



Ask Dr. Arwady

January 17, 2023



2022 Uganda Sudan Virus Outbreak formally declared over as of January 11, 2023

- The Uganda Ministry of Health (MOH) declared a formal end of the Ebola outbreak on January 11, 2023.
- Ending entry screening at ORD for travelers from Uganda
- Ending public health monitoring of travelers from Uganda

Total cases: 164

142 confirmed
22 probable

Total deaths: 77

55 confirmed
22 probable

Fatality rate: 48.1%

Infections among Health Care Workers:

19 (7 deaths)

Chicago travelers screened at O'Hare (cumulative since 10/6): 2,185

travelers monitored by CDPH (cumulative since 10/6): 81



Our local risk based on CDC COVID-19 Community Levels is:

Medium

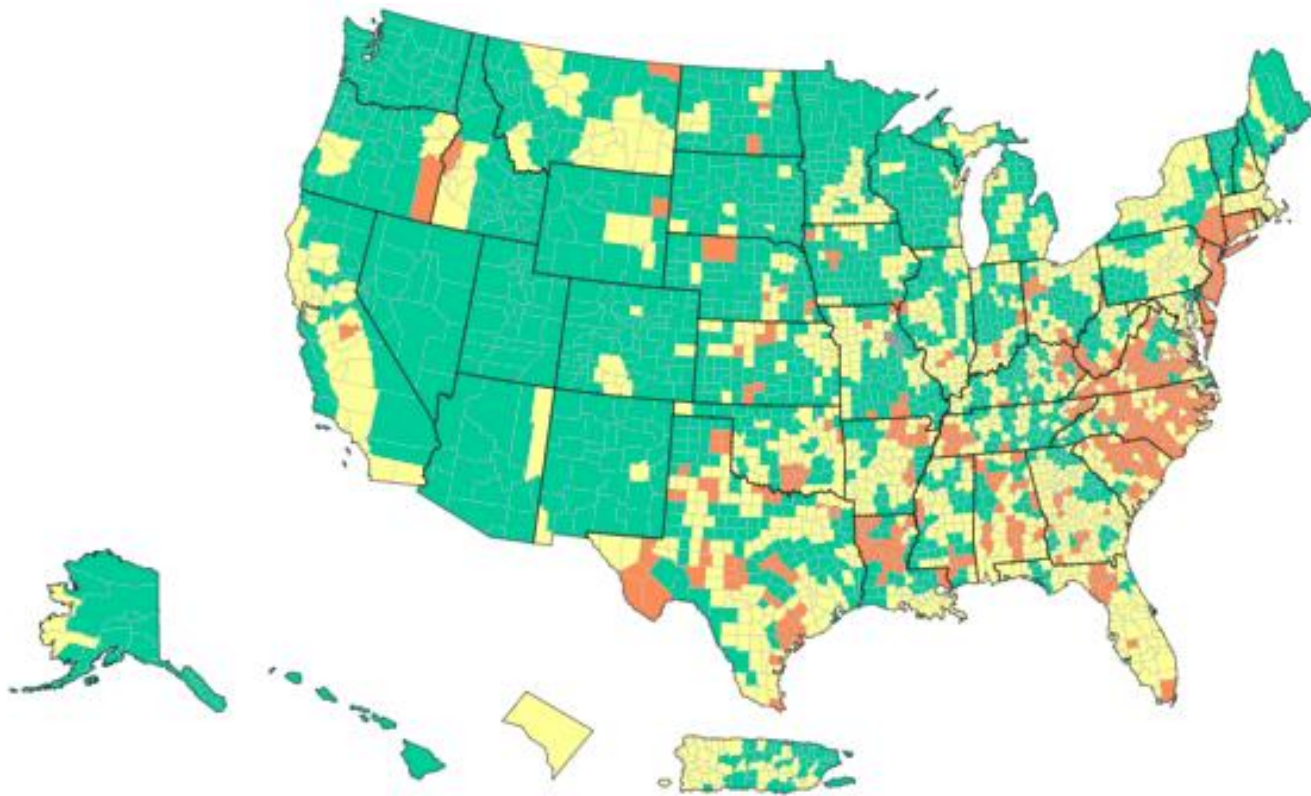
	New cases per 100,000 population (last 7 days) <i>[Goal is <200]</i>	New admissions per 100,000 population (last 7 days) <i>[Goal is <10]</i>	Percent of staffed inpatient beds occupied by COVID-19 patients (last 7 days) <i>[Goal is <10%]</i>
City of Chicago	92	6.4	4.7%
Cook County (including City of Chicago)	pending	13.8	6.1%

*Chicago metrics are calculated based on Chicago-level data.
Cook County metrics are calculated by the CDC and posted on the [CDC Community Levels website](https://www.cdc.gov/communitylevels/).
Data current as of 1/11/2023.*

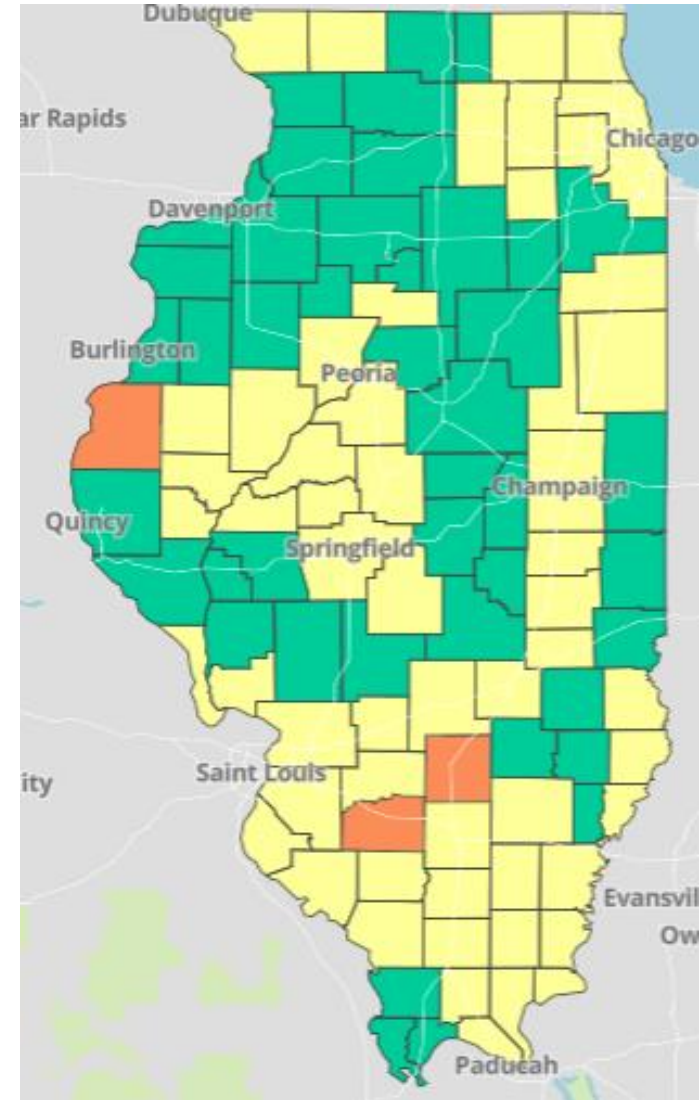
Last week, **14%** of U.S. Counties reported **High** COVID Community Level and **38%** reported **Medium** Level.



