

VISTAGE

COVID-19: What's next for businesses?

Presented by: Dr. Paul Auwaerter,

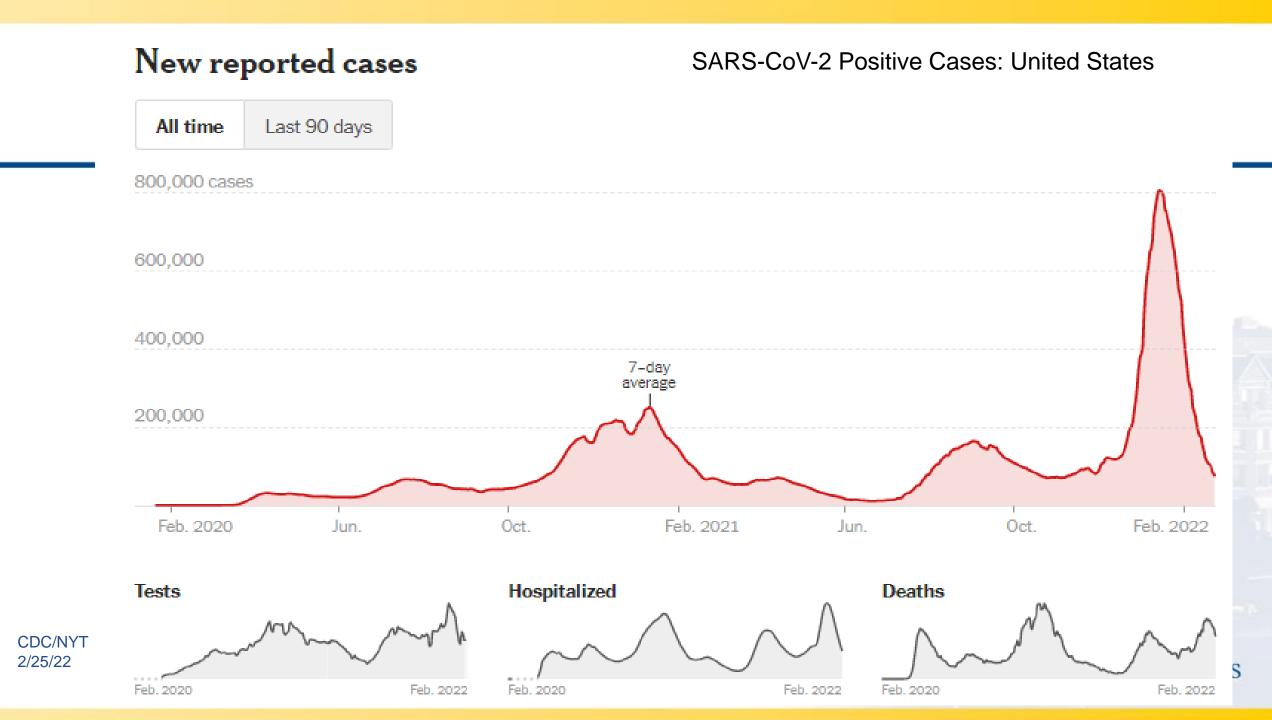
Professor of medicine at the Johns Hopkins University School of Medicine, Clinical director of Division of Infectious Diseases



