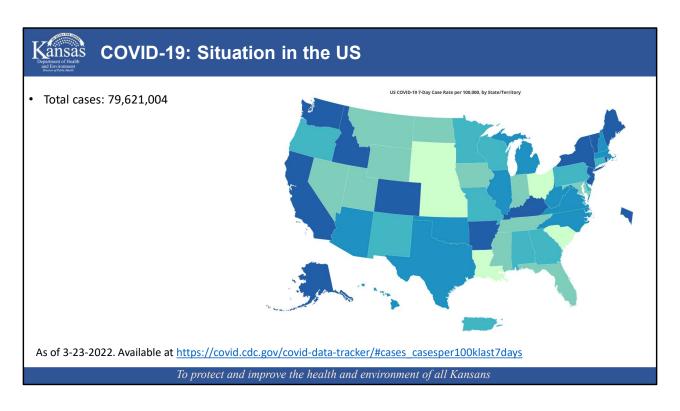




Global Map: https://covid.cdc.gov/covid-data-tracker/#global-counts-rates.

This week, there are almost 475 million cases and there are 6,102,232 deaths around the world.

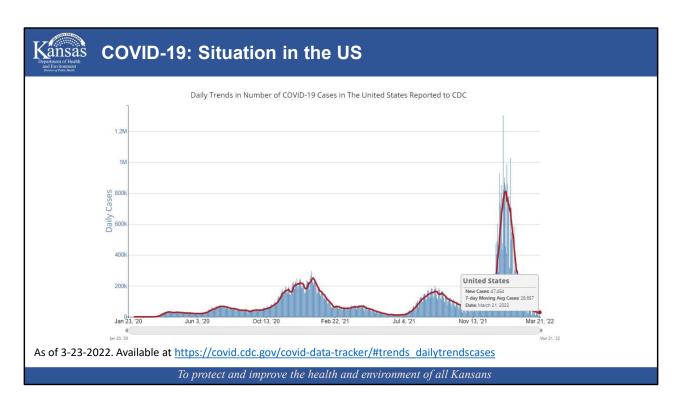


Last week:

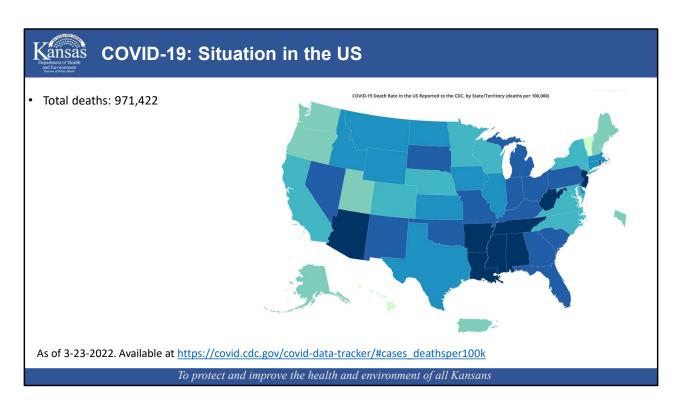
Total cases: 79,445,322 (over 79 million)

As of yesterday:

Total cases: 79,621,004



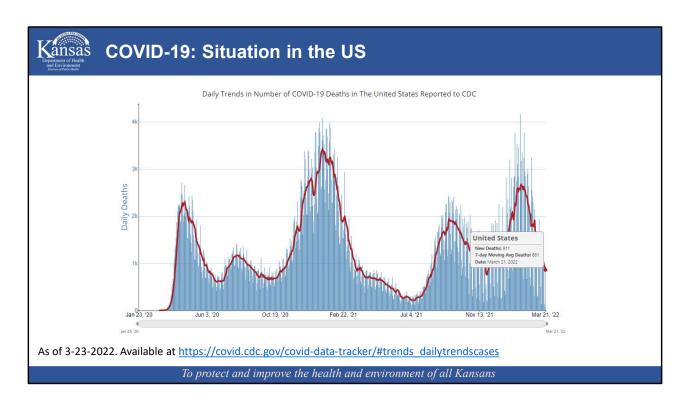
The 7 day average number of cases in the US is 28,657 cases per day. That is down slightly from about 30,934 cases per day last week.



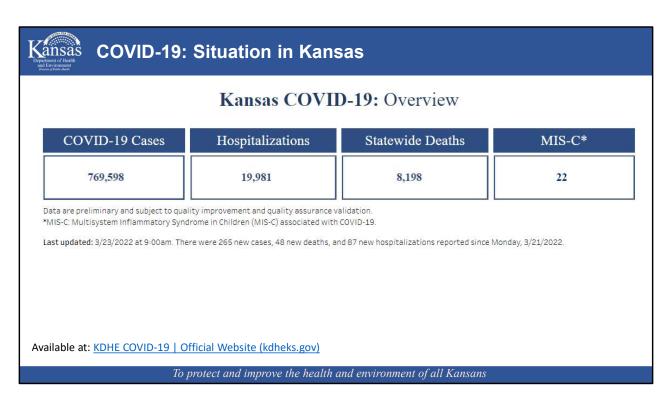
Last week:

Total deaths since the beginning of the pandemic: 964,831

As of yesterday: 971,422

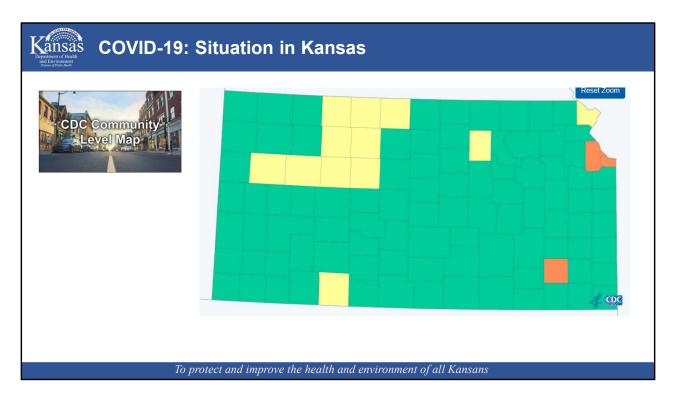


The 7 day average number of deaths in the US is 861 deaths per day which is down from last week at 1,107.



As of yesterday, in Kansas, we had 769,598 cases and 8,198 deaths statewide. That's an increase of 552 cases and 110 deaths reported since last week.

There were 265 new cases and 48 new deaths reported between Monday 3/21/2022 and Wednesday 3/23/2022.

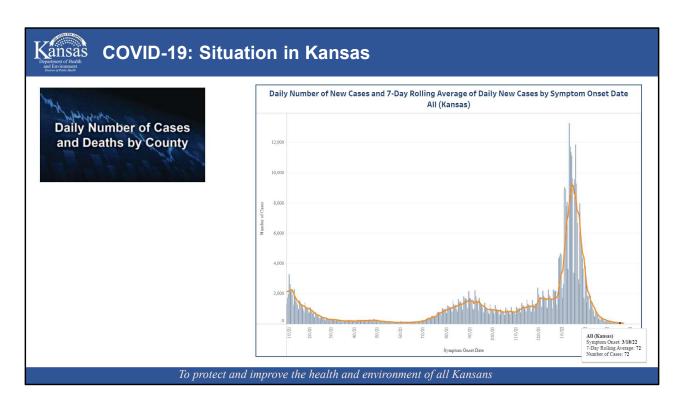


Looking at CDC's COVID-19 Community Levels: most of the state is green (low) or yellow (medium). Wyandotte, Leavenworth and Wilson are in red which indicates high.

