

COVID19



Keeping Up with a Moving Target



CME Information

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Name of Faculty or Presenter	Reported Financial Relationship
Paul G. Auwaerter, MD, MBA, FIDSA	JNJ: Ownership equity Scientific Consulting: Verily, EMD Serono DMSB: Humanigen

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CME Information

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COVID19.dkbmed.com



Learning Objectives

- Discuss features of the B.1.351 variant



Thank You

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Please see **COVID19.DKBmed.com** for additional resources and educational activities



Paul Auwaerter, MD, MBA, FIDSA

Clinical Director, Division of Infectious Diseases

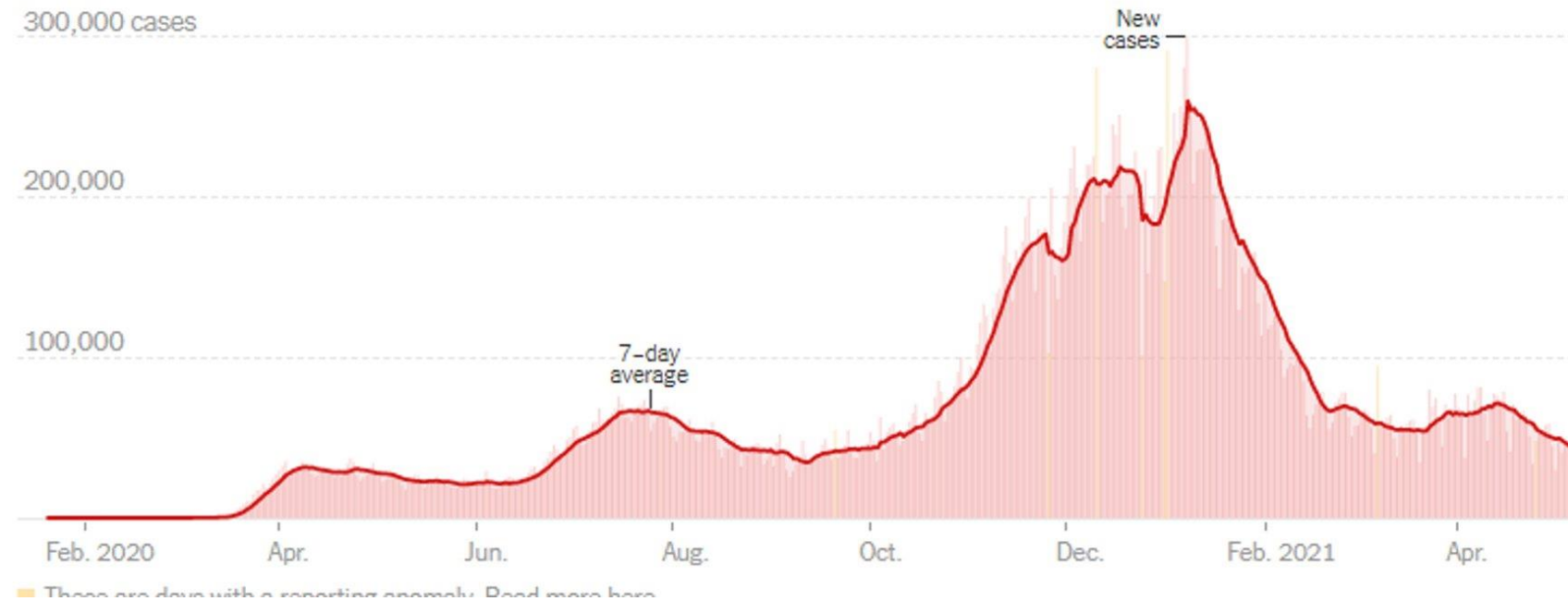
Sherrilyn and Ken Fisher Professor of Medicine

Fisher Center for Environmental Infectious Diseases

Johns Hopkins University School of Medicine

Encouraging Trends in the US

New reported cases



Vaccinations

[See more details >](#)