And Prevention of Infection and Severe Illness by Vaccine

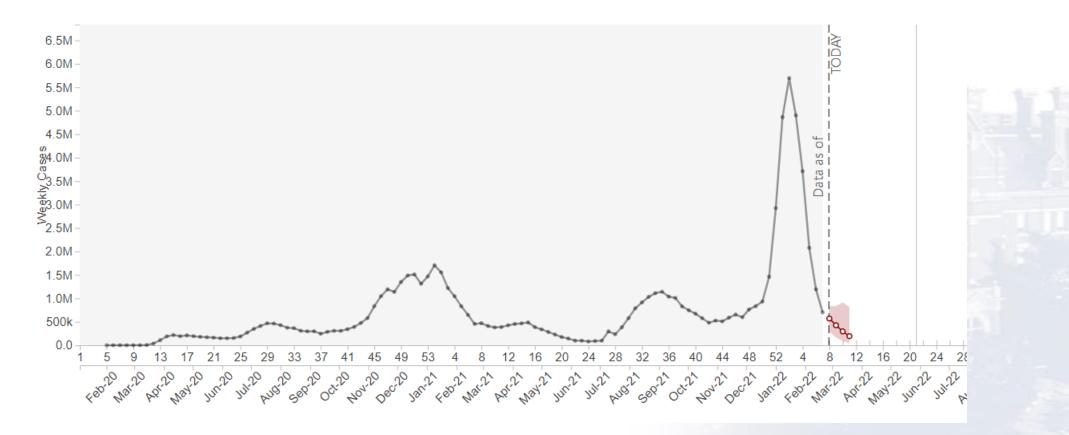
PANDEMIC UPDATE

February 28, 2022



"One-Month" COVID-19 Forecast

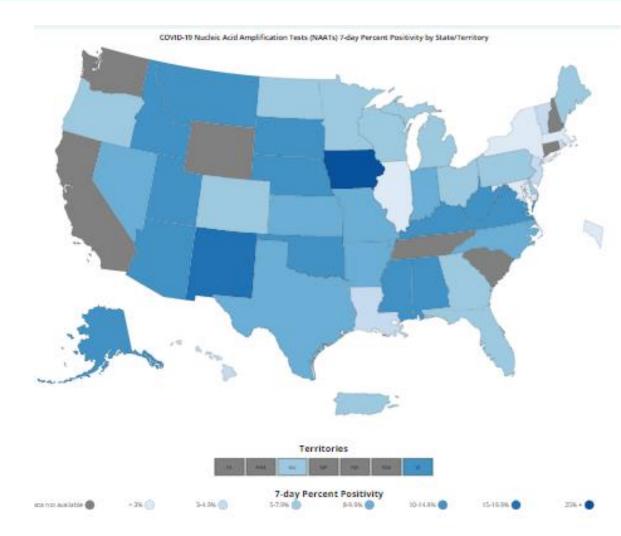
Observed and forecasted weekly COVID-19 cases in the United States



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CDC 2/25/22

Positive Cases Weekly: Need to Know Your Local Situation



Many States, Localities Dropping Mitigation Measures

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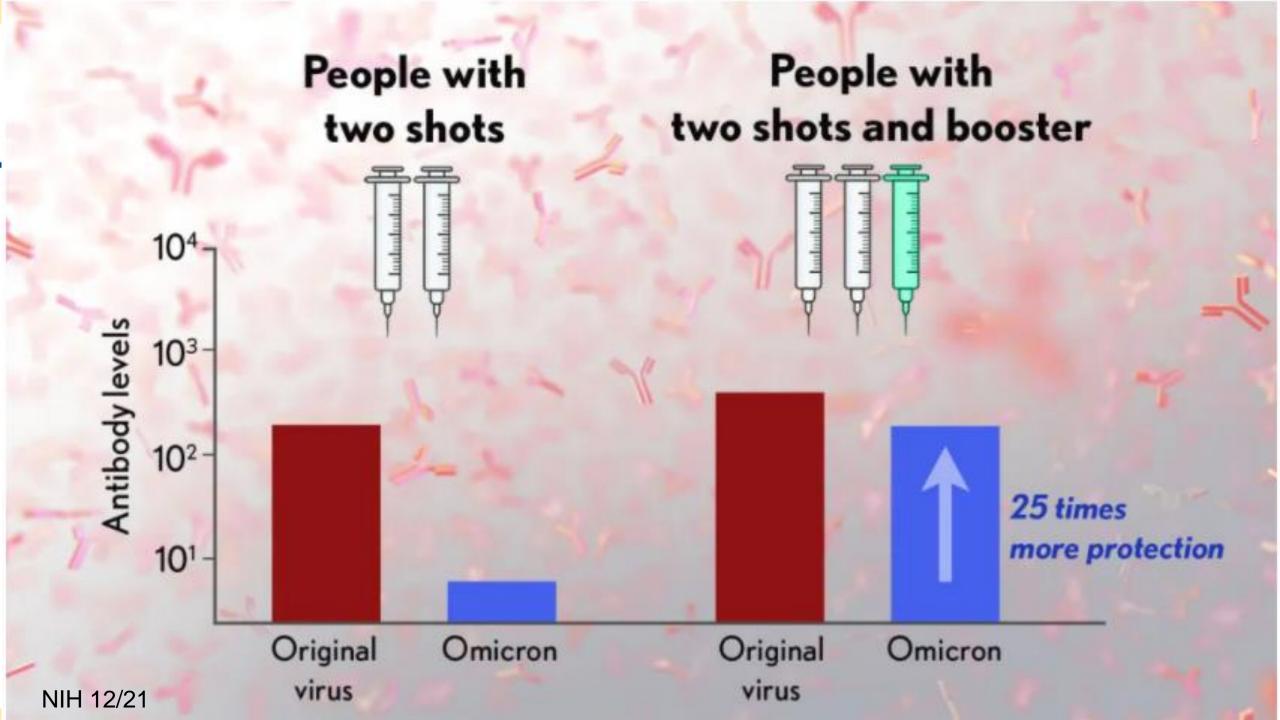
Regardless of Local Rates

