

8.4%

(November 5 to November 11, 2023)

Trend in % Test Positivity

+0.1% in most recent week

Emergency Department Visits

% Diagnosed as COVID-19

1.4%

(November 5 to November 11, 2023)

Trend in % Emergency Department Visits

+7.1% in most recent week

Severity Indicators

Hospitalizations

Hospital Admissions

16,239

(November 5 to November 11, 2023)

Trend in Hospital Admissions

+8.6% in most recent week

Deaths

% of All Deaths in U.S. Due to COVID-19

2.4%

(November 5 to November 11, 2023)

Trend in % COVID-19 Deaths

+9.1% in most recent week

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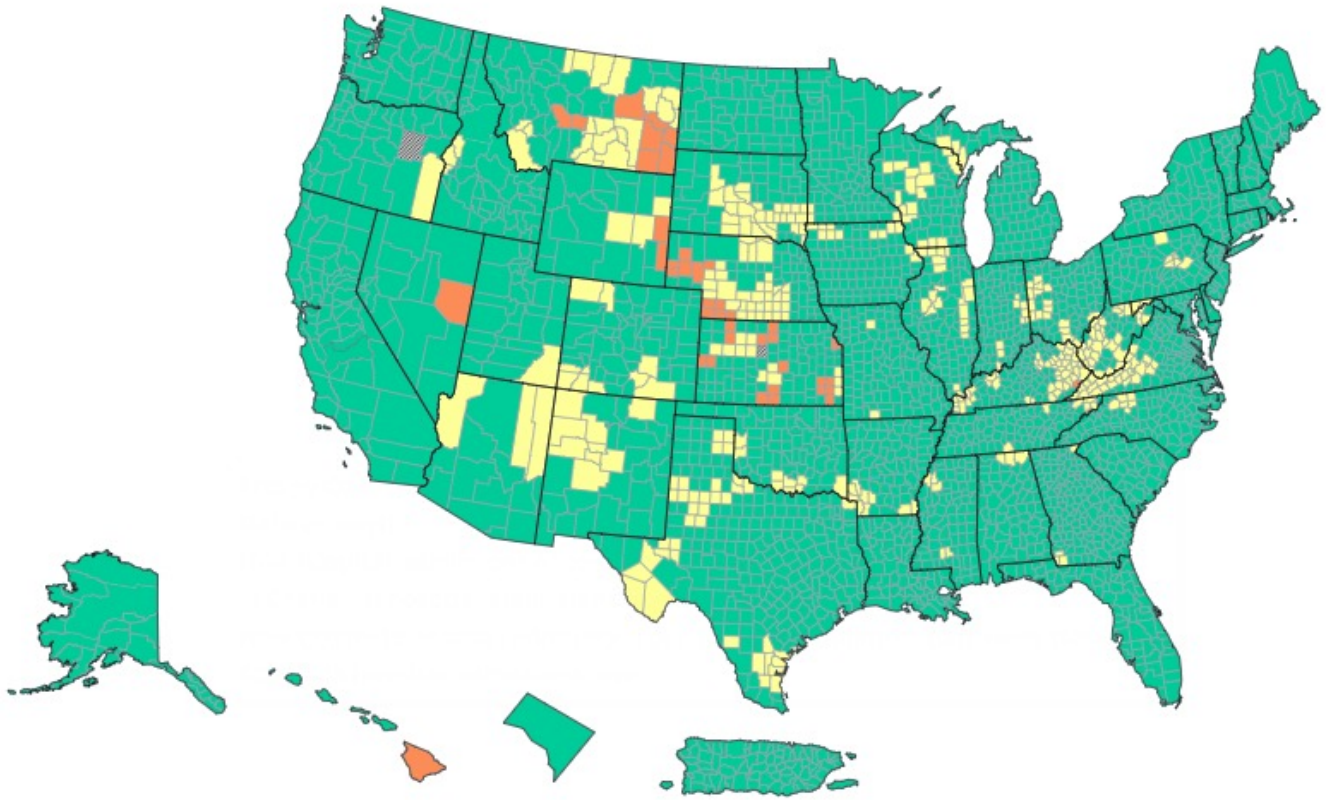
Reported COVID-19 New Hospital Admissions Rate per 100,000 Population in the Past Week, by County – United States



Territories

GU AS MP VI

COVID-19 hospital admissions levels in U.S. by county

Based on new COVID-19 hospital admissions per 100,000 population

	Total	Percent	% Change
≥ 20.0	42	1.3%	-0.09%
10.0 - 19.9	403	12.52%	4.75%
<10.0	2775	86.18%	-4.69%

Time Period: New COVID-19 hospital admissions per 100,000 population (7-day total) are calculated using data from the MMWR week (Sun-Sat) ending November 11, 2023.