Fully vaccinated

35%

At least one dose

46%

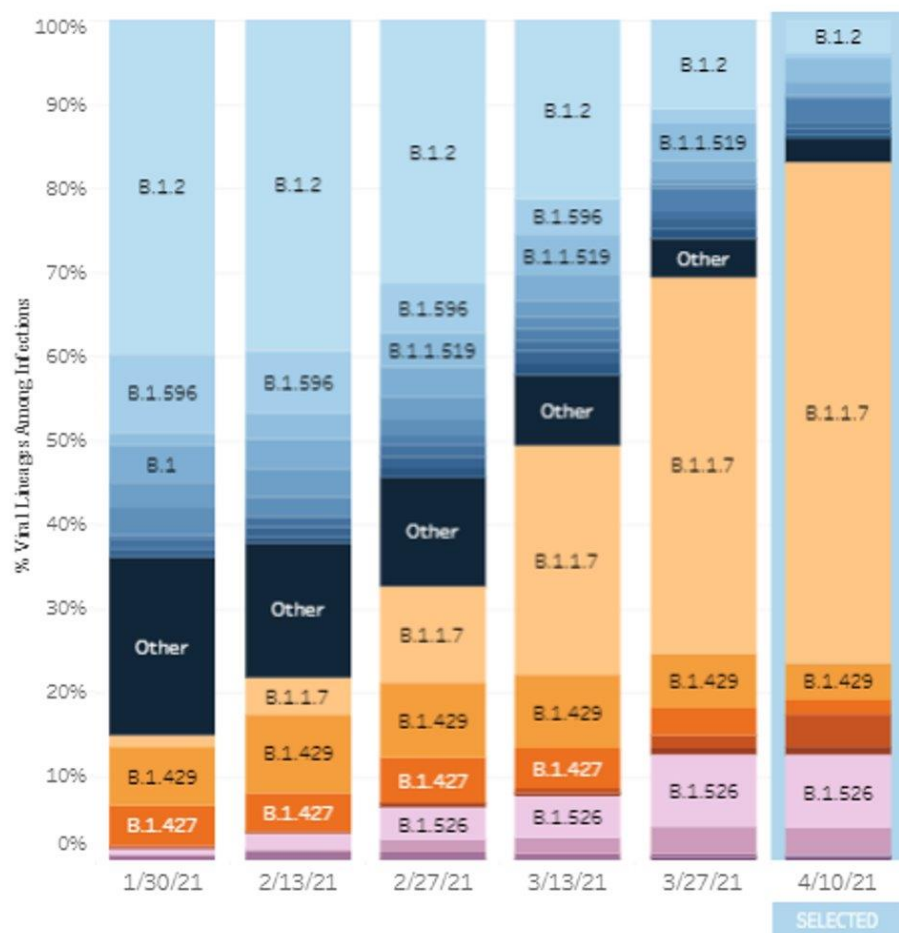
[About this data](#)