CDC, February 28, 2022

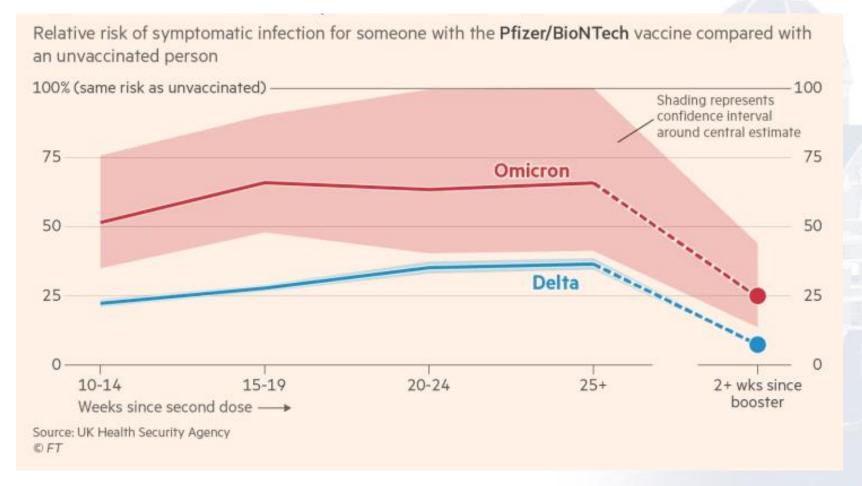


Disease severity by age and comorbidities

18-39 Years 1.0 2.2 40-49 Years Age Groups 4.3 **50-64 Years** 65-74 Years 6.7 75-84 Years 8.5 85+Years 10.6 -- Obesity 1.3 **Diabetes with Complication** 1.3 **Chronic Kidney Disease** 1.2 **Chronic Obstructive Pulmonary** 1.2 **Disease and Bronchiectasis Neurocognitive Disorders** 1.2 Kompaniyets L, Pennington AF, et al. Underlying Medical **Coronary Atherosclerosis and Conditions and Severe Illness Among 540,667 Adults** 1.1 Other Heart Disease Hospitalized With COVID-19, March 2020–March 2021