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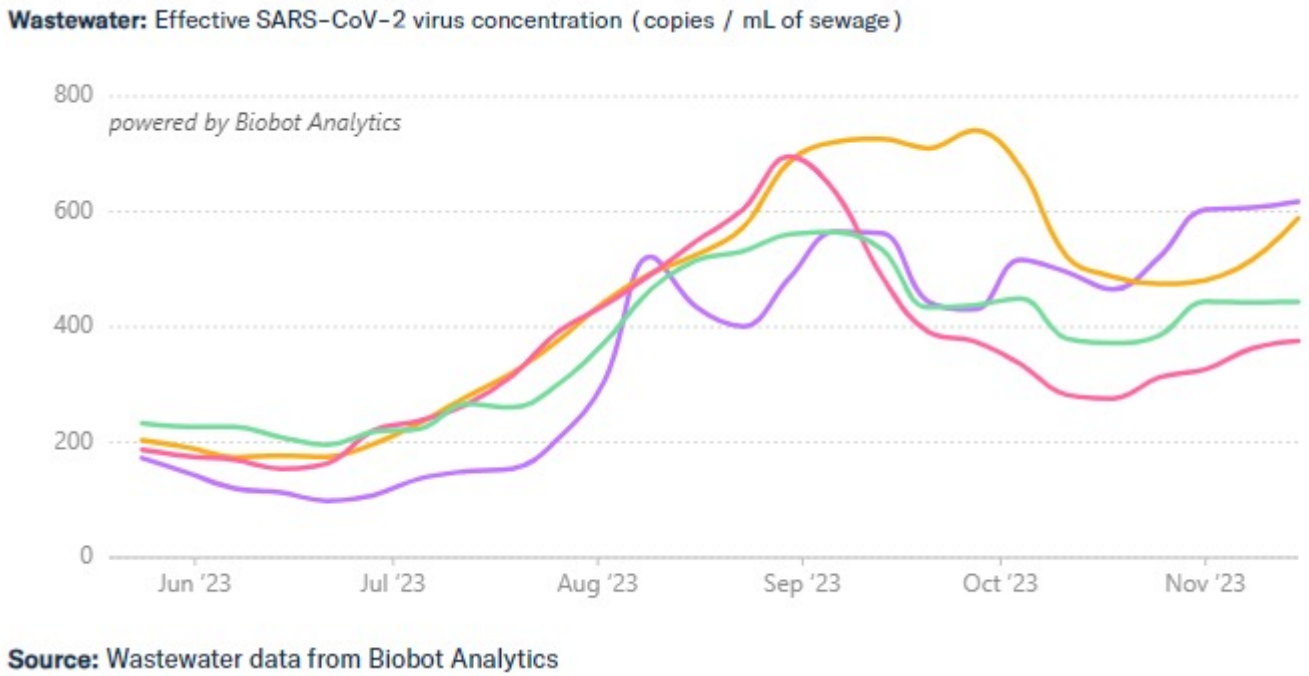
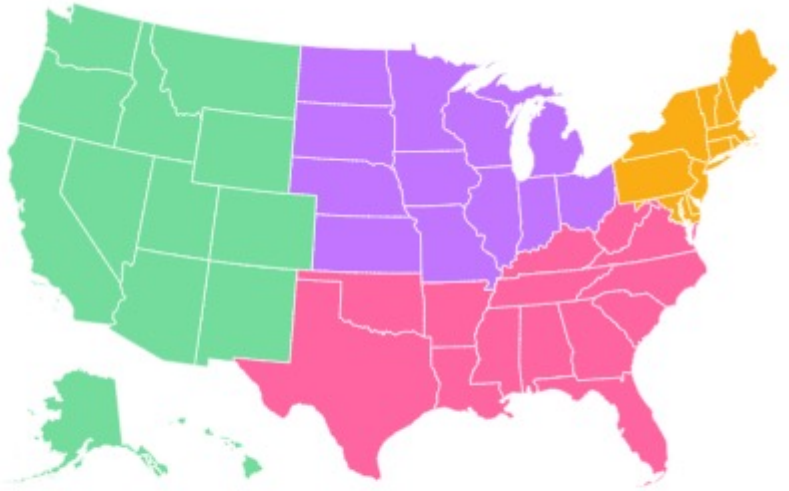
Wastewater Monitoring





Source: Wastewater data from Biobot Analytics

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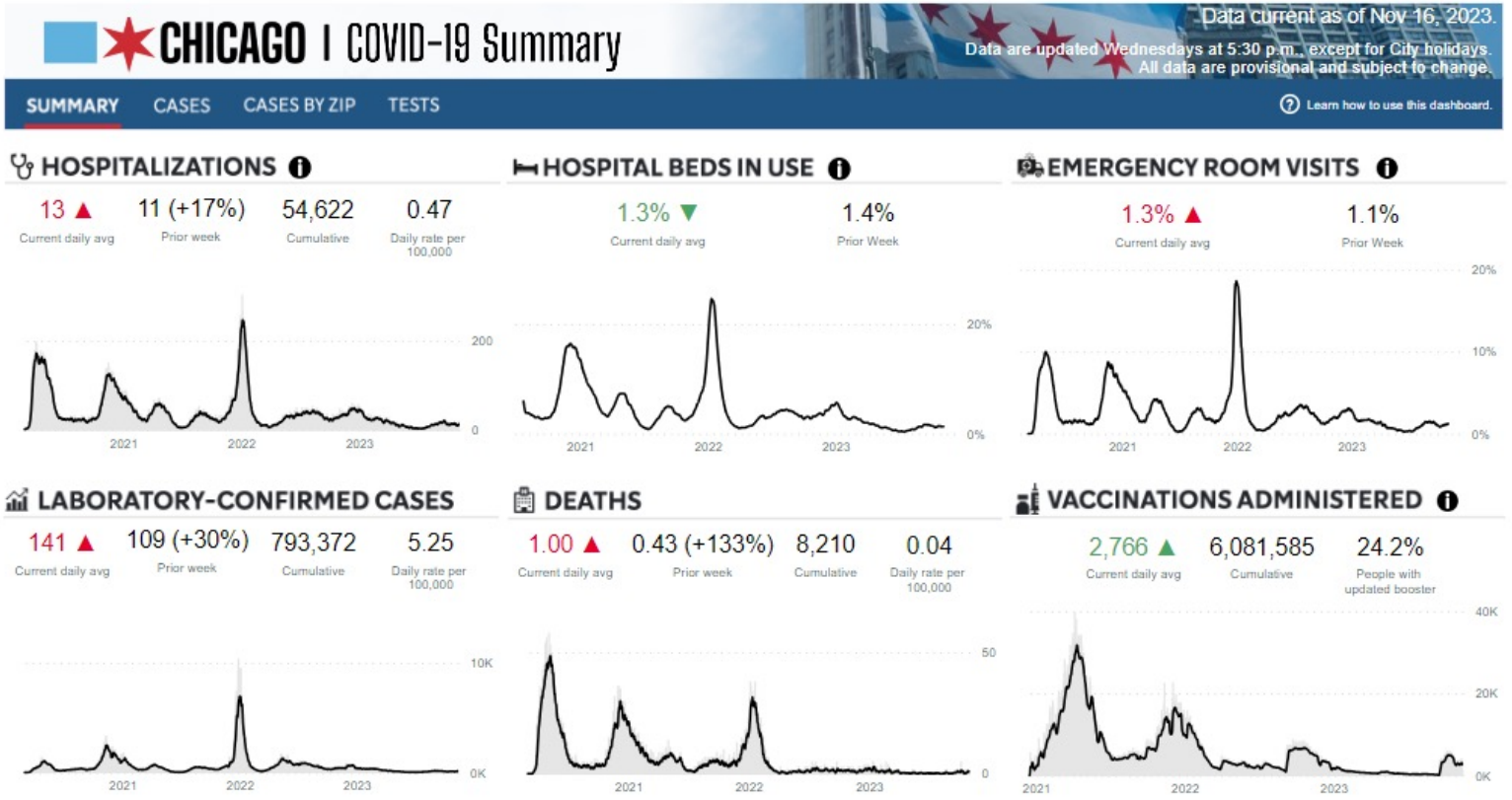
Chicago's COVID-19 Risk Level is LOW



