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COVID-19 Update

Dr Mark Cunningham-Hill

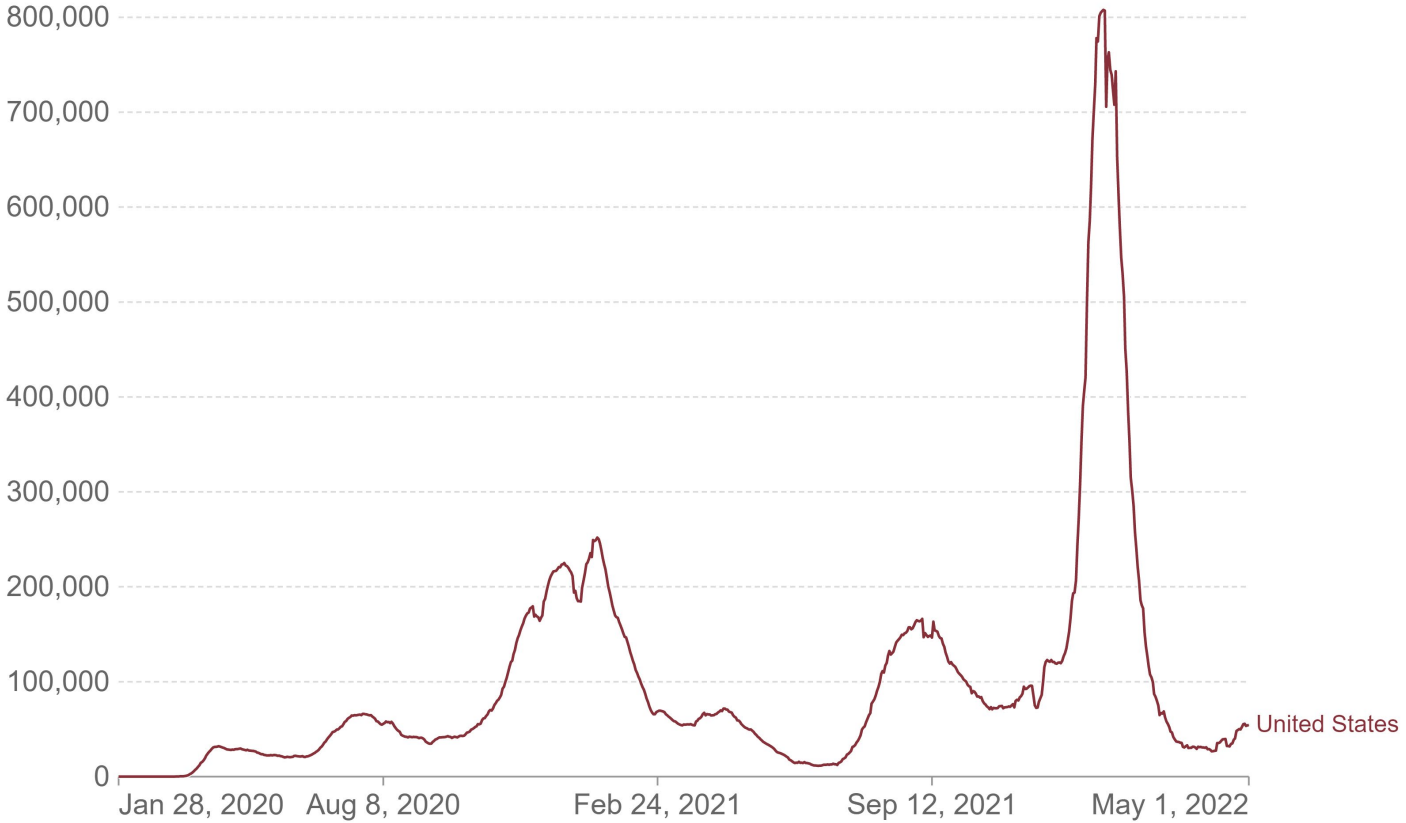
Medical Director NEBGH

Monday May 2nd, 2022

Daily new confirmed COVID-19 cases

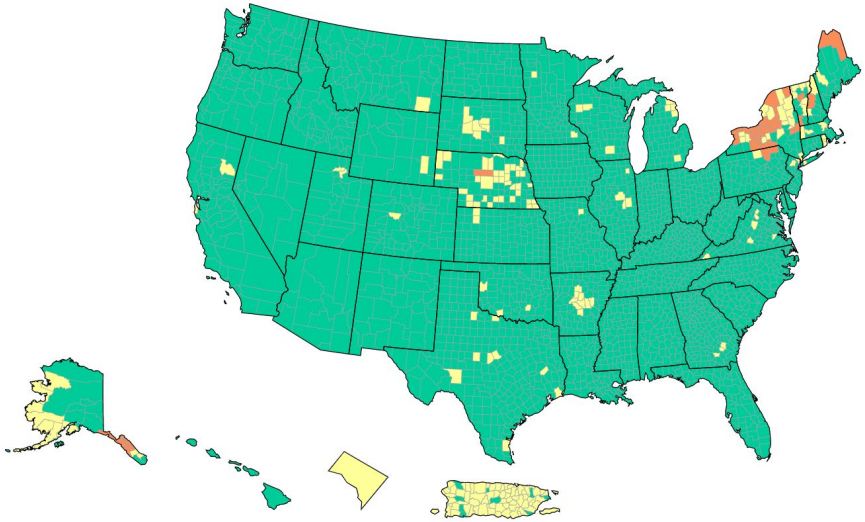
7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.