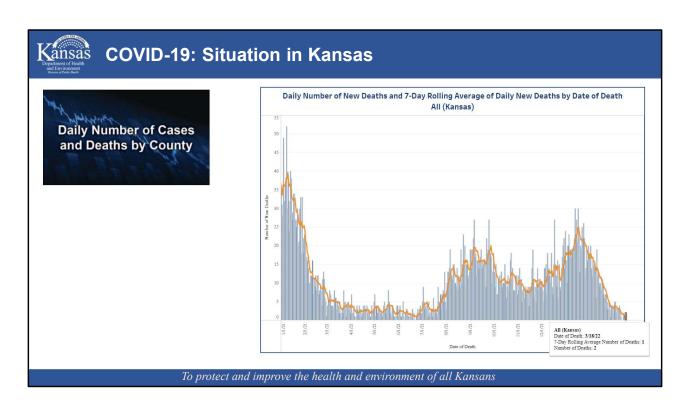
## High:

Wear a <u>mask</u> indoors in public Stay <u>up to date</u> with COVID-19 vaccines <u>Get tested</u> if you have symptoms

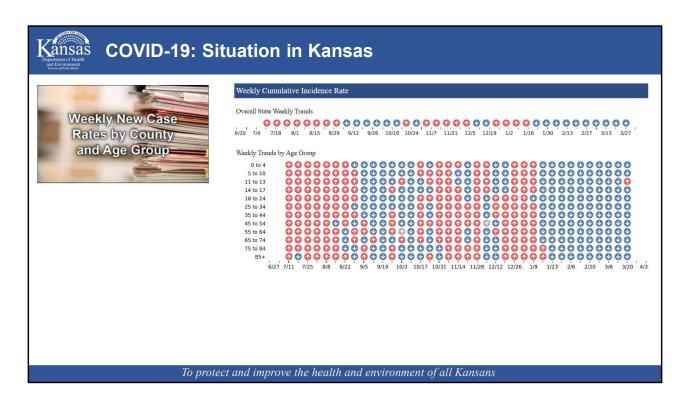
Additional precautions may be needed for people at high risk for severe illness



If you look at the 7 day average number of cases based on symptom onset date, starting with March 12 through March 18, our 7 day rolling average is 72 cases per day. Last week we were at 102 cases per day.



If you look at the 7 day average number of deaths based on the date of death, starting with March 12 through March 18, our 7 day rolling average is 1 deaths per day. Last week we were at 2 deaths per day.



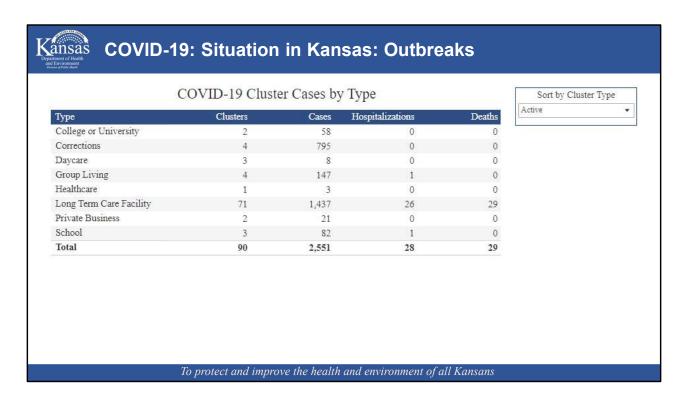
Given that in the last week New York and other NE states are starting to see an increase in cases, mostly being driven by a BA2 foothold, I wanted to remind everyone about the metric we have that shows the weekly incidence rate and the red and blue arrows which indicate whether the week over week trend is up, down or stable. You can see that, for the most part, statewide we have been on a decreasing trend for several weeks. We will want to keep a close eye on this.

Active COVID-19 Clusters					
Clusters	Cases	Hospitalizations	Deaths		
90	2,551	28	29		
All COVID-19 Clusters  Clusters Cases Hospitalizations Deaths					
3,617	59,003	2,495	2,589		

## Moving on to outbreaks:

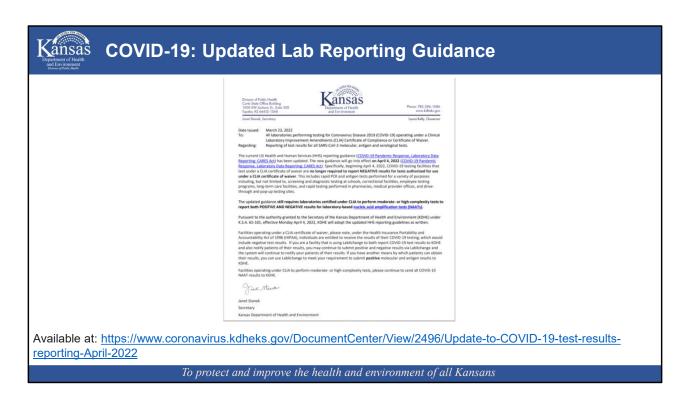
As of late Tuesday night, we had 3,617 outbreaks identified across the state (since the beginning of the pandemic). This is the same number we reported last week; we did identify 3 new outbreaks but a few outbreaks ended up being combined so the net gain ended up being 0. This week we have 90 active clusters. That is down from 133 last week.

Our percentage of outbreak related cases is 7.7%, outbreak-related hospitalizations is about 12.5% and outbreak-related deaths is about 31.6%.



We currently have 3 active outbreaks in daycares (same as last week), 4 in corrections, 4 in group living, 1 in healthcare settings, and 71 active outbreaks in LTCFs (we were at 109 last week). We also have 2 in private businesses and 3 in schools (down from 5 last week).

Don't forget, if you are interested in seeing the list of named locations with 5 or more cases within the last 14 days, you can go to the dashboard.



US HHS has updated their requirements for which COVID-19 test results are reportable effective April 4<sup>th</sup>. KDHE issued a memo on March 23<sup>rd</sup> essentially stating that we will adopt these requirements in their entirety and as written.

In short, facilities that are performing COVID testing under a CLIA certificate of waiver no longer have to report negatives to KDHE effective April 4th, they can just submit the positives. The caveat to this is, if they are using LabXchange to not only report results to KDHE but are also using it to let patients know about their results, then they can continue to use LabXchange and submit both positives and negatives so that patients continue to be notified when they are negative. However, if they have another means by which patients can get their negative results, a patient portal through their EHR system for example, then they can just use LabXchange to report positives to KDHE.

CLIA moderate and high complexity labs performing NAAT tests for COVID need to continue reporting positives and negatives so, no changes for those labs.

Kansas Co	COVID-19: New Information				
		Use and Store At-Home COVID-19 Tests Properly to Avoid Potential Harm: FDA Safety Communication  Subscribe to Email Updates			
2022	ty Communications 22 Safety Communications 21 Safety Communications	Date Issued: March 18, 2022  The U.S. Food and Drug Administration (FDA) is alerting people that there is a potential for harm if FDA authorized at-home COVID-19 tests are not used according to the manufacturer's test instructions. The FDA is also reminding people to keep the tests out of reach from children and pets.	Content current as of: 03/18/2022 Regulated Product(s) Medical Devices		
	20 Safety Communications 19 Safety Communications	FDA authorized at-home COVID-19 tests have become an important and convenient tool that people can use to check if they or a family member are currently infected with SARS-CoV-2, the virus that causes COVID-19. FDA authorized at-home COVID-19 tests are safe to use when following the test's step-by-step instructions.			
However, incorrect use of FDA authorized at-home COVID-19 tests can cause harm if, for example, the liquid solutions in the test touch a person's skin or eyes or if the parts of the test such as small vials containing the liquid solutions are swallowed. The liquid solution  Available at:					

FDA published <u>Use and Store At-Home COVID-19 Tests Properly to Avoid Potential Harm: FDA Safety Communication</u> on March 18, 2022.

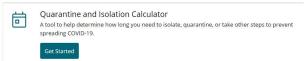
As more an more OTC tests become available, FDA is warning consumers about accidently getting the testing solutions on skin, eyes, in the mouth, etc. and warning about improper use of other parts of the test kits, like the swabs. And the safety warning to keep the kits out of reach of children.



CDC's new COVID-19 Quarantine and Isolation (Q&I) Calculator: Provides important information about what precautions people with COVID-19 and their close contacts can take to protect loved ones and slow the spread of COVID-19 in their communities.

It can be used by individuals, healthcare providers, businesses, and organizations that are managing COVID-19 cases and close contact exposures.