Low Medium High



GU AS MP VI

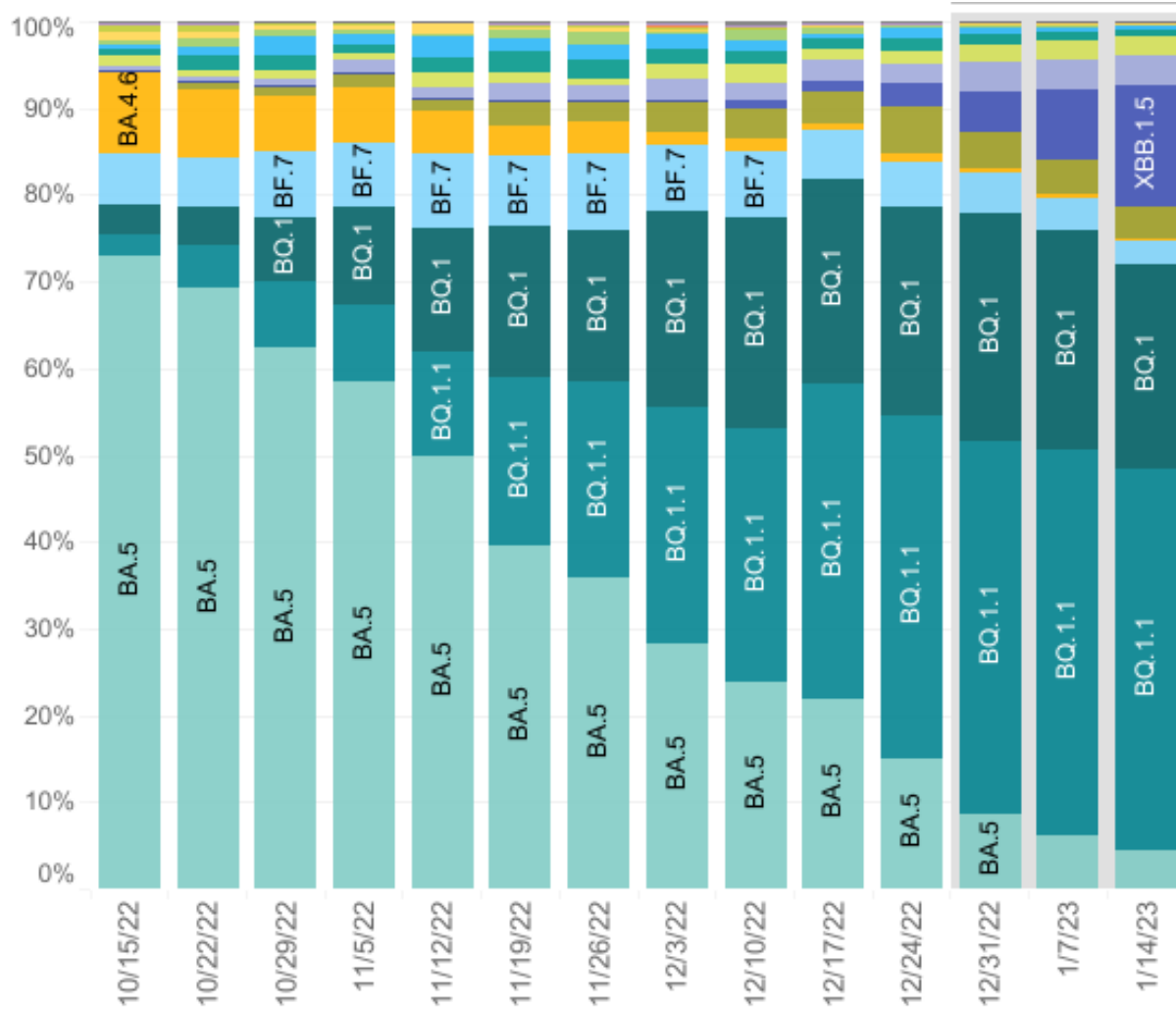


Variant Surveillance, Midwest Region

Continued evolution of more infectious **Omicron** subvariants

XBB is a recombinant (fusion) of 2 different BA.2 variants

% Viral lineage
among infections

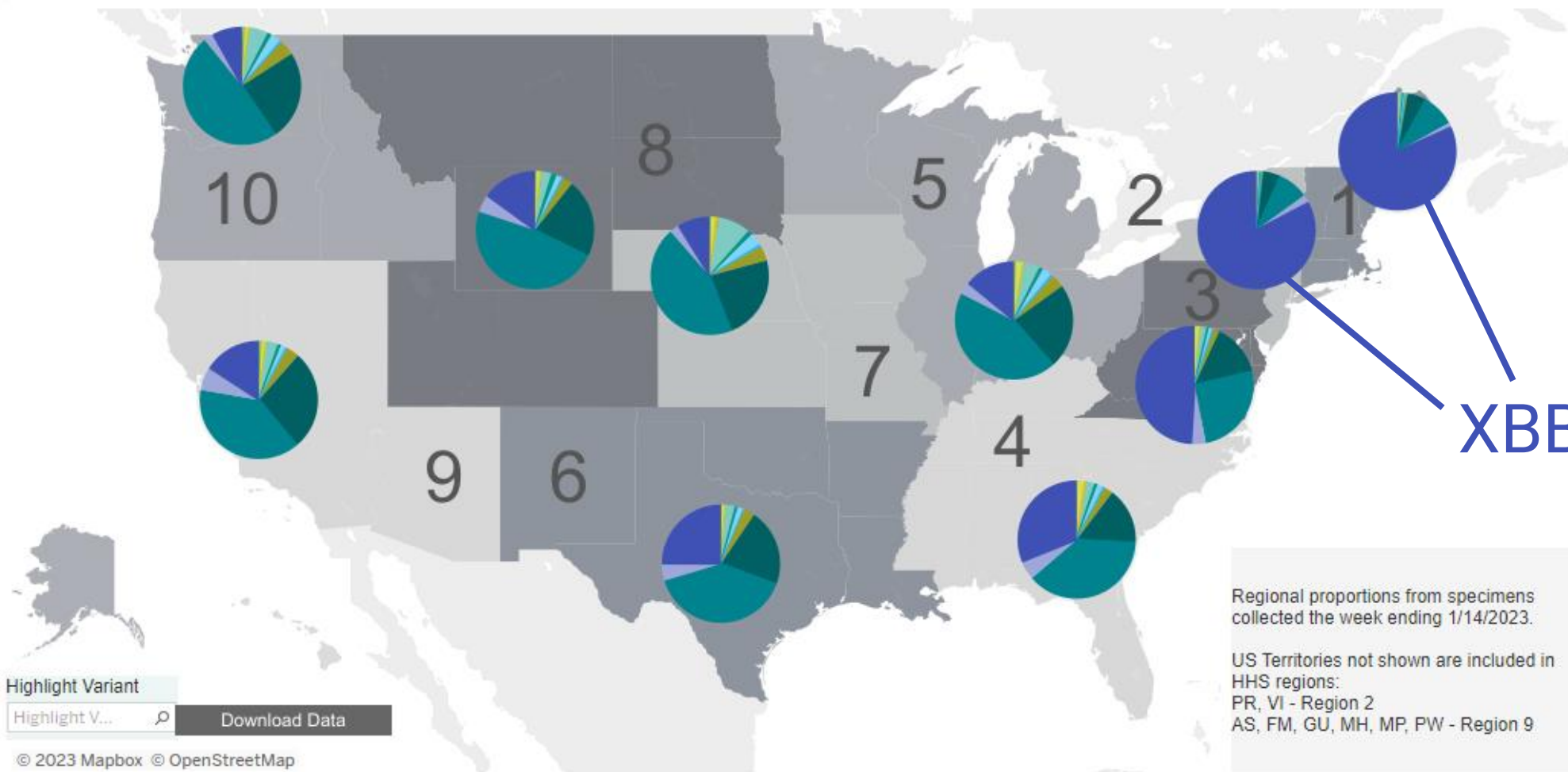


Collection date, week ending

BQ.1.1	44.0%	