Our World in Data

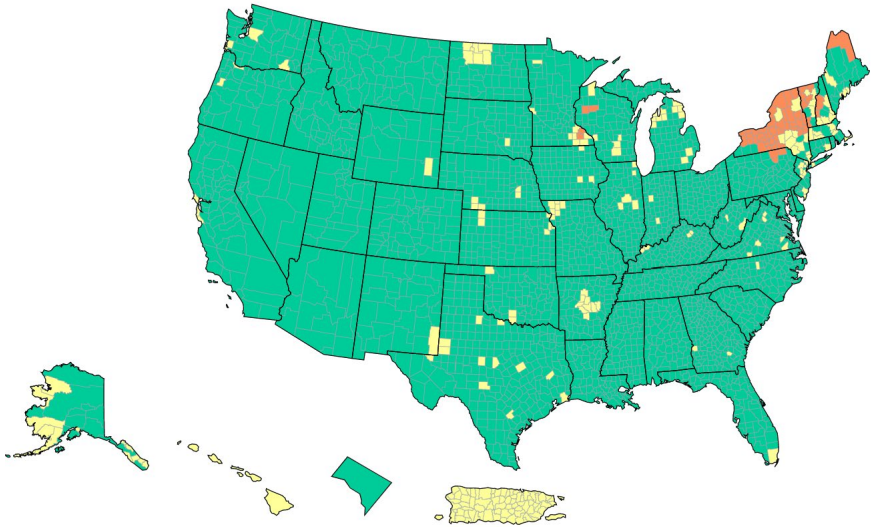


Source: Johns Hopkins University CSSE COVID-19 Data

CDC Community Risk Map



Last Week



This Week

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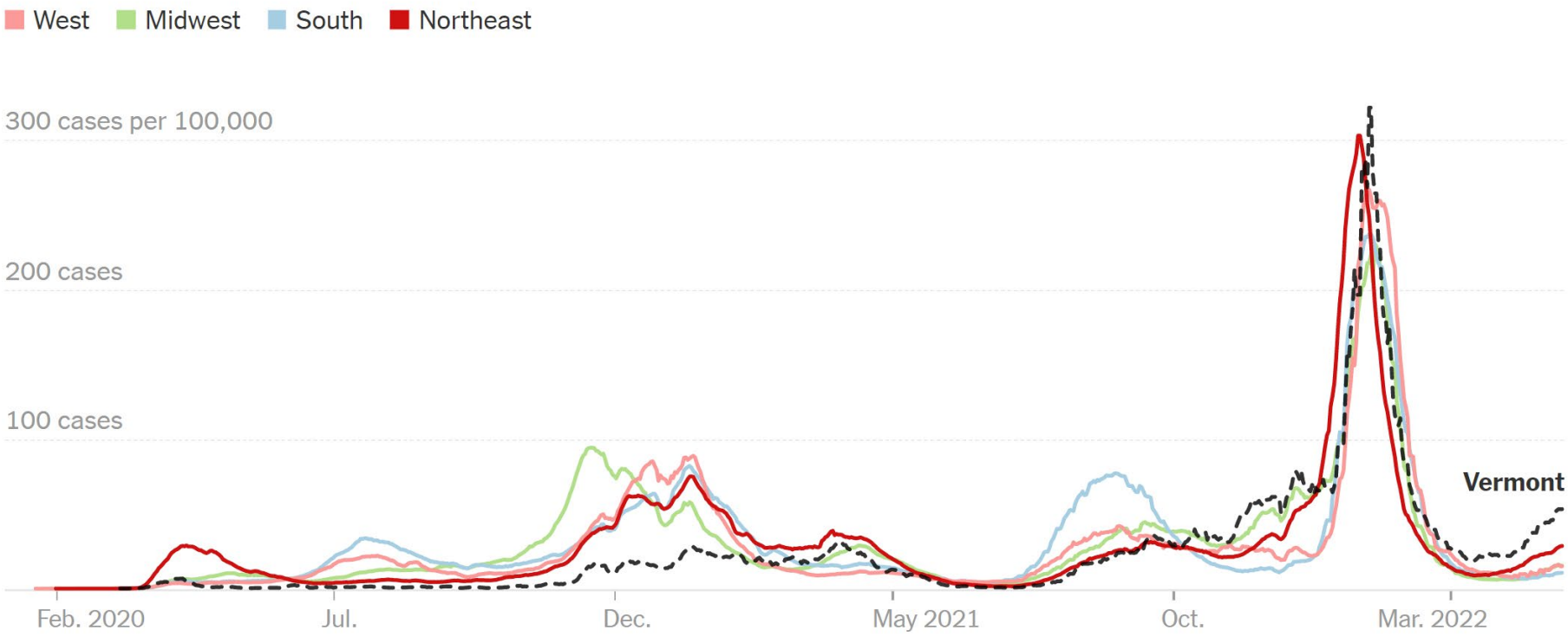