State of the virus

The Variant Picture in the US

United States: 1/17/2021 – 4/10/2021

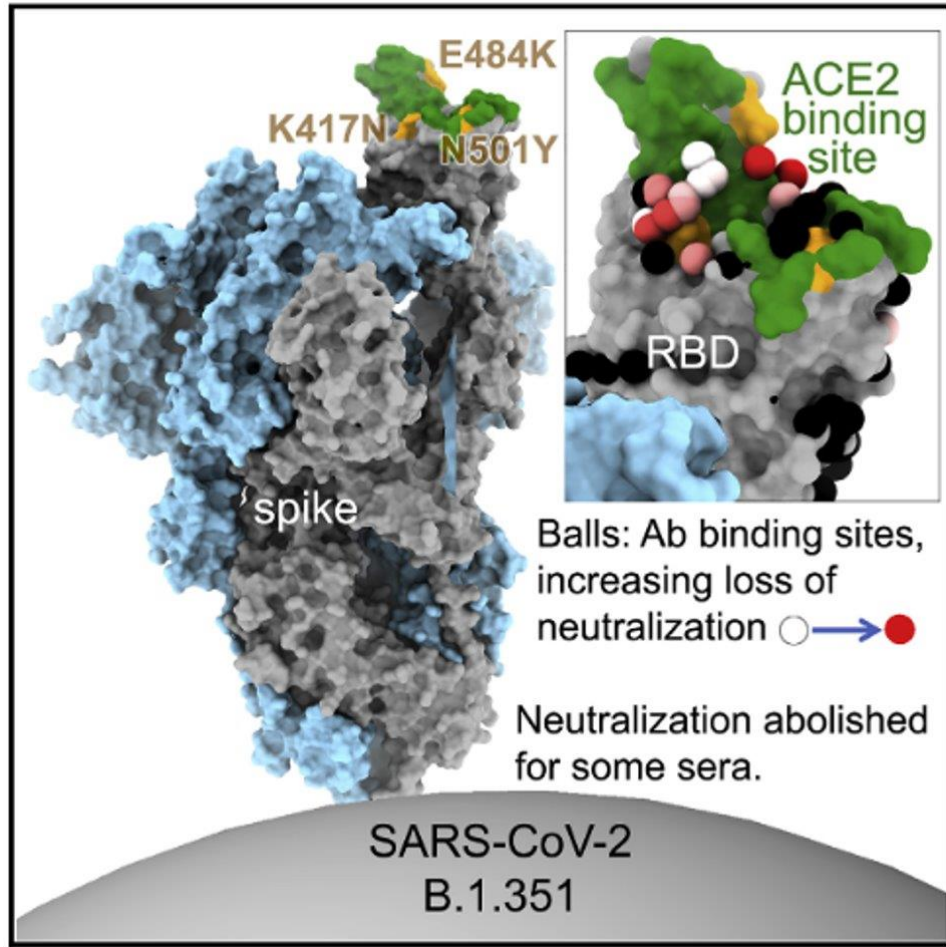
United States: 3/28/2021 – 4/10/2021



USA					
	Lineage	Type	%Total	95%CI	
Most common lineages	B.1.1.7	VOC	59.6%	56.9-62.4%	
	B.1.526	VOI	8.7%	6.9-11.0%	
	B.1.429	VOC	4.4%	3.5-5.4%	
	B.1.2		3.9%	3.4-4.5%	
	P.1	VOC	3.7%	3.0-4.5%	
	B.1.526.1	VOI	3.3%	2.7-3.9%	
	B.1.1.519		2.9%	2.4-3.5%	
	B.1.526.2		2.9%	2.3-3.5%	
	B.1.427	VOC	1.7%	1.3-2.2%	
	B.1		1.5%	1.3-1.9%	
	B.1.351	VOC	1.0%	0.8-1.3%	
	B.1.1		0.8%	0.5-1.1%	
	B.1.575		0.7%	0.5-0.9%	
	B.1.596		0.5%	0.4-0.6%	
	R.1		0.5%	0.4-0.6%	
	B.1.243		0.2%	0.2-0.4%	
	B.1.234		0.2%	0.1-0.3%	
Additional VOI/VOC lineages	B.1.525	VOI	0.4%	0.3-0.6%	
	P.2	VOI	0.1%	0.1-0.2%	
	Other*		2.9%	2.5-3.3%	

* Other represents >200 additional lineages, which are each circulating a <1% of viruses

Variant B.1.351—Why is it Successful?



- E484K + N501Y mutations increase ~ 20x ACE2 affinity
 - Higher transmissibility
- Plasma from Wuhan infection or B.1.1.7 have trouble neutralizing
- Vaccine neutralizing ab titers—8-9x reduction
 - Pfizer
 - Wild type = 1105
 - B.1.351 = 146
 - Astra-Zeneca
 - Wild type = 306
 - B.1.351 = 34

Additional Age Group for Pfizer/BioNTech Vaccine

FDA NEWS RELEASE

Coronavirus (COVID-19) Update: FDA Authorizes Pfizer-BioNTech COVID-19 Vaccine for Emergency Use in Adolescents in Another Important Action in Fight Against Pandemic



For Immediate Release: May 10, 2021

- 2260 in placebo-controlled trial, ages 12-15 yrs
- Side effects: similar to those in 16-24 yrs
 - Local reactions predominate
 - Higher after second dose
- Efficacy: 100% effective
 - Vaccine: 0/1005
 - Placebo: 16/978

Do we still need to wear masks & socially distance?

What You Can Start to Do



If you've been fully vaccinated:

- You can gather indoors with fully vaccinated people without wearing a mask or staying 6 feet apart.
- You can gather indoors with unvaccinated people of any age from one other household (for example, visiting with relatives who all live together) without masks or staying 6 feet apart, unless any of those people or anyone they live with has an [increased risk for severe illness from COVID-19](#).
- You can gather or conduct activities outdoors **without** wearing a mask except in certain crowded settings and venues.
- If you [travel in the United States](#), you do not need to get tested before or after travel or self-quarantine after travel.