BQ.1	23.4%	
XBB.1.5	14.0%	
BA.5	4.5%	
BN.1	3.6%	
XBB	3.5%	
BF.7	2.8%	
BA.2.75	2.2%	
BA.5.2.6	0.8%	
BF.11	0.4%	
BA.2	0.4%	
BA.4.6	0.2%	
BA.2.75.2	0.1%	

Variant Surveillance, United States

United States: 1/8/2023 – 1/14/2023 NOWCAST

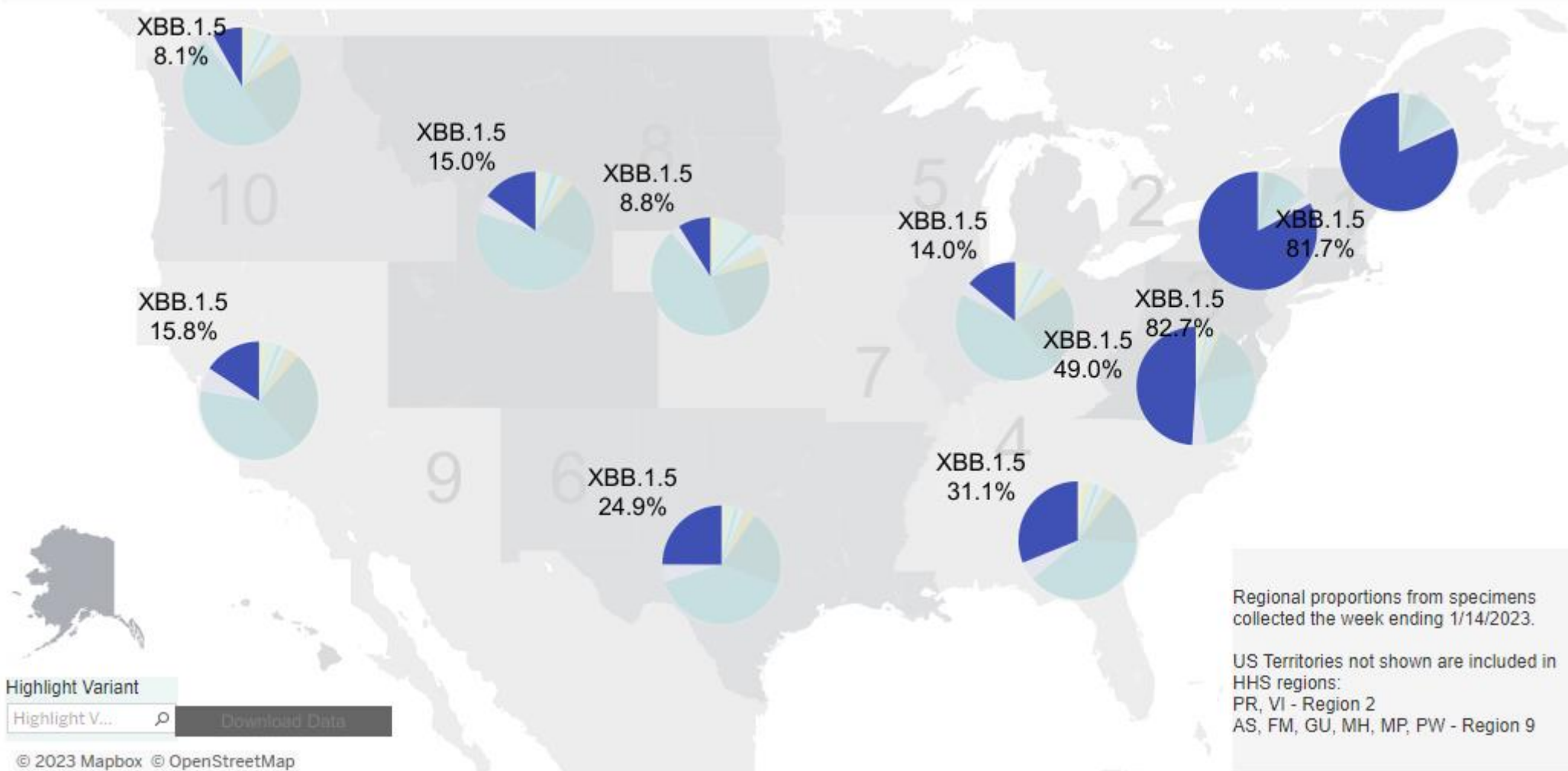


Lineages called using pangolin v4.1.3, pangolin-data v1.17 and usher v0.5.4.