- Covid hospitalizations are up 17 percent compared to last week.
- The city of Chicago is averaging about one death a day from the virus.
- Several wastewater treatment facilities in the city have reported an increased detection of the virus.

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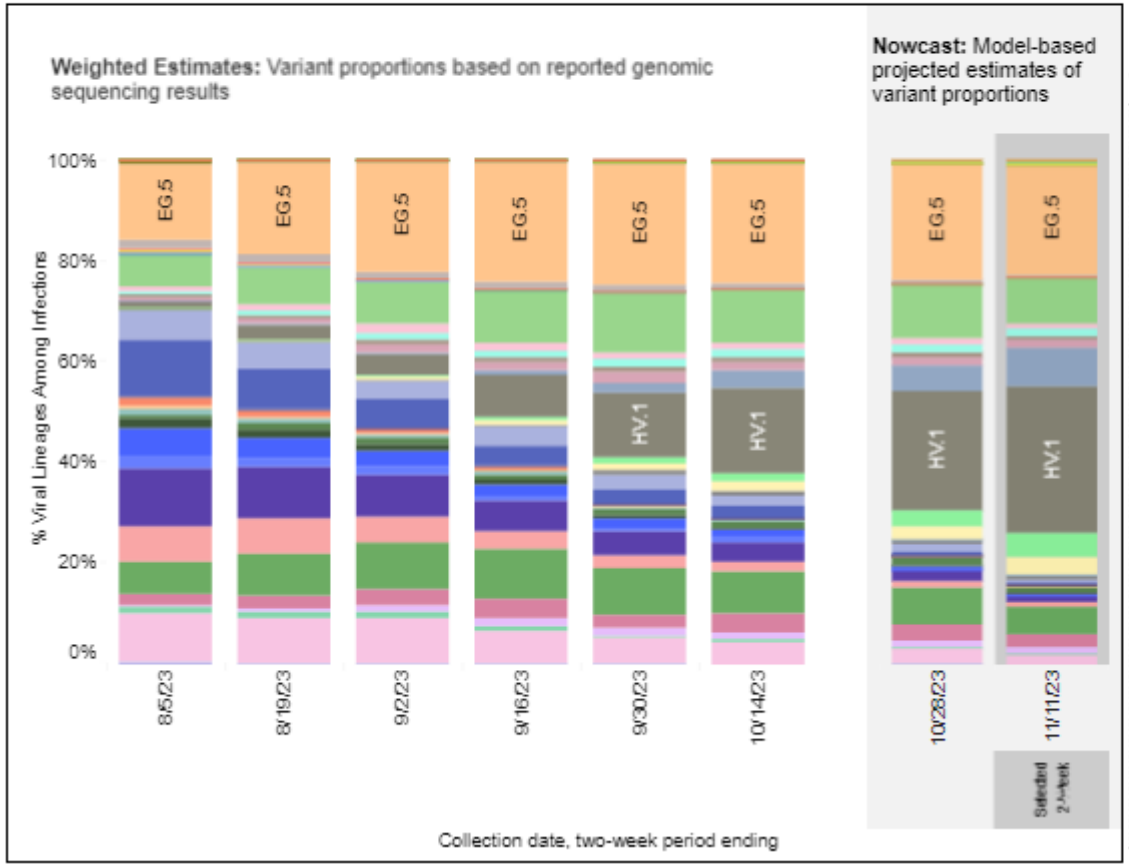
Chicago Dept of Public Health Data

	Week Ending November 4, 2023		Since October 1, 2023	
Respiratory Pathogen	# Tested	% Positive	# Tested	% Positive
Influenza*	4,738	0.8	22,610	1.1
RSV*	3,107	8.3	14,510	5.5
SARS-CoV-2*	3,431	6.4	16,108	6.0
Parainfluenza	1,591	2.3	7,875	3.1
Rhinovirus/Enterovirus	897	15.3	4,423	17.9
Adenovirus	897	3.9	4,420	3.6
Human Metapneumovirus	901	0.6	4,443	0.5
Seasonal Coronaviruses†	1,587	0.3	7,855	0.1

*Represents both dualplex and multiplex PCR data. All other data represents only multiplex panels that include the specified pathogens;† Four seasonal coronavirus strains include 229E, NL63, OC43, and HKU1.