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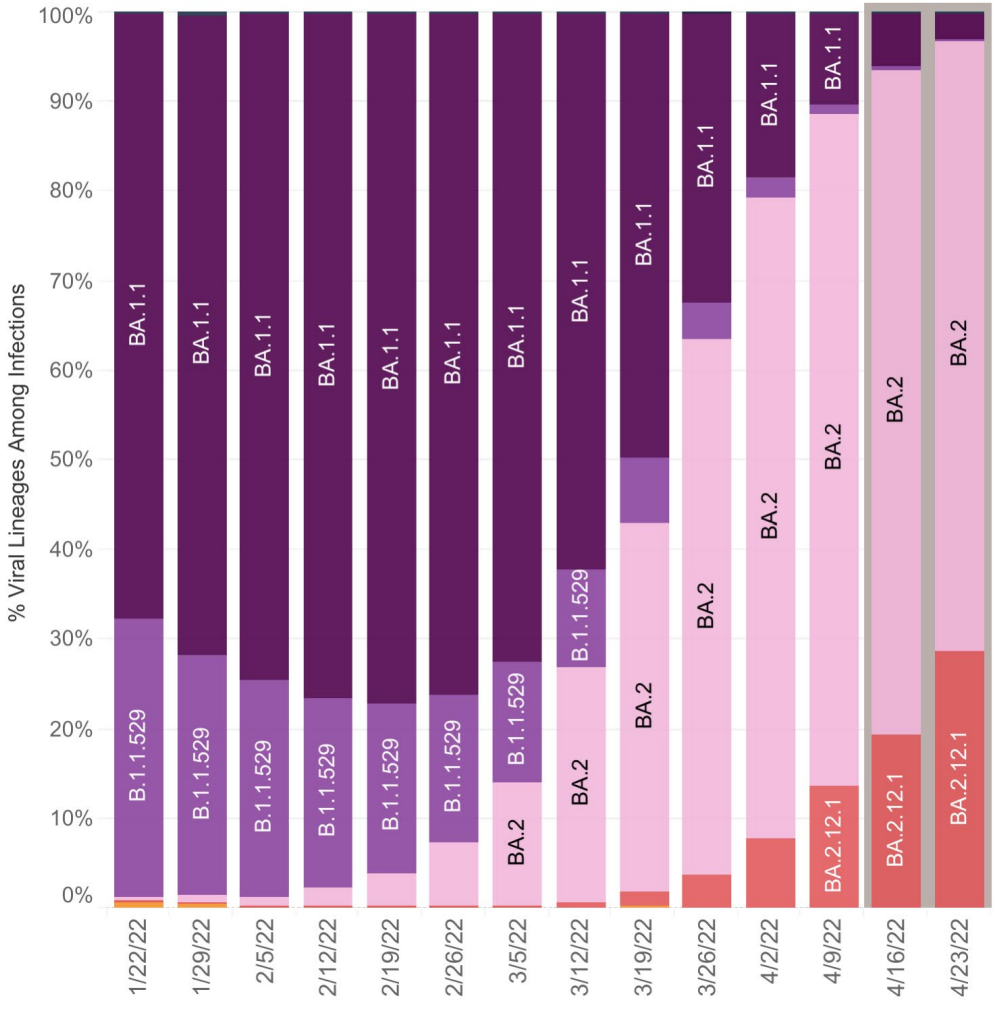
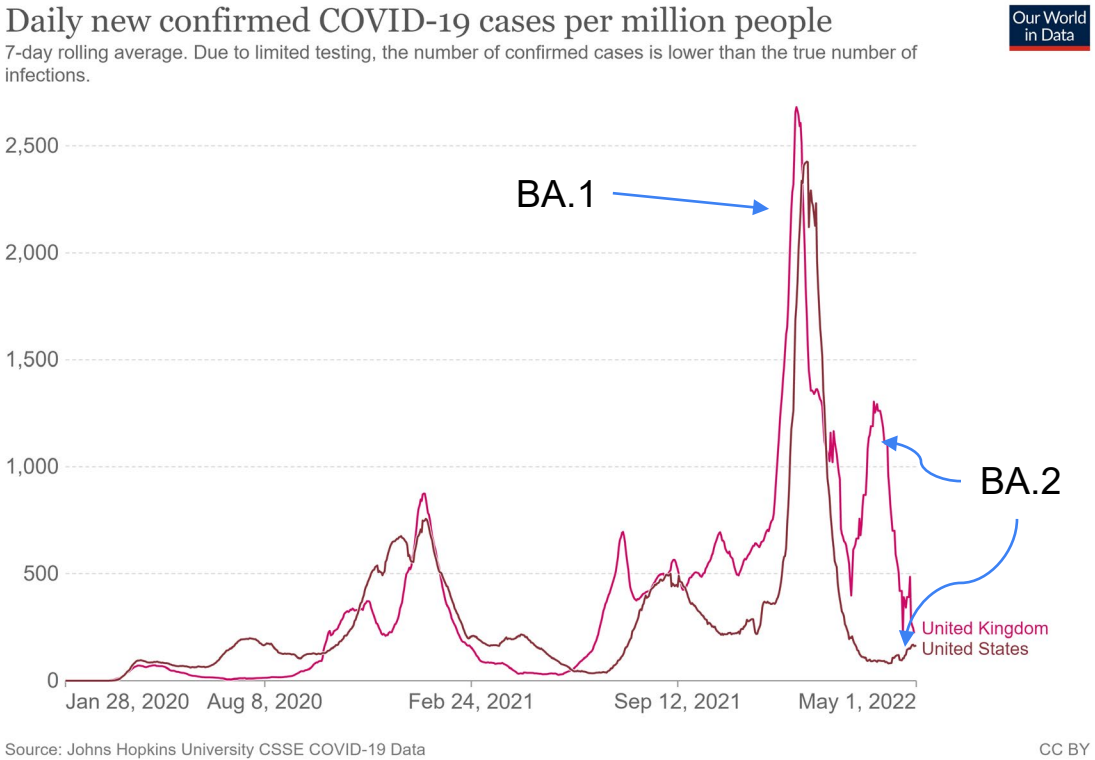