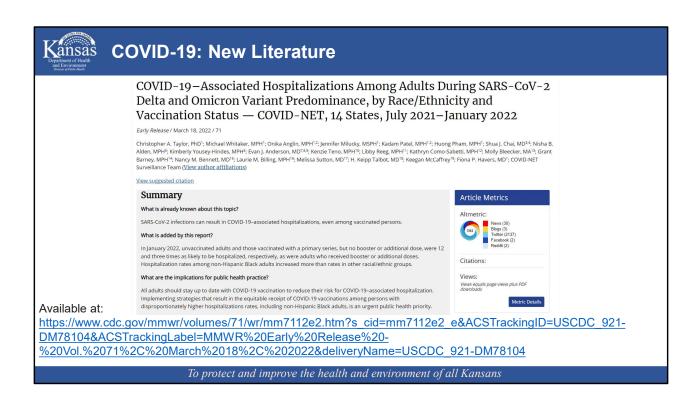
Please note that the Q&I Calculator is not for people with COVID-19 who are moderately or severely ill or those who have a weakened immune system (immunocompromised)—they should talk to their doctor about when to end isolation. In addition, this tool does not apply to cases and close contacts identified in certain settings. Parents with children in K-12 schools or early care and education (ECE) programs should consult the program administrator for specific isolation and quarantine guidance in their school or ECE setting.



Available at: https://www.cdc.gov/coronavirus/2019-ncov/your-health/quarantine-isolation.html

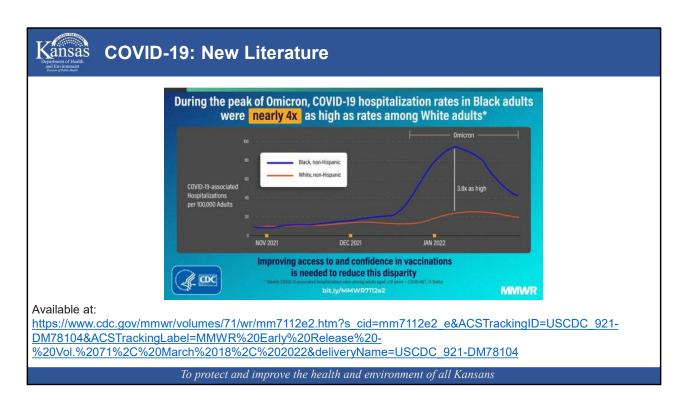
To protect and improve the health and environment of all Kansans

CDC has launched a new tool to help people calculate their isolation and quarantine periods. We have something on our websites for cases and close contacts but we were linking to one created by another state so we will update our link to go to CDC soon.

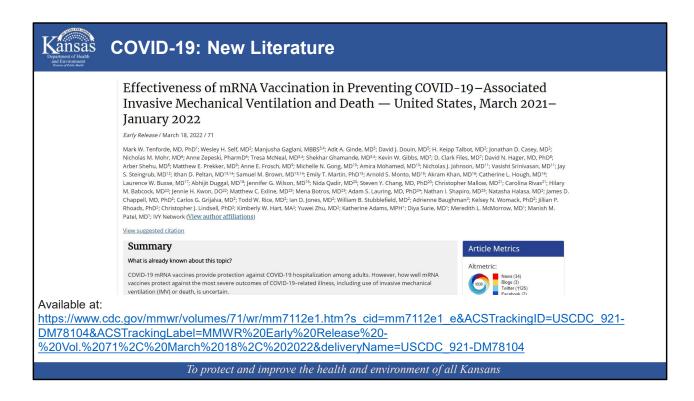


Data from the COVID-19–Associated Hospitalization Surveillance Network (COVID-NET)<sup>†</sup> were analyzed to compare COVID-19–associated hospitalization rates among adults aged ≥18 years during B.1.617.2 (Delta; July 1–December 18, 2021) and Omicron (December 19, 2021–January 31, 2022) variant predominance, overall and by race/ethnicity and vaccination status.

Hospitalization rates during peak Omicron circulation (January 2022) among unvaccinated adults remained 12 times the rates among vaccinated adults who received booster or additional doses and four times the rates among adults who received a primary series, but no booster or additional dose. The rate among adults who received a primary series, but no booster or additional dose, was three times the rate among adults who received a booster or additional dose.



During the Omicron-predominant period, peak hospitalization rates among non-Hispanic Black (Black) adults were nearly four times the rate of non-Hispanic White (White) adults and was the highest rate observed among any racial and ethnic group during the pandemic.



Using a case-control design, mRNA vaccine effectiveness (VE) against COVID-19—associated invasive mechanical ventilation and in-hospital death was evaluated among adults aged ≥18 years hospitalized at 21 U.S. medical centers during March 11, 2021—January 24, 2022. During this period, the most commonly circulating variants of SARS-CoV-2, the virus that causes COVID-19, were B.1.1.7 (Alpha), B.1.617.2 (Delta), and B.1.1.529 (Omicron).

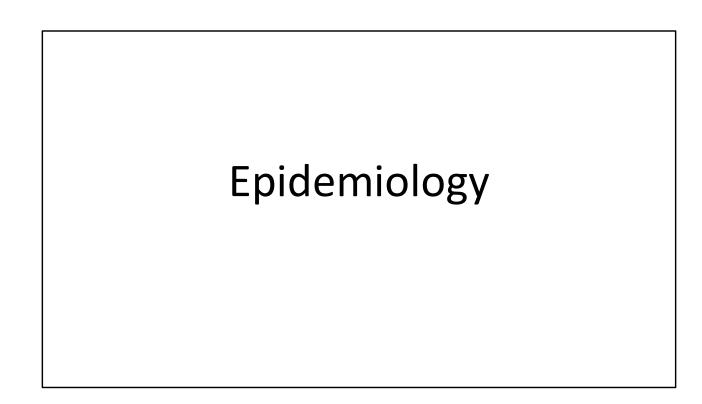
VE against IMV or in-hospital death was 90% (95% CI = 88%–91%) overall, including 88% (95% CI = 86%–90%) for 2 doses and 94% (95% CI = 91%–96%) for 3 doses, and 94% (95% CI = 88%–97%) for 3 doses during the Omicron-predominant period.



## Kansas COVID-19: Omicron Literature

- •Performing genomic surveillance on international travelers allowed for the identification of the earliest BA.2 and BA.3 entry into the USA.
- •Using Google mobility data, researchers created a model that shows that a 1 percent decrease in mobility results in a 0.63% decrease in SARS-CoV-2 incidence.
- •There were 9 additional Delta (AY.119.2) and Omicron (BA.1.1) discovered in the Mid-Atlantic states of the USA.
- •Researchers showed that S309 (parent of Sotrovimab) and AZD7442 (Evusheld) were more effective against BA.1, BA.1.1, and BA.2 in vivo in mice vs. in vitro in cell lines.
- •Two doses of Pfizer-BioNTech COVID-19 vaccine reduced the risk of Omicron infection by 31% among children aged 5–11 years and by 59% among persons aged 12–15 years.
- •In Qatar, prior infection, three doses of Pfizer or Moderna, or a combination of prior infection and vaccination were required to provide protection against BA.1 or BA.2.

To protect and improve the health and environment of all Kansans



## Early detection of SARS-CoV-2 variants using traveler-based genomic surveillance at four US airports, September 2021- January 2022

Renee D. Wegrzyn, Grace D. Appiah, Robert Morfino, Scott R. Milford, Allison Taylor Walker, Ezra T. Ernst, William W. Darrow, Siayo Lisa Li, Keith Robison, Duncan MacCannell, Dongjuan Dai, Brintha P. Girinathan, Allison L. Hicks, Bryan Cosca, Gabrielle Woronoff, Alex M. Plocik, Birgitte B. Simen, Leah Moriarty, Sarah Anne J. Guagliardo, Martin S. Cetron, Cindy R. Friedman doi: https://doi.org/10.1101/2022.03.21.22272490

### Major findings:

- Travelers arriving from countries with transmission of emerging variants were tested and sequenced for SARS-CoV-2.
  - By testing travelers, a sample collected on December 14 was identified as the first reported BA.2 in the United States, 7 days earlier than any other U.S. report (Figure 1b).
  - · Similarly, a sample collected on December 3 was the first reported BA.3 in North America, 43 days before the next report.