Weighted and Nowcast Estimates in United States for 2-Week Periods in 7/23/2023 – 11/11/2023

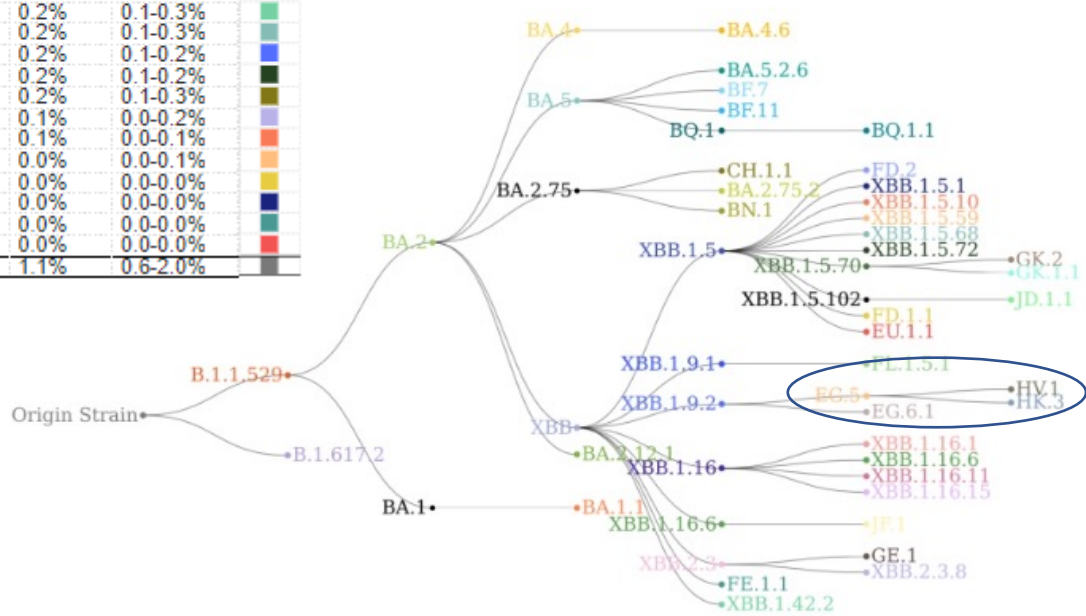
Hover over (or tap in mobile) any lineage of interest to see the amount of uncertainty in that lineage's estimate.



Nowcast Estimates in United States for 10/29/2023 – 11/11/2023

USA

WHO label	Lineage #	%Total	95%PI
Omicron	HV.1	29.0%	26.0-32.1%
	EG.5	21.7%	19.3-24.2%
	FL.1.5.1	9.3%	8.0-10.8%
	HK.3	7.8%	6.2-9.9%
	XBB.1.16.6	5.6%	4.7-6.6%
	JD.1.1	4.6%	3.4-6.1%
	JF.1	3.5%	2.7-4.5%
	XBB.1.16.11	2.5%	2.0-3.2%
	XBB.2.3	1.9%	1.5-2.3%
	GK.1.1	1.6%	1.2-2.3%
	HF.1	1.4%	0.9-2.1%
	XBB.1.16.15	1.4%	1.0-1.9%
	XBB.1.16	1.2%	0.9-1.6%
	XBB.1.5.70	1.2%	0.6-2.2%
	BA.2	1.0%	0.5-2.1%
	GE.1	0.9%	0.6-1.3%
	XBB.1.16.1	0.8%	0.6-1.1%
	XBB	0.8%	0.6-1.0%
	GK.2	0.6%	0.5-0.9%
	EG.6.1	0.5%	0.3-0.7%
	XBB.1.5	0.3%	0.2-0.4%
	XBB.1.9.1	0.3%	0.2-0.4%
	XBB.1.42.2	0.2%	0.1-0.3%
	XBB.1.5.68	0.2%	0.1-0.3%
	XBB.1.9.2	0.2%	0.1-0.2%
	XBB.1.5.72	0.2%	0.1-0.2%
	CH.1.1	0.2%	0.1-0.3%
	XBB.2.3.8	0.1%	0.0-0.2%
	XBB.1.5.10	0.1%	0.0-0.1%
	XBB.1.5.59	0.0%	0.0-0.1%
	FD.1.1	0.0%	0.0-0.0%
	XBB.1.5.1	0.0%	0.0-0.0%
	FE.1.1	0.0%	0.0-0.0%
	EU.1.1	0.0%	0.0-0.0%
Other	Other*	1.1%	0.6-2.0%