USA

WHO label	Lineage #	US Class	%Total	95%PI
Omicron	BA.2	VOC	68.1%	61.3-74.2%
	BA.2.12.1	VOC	28.7%	22.3-36.0%
	BA.1.1	VOC	2.8%	2.3-3.3%
	B.1.1.529	VOC	0.2%	0.1-0.3%
Delta	B.1.617.2	VBM	0.0%	0.0-0.0%
Other	Other*		0.2%	0.1-0.6%

* Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one week period. "Other" represents the aggregation of lineages which are circulating <1% nationally during all weeks displayed.
** These data include Nowcast estimates, which are modeled projections that may differ from weighted estimates generated at later dates
# AY.1-AY.133 and their sublineages are aggregated with B.1.617.2. BA.1, BA.3, BA.4, BA.5 and their sublineages (except BA.1.1 and its sublineages) are aggregated with B.1.1.529. For regional data, BA.1.1 and its sublineages are also aggregated with B.1.1.529, as they currently cannot be reliably called in each region. Except BA.2.12.1, BA.2 sublineages are aggreagated with BA.2.



Why?

- Most people caught Omicron in January and therefore have some added immunity
- Vaccination/Booster rates?
  - UK – 73% FV + 58% boosted
  - USA – 66% FV +30% boosted
- Weather/Seasonality?
- Our BA.2 (BA.2.12.1) has yet to come