Limitations: None.

URL: https://www.medrxiv.org/content/10.1101/2022.03.21.22272490v1

Summary: During September 29–November 27, 2021, the CDC's surveillance program included travelers arriving on seven direct flights from India at three international airports: John F. Kennedy, New York (September 29), Newark Liberty, New Jersey (October 4), and San Francisco, California (October 12). During November 28–January 23, Hartsfield-Jackson Atlanta International Airport, Georgia was added, and participation was offered to travelers from South Africa, Nigeria, the United Kingdom, France, Germany, and Brazil, arriving on approximately 50 flights per day. Overall, ~10% of fliers participated (16,149). Participants were 18 years or older, provided informed consent, and completed demographic, clinical, and travel history questions. Participants were tested within 5 days after arrival in the USA. These samples were pooled with 5-25 other samples and analyzed using PCR and sequencing.

Positivity increased significantly from 1.8% (6/338) during September 29–November 27 to 20.9% (215/1029) after November 27 (p<0.001). Before November 28, all samples were Delta. During November 28–January 23, 67% (145/215) of positive pooled samples collected were Omicron (B.1.1.529-like), 5% (11/215) were Delta (B.1.617-like), and the remaining 27% (59/215) lineages could not be determined due to low sample sequencing coverage. A sample collected on December 14 was the first reported BA.2 in the United States, 7 days earlier than any other U.S. report (Figure 1b).

Similarly, a sample collected on December 3 was the first reported BA.3 in North America, 43 days before the next report.

Mobility was a Significant Determinant of Reported COVID-19 Incidence During the Omicron Surge in the Most Populous U.S. Counties

Jeffrey E. Harris

doi: https://doi.org/10.1101/2022.03.16.22272523

#### Major findings:

- Using google mobility categories the researchers identified that counties that experienced a decline in mobility had fewer cases during peak incidence.
- Based upon a fixed-effects, longitudinal cohort model, the authors estimated that every 1-percent decline in mobility between December 20 and January 3 was associated with a 0.63 percent decline in peak incidence during the week ending January 17.

Limitations: This study relies on models for its major conclusions.

URL: https://www.medrxiv.org/content/10.1101/2022.03.16.22272523v1

Summary: The authors confined their analysis to the most populous counties in the United States. From an initial sample of all 112 counties with population exceeding 600,000, but excluded Johnson County KS, (population 602,000) as a result of missing data on one of the mobility measures. Thus, the data consisted of 111 counties, together comprising 146.5 million persons or about 44 percent of the entire U.S. population. The authors employed Google Mobility Reports to assess changes in mobility in each of the 111 counties. Compiled from data on the movements of mobile devices, these reports provided daily measures of mobility for six distinct categories of places: retail & recreation; grocery & pharmacy; parks; transit stations; workplaces; and residential. Based upon the number of visits to and length of stay in the places in each category, the reports showed activity as a percent of baseline, where the baseline represented the median value for the corresponding day of the week during the 5-week period from January 3 – February 6, 2020. For each of the 111 counties in the analytic sample and each of the six categories of mobility, the authors computed weekly mean values of mobility for the week ending Monday, February 24, 2020, through the week ending Monday, February 28, 2022. The authors used COVID-19 Community Profile Reports, issued regularly by the White House COVID-19 Team, for data on the reported number of COVID-19 cases, SVI, and average household size in each county for each week, starting with the week ending December 6, 2021, and continuing through the

week ending February 28, 2022. In addition to the county-specific disease and demographic variables, the authors used a database of COVID-19 vaccination participation rates, compiled by the U.S. Centers for Disease Control and Prevention. Overall, the researchers estimated that for each one-percent decline in the unidimensional measure of motility, there was a 0.63-percent decline in peak reported case incidence (95% confidence interval, 0.40 to 0.86 percent) and a 0.36-percent decline in cumulative reported case incidence (95% confidence interval, 0.18 to 0.54 percent).

## **Delta-Omicron Recombinants**

Identification of a Novel SARS-CoV-2 Delta-Omicron Recombinant Virus in the United States

3 Kristine A. Lacek, Benjamin L. Rambo-Martin, Dhwani Batra, Xiao-yu Zheng, Hitoshi Sakaguchi, Thomas Peacock, Matthew Keller, Malania M. Wilson, Mili Sheth, Morgan L. Davis, Mark Borroughs, Jonathan Gerhart, Norman Hassell, Samuel S. Shepard, Peter W. Cook, Justin Lee, David E. Wentworth, John R. Barnes, Rebecca Kondor, Clinton R. Paden doi: https://doi.org/10.1101/2022.03.19.484981

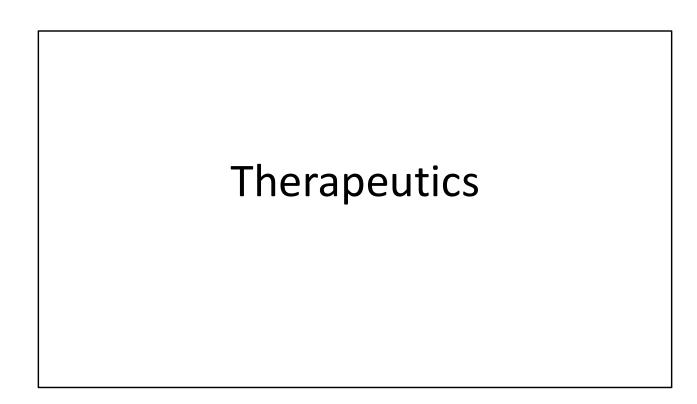
#### Major findings:

- Nine additional recombination events between Delta (AY.119.2) and Omicron (BA.1.1) have been detected in the USA (NJ 4, PA 3, MA 1, and TN 1).
- These recombinants are notable because they contain both Omicron and Delta sequences in the spike protein.
- It is unknown if these recombinants have any advantage over other variants.

Limitations: None

URL: https://www.biorxiv.org/content/10.1101/2022.03.19.484981v1

Summary: Using data from the CDC's sequencing efforts to sequence SARS-CoV-2 specimens from 64 states and jurisdictions via the National SARS-CoV-2 Strain Surveillance Program (NS3). By combing through this data, the researchers identified 9 recombinants that have similar sequences and regions of recombination. The 9 specimens were collected between 12-31-2021 and 2-12-2022 and were found mainly in the Mid-Atlantic regions of the USA. The epidemiological and clinical significance of these recombinants is unknown.



## Resilience of S309 and AZD7442 monoclonal antibody treatments against infection by SARS-CoV-2 Omicron lineage strains

James Brett Case, Samantha Mackin, John Errico, Zhenlu Chong, Emily A. Madden, Barbara Guarino, Michael A. Schmid, Kim Rosenthal, Kuishu Ren, Ana Jung, Lindsay Droit, Scott A. Handley, Peter J. Halfmann, Yoshihiro Kawaoka, <sup>©</sup> James E. Crowe Jr., Daved H. Fremont, Herbert W. Virgin, Yueh-Ming Loo, Mark T. Esser, Lisa A. Purcell, Davide Corti, <sup>©</sup> Michael S. Diamond doi: https://doi.org/10.1101/2022.03.17.484787

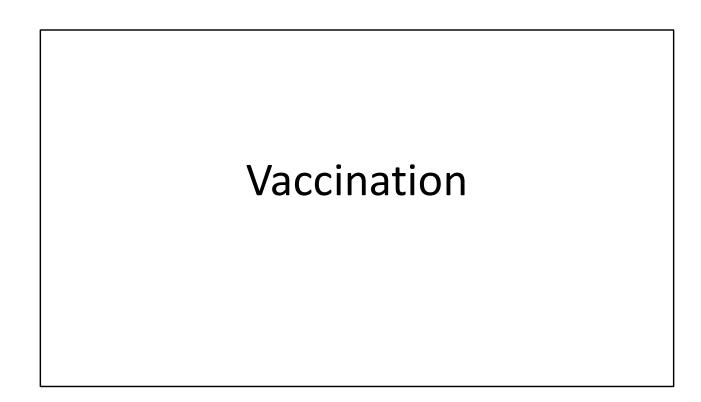
#### Major findings:

- The researchers found that S309 or AZD7442 mAb treatments reduced lung infection by BA.1, BA.2, and BA.1.1 in susceptible mice that express human ACE2.
- · Studies in cell lines showed no effect of S309 or AZD7442 and thus it is likely that these mAbs behave differently in vitro vs. in vivo

Limitations: The study was done on mice, not humans. The BA.1, BA.1.1., and BA.2 viruses are less pathogenic in mice than the wild type (D614G) virus and thus the protective effects of the mAbs may be overstated.