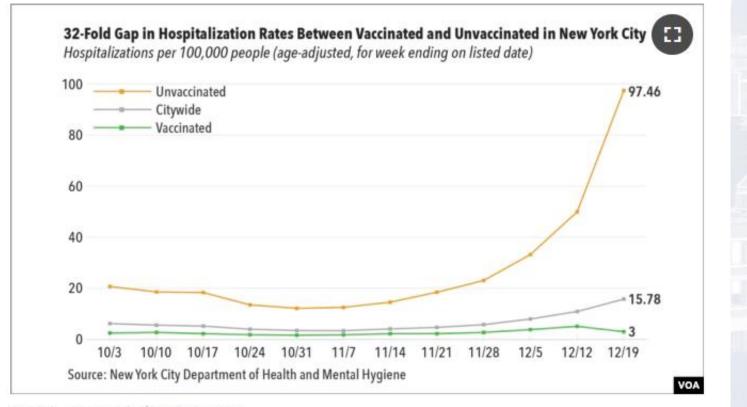


Boosters Have Helped Prevention Infection and Illness



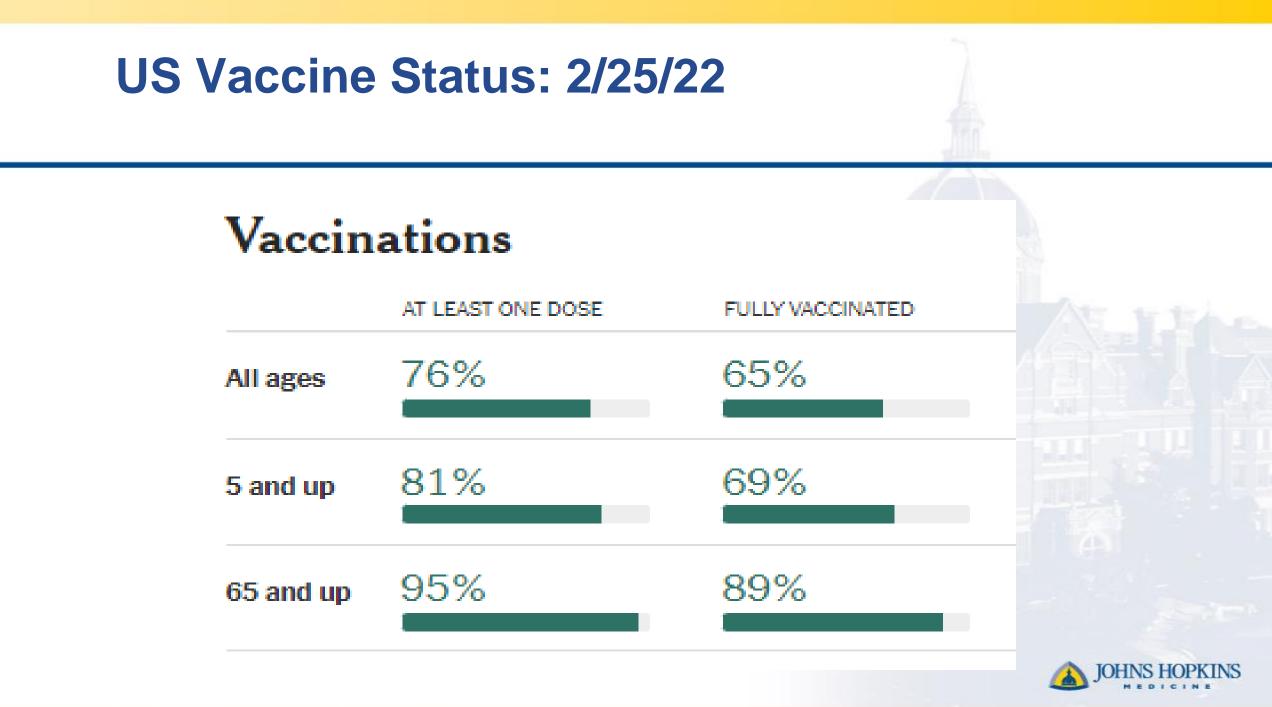


Impact of Vaccination and Boosting



COVID-19 Hospitalization Rates

JOHI



Total Vaccine Doses	At Least One Dose Fully	Vaccinated Booster Doses	Booster Eligible***	
Delivered 655,282,365	Fully Vaccinated* People with a Booster Dose**	Count	Percent of Fully Vaccinated*	
Administered 531,864,871 Learn more about the <u>distribution of vaccines</u> .	Total	82,450,772	39.3%	
209.8M	Population ≥ 18 Years of Age	80,724,136	42.4%	
People fully vaccinated	Population ≥ 50 Years of Age	53,148,448	53.9%	
82.5M People received a booster dose**	Population ≥ 65 Years of Age	30,194,294	62.5%	

The percent of the population coverage metrics are capped at 95%. Learn how CDC estimates vaccination coverage.

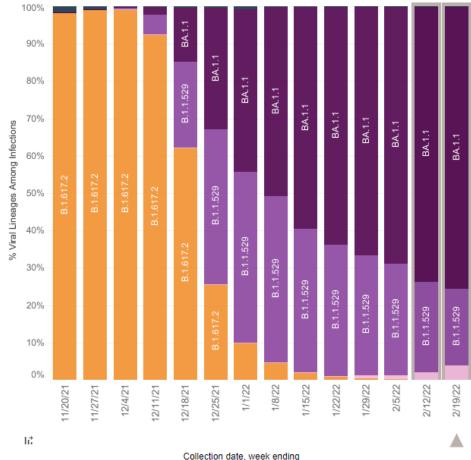
*For surveillance purposes, COVID Data Tracker counts people as being "fully vaccinated" if they received two doses on different days (regardless of time interval) of the two-dose mRNA series or received one dose of a single-dose vaccine.

