

Cochise County BOS Work Session



COVID-19 Overview

Cochise Health and
Social Services

1/7/2022

Welcome and Opening Remarks – Alicia M. Thompson, DrPH, LMSW, Health Director

Reporting Requirements & Public Health State of Emergency

VAERS & Covid-19 Vaccines Side Effects – Dr. Erik McLaughlin, MD, MPH, Medical Director

COVID-19 Trends

- **Case Counts** — Martha Montano, Lead Epidemiologist
- **Vaccine Overview** — Vicky King, Director of Nursing

School Update – Daniel Williamson, MPH – School Epidemiologist

Q&A - BOS

COVID-19 Work Session 1/7/2022 | Reporting



Arizona Administrative Code¹ Requires Providers to: Report Communicable Diseases to the Local Health Department

☒*O	Amebiasis	☒	Glanders	O	Respiratory disease in a health care institution or correctional facility
☒	Anaplasmosis	☒	Gonorrhea	☒*	Rubella (German measles)
☒	Anthrax	☒	<i>Haemophilus influenzae</i> , invasive disease	☒	Rubella syndrome, congenital
☒	Arboviral infection	☒	Hansen's disease (Leprosy)	☒*O	Salmonellosis
☒	Babesiosis	☒	Hantavirus infection	O	Scabies
☒	Basidiobolomycosis	☒	Hemolytic uremic syndrome	☒*O	Shigellosis
☒	Botulism	☒*O	Hepatitis A	☒	Smallpox
☒	Brucellosis	☒	Hepatitis B and Hepatitis D	☒	Spotted fever rickettsiosis (e.g., Rocky Mountain spotted fever)
☒*O	Campylobacteriosis	☒	Hepatitis C	☒	Streptococcal group A infection, invasive disease
☒	Chagas infection and related disease (American trypanosomiasis)	☒*O	Hepatitis E	☒	Streptococcal group B infection in an infant younger than 90 days of age, invasive disease
☒	Chancroid	☒	HIV infection and related disease	☒	<i>Streptococcus pneumoniae</i> infection (pneumococcal invasive disease)
☒	Chikungunya	☒	Influenza-associated mortality in a child	☒ ¹	Syphilis
☒	<i>Chlamydia trachomatis</i> infection	☒	Legionellosis (