URL: https://www.biorxiv.org/content/10.1101/2022.03.17.484787v1

Summary: The authors analyzed the capacity of S309 (parent of Sotrovimab) and AZD7442 (Evusheld) to neutralize Omicron BA.1, BA.2, or BA.1.1. Consistent with other reports, the researchers found that S309 retained some activity against BA.1 and BA.1.1 in vitro, but no activity against BA.2. Furthermore, Evusheld had negligible capacity to neutralize BA.1, BA.1.1, or BA.2 in vitro. The researchers then administered the mAbs to mice and then the infected mice with BA.1, BA.1.1, or BA.2 to test the ability of these antibodies to behave in vivo. In BA.1 and BA.1.1-infected mice, S309 mAb reduced viral burden in the lung, nasal turbinates, and nasal washes at 7 days post injection (dpi) compared to isotype mAb-control treated mice. Nonetheless, control of infection, as judged by viral RNA levels, was less efficient against BA.1 (182-fold reduction) and BA.1.1 (39-fold reduction) viruses than against wild type (D614G (>500,000-fold reduction)). Despite the diminished neutralizing activity against BA.2 in vitro, S309-LS treatment reduced viral RNA levels in the lungs of BA.2-infected mice substantially (742-fold reduction). AZD7442-TM treatment differentially reduced viral burden in the lungs of mice against D614G (>400,000-fold reduction in viral RNA), BA.1 (91-fold reduction in viral RNA), BA.1.1 (4-fold reduction in viral RNA), and BA.2 (>100,000-fold reduction in viral RNA).



# Effectiveness of 2-Dose BNT162b2 (Pfizer BioNTech) mRNA Vaccine in Preventing SARS-CoV-2 Infection Among Children Aged 5–11 Years and Adolescents Aged 12–15 Years — PROTECT Cohort, July 2021–February 2022

Weekly / March 18, 2022 / 71(11);422-428

On March 11, 2022, this report was posted online as an MMWR Early Release.

Ashley L. Fowlkes, ScD¹; Sarang K. Yoon, DO²; Karen Lutrick, PhD³; Lisa Gwynn, DO⁴; Joy Burns, PhD⁵; Lauren Grant, MS¹; Andrew L. Phillips, MD²; Katherine Ellingson, PhD⁶ Maria V. Ferraris, MEd, MSPM⁴; Lindsay B. LeClair, MS, MPH⁵; Clare Mathenge²; Young M. Yoo, MSPH¹; Matthew S. Thiese, PhD²; Lynn B. Gerald, PhD⁶; Natasha Schaefer Solle, PhD⁴; Zuha Jeddy, MPH⁵; Leah Odame-Bamfo, MPH²; Josephine Mak, MPH¹; Kurt T. Hegmann, MD²; Joe K. Gerald, MD⁶; Jezahel S. Ochoa⁴; Mark Berry, PhD⁵; Spencer Rose²; Julie Mayo Lamberte, MSPH¹; Purnima Madhivanan, MBBS⁶; Felipe A. Pubillones, DO⁴; Ramona P. Rai, MPH⁵; Kayan Dunnigan, MPHʔ; John T. Jones, MSPH¹; Karl Krupp, PhD⁶; Laura J. Edwards, MPH⁵; Edward J. Bedrick, PhD⁶; Brian E. Sokol, MSPA⁵; Ashley Lowe, PhD⁶; Hilary McLeland-Wieser, MPH⁵; Krystal S. Jovel, MA⁶; Deanna E. Fleary, MSc⁵; Sana M. Khan, MPH⁶; Brandon Poe, MPA⁵; James Hollister⁶; Joanna Lopez, MSPH⁶; Patrick Rivers, MPP³; Shawn Beitel, MSc⁶; Harmony L. Tyner, MD⁶; Alleway, PhD⁶; Lauren E.W. Olsho, PhD⁶; Alberto J. Caban-Martinez, DO, PhD슉; Jefferey L. Burgess, MD⁶; Mark G. Thompson, PhD¹; Manjusha Gaglani, MBBSʔ¹¹¹ (View Major findings:

- · Approximately one half of Omicron infections in unvaccinated children and adolescents were asymptomatic.
- Two doses of Pfizer-BioNTech COVID-19 vaccine reduced the risk of Omicron infection by 31% among children aged 5–11 years and by 59% among persons aged 12–15 years.

#### Limitations:

- · The study did not account for behavioral differences in vaccinated vs. unvaccinated children (e.g. mask wearing/social distancing).
- the relatively small number of infections within vaccination categories among certain age groups reduced precision of VE estimates.
- although this study was conducted in multiple sites and included more than 1,300 participants, findings from the study sample might not be generalizable to all populations.

URL: https://www.cdc.gov/mmwr/volumes/71/wr/mm7111e1.htm?s cid=mm7111e1 w

Summary: The PROTECT<sup>†</sup> prospective cohort of 1,364 children and adolescents aged 5– 15 years was tested weekly for SARS-CoV-2, irrespective of symptoms, and upon COVID-19-associated illness during July 25, 2021-February 12, 2022. Among unvaccinated participants (i.e., those who had received no COVID-19 vaccine doses) with any laboratory-confirmed SARS-CoV-2 infection, those with B.1.617.2 (Delta) variant infections were more likely to report COVID-19 symptoms (66%) than were those with Omicron infections (49%). Among fully vaccinated children aged 5–11 years, VE against any symptomatic and asymptomatic Omicron infection 14-82 days (the longest interval after dose 2 in this age group) after receipt of dose 2 of the Pfizer-BioNTech vaccine was 31% (95% CI = 9%–48%), adjusted for sociodemographic characteristics, health information, frequency of social contact, mask use, location, and local virus circulation. Among adolescents aged 12–15 years, adjusted VE 14–149 days after dose 2 was 87% (95% CI = 49%–97%) against symptomatic and asymptomatic Delta infection and 59% (95% CI = 22%–79%) against Omicron infection. Fully vaccinated participants with Omicron infection spent an average of one-half day less sick in bed than did unvaccinated participants with Omicron infection. All eligible children and adolescents should remain up to date with recommended COVID-19 vaccinations.

Effect of prior infection, vaccination, and hybrid immunity against symptomatic BA.1 and BA.2 Omicron infections and severe COVID-19 in Qatar

1 Heba N. Altarawneh. Hiam Chemaitely, Houssein Ayoub, Patrick Tang, Mohammad R. Hasan, Holl M. YASSINE, Hebah A. Al-Khatib, Maria K. Smatti, Peter Coyle, Zaina Al-Kanaani, Finas Al-Kuwari, Andrew Jeremijenko, Anvar Hassan Kaleeckal, Ali Nizar Latif, Xizar Latif, Mayazuddin Mohammad Shaik, Hanan F. Abdul-Rahim, Gheyath Nasrallah, Mohamed Ghaith Al-Kuwari, Adeel A Butt, Hamad Eid Al-Romaihi, Mohamed H. Al-Thani, Abdullatif Al-Khal, Roberto Bertollini, Laith J Abu-Raddad Moi: https://doi.org/10.1101/2022.03.22.22272745

#### Major findings:

- Two doses of Pfizer or Moderna provides negligible protection against symptomatic Omicron infection.
- Effectiveness of only prior infection against symptomatic Omicron infection was ~46.1%.
- Effectiveness of only three-dose of Pfizer or Moderna vaccination against symptomatic Omicron infection was ~52.2%.
- Effectiveness of two doses of Pfizer or Moderna and prior recovery from COVID-19 against symptomatic Omicron infection was ~55.1%
- Effectiveness of hybrid immunity of prior infection and three-dose Pfizer or Moderna vaccination against symptomatic Omicron infection was ~77.3%.
- All forms of vaccination or prior infection were >70% effective against any severe, critical, or fatal COVID-19 outcome due symptomatic Omicron.