**The count and percentage of people who received a booster dose includes anyone who is fully vaccinated and has received another dose

Current Variants: US through 2/19/22

United States: 11/14/2021 – 2/19/2022

United States: 2/13/2022 - 2/19/2022 NOWCAST



USA									
WHO label	Lineage #	US Class	%Total	95%PI					
Omicron	BA.1.1	VOC	75.6%	71.1-79.7%					
	B.1.1.529	VOC	20.6%	16.7-25.1%					
	BA.2	VOC	3.8%	3.0-4.8%					
Delta	B.1.617.2	VOC	0.0%	0.0-0.0%					
Other	Other*		0.0%	0.0-0.0%					

* 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 and BA.3 are aggregated with B.1.1.529. For regional data, BA.1.1 is also aggregated with B.1.1.529, as it currently cannot be reliably called in each region.





Potential Issues with Omicron subvariant BA.2

- Derived from Omicron
- BA .2 has ~28 mutations in spike protein
 - 20 are different from Omicron
 - Other than by sequencing, cannot readily differentiate by available testing
- Has quickly spread worldwide
 - May be more contagious
 - Mixed information regarding if more severe
 - Vaccination protects

IMMUNIZATION CHANGES



Vaccine Primary Series Most Children (≥ 5 yrs) and Adults



Vaccine Administration

	Pfizer-BioNTech			Moderna	Janssen	
	Ages 5 through 11 years (orange cap)	Ages 12 years and older (purple cap)	Ages 12 years and older (gray cap)	Ages 18 years and older	Ages 18 years and older	
Type of Vaccine		mRNA	mRNA	Viral vector		
Primary Series Schedule [‡]		21 days; both doses mu ne formulations for recip	2 doses, separated by 28 days; both doses must be Moderna vaccine	1 dose An mRNA COVID-19 vaccine series is preferred over Janssen vaccine for primary vaccination.		



Boosters for Some Children and Most Adults

	Pfizer-BioNTech		Moderna	Janssen		
	Ages 5 through 11 years (orange cap)	Ages 12 years and older (purple cap)	Ages 12 years and older (gray cap)	Ages 18 years and older	Ages 18 years and older	
Booster Schedule	Not authorized for this age group.	Vaccine as the prima receive a booster do after the Janssen vac Persons who are mo immunocompromise primary dose of Jans and an additional mi receive a booster do after receiving the m Use of heterologous booster doses is allo 18 years of age and o	ine primary series e or the additional tely and severely d persons) d a Janssen COVID-19 my series should se at least 2 months ccine. derately or severely ed and received a isen COVID-19 Vaccine RNA vaccine, should se at least 2 months iRNA vaccine. (mix and match) wed for persons older. Only a Pfizer- ould be administered	At least 5 months after the last dose of a COVID-19 mRNA vaccine primary series (i.e., after the 2nd dose or the additional [3rd] dose for moderately and severely immunocompromised persons) • Persons who received a Janssen COVID-19 Vaccine as the primary series should receive a booster dose at least 2 months after the Janssen vaccine. • Persons who are moderately or severely immunocompromised and received a primary dose of Janssen COVID-19 Vaccine and an additional mRNA vaccine, should receive a booster dose at least 2 months after receiving the mRNA vaccine. • Use of heterologous (mix and match) booster doses is allowed for persons 18 years of age and older.	 mRNA vaccines are preferred¹ At least 2 months (8 weeks) after the primary series dose of Janssen COVID-19 Vaccine. Persons who are moderately or severely immunocompromised and received a primary dose of Janssen COVID-19 Vaccine and an additional mRNA vaccine, should receive a booster dose at least 2 months after receiving the mRNA vaccine. Persons who received a COVID-19 mRNA vaccine and the mRNA vaccine. Persons who received a COVID-19 mRNA vaccine primary series (i.e., after the 2nd dose or the additional [3rd] dose for moderately and severely immunocompromised persons) can receive a Janssen booster dose at least 5 months after the primary series. mRNA vaccines are preferred. Use of heterologous (mix and match) booster doses is allowed. mRNA vaccines are preferred. 	

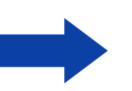


Booster Interval Change Severely Immunocompromised

Revised Guidance for a 3-Month Booster Interval After an mRNA COVID-19 Vaccine Primary Series

Current guidance

People who are moderately or severely immunocompromised should receive a booster dose <u>at least 5 months</u> after the last (third) dose of an mRNA COVID-19 vaccine.



Revised guidance

People who are moderately or severely immunocompromised should receive a booster dose <u>at least 3 months</u> after the last (third) dose of an mRNA COVID-19 vaccine.