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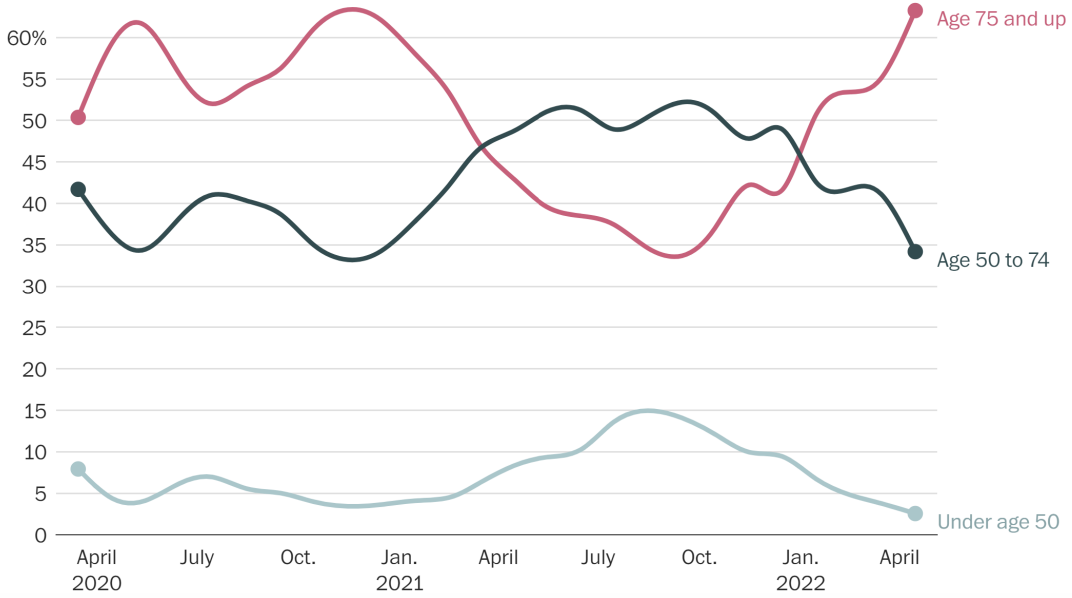
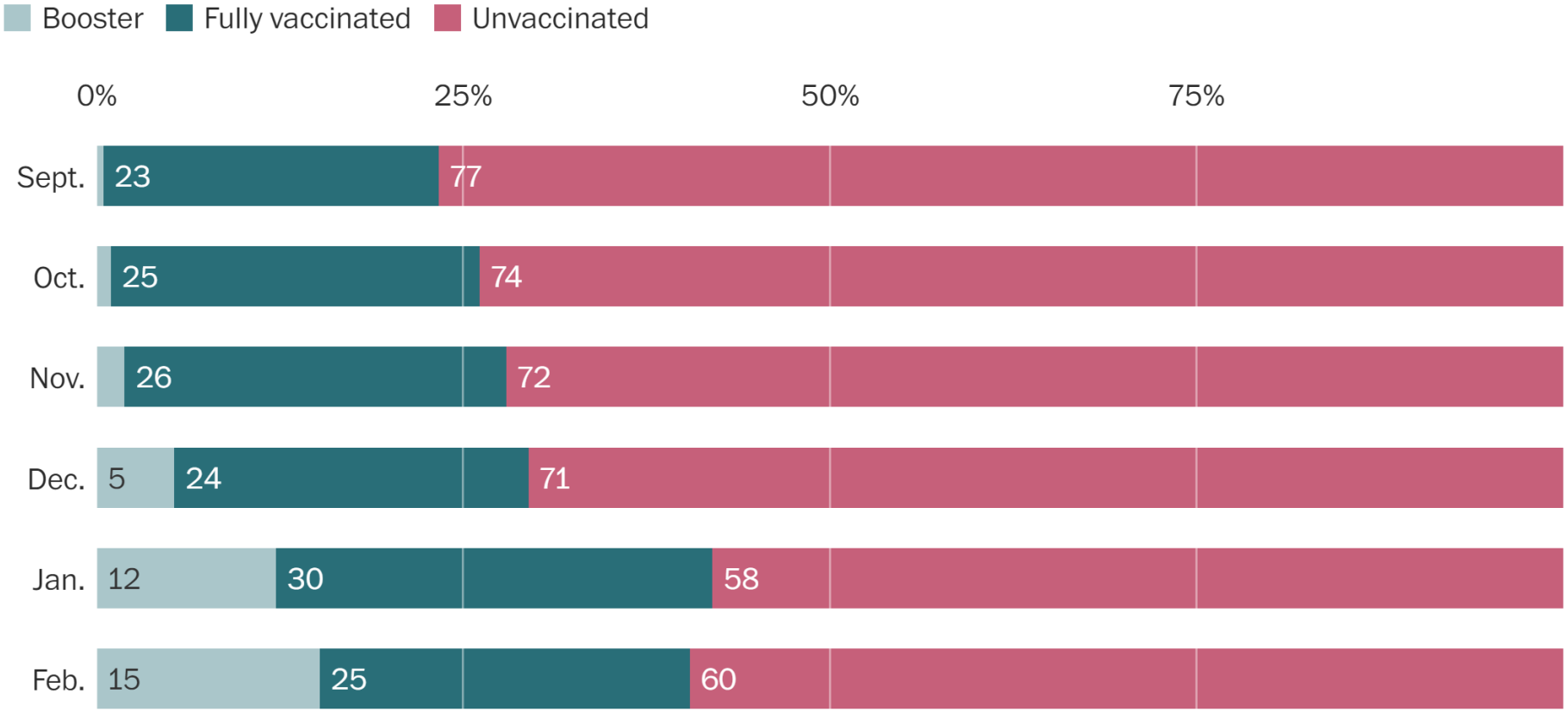
Elderly Still at Risk