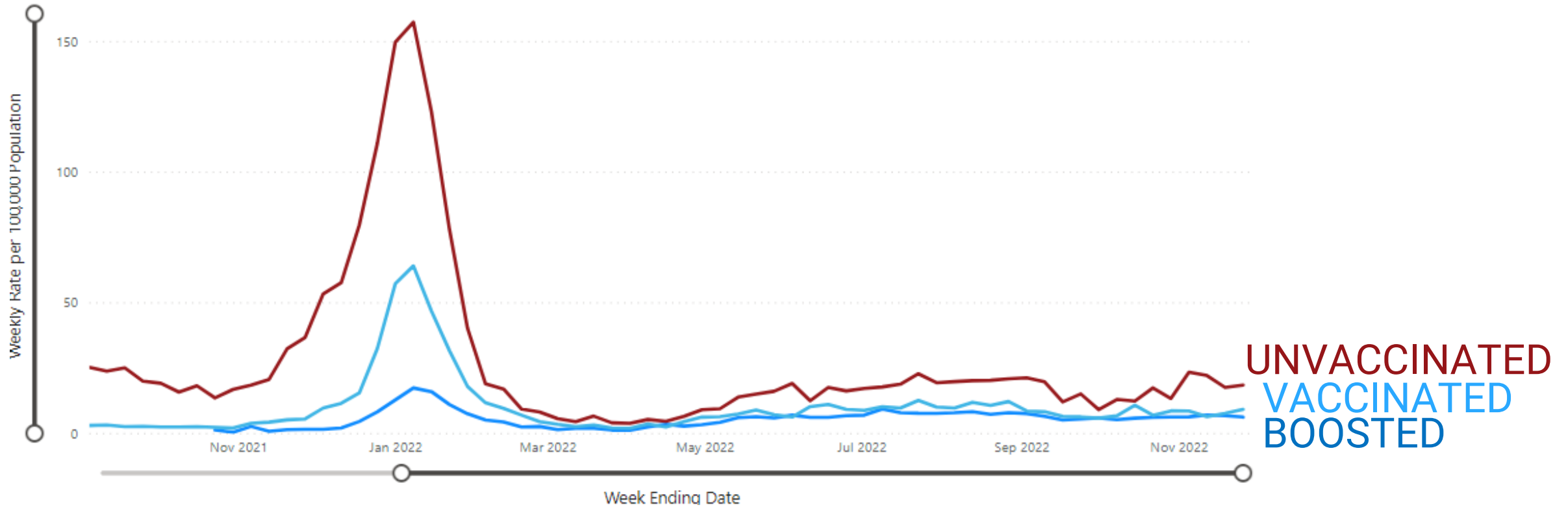
Updated January 13, 2023

Variant Surveillance, United States

United States: 1/8/2023 – 1/14/2023 NOWCAST



★ Since the Omicron variant became dominant in Chicago: **Unvaccinated** Chicagoans have been **almost three times** as likely to be hospitalized with COVID-19 than **Up-to-Date (Vaccinated and Boosted)** Chicagoans





Higher Updated Booster Coverage among Chicagoans than Nationwide Estimates. Over 529,000 doses have been administered to Chicagoans since authorization.

People with an Updated (Bivalent) Booster Dose	Percent of US Population <small>(As of 1/12/23)</small>	Percent of Chicago Population <small>(As of 1/11/23)</small>
Population ≥ 5 years	15.9%	19.6%
Population ≥ 12 years	17.1%	20.3%
Population ≥ 18 years	18.2%	21.3%
Population ≥ 65 years	39%	38.9%

National data as of 1/12/2023.
Chicago data reported to I-CARE as of 1/11/2023.

Overall, **28% (+1%) of Eligible Chicagoans** have received an updated, Fall 2022 COVID booster



	No. of Chicagoans eligible for updated vaccine (est.)*	No. of eligible who received updated vaccine	Percent eligible who have received updated vaccine	One Month Ago (12/14/22)
Race/Ethnicity				
Latinx	552,595	105,182	19.0%	15.8%
Black, non-Latinx	427,018	102,477	24.0%	20.7%
White, non-Latinx	612,424	252,317	41.2%	37.8%
Asian, non-Latinx	142,843	45,219	31.7%	27.6%
Age Group				
05-11 yrs	99,707	15,715	15.8%	
12-17 yrs	127,424	19,859	15.6%	
18-29 yrs	356,183	62,513	17.6%	
30-39 yrs	354,624	94,448	26.6%	
40-49 yrs	276,978	73,184	26.4%	
50-59 yrs	254,834	77,071	30.2%	
60-69 yrs	216,888	89,549	41.3%	
70-79 yrs	128,089	64,971	50.7%	
80+ yrs	67,127	31,248	46.6%	

Data reported to I-CARE through 1/11/2023. Number eligible includes Chicagoans aged 5 years or older who completed a primary series or received a monovalent booster dose at least 2 months prior to 1/7/2023.

Let's talk about:



VAERS

Vaccine Adverse Event Reporting System
www.vaers.hhs.gov

- VAERS is one of the many safety monitoring systems to help detect possible safety signals for vaccines as early as possible and to facilitate further investigation as appropriate
- VAERS is co-managed by the Centers for Disease Control and Prevention (CDC) and the U.S. Food and Drug Administration (FDA)
- When evaluating data from VAERS, it is important to note that for any reported event, no cause-and-effect relationship has been established. The report of an adverse event to VAERS is not documentation that a vaccine caused the event.
- VAERS is not designed to determine if a vaccine caused a health problem, but is especially useful for detecting unusual or unexpected patterns of adverse event reporting that might indicate a possible safety problem with a vaccine.
- This way, VAERS can provide CDC and FDA with valuable information that additional work and evaluation is necessary to further assess a possible safety concern.

Vaccine Adverse Event Reporting System (VAERS)



Top 6 Things to Know About VAERS

- ① VAERS is a national vaccine safety surveillance program that helps to detect unusual or unexpected reporting patterns of adverse events for vaccines.
- ② VAERS is a passive surveillance system, meaning it relies on people sending in reports of their experiences after vaccination.
- ③ VAERS accepts reports from anyone, including patients, family members, healthcare providers and vaccine manufacturers.
- ④ Healthcare providers and vaccine manufacturers are required by law to report certain events after vaccination.
- ⑤ VAERS is not designed to determine if a vaccine caused or contributed to an adverse event. A report to VAERS does not mean the vaccine caused the event.
- ⑥ If VAERS detects a pattern of adverse events following vaccination, other vaccine safety monitoring systems conduct follow up studies.



VAERS Strengths

- VAERS accepts reports from anyone. This also allows VAERS to act as an early warning system to detect rare adverse events.
- VAERS collects information about the vaccine, the person vaccinated, and the adverse event. Scientist obtain follow-up information on serious reports.
- All data (without identifying patient information) are publicly available.



VAERS Limitations

- VAERS is a passive reporting system, meaning that reports about adverse events are not automatically collected. Instead someone who had or is aware of an adverse event following vaccination must file a report.
- VAERS reports are submitted by anyone and sometimes lack details or contain errors.
- **VAERS data alone cannot determine if the vaccine caused the reported adverse event.**

This specific limitation has caused confusion about the publicly available data, specifically regarding the number of reported deaths. In the past there have been instances where people misinterpreted reports of death following vaccination as death caused by the vaccines; that is a mistake.

VAERS accepts all reports of adverse events following vaccination without judging whether the vaccine caused the adverse health event. Some reports to VAERS might represent true vaccine reactions, and others might be coincidental adverse health events not related to vaccination at all.

Generally, a causal relationship cannot be established using information from VAERS reports alone.

- The number of reports submitted to VAERS may increase in response to media attention and increased public awareness.
- It is not possible to use VAERS data to calculate how often an adverse event occurs in a population.



VAERS “signals” and further investigation

- Info collected by VAERS can provide early warning of a potential safety problem with a vaccine. Patterns of adverse events, or unusually high number of adverse events reported, are called “signals.”
- If a signal is identified through VAERS, further studies help determine if the signal represents an actual risk. In addition to looking at large data sets, further studies are done in safety systems like:
 - CDC’s Vaccine Safety Datalink (VSD)
 - Clinical Immunization Safety Assessment (CISA) project

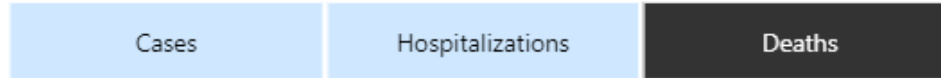


Vaccine safety

We have more evidence than for any other vaccine or disease in the history of humanity that the benefits of COVID-19 vaccines greatly outweigh the risks.