Continue with Mask Wear/Distancing

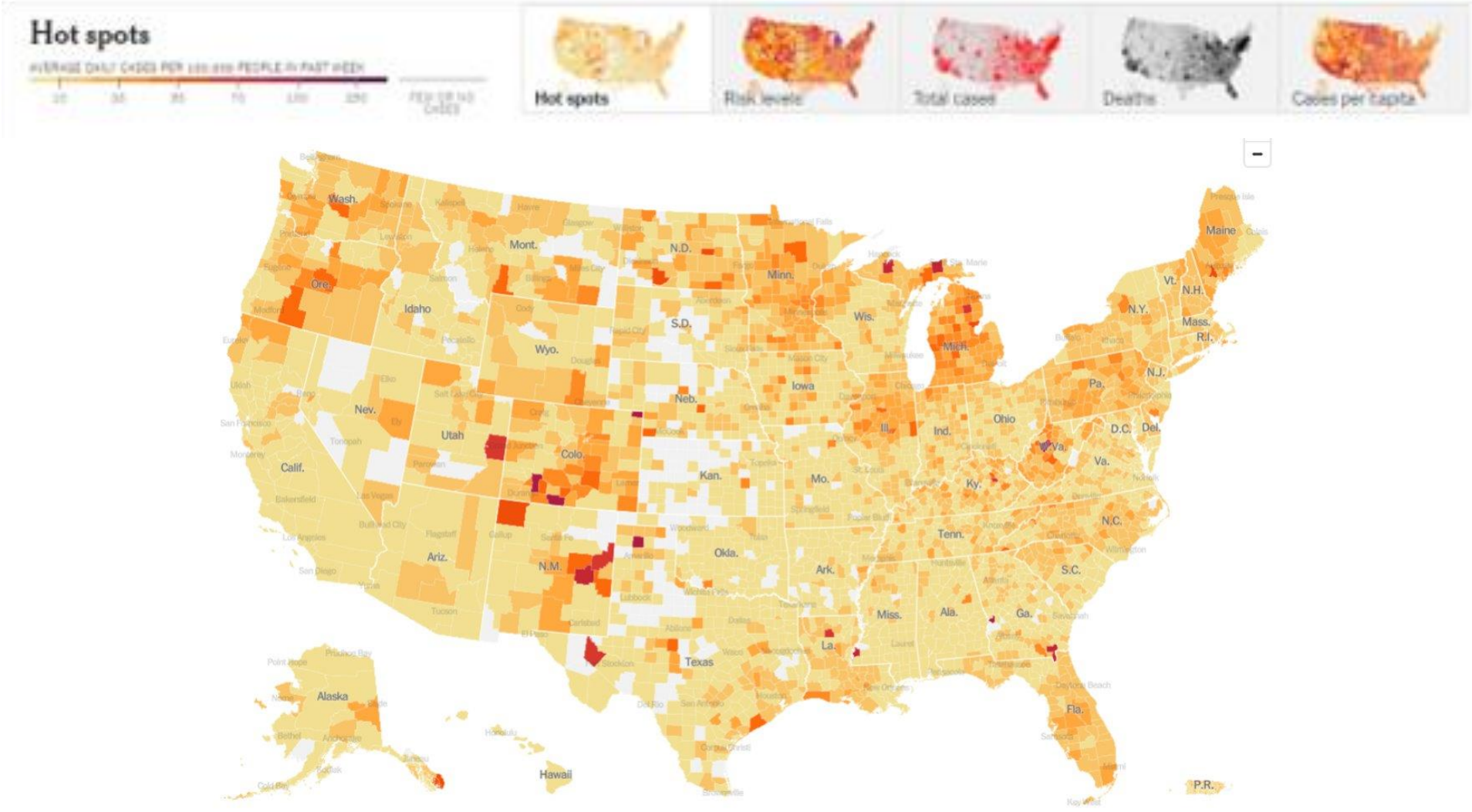
What You Should Keep Doing



For now, if you've been fully vaccinated:

- You should still protect yourself and others in many situations by wearing a mask that fits snugly against the sides of your face and doesn't have gaps. Take this precaution whenever you are:
 - In indoor public settings
 - Gathering indoors with unvaccinated people (including children) from more than one other household
 - Visiting indoors with an unvaccinated person who is at increased risk of severe illness or death from COVID-19 or who lives with a person at increased risk
- You should still avoid indoor large gatherings.