Limitations: Qatar has a younger population than USA and European countries.

URL: https://www.medrxiv.org/content/10.1101/2022.03.22.22272745v1

Summary: Approximately 70,000 residents of Qatar that had positive (~39,000) or negative (~31,000) tests for SARS-CoV-2 were matched based on sex, age group, nationality, and calendar week of first PCR negative test. After matching, residents were compared based on prior exposure to SARS-CoV-2, vaccinations, and infection characteristics. Overall, any prior exposure to SARS-CoV-2 antigen significantly reduced the likelihood of severe COVID-19 or death from COVID-19. Patients with two doses of Pfizer or Moderna had negligible protection. Protection increased with increased exposure to SARS-CoV-2 antigen with three doses of Pfizer or Moderna and prior recovery from COVID-19 providing the greatest protection. No significant differences were identified between Pfizer or Moderna and between BA.1 or BA.2 on the impact of infection with regards to prior SARS-CoV-2 antigen exposure.





## **Order Vaccine As Needed**

## **Avoid missed opportunities!**

Minimum order is 1 vial of any vaccine through direct shipment form KDHE

How to receive vaccine: To place an order for vaccine for delivery next week, please visit the KS COVID Vaccine order website as soon as possible and no later than Wednesday 5pm CT.

Please keep Vaccine Finder current.

This impacts <u>vaccine.gov</u> and visibility of the vaccine you have available to administer in addition to ordering caps for the state.

If VaccineFinder and WebIZ inventory are not kept current, you may appear to have expired vaccine which may create difficulties in filling orders due to poor vaccine management.

To protect and improve the health and environment of all Kansans



## NEW COVID-19 Vaccine Ordering Website

- Ordering website opened on March 16th and completed the first week ordering cycle on March 23rd
- 176 people registered an account on the ordering site
- 56 orders were placed



To protect and improve the health and environment of all Kansans

The Website works just like any online shopping website – you look for the product (ie vaccine or supplies) you need. You adjust the quantity you need and add them to the cart. Then you check out by adding your shipping address.

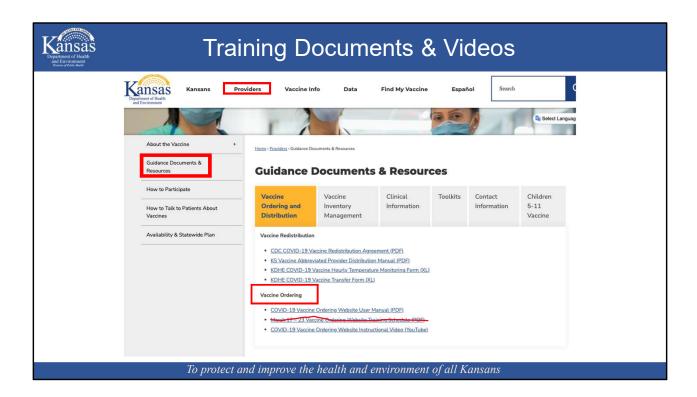
The site will track your orders and provide you with an order history in your account profile.

The site will launch on March 16<sup>th</sup> at 5pm. The site will then be used for all orders placed from 5:01 pm on March 16<sup>th</sup> until the 5pm deadline on Wednesday, March 23<sup>rd</sup>.

The normal Wednesday at 5pm order deadline for vaccine to ship out the following week will not change.

The site will provide better email confirmation, tracking numbers and overall better ordering experience for the providers.

Site will also make it easier for staff on the backend as we transition into a steady state.



You can get started previewing the user manual and instructional video by visiting Kansasvaccine.gov. On the site, under the provider tap at the top – click the Guidance Documents and Resources. On this page, you will find the information on the first tab – Vaccine ordering and Distribution. The Red Boxes Indicate where to navigate to find this information.



#### **HRSA Uninsured Reimbursement Program Update**

# COVID-19 Claims Reimbursement to Health Care Providers and Facilities for Testing, Treatment, and Vaccine Administration for the Uninsured Important Update Regarding Submission of Claims

- The Uninsured Program has stopped accepting claims for testing and treatment due to lack of sufficient funds. Confirmation of receipt of your claim submission does not mean the claim will be paid. No claims submitted after March 22, 2022 at 11:59 pm ET for testing or treatment will be processed for adjudication/payment
- On April 5, 2022 at 11:59 pm ET, the Uninsured Program will also stop accepting vaccination claims
  due to a lack of sufficient funds.
- Submitted claims will be paid subject to the availability of funds.
- For additional information, see <u>COVID-19 Uninsured Program Claims Submission Deadline FAQs.</u>

  https://www.hrsa.gov/coviduninsuredclaim



#### **HRSA Uninsured Reimbursement Program Update**

## What other resources are available to providers and/or uninsured individuals after the Uninsured Program winds down?

- Alternative resources for uninsured individuals who need COVID-19 services or other health care coverage include:
  - Medicaid enrollment
  - Healthcare marketplace enrollment
  - COVIDtests.gov
  - HRSA.gov Find a Health Center
- Note: per the Centers for Disease Control and Prevention's Requirements for COVID-19 Vaccination Program Providers, providers must continue to administer COVID-19 vaccines at no out-of-pocket cost to recipients.

https://www.hrsa.gov/coviduninsuredclaim/submission-deadline



#### Pfizer and Moderna Applications to FDA

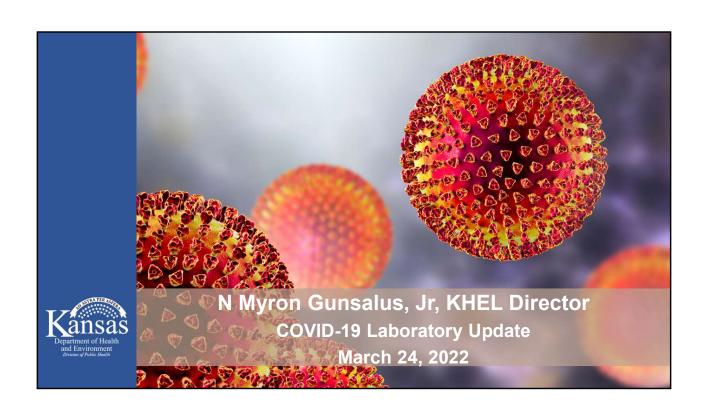
- Pfizer BioNTech Submit for U.S. Emergency Use Authorization of an Additional Booster Dose of their COVID-19 Vaccine for Older Adults 65+ - Read more in the <u>Pfizer press release</u>.
- Moderna Submits Amendment to EUA for an Additional Booster Dose for Adults 18+ Read more in the Moderna press release.
- No timeline has been announced for FDA and CDC meetings on these applications

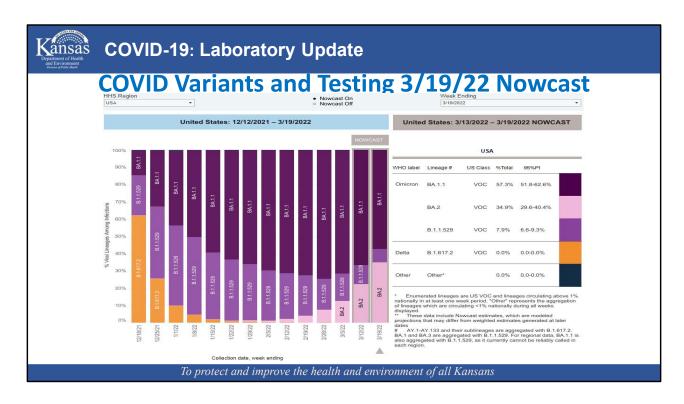


#### **Upcoming Webinar**



An engaging conversation with parents of teens and health advocates about the unique challenges of keeping adolescents up to date on immunizations, the important role that vaccinations play in preventive health for families and communities, and practical, effective ways for parents, along with their healthcare providers, to meet those challenges. Register here!