CDC

- 1. Kamar, N., Abravanel, F., Martion, O. (2021). Assessment of 4 Doses of SARS-CoV-2 Messenger RNA–Based Vaccine in Recipients of a Solid Organ Transplant. Infectious Diseases, 4(11), e2136030.
- Benotmane, I., Bruel, T., Planas, D., et al. (2021). A fourth dose of the mRNA-1273 SARS-CoV-2 vaccine improves serum neutralization against the delta variant in kidney transplant recipients. medRxiv. Preprint. doi.org/10.1101/2021.11.25.21266704
- 3. Alejo, J.L., Mitchell, J., Chiang, T., et al. (2021). Antibody Response to a Fourth Dose of a SARS-CoV-2 Vaccine in Solid Organ Transplant Recipients: A Case Series. Transplantation, 105(12), e280-281.
- 4. Munro, A., Janani, L., Cornelius, V. (2021). Safety and immunogenicity of seven COVID-19 vaccines as a third dose (booster) following two doses of ChAdOx1 nCov-19 or BNT162b2 in the UK (COV-BOOST): a blinded, multicentre, randomised, controlled, phase 2 trial. *Lancet*, 398, 2258-76.
- 5. Atmar, R.L., Lyke, K.E., Deming, M.E. (2021). Heterologous SARS-CoV-2 booster vaccinations-preliminary report. medRxiv. Preprint. doi: 10.1101/2021.10.10.21264827

Vaccination Schedule for Immunocompromised

<u>REVISED</u> COVID-19 Vaccination Schedule for People Who</u> Are Moderately or Severely Immunocompromised

Vaccine	Vaccination Schedule											
Pfizer-	1 st dose		2 nd		3rd				Boos	ter		
BioNTech			dose		dose				dose	*		
(ages 5 years			(21 days		(at leas				(at lea			
and older)			after		28 days	5			month			
-			1 st dose)		after 2nd dos	(a)			after 3 dose)	rd		
					2110 005	50)			uose)			
Moderna	1 st dose		2 nd		3	rd				Booster		
(ages 18 years			dose		c	lose				dose*		
and older)			(28 da	iys	(a	(at least				(at least 3		
-			after			8 days				months		
			1 st do	se)		fter				after 3rd		
					2	nd dose)				dose)		
Janssen	1 st dose		Additi				Booster					
(ages 18 years			dose† (at lea				dose*					
and older)			28 day				(at least 2					
			after	-			months					CDC
			1 st dos	ie)			after additional					
							dose)					

*Any COVID-19 vaccine can be used for the booster dose in people ages 18 years and older, though mRNA vaccines are preferred. For people ages 12–17 years, only Pfizer-BioNTech can be used. People ages 5–11 years should not receive a booster dose.

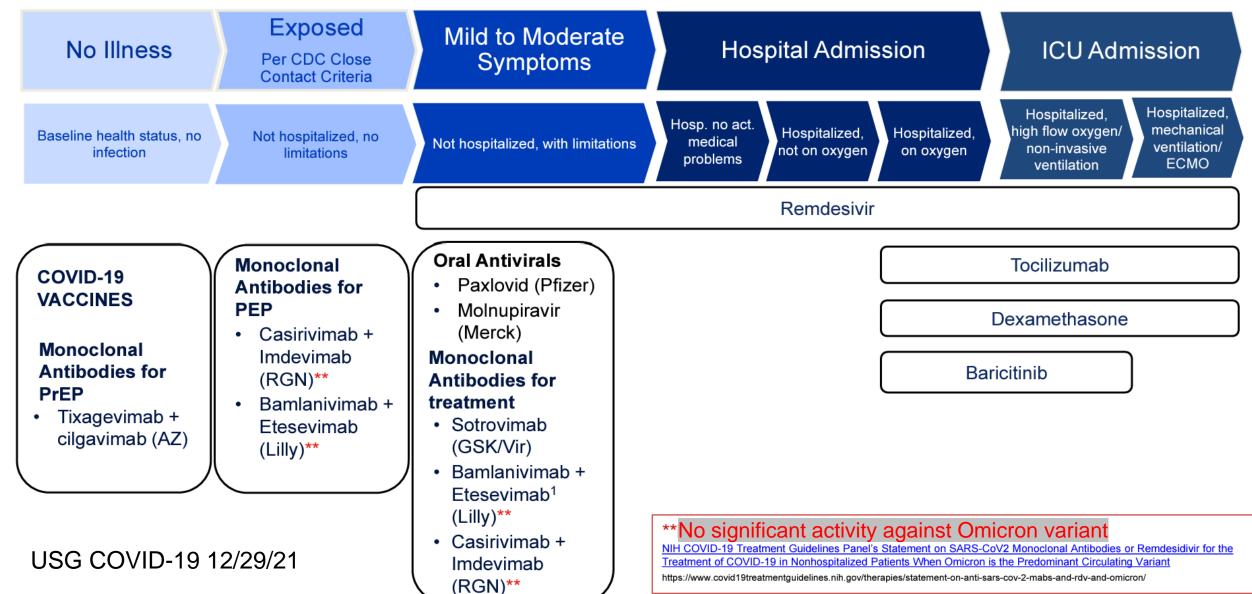
[†]Only Pfizer-BioNTech or Moderna COVID-19 Vaccine should be used