- Vaccines are 85% protective of stopping serious illness and death
- Majority in those that had not got a booster
- Vaccine effectiveness wanes over time – especially in the elderly



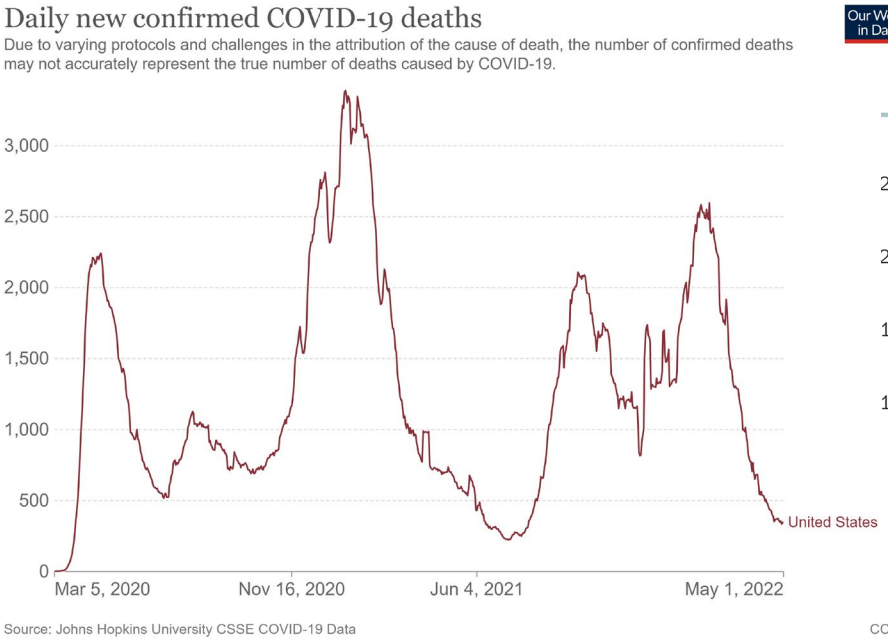
Share of deaths in that month for each age group

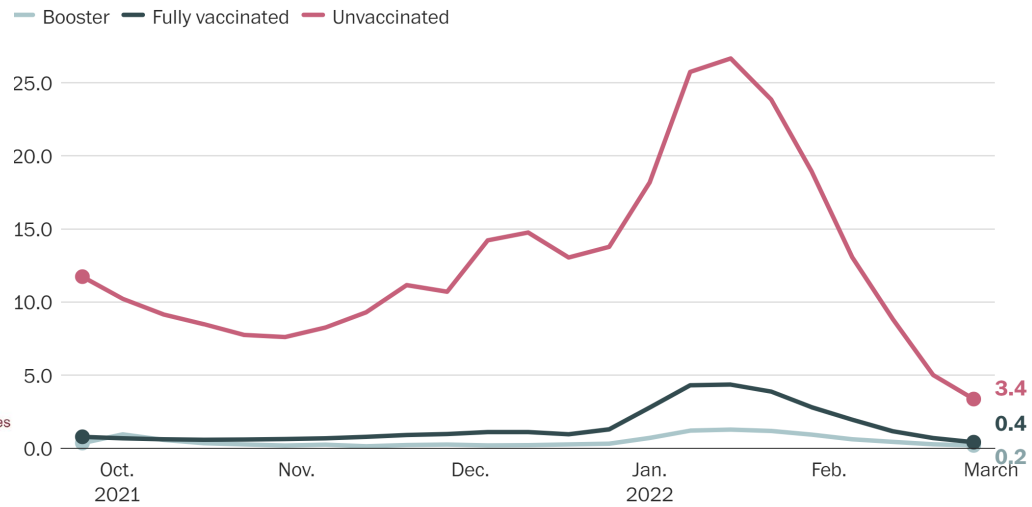


Share of deaths by month for each vaccine status. Month is when patient contracted covid-19, not month of death. Partially vaccinated people are not included in the data.