- But there are people who continue to worry that vaccines are seriously harmful and even killing people.
- Let's play this out: if this were true, we would expect those who are vaccinated for COVID to be more likely to die than those who are unvaccinated.
- In fact, the opposite is true.

Chicago data: COVID-19 deaths

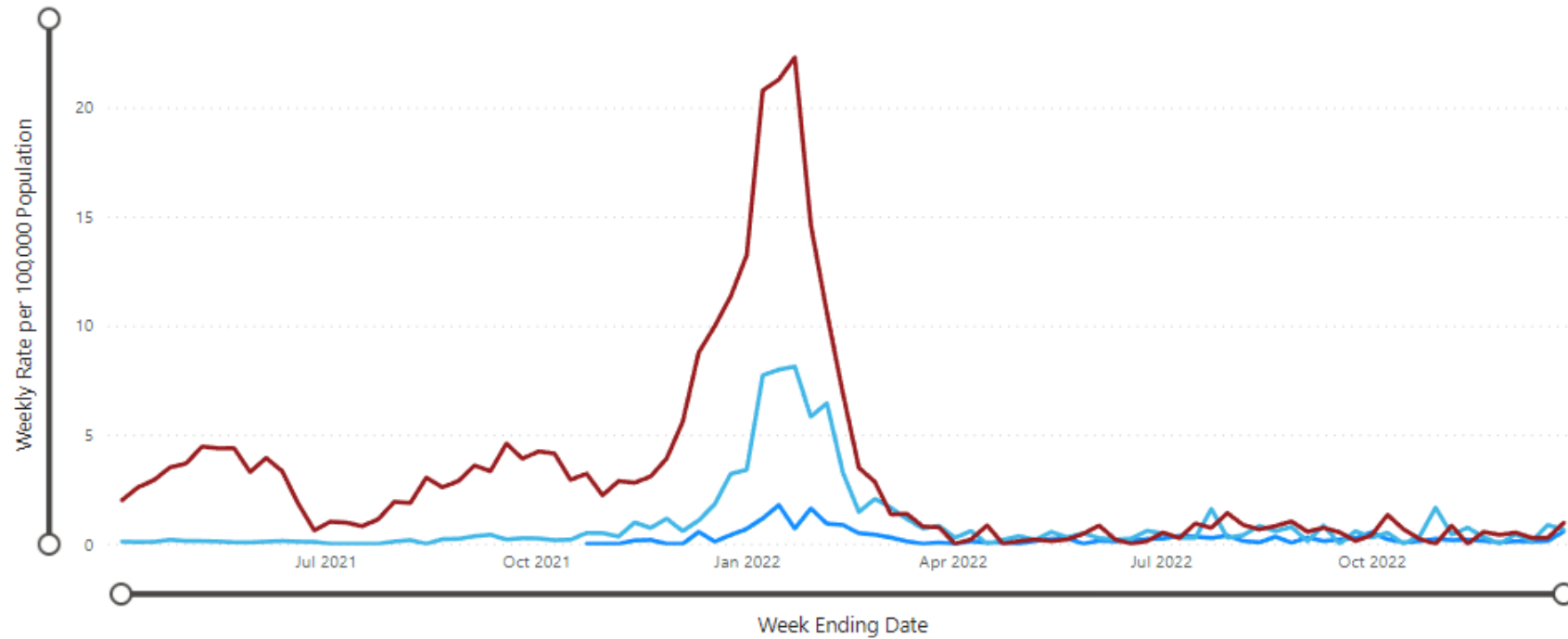


Weekly Rate of COVID-19 Deaths by Vaccination Status

Boosted Fully Vaccinated Unvaccinated

Overall

By Age Group

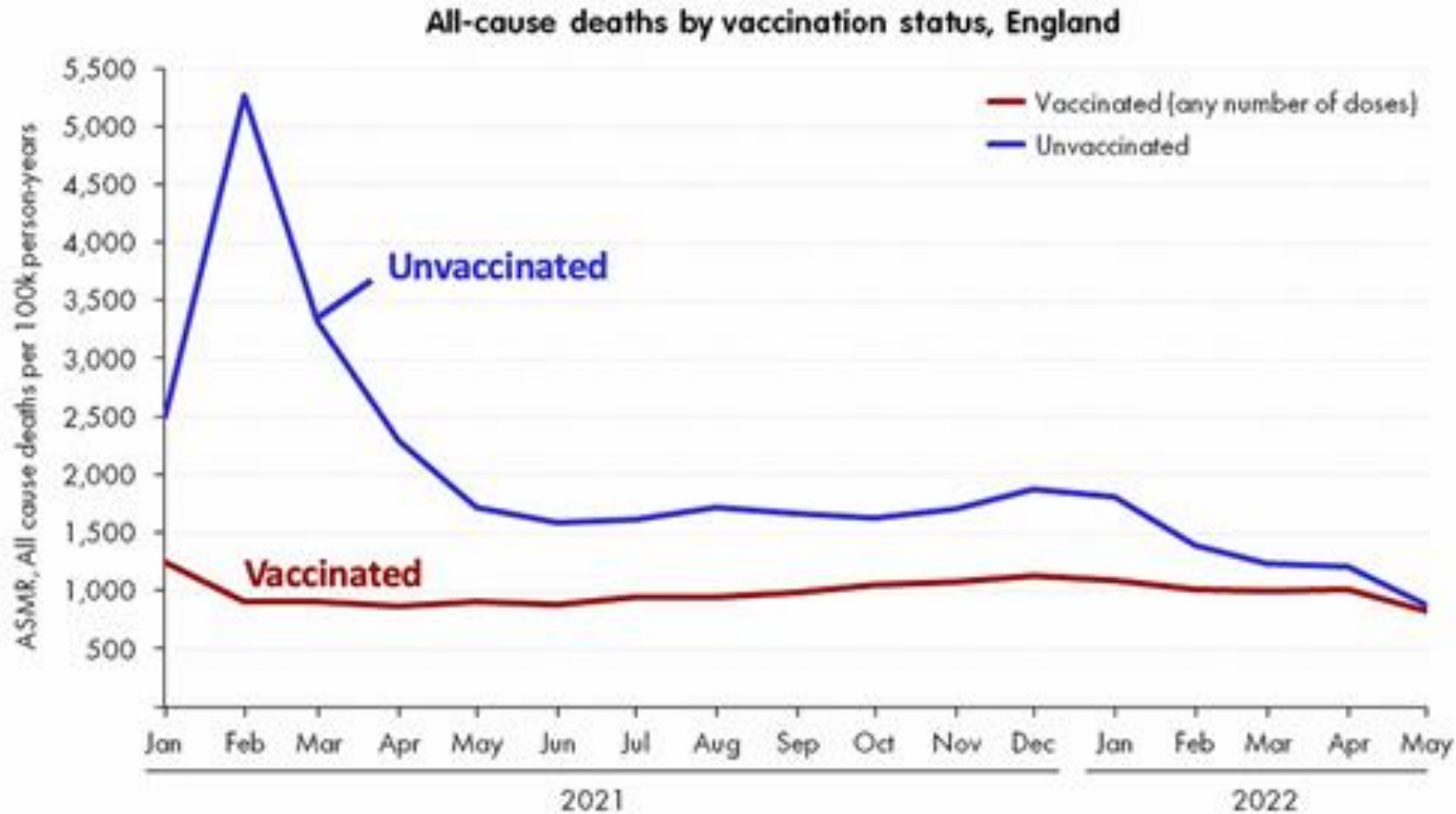


Since the Omicron variant became dominant in Chicago, unvaccinated people had a **2.5X** higher risk of dying from COVID-19 compared to fully vaccinated people