Improving access to potentially life-saving drugs

NEW THERAPIES



Summary of COVID-19 Preventative Agents & Therapeutics



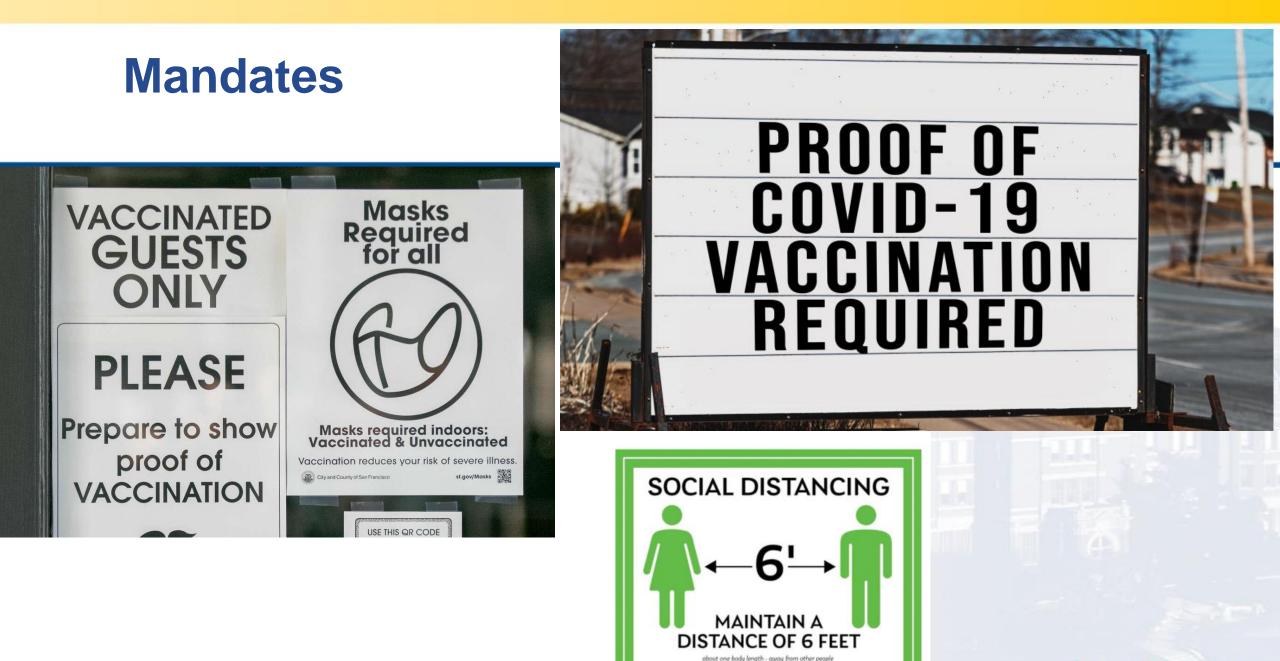
NIH Recommendations Outpatient Therapies of COVID-19

Prevention of Hospitalization or Death* Green: Highly effective Orange: Less effective

Nonhospitalized with mild to moderate COVID-19, but at high risk of progression

- 1. Nirmatrelvir/ritonavir (Paxlovid)
 - Many drug interactions
- 2. Sotrovimab or Bebtelovimab (monoclonal antibodies)
 - Single IV infusion
- 3. Remdesivir
 - Three day IV infusions
- 4. Molnupiravir
 - Pregnancy risk





February 28, 2022



Covid: England ending isolation laws and mass free testing

By Mary O'Connor BBC News

③ 3 days ago | ₽ Comments





Boris Johnson has announced the end of coronavirus restrictions in England

All Covid restrictions will end in England on Thursday and free mass testing will stop from 1 April.