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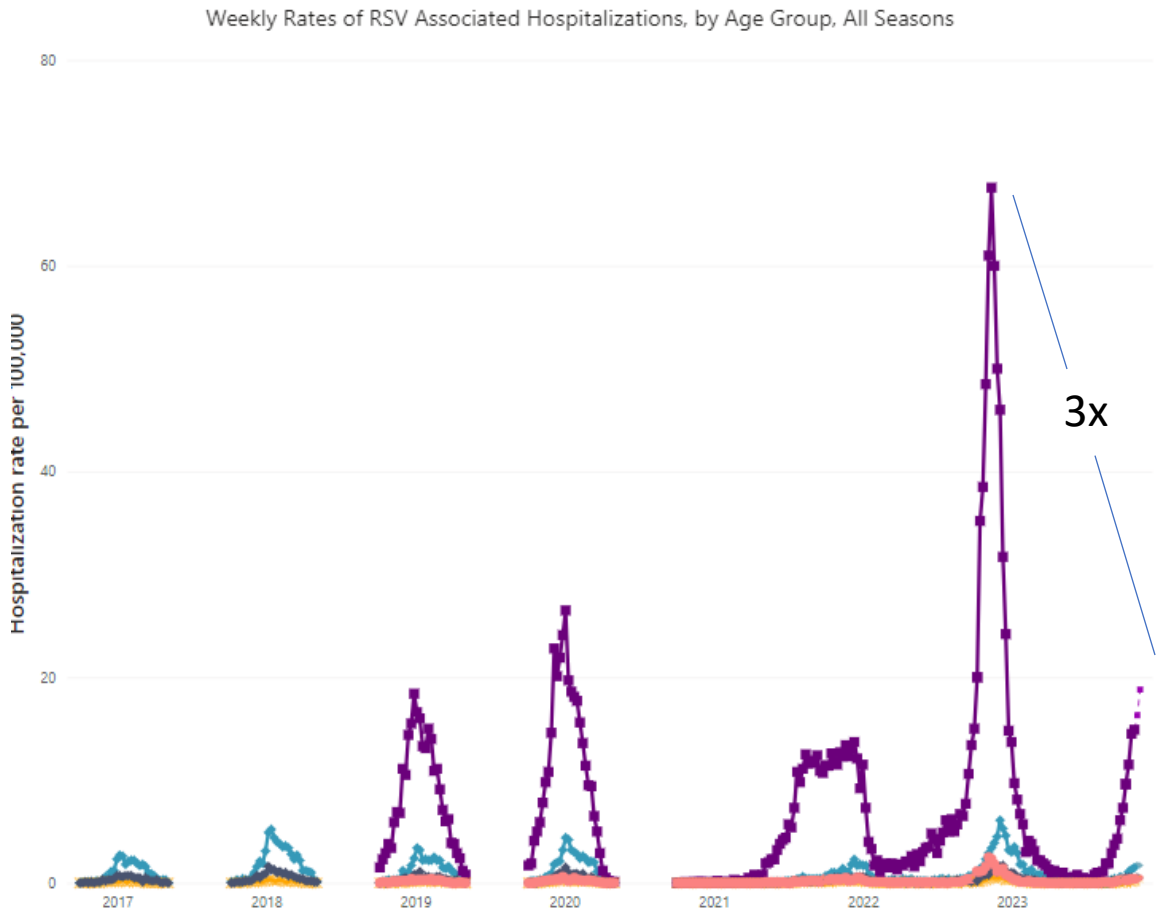
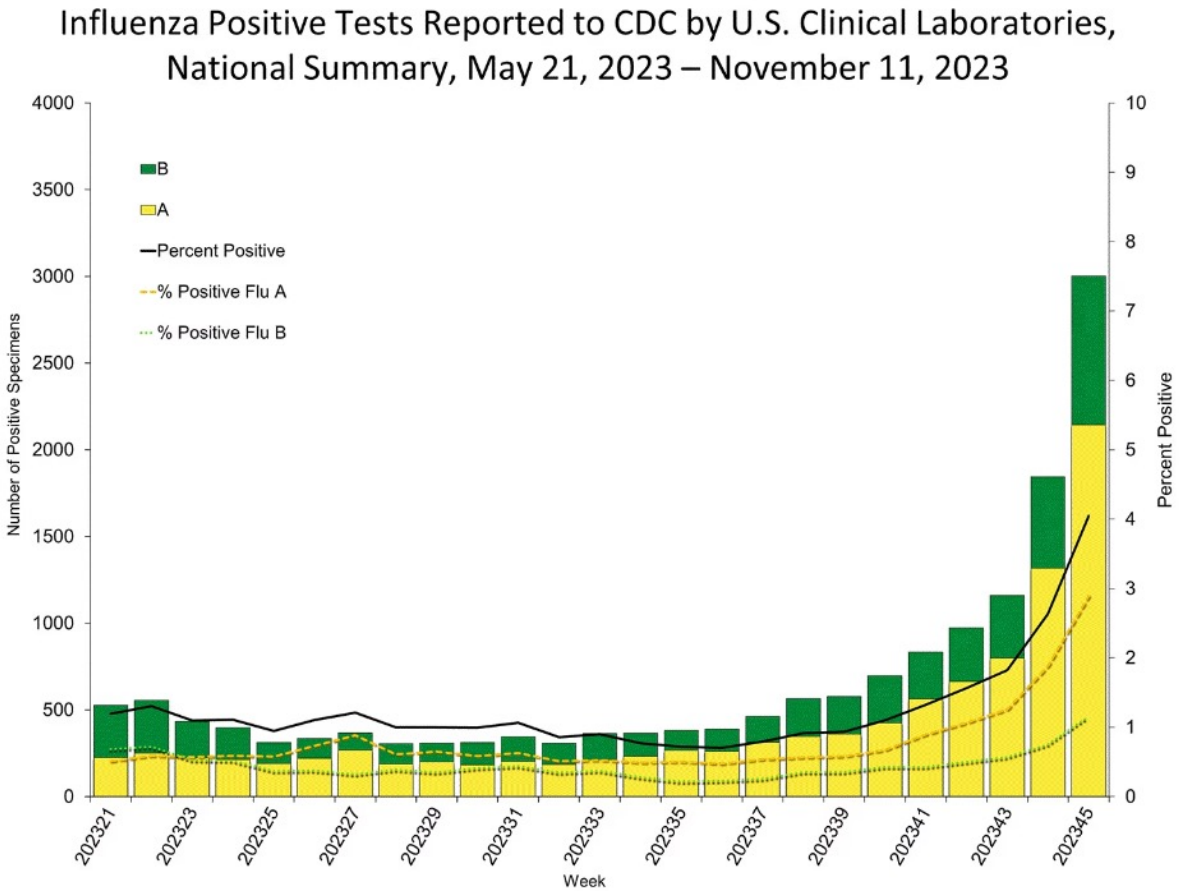
What about RSV and Influenza?





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About 36M American adults have received the updated COVID vaccine: CDC

- This is equivalent to 13.9% of the U.S. adult population
- 3.5 million children have also gotten the updated shot
- Roughly equal to the number of Americans who had received the bivalent booster
- This is lower than the nearly half of adults who said they planned to get the vaccine in a poll conducted by the KFF COVID-19 Vaccine Monitor in September.
- The same CDC survey showed that 91 million U.S. adults, or 34.8% of the adult population, have received the flu vaccine and nearly 11 million over the age of 60, 13.5% of this age group, have received the RSV vaccine.