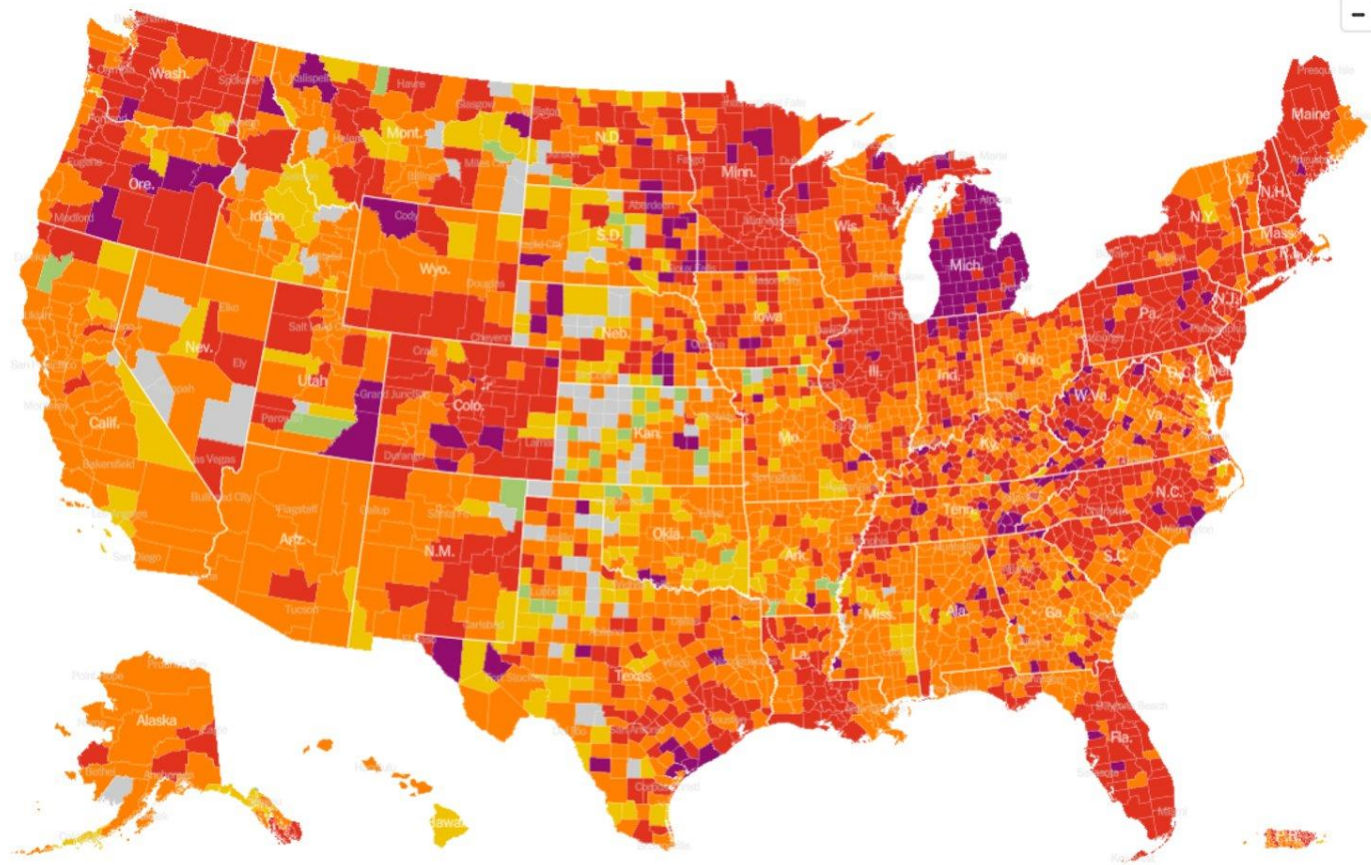
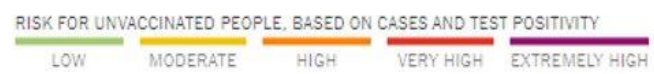
SARS-CoV-2 Hotspots in the US