February 28, 2022



Guidance

COVID-19 俞 Your Health Cases & Data Work & School Healthcare Workers Health Depts Vaccines Science More Community, Work, & School Workplaces and Businesses Plan, Prepare, and Respond Health Equity – Promoting Fair + Access to Health Updated Oct. 18, 2021 Languages • Print Cleaning, Disinfecting, & Ventilation Workplace Prevention Strategies Workplaces & Businesses To prevent and reduce transmission and maintain healthy business operations in non-healthcare workplaces Workplace Vaccination Program CDC has archived several workplace-related guidance documents, factsheets, and toolkits. The Occupational Safety and Health Administration (OSHA) provides resources to prevent COVID-19 exposure and infection in the workplace. Post Vaccine Considerations for For the most current requirements, guidance, and tools, see OSHA COVID-19 Resources 2. Workplaces Testing in Non-Healthcare Vaccination Health and Safety Practices Workplaces **Consent Elements and Disclosures** for Workplace Testing Workplace Vaccination Program Types of Masks and Respirators Contact Tracing in Non-Healthcare Post-vaccination Considerations for Ventilation in Buildings Workplaces Workplaces Cleaning and Disinfecting Specific Industries Vaccines for COVID-19 Investigating and responding to COVID-19 cases in non-healthcare Testing and Contact Tracing work settings Schools, Child Care, and Colleges + COVID-19 Testing Retirement & Shared Housing Consent Elements and Disclosures for Workplace Testing Homeless Populations

OSHA

CDC

CDC https://www.cdc.gov/coronavirus/2019-ncov/community/workplaces-businesses/index.html



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IOHNS HOP



Occupational Safety and Health Administration

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OSHA V STANDARDS V ENFORCEMENT TOPICS V HELP AND RESOURCES V NEWS V

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Home / Coronavirus Disease (COVID-19)

Coronavirus Disease (COVID-19)



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OSHA Requirements

Regulations

Emergency Temporary Standards

Vaccination and Testing

UPDATED 1/26/22

Guidance

For Everyone

 Mitigating and Preventing the Spread of COVID-19 in the Workplace
 UPDATED 8/13/21

Highlights and Tools

Vaccines.gov

CDC Coronavirus (COVID-19) Page CDC Workplaces and Businesses Page Job Accommodation Network (COVID-19)



EMERGENCY TEMPORARY STANDARD

COVID-19 Vaccination and Testing ETS



Statement on the Status of the OSHA COVID-19 Vaccination and Testing ETS

(January 25, 2022)

The U.S. Department of Labor's Occupational Safety and Health Administration is withdrawing the vaccination and testing emergency temporary standard issued on Nov. 5, 2021, to protect unvaccinated employees of large employers with 100 or more employees from workplace exposure to coronavirus. The withdrawal is effective January 26, 2022.

Although OSHA is withdrawing the vaccination and testing ETS as an enforceable emergency temporary standard, the agency is not withdrawing the ETS as a proposed rule. The agency is prioritizing its resources to focus on finalizing a permanent COVID-19 Healthcare Standard.

OSHA strongly encourages vaccination of workers against the continuing dangers posed by COVID-19 in the workplace.

How Should Individuals and Businesses Face COVID-19 Moving Ahead?

- Know your community rates and emerging variants
 Consider revising or reimplementing protective measures
- Promote immunization
- Enhance ventilation in workspaces (at least 4 exchanges/hr)
- At risk for severe disease (immunocompromised) and probable poor response to vaccine
 - Continue mitigation strategies (facemask, testing)
 - Most infection acquired at home not work



3 COVID-driven Issues Facing Businesses

- Harder to return to normal operations than institute crisis changes
 - Remote work, for some (medically-driven)?
 - Handwashing always a good idea
- Health and vaccination policies
 - Emphasize health and safety of employees
- Burnout
 - Employee mental health is worse
 - Support systems
 - Retention concerns; increased stressors on those who remain; labor shortage



Future Trends?

- Better medications to treat COVID-19
 - Oral and effective if used early
 - Moving from emergency use to full FDA approval
- Home testing for respiratory illness
 - Here to stay? Facilitates early diagnosis to obtain medications
- Vaccines
 - Probable update of vaccine component for new variants
 - Likely for older adults and those who are immunosuppressed
 - Unclear if additional boosters or updated vaccines needed for all



Questions