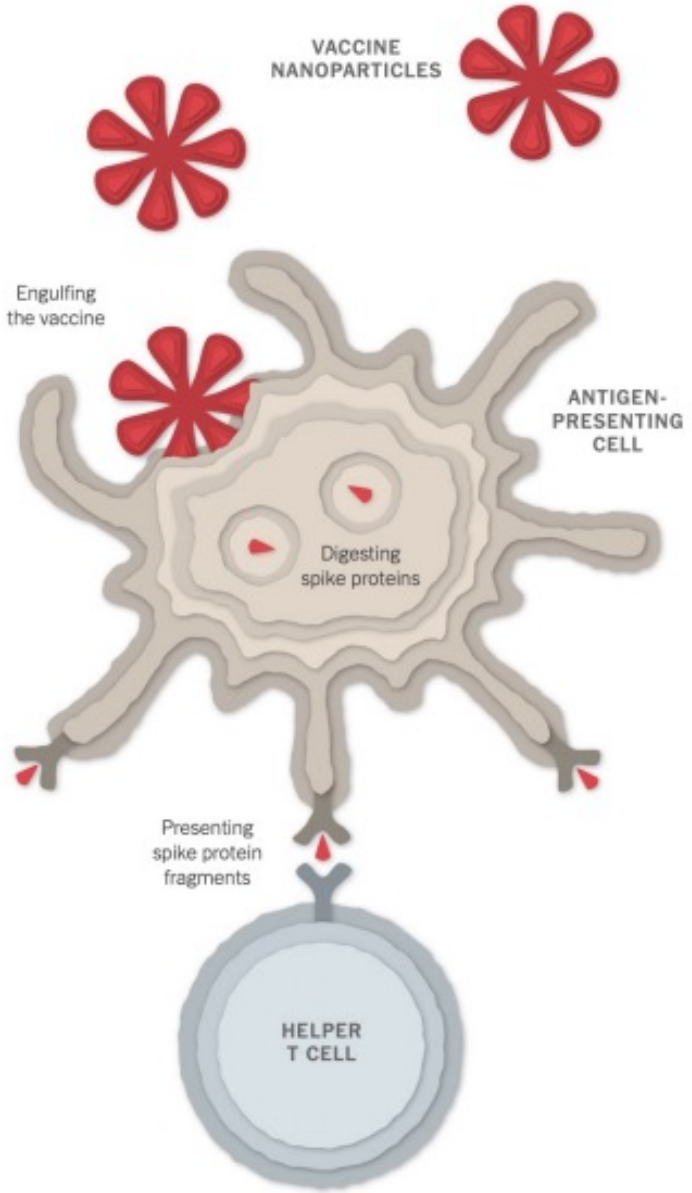
What about safety and combining vaccines?

Advisory Committee on Immunization Practices (ACIP) meeting
October 25, 2023

- A statistical signal for ischemic stroke after Pfizer-BioNTech bivalent mRNA COVID-19 vaccine was detected in CDC's Vaccine Safety Datalink in persons aged ≥65 years during fall 2022; information was presented at prior ACIP meetings and efforts have been underway to evaluate the signal*
- Available data do not provide clear and consistent evidence of a safety problem for ischemic stroke with bivalent mRNA COVID-19 vaccines when given alone or given simultaneously with influenza vaccines, or when influenza vaccine is given alone
  - Variable and inconsistent results were obtained in some analyses of the risk of ischemic stroke following bivalent mRNA COVID-19 vaccination, simultaneous bivalent mRNA COVID-19 and influenza vaccination, and influenza vaccination alone†
  - Most study results have not shown an association between vaccination and ischemic stroke, and no clear pattern demonstrating increased risk has emerged
- Any real or theoretical risks of vaccine adverse events need to be placed in the context of the known benefits of COVID-19 and influenza vaccination in preventing COVID-19 and influenza disease and their potentially serious complications, including stroke
- Our vaccine safety monitoring systems are designed to be sensitive, and the detection and assessment of potential safety signals and communication of safety information to the public is an example of the vaccine safety monitoring process working

What about Novovax's Vaccine?

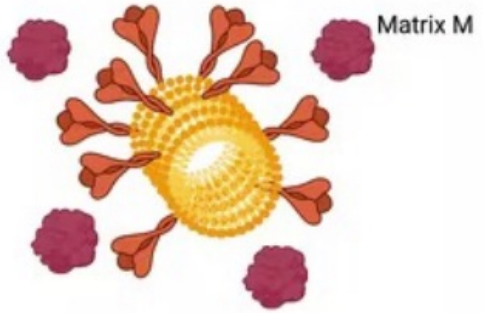
- NVX-CoV2373 contains a full-length, prefusion spike protein made using recombinant nanoparticle technology and the company's proprietary saponin-based Matrix-M™ adjuvant. The purified protein is encoded by the genetic sequence of the SARS-CoV-2 spike (S) protein and is produced in moth cells.
- Only non-mRNA vaccine available



Novavax monovalent XBB vaccine with EUA

- Novavax presented non-clinical data at the ACIP meeting showing that Novavax's COVID-19 Vaccine, Adjuvanted (Formula 2023-2024) induced neutralizing antibody responses to a broad range of circulating variants including new data on the FL.1.5.1 ("Fornax") subvariant as well as robust CD4+ polyfunctional cellular (T-cell) responses against EG.5.1 and XBB.1.16.6
- Novavax, 12+ years: 5-dose multi-dose vial (2 vials per carton); preparation is the same (no dilution); Stable at 2-8°C (refrigerator storage); 9-month shelf life; use within 12 hours of first puncture

2023–24 Formula Vaccine Presentation	Age	Dose/Injection Amount	Route
Multidose vial with blue cap and blue label	12 years and older	0.5 mL/5 *µg* rS and 50 µg of Matrix-M™ adjuvant	Intramuscular (IM) injection



Platform: Synthetic nanoparticle coated with trimer spike protein. Matrix M used an immune-boosting adjuvant