NYT 5/11/21

SARS-CoV-2 Risk Assessment Map

Risk levels

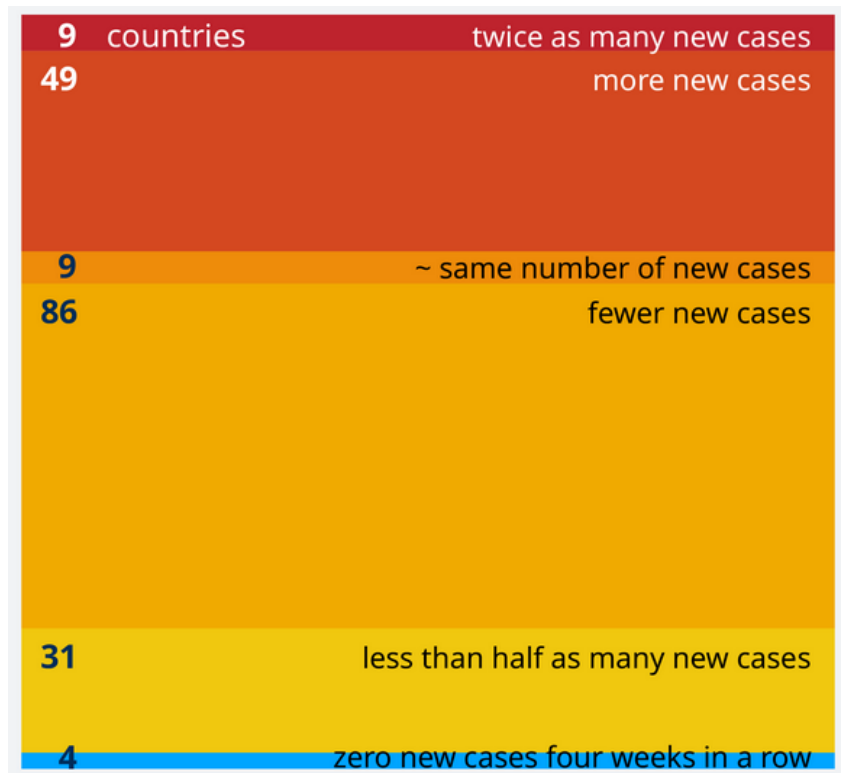


Risk if unvaccinated

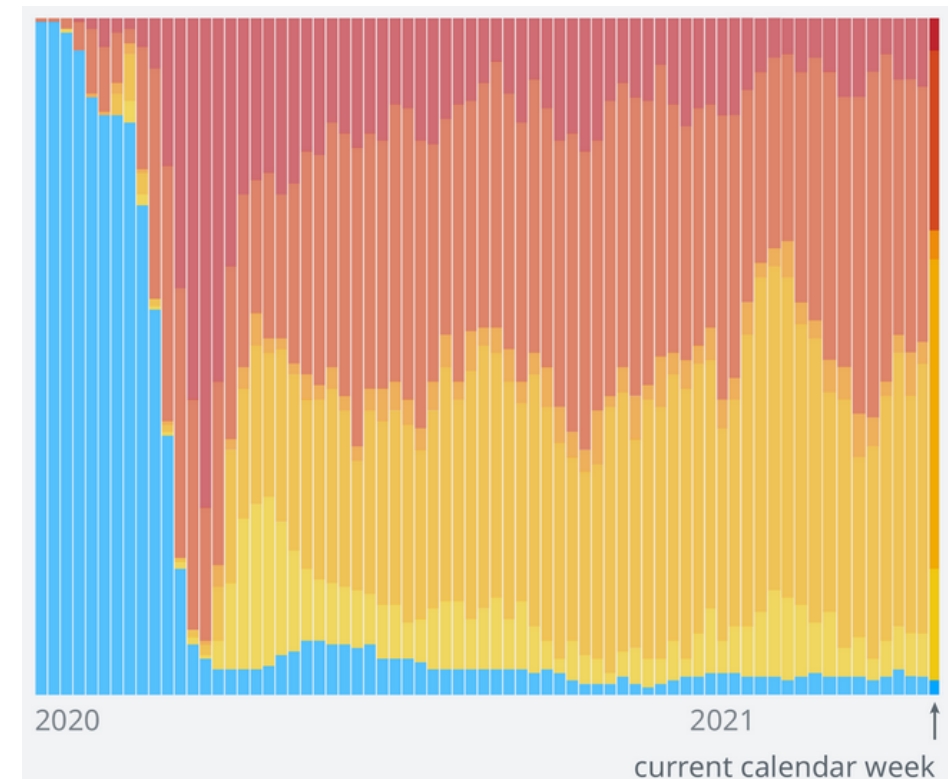
Based on cases
& test positivity

Globally, COVID-19 Increasing in Many Countries

58 Countries with increasing cases - 5/7/2021



Global case trend





To submit your own question, please email QA@dkbmed.com



What do you think will be the threshold that will allow relaxation of indoor masking requirements?



Can you provide some clarity on which patients are appropriate for tocilizumab? We have seen it used more in the recent weeks.



Thank You!

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Complete the evaluation on at COVID19.DKBmed.com

Upon registering and successfully completing the activity evaluation, you will have immediate access to your certificate.

To access more resources related to COVID-19:

- Access our resource hub at COVID19.DKBmed.com

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- QA@dkbmed.com