Source: Centers for Disease Control and Prevention

DAN KEATING / THE WASHINGTON POST





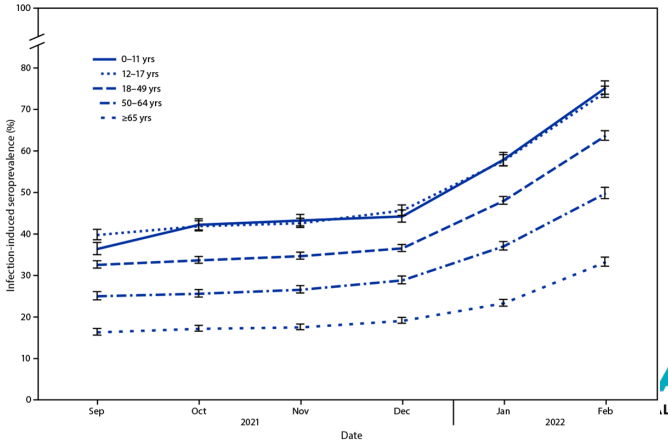
- Deaths continue to decline – 10 x less than the peak in Dec ‘20 – March ‘21
- Unvaccinated 8.5 x more likely to die than a fully vaccinated person
- Unvaccinated 17x more likely to die than a fully vaccinated and boosted person

Conclusion

- Get vaccinated
- Get boosted and if over 50 consider a second booster
- Wear a mask when in high-risk situations and/or avoid high-risk situations
- If you think you are exposed or might have COVID get tested
- If positive, consider antiviral treatment (Paxlovid, mulinipavir) within 5 days
- If not positive but immunocompromised consider Evusheld as a prophylactic

Children's COVID Vaccines

- Children ages 5 to 11 became eligible for the two-dose coronavirus vaccine from Pfizer on Nov. 2, 2021
- Moderna applied for an EUA for 5 and under (already have applications in for 6-11 and 12-17)
- Pfizer also expected to provide additional data on a 3-dose regieme for 5 and younger
- Uncertain whether FDA will wait to review all applications in June and then make a decision
- 75% of children and adolescents have antibodies against SARS-CoV-2[1]



1. https://www.cdc.gov/mmwr/volumes/71/wr/mm7117e3.htm#F1_down

COVID Risk Compared to Other Activities

Activity	Unit	MM
Flight	One flight	0.02
Driving	250 miles	1
Motorcycle	25 miles	4
General anesthesia	1 procedure	5
Scuba diving	1 trip	5
Skydiving	1 trip	7
Driving	Annual	100 (U.S.); 31 (U.K.)
Giving birth	1 birth	210 (U.S.), 120 (U.K.), 40 (Sweden), 11,000 (Chad)
Active service in Afghanistan	Full year in 2011	5,000
Baby's first year of life	1 year	6,600
Heroin use	1 year	19,700

Age	Unvaccinated	Not boosted	Boosted
0-4	227	-	-
5-17	Data unavailable		
18-49	404	90	48
50-64	4994	1033	516
65+	28978	15489	6023

- The risk of a zero- to 4-year-old dying from a COVID-19 infection (227 MM) is about the same as the risk of a mom dying from childbirth in the US. (210 MM).
- For a vaccinated 18- to 49-year-old, the risk of dying from an Omicron infection (90 or 48 MM, depending on boosters) is less than the annual risk of dying on the road (100 MM).
- For a boosted 50- to 64-year-old, the risk of dying from an Omicron infection (516 MM) is about the same risk as driving for 5 years in the U.S. (500 MM).
- For an unvaccinated 65+-year-old, the risk of dying from an Omicron infection (28,978 MM) is about the same as 1.5 years of heroin use (29,550 MM).
- For a boosted 65+-year-old, the risk of dying after an infection (6,023 MM) is about the same as the risk of death in a baby's year of life (6,600 MM). Or, it's a little more risky than one year of active service in Afghanistan in 2011 (5,000 MM).

Age	RSV (per 100,000)*	Flu (per 100,000)*	COVID-19 (per 100,000)**
<1 year	2381	181	89
1	710	86	
2	395	62	
3	211	48	
4	111	41	
5-6	72	40	32
7-11	36	23	
12-17	39	17	66