Dosing Schedule

People who are NOT moderately or severely immunocompromised*

COVID-19 vaccination history† (regardless of COVID-19 vaccine formula)	Schedule for administration of 2023-24 Novavax COVID-19 Vaccine
Unvaccinated	Give a 2-dose initial series ▪ Dose 1 now. ▪ Dose 2 at least 3–8 weeks‡ after Dose 1§
1 previous dose of the original Novavax COVID-19 Vaccine (Dose 1)	Give Dose 2 at least 8 weeks (2 months) after the previous dose
1 previous dose of 2023-24 Novavax COVID-19 Vaccine (Dose1)	Give Dose 2 at least 3-8‡ weeks after the previous dose§
Any number of previous doses COVID-19 vaccine, NOT including at least 1 dose of 2023-24 COVID-19 vaccine	Give 1 dose at least 8 weeks (2 months) after the previous dose
Any number of previous doses COVID-19 vaccine, INCLUDING at least 1 dose of 2023-24 COVID-19 vaccine	No further doses are indicated

People who ARE moderately or severely immunocompromised

COVID-19 vaccination history* (regardless of COVID-19 vaccine formula)	Schedule for administration of 2023-24 Novavax COVID-19 Vaccine
Unvaccinated	Give a 2-dose initial series ▪ Dose 1 now. ▪ Dose 2 at least 3 weeks after Dose 1
1 previous dose of the original Novavax COVID-19 vaccine (Dose 1)†	Give Dose 2 at least 8 weeks (2 months) after the previous dose
1 previous dose of 2023-24 Novavax COVID-19 Vaccine (Dose1)†	Give Dose 2 at least 3 weeks after the previous dose
2 previous doses of Novavax COVID-19 vaccine, NOT including 2023-24 COVID-19 vaccine†	Give 1 dose at least 8 weeks (2 months) after the previous dose
2 or more doses of Novavax COVID-19 vaccine, INCLUDING 2023-24 COVID-19 vaccine†	▪ People who are moderately or severely immunocompromised have the option to receive 1 additional dose at least 8 weeks (2 months) following the last recommended dose. ▪ Further additional dose(s) may be administered, informed by the clinical judgement of a health care provider and personal preference and circumstances. ▪ Any further additional doses should be administered at least 8 weeks (2 months) after the last COVID-19 vaccine dose.

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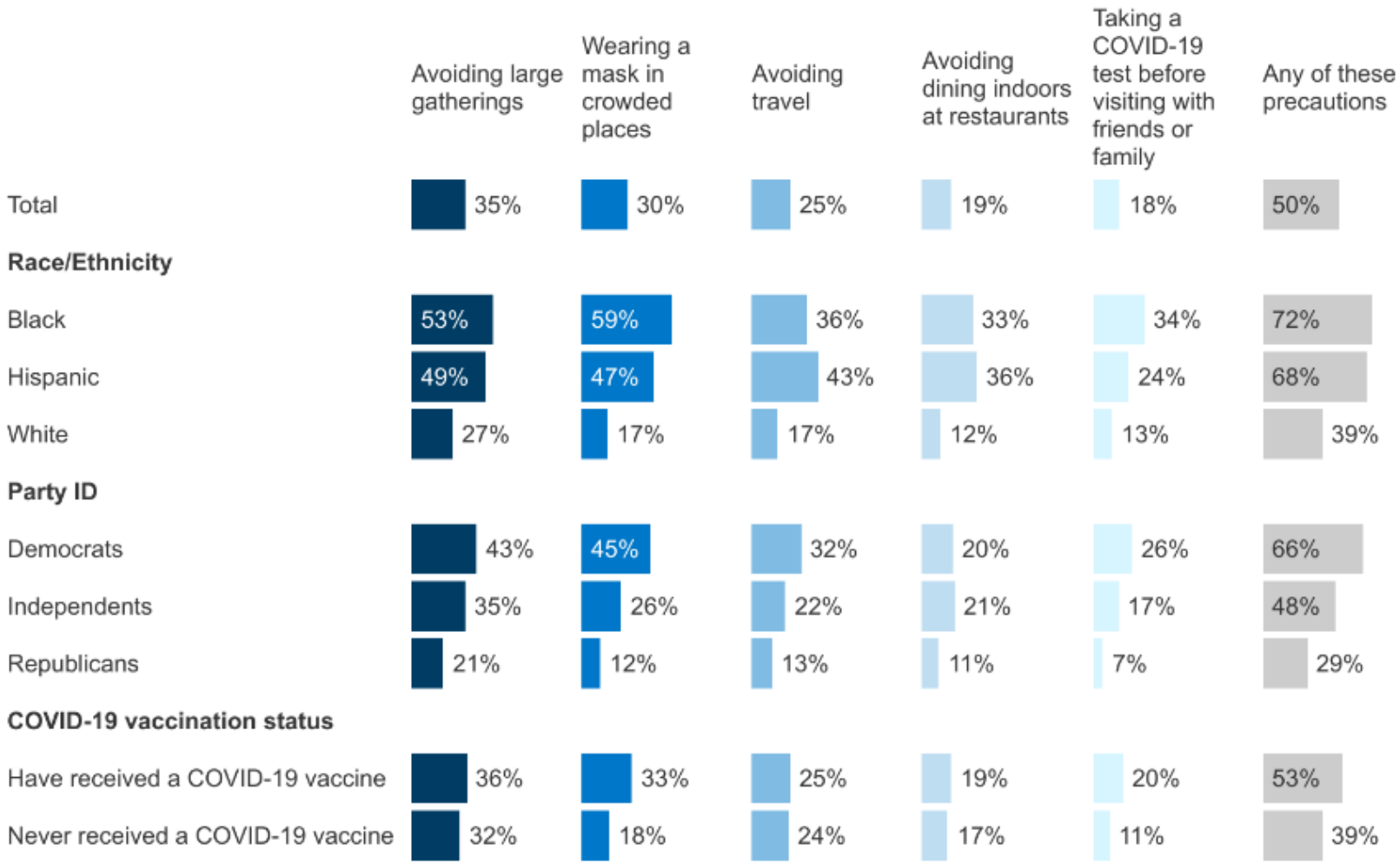
Are there any Advantages to Novovax?