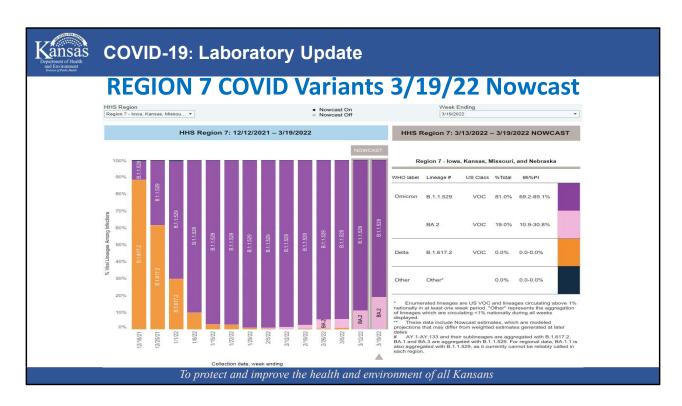




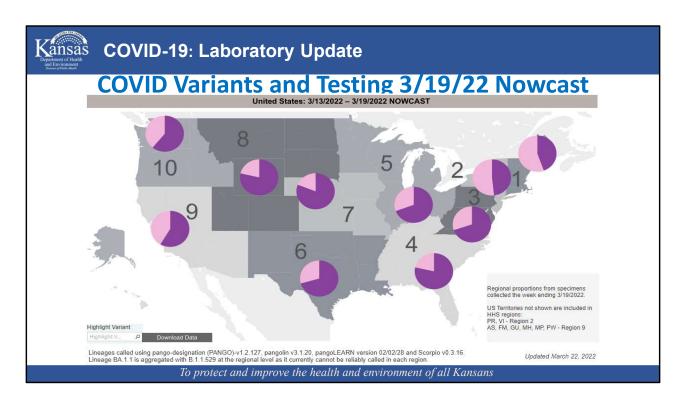
https://covid.cdc.gov/covid-data-tracker/?CDC\_AA\_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fcases-updates%2Fvariant-surveillance%2Fgenomic-surveillance-dashboard.html#variant-proportions

We can see that the BA.2 is now 3.9% nationally

BA.1.1 is now differentiated from the original lineage of Omicron B.1.1.529



https://covid.cdc.gov/covid-data-tracker/?CDC\_AA\_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fcases-updates%2Fvariant-surveillance%2Fgenomic-surveillance-dashboard.html#variant-proportions



https://covid.cdc.gov/covid-data-tracker/?CDC\_AA\_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fcases-updates%2Fvariant-surveillance%2Fgenomic-surveillance-dashboard.html#variant-proportions

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## Kansas COVID-19: Laboratory Update

#### **FDA Recalls**

- Celltrion DiaTrust COVID-19 Ag Rapid Test,
  - Product Code: 83QKP
  - Reference No. CT-P60 D-2 02
  - Lot COVGCCM0008
  - Class 1 Recall, due to high false positive results
  - Labelled incorrectly with 18 month shelf life should be 12 month



## Kansas COVID-19: Laboratory Update

#### **FDA Recalls**

- SD Biosensor STANDARD Q COVID-19 Ag HomeTest,
  - Product Code: 83QKP
  - Class 1 Recall, Distributed without EUA, potential false negative/positive
  - Distributed 8/26/21 through 1/30/22

NOT Same as SD Biosensor COVID-19 At-Home Test

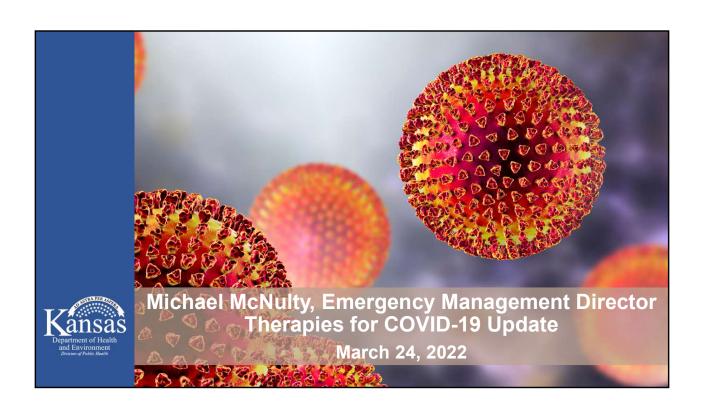




### Kansas COVID-19: Laboratory Update

#### **Helpful Contacts**

- General Laboratory Information and LABXCHANGE
  - KDHE.KHELINFO@ks.gov
- **CLIA Certification Questions:** 
  - KDHE.CLIA2@ks.gov
- Courier Vendor: Haylee Silver, Stallion Ops Manager
  - Email: hsilver@stallion-express.com
  - Number: (603) 724-1221
- **KDHE Contact Regarding Courier Service** 
  - Chad Yamashita (Chad.Yamashita@ks.gov)





#### Kansas HHS Comments - Allocation Modifications

- This week's allocation of the monoclonal antibody treatments Sotrovimab and Bebtelovimab are approximately 35% lower than last week because Congress has failed to provide additional funding for the COVID-19 response.
- Reducing the weekly allocation allows HHS to make these critical drugs available for as long as possible through predictable, weekly allocations.
- Specifically, this week HHS reduced the Sotrovimab total allocation from 52,250 courses to approximately 33,000 courses and reduced the total allocation of Bebtelovimab from 49,000 courses to approximately 30,000 courses.
- Since Evusheld allocations are now made monthly, there is no change to what was allocated previously on March 7.

## Kansas Efficacy of Antiviral Agents against the Omicron Subvariant BA.2

- Analyzed the neutralizing ability of therapeutic monoclonal antibodies that have been approved by the Food and Drug Administration, individually and in combination, against the omicron BA.2 (live-virus focus reduction neutralization test (FRNT))
- Evusheld (cilgavimab) and REGEN-COV (indevimab) maintain activity against BA.2 (omicron subvariant)
- BA.2 remains susceptible in vitro against Remdesivir, Molnupiravir and Nirmatrelvir (Paxlovid)
- https://www.nejm.org/doi/full/10.1056/NEJMc2201933



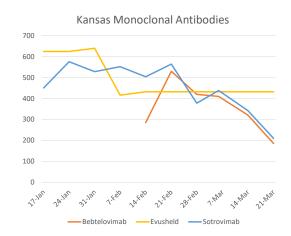
## Potent, universal coronavirus monoclonal antibody therapy for all COVID-19 variants

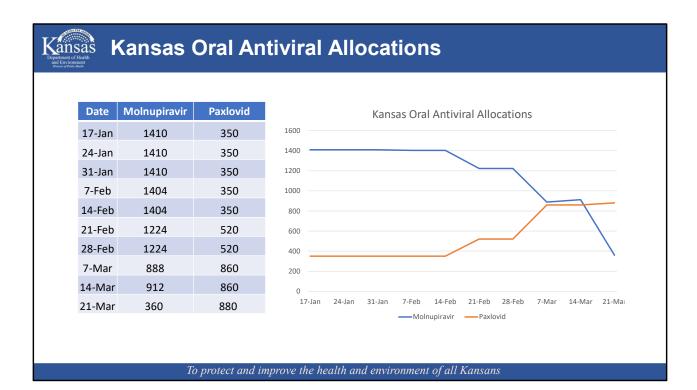
- Researchers now have discovered a monoclonal antibody that potentially acts as a potent universal coronavirus therapy against the COVID-19 virus and all its variants of concern, including Delta and Omicron.
- This universal activity results from the monoclonal antibody targeting a region of the viral spike protein that is highly conserved among beta-coronaviruses, yet is also essential for the virus to attach and enter cells, leading to infection.
- The 1249A8, 1213H7 cocktail when given as a nasal dose, 12 hours after infections with SARS-CoV-2 Delta or the first SARS virus isolated in 2002 — had broad therapeutic activity in hamsters.
- <a href="https://www.uab.edu/news/research/item/12714-preclinical-demonstration-of-a-potent-universal-coronavirus-monoclonal-antibody-therapy-for-all-covid-19-variants">https://www.uab.edu/news/research/item/12714-preclinical-demonstration-of-a-potent-universal-coronavirus-monoclonal-antibody-therapy-for-all-covid-19-variants</a>