*Averaged across years 2003-2010

**December 2020-January 2022

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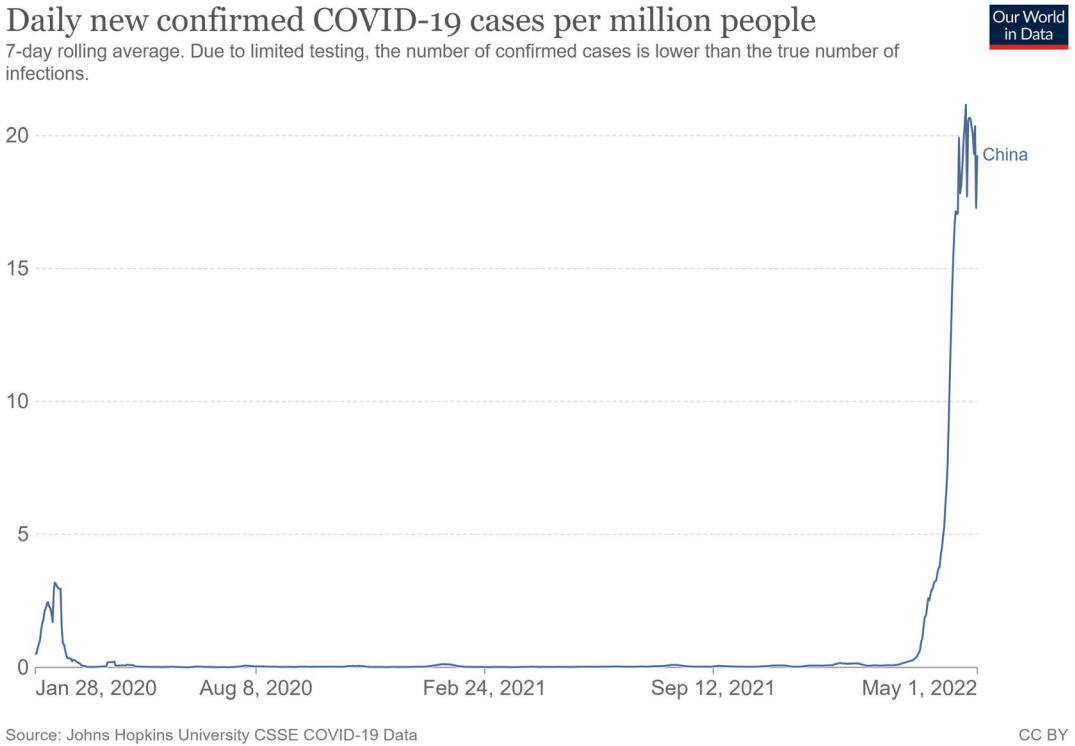
China

Shanghai:

- 5+ week lockdown
- Cases now only from quarantine/hospitals
- Industry starting back up

Beijing:

- Mass testing
- Restrictions
- Lock downs may come



Key Factors Affecting China Pandemic Outlook

The Virus

- Current dominant variant is BA.2
- Other countries have experienced more infectious variants (e.g., US - BA.2.12 and BA.2.12.1, UK - XE, S. Africa and Europe - BA.4 and BA.5)
- China authorities have already disclosed two novel omicron subvariants (no data to date)
- Herd immunity only reachable for a few months then waning immunity and viral shift weaken herd immunity – leads to repeat waves of virus

Likelihood of a more infectious subvariant makes long-term control even more difficult

Government Response

- China currently still committed to a 'Zero-COVID' policy; economic and social impacts not yet changing approach
- Strict lockdowns keep millions unexposed to COVID, yielding a risk of mass infection and illness when lockdown ends
- Vaccine coverage consists mostly of Sinopharm vaccine (less efficacious than mRNA vaccines), no clear plan to import US mRNA or timeline for Chinese mRNA vaccine

No clear timeline for moving to 'Living with COVID'; unclear if China will import mRNA vaccines or deploy anti-virals on a large scale

Population Immunity Dynamics

- Zero-COVID policy has kept population exposure very low
  - 60-80% of US and Europe population has had COVID; only ~1% of China
- Prior immunity by vaccine and/or illness necessary to blunt impact of successive waves, since eradication no longer possible
- Population 86% fully vaccinated and 51% boosted with Sinopharm vaccine, which is less efficacious than mRNA vaccines
- Low vaccine coverage among vulnerable: 80+ year-olds only 51% fully vaccinated and 20% boosted

Large vulnerable population may overload healthcare and drive policy

3 Scenarios

1. Lockdowns work and cases come back to normal
2. Sporadic outbreaks across various locations
3. Lockdowns fail (cf. Hong Kong) and massive BA.2 wave occurs

What is the exit strategy from “Zero-COVID”?

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Questions

Upcoming NEBGH virtual events:

- **May 9–** Special Monday COVID-19 Update: Long-COVID Edition
- **May 10 –** Racial Health Equity: Make Sure ALL Employees Have Access to Best Practice Obesity and Diabetes Treatment
- **May 18 -** CAA Transparency in Coverage Rules: What We Know
- **June 16 -** Benefits Leadership for a Changing World: Accept the Challenge!