Since the Omicron variant became dominant in Chicago, unvaccinated people had a **5.3X** higher risk of dying from COVID-19 compared to people who were boosted



Let's look at ALL deaths: Vaccines save lives (not just in Chicago)



<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsbyvaccinationstatusengland>

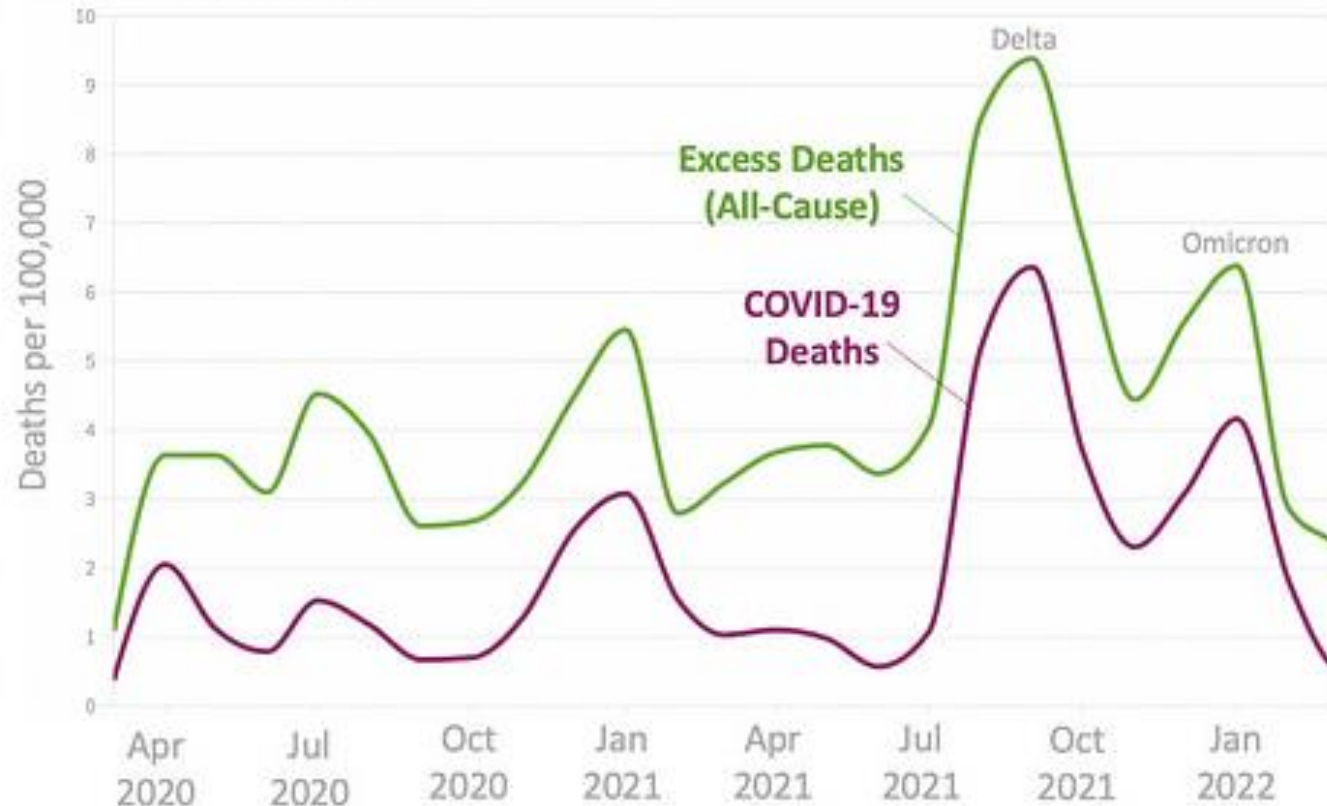
All deaths (COVID, car accident, stroke, etc), age-adjusted—doesn't matter if with/from COVID.

Over time, impact has changed due to increased vaccination rates, survivor bias, infection-induced immunity

We have *not* seen excess deaths (deaths above expected baseline) even in 18-49 year-olds as a result of the COVID vaccine; we *have* seen excess deaths as a result of COVID.

Excess Deaths and COVID Deaths in Young Adults (age 18-49)