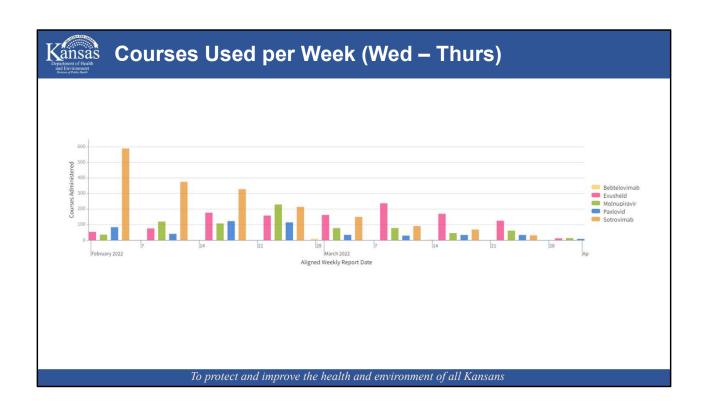


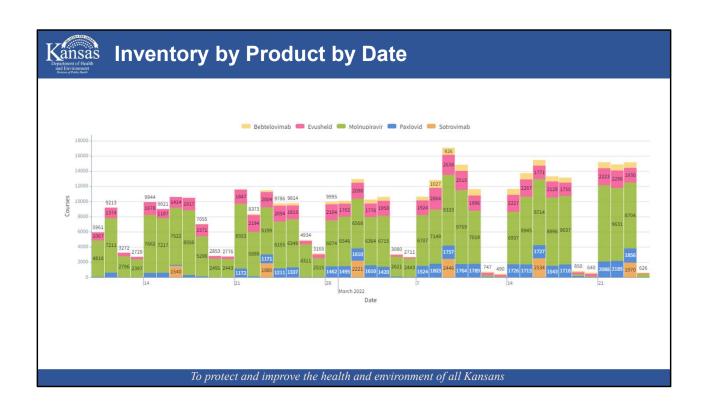
## **Kansas Monoclonal Antibody Allocations**

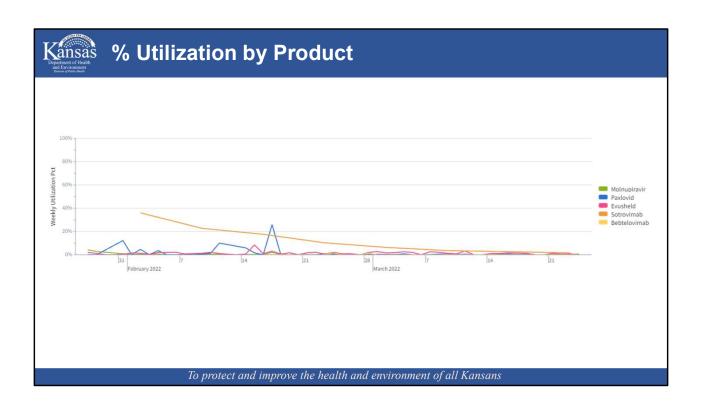
WEEK	Bebtelovimab	Evusheld	Sotrovimab
17-Jan	0	624	450
24-Jan	0	624	576
31-Jan	0	640	528
7-Feb	0	416	552
14-Feb	285	432	504
21-Feb	530	432	564
28-Feb	420	432	378
6-Mar	410	432	438
14-Mar	320	432	342
21-Mar	185	432	210

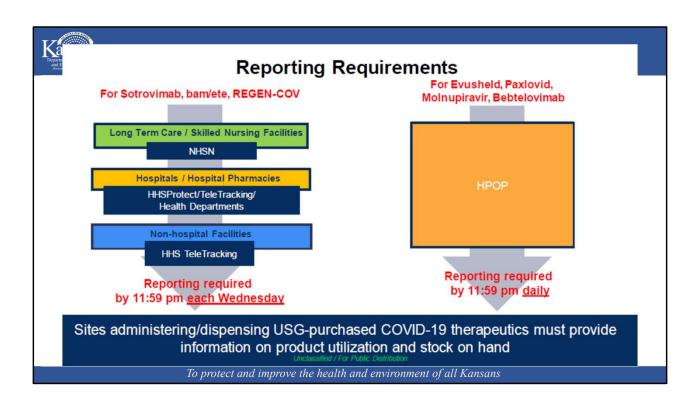












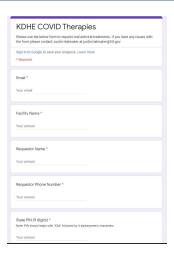


### Kansas HHS Clinical Therapy Sessions

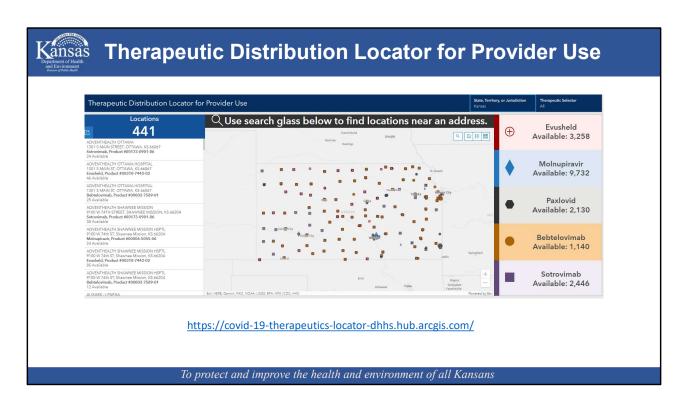
- Federal COVID-19 Response: COVID-19 Therapeutics Clinical Webinar
  - Every other Friday (11:00-12:00PM CT); Next Offering April 1
  - https://hhsasproea.zoomgov.com/j/1617536991?pwd=NjFMcnJOUENuSFhtRFFtaW ltejYzZz09
- Medical Professionals COVID-19 Roundtable
  - Every other Friday (11:00-12:00PM CT); Next Offering Mar. 25
  - Email COVID19Therapeutics@hhs.gov if you'd like to join this session



#### **Therapeutics Ordering**



- KDHE is accepting orders for all available therapeutics and will suspend allocating.
- Orders may be throttled based on availability
- Go to <a href="https://forms.gle/y66HCBTqsJNWqxYr6">https://forms.gle/y66HCBTqsJNWqxYr6</a>
- Enter all required information
  - Email
  - Facility Name
  - Requestor Name
  - Requestor Phone Number
  - HPOP State PIN (PIN is assigned to each facility)
  - Select the number of patient courses for the therapy requested
- Select Submit
- If there are any questions, the contact listed will be followed up with by KDHE staff



https://covid-19-therapeutics-locator-dhhs.hub.arcgis.com/



### Kansas Helpful Therapy Resources

- Side-by-Side Overview of Therapeutics Authorized or Approved for the Prevention of COVID-19 Infection or Treatment of Mild-Moderate COVID-
  - https://aspr.hhs.gov/COVID-19/Therapeutics/Documents/side-by-sideoverview.pdf
- Federal Response to COVID-19: Therapeutics Clinical Implementation Guide
  - https://aspr.hhs.gov/COVID-19/Therapeutics/Documents/USG-COVID19-Tx-Playbook.pdf
- COVID Therapeutics Decision Aid
  - https://www.phe.gov/emergency/events/COVID19/therapeutics/Documents/COVI D-Therapeutics-Decision-Aid.pdf



## Kansas Therapies Questions

- If you have any questions related to monoclonal antibody distribution in Kansas, please contact Michael McNulty (mike.mcnulty@ks.gov)
- Issues with Logging into and using HPOP 833-748-1979 or cars helpdesk@cdc.gov





## No webinar next week, March 31