- NO head-to-head trials
- Comparing clinical trials is hard, but there does not seem to be any clear differences – all employ the same Spike protein targets
- Mix-and-match study in which 67 of the roughly 830 participants got the original Novavax vaccine as a first booster, having received Pfizer, Moderna, or Johnson & Johnson as their primary vaccination. Three months after that booster, their levels of neutralizing antibodies were similar to those in people who got an mRNA booster instead

Lyke, K.E., Atmar, R.L., Dominguez Islas, C. *et al.* Immunogenicity of NVX-CoV2373 heterologous boost against SARS-CoV-2 variants. *npj Vaccines* **8**, 98 (2023). https://doi.org/10.1038/s41541-023-00693-z

Half Of Adults Say They Are Not Taking Precautions Because Of COVID-19 This Fall And Winter

Percent who say they are taking each of the following precautions because of COVID-19 this fall and winter:



NOTE: Persons of Hispanic origin may be of any race but are categorized as Hispanic for this analysis; other groups are non-Hispanic. See topline for full question wording.

SOURCE: KFF COVID-19 Vaccine Monitor (Oct. 31-Nov. 7, 2023)

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KFF COVID-19 VACCINE MONITOR

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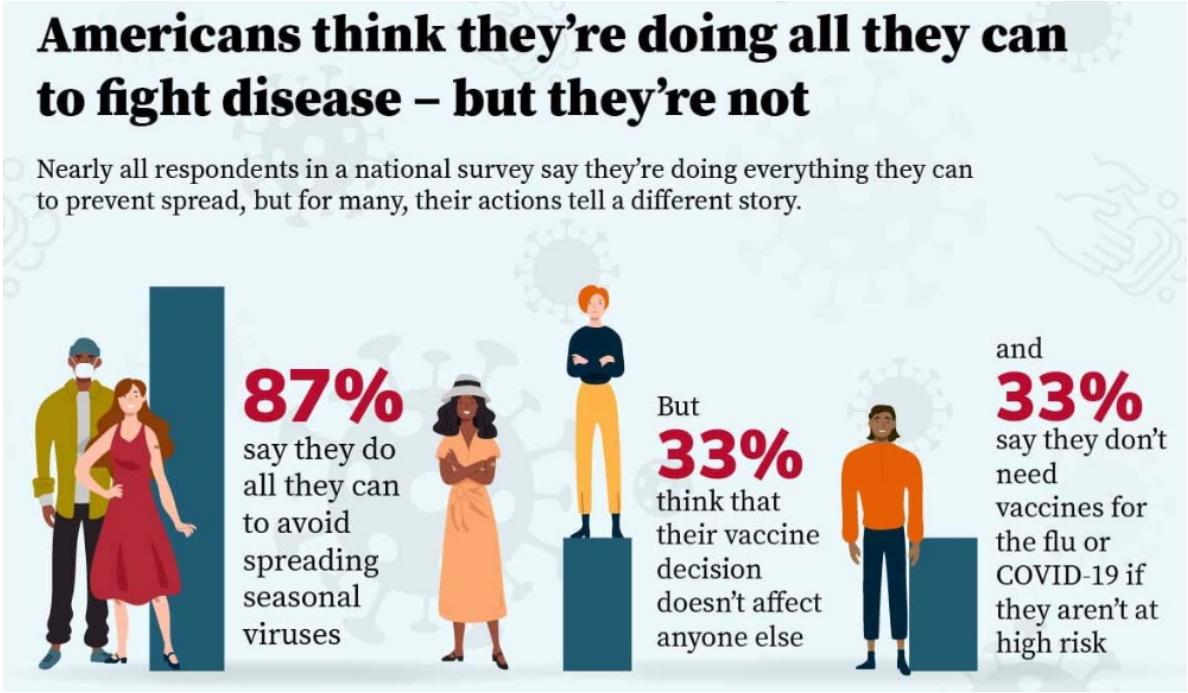
Survey Finds A Third Of US Adults Do Not Think Their Decision About Vaccination Impacts Others

- One-third of respondents felt they do not need COVID-19 or flu vaccines if they are not at high risk
- 48% and 39% of respondents said they strongly and somewhat agree that they do everything they can to prevent spreading seasonal viruses
- The researchers also found the following:
  - 66% of respondents believe they would quickly recover if they developed COVID-19 or influenza;
  - 35% are not concerned about the increase in respiratory viruses;
  - 25% do not believe respiratory viruses are a big deal; and
  - 24% believe they do not need an influenza shot if they never had influenza.



https://wexnermedical.osu.edu/mediaroom/pressreleaselisting/respiratory-illness-season-survey

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Happy Thanksgiving!
Here are simple steps to navigate viruses

- **If you are sick.. Stay home and get leftovers!**
- Masks: Mask in public 4-5 days before the event to reduce your chances of getting sick.
- ***Ventilation and filtration*** is one of the most powerful tools because it works passively and invisibly to prevent illnesses
- ***Testing:*** Covid-19 at-home tests are expensive and false negatives at the beginning of infection are very common, especially if you're asymptomatic
  - Cadence testing can help increase confidence in results, like two tests within 48 hours before the event:
    - Asymptomatic: Two tests 48 hours apart will catch 39% of asymptomatic cases (probably not worth it)
    - Symptomatic: 92% of cases will be caught (definitely worth it!)

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It's the holiday season! Here are simple steps to navigate viruses (substack.com)

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Questions?

Next Session: Tuesday, December 5th

Topic: Flu & COVID

For any questions, email us at
pgower@peds.bsd.uchicago.edu

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