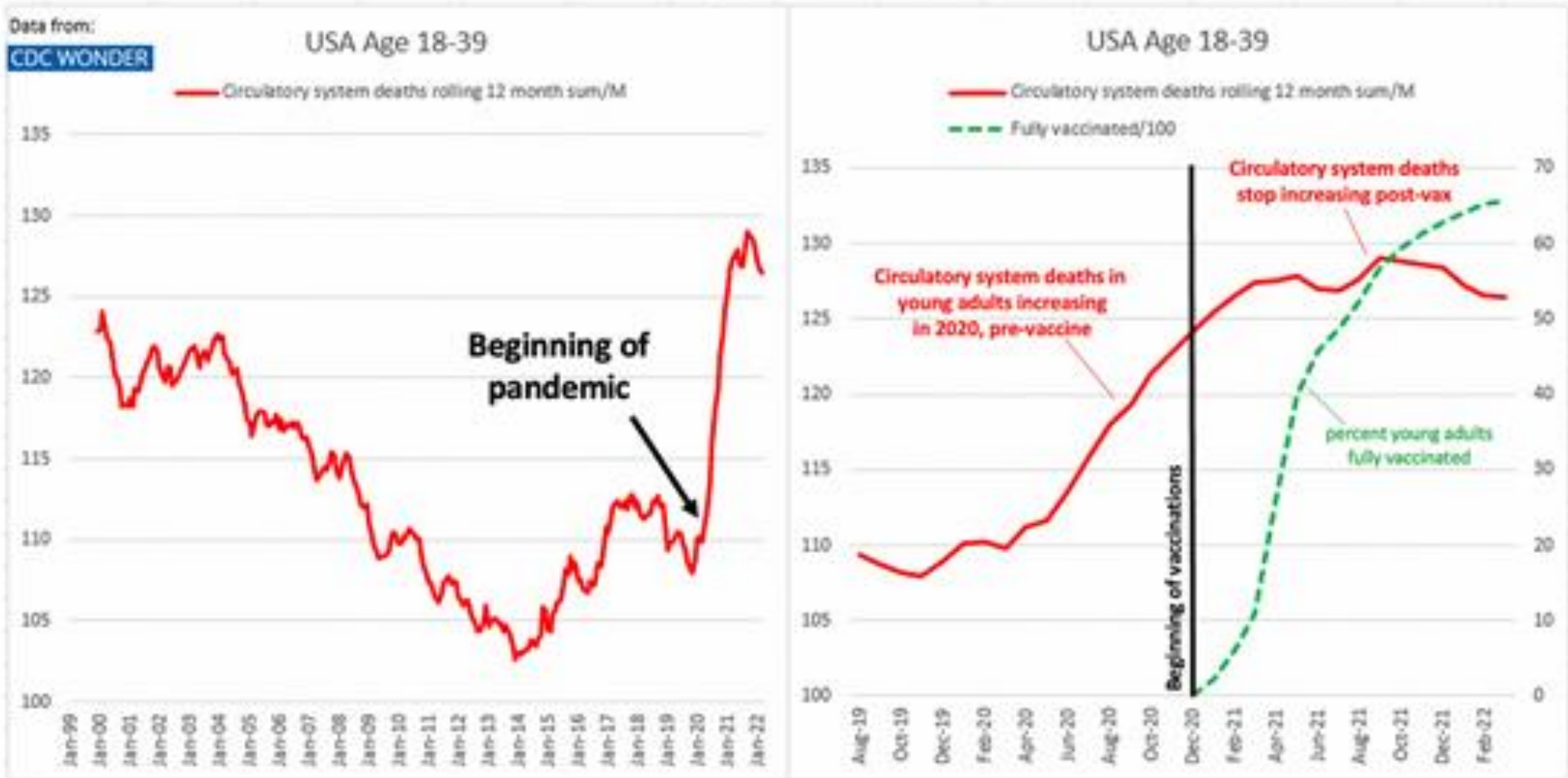
United States



Excess deaths started in **spring 2020** at the beginning of the pandemic (before vaccines were available).

Excess deaths **tightly track with COVID deaths**, even for this age group.

Let's look specifically at diseases of circulatory system (heart attacks, blood clots) in 18-39 year olds



Comparing risk of adverse events after vaccine and after SARS-CoV-2 infection

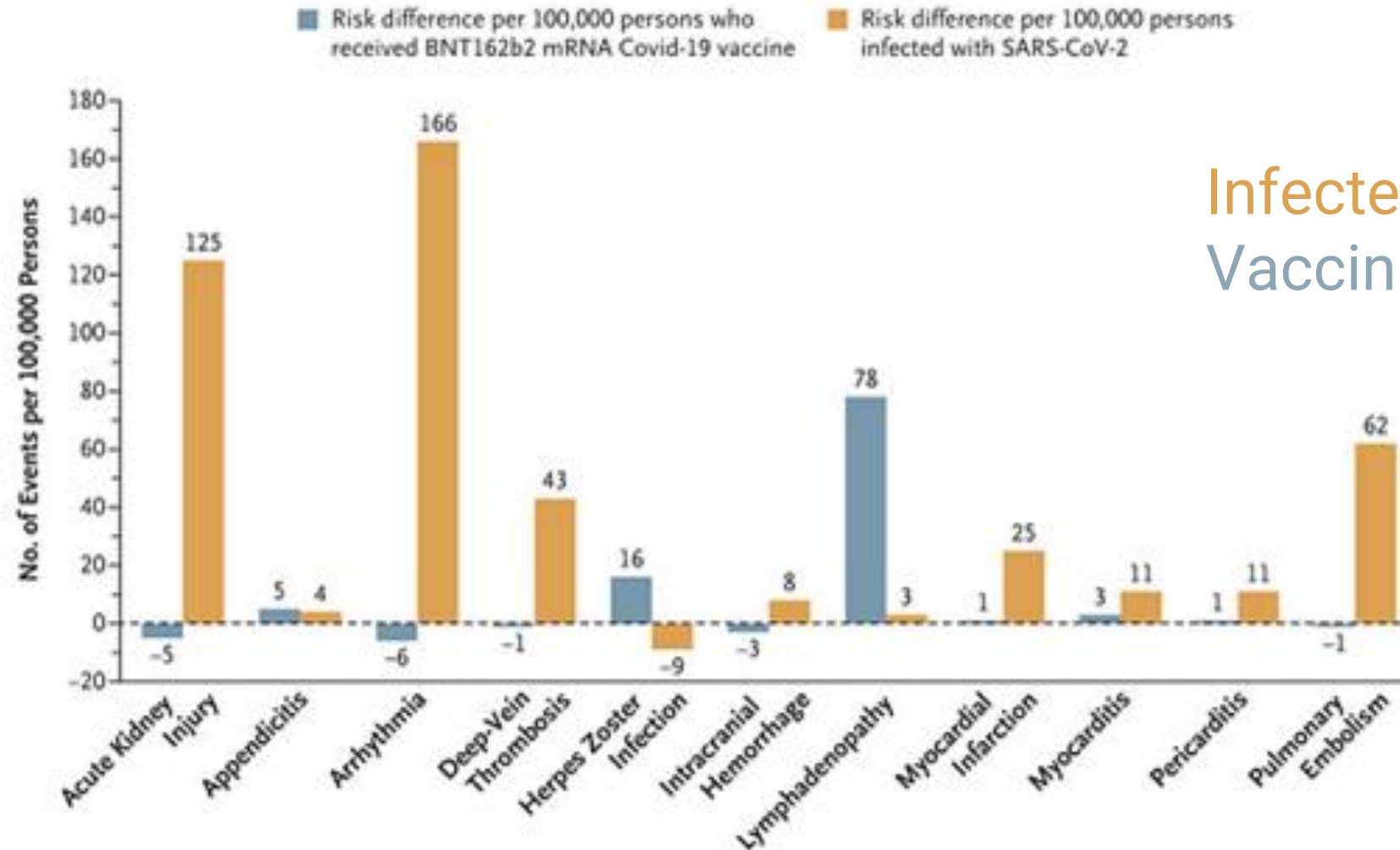


Safety of the BNT162b2 mRNA Covid-19 Vaccine in a Nationwide Setting

Noam Barda, M.D., Noa Dagan, M.D., Yair Ben-Shlomo, B.Sc., Eldad Kepten, Ph.D., Jacob Waxman, M.D., Reut Ohana, M.Sc., Miguel A. Hernán, M.D., Marc Lipsitch, D.Phil., Isaac Kohane, M.D., Doron Netzer, M.D., Ben Y. Reis, Ph.D., and Ran D. Balicer, M.D.

New England Journal of Medicine, 2021.

Infected with SARS-CoV-2
Vaccinated



★ Safety signals

- No medical intervention where risk of side effects is zero. But risk of serious side effects is extremely small--and the benefits of the vaccine far outweigh those risks.

Legitimate safety signals

- Serious allergic reactions/anaphylaxis
 - 5 in every 1 million vaccine doses
 - Monitor for allergic reaction after vaccination
- J&J vaccine specifically: Specific type of blood clot with low platelets (thrombosis with thrombocytopenia)
 - 4 in every 1 million vaccine doses
 - Now recommend mRNA vaccines over J&J
- Myocarditis (inflammation of heart muscle) among young males
 - 10 in every 100,000 vaccine doses (more often after second shot)
 - Still much less likely and less severe than risk of myocarditis from virus itself in this age group
 - Extra dosing and safety studies with this focus completed before vaccine for younger children rolled out

Other safety signals investigated but not sustained



1 in a
million



Safety signal: ? stroke risk for people age 65+ who received Pfizer bivalent vaccine

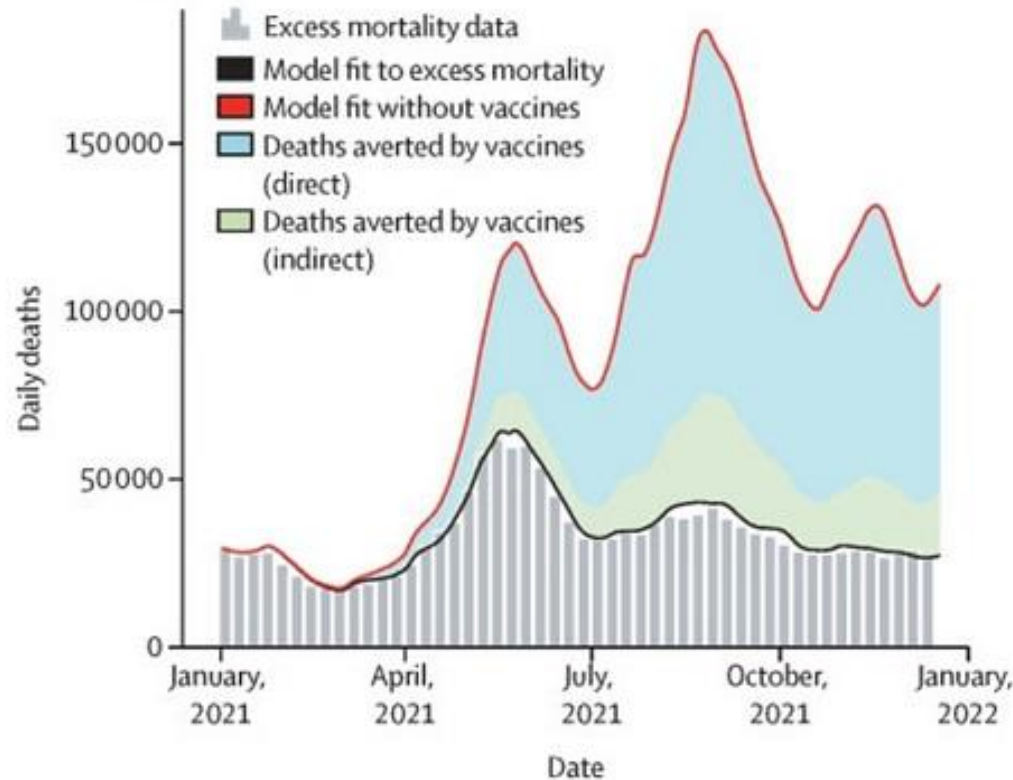
- CDC and FDA look at large databases with focus on this question:
 - Medicare (5 million Pfizer bivalent doses): no increased risk
 - VA (millions of veterans): no increased risk
- Researchers look at this question in other countries:
 - Israel: no increased risk
 - Other European countries: no increased risk



Still learning about longer-term impact of COVID infection: goal of avoiding infection remains

- Excess all-cause mortality related to cardiovascular complications in patients after COVID-19 infection (Italy/Spain)
- Increase in excess mortality after infection (Singapore)
- People infected with SARS-CoV-2 had 3 times the risk of dying over the following year compared to those who remained uninfected. For those age 60+, increased mortality persisted until end of first year after infection. (Lancet)

Vaccines saved more than 20 million lives (estimated) in the first year across the globe.



Just in the U.S., COVID vaccines prevented

18.5 million additional hospitalizations

3.2 million additional deaths

Figure from Watson et al., (2022) Global impact of the first year of COVID-19 vaccination: a mathematical modelling study. Source [here](#).



THINK YOU'RE UP TO DATE WITH YOUR COVID VACCINES?

IF YOU HAVEN'T
BEEN VACCINATED
SINCE LABOR DAY...



Previously vaccinated Chicagoans age 6months+ are eligible for the bivalent booster and the best protection against Omicron.



GET YOUR UPDATED COVID BOOSTER & FLU SHOT AT HOME



In-home vaccination is available to all Chicago households at no cost. Up to 10 people can be vaccinated, so invite your family, friends, or neighbors to get vaccinated together.

How to get your **FREE** at-home COVID-19 tests



VISIT
COVIDtests.gov



Enter contact and
shipping info



Review and place
your order

Or you can call
1-800-232-0233



TAKE ACTION IF YOU TEST POSITIVE FOR COVID-19



DAY 1-5

Stay home:

- Everyone - *regardless of vaccination status* - should stay home and away from others (isolate).

People at high risk for severe illness:
Talk to your doctor about treatment

DAY 6 OR LATER

End isolation:

- If you never had symptoms OR symptoms are improving and are fever-free for 24 hours.

DAY 6-10

Wear a mask:

- If you take 2 antigen tests 48 hours apart and both are negative, you may remove your mask sooner
- Avoid people at high risk of getting very sick



VAX & PAX lovid



If you're at high risk for severe illness, vaccines are your best protection against COVID-19. But if you do test positive, **TREATMENTS ARE AVAILABLE.**

PAXLOVID, for example, is an oral antiviral therapy for the treatment of mild to moderate COVID-19.



Individuals ages 12 and up who are at high risk of developing severe illness, are eligible.

Ask a healthcare provider if medications to treat COVID-19 are right for you.

★ TREAT COVID-19

- The **Rapid Response Evaluation And Treatment of COVID-19** for **long term care residents**, funding by CDC.
- Available Services
 - On-site or telehealth consultation and drug interaction review with a licensed medical provider
 - Medication courier service
 - On-site IV administration of remdesivir
 - Decrease intra-facility transmission of current outbreak through point-of-care COVID-19 testing and vaccination administration.
 - **NO COST TO FACILITY OR RESIDENTS**



If you or your loved one live in a **nursing home** within the city of Chicago and recently tested positive for COVID-19, reach out to our local TREAT COVID-19 program at **(708)-600-4233** or **Chicago-COVID19@CIMPARG.com**.



THE COMBO YOU
**DON'T
WANT**



**GET BOTH
VACCINES.**

CHI.GOV/FLU

Saturday, January 21 - 9am-2pm

Olive Harvey College - 10001 S. Woodlawn Ave.

Register at: rebrand.ly/Olive-Harvey

**The new COVID-19 bivalent
booster will be available!**

Types of vaccines: Flu, Moderna primary series and bivalent boosters (6 months through 5 years), Pfizer primary series and bivalent boosters (6 months and older).



WALK-INS WELCOME!



Need a vaccine or a booster?
Have questions?

visit

CHI.GOV/COVIDVAX

or call

312-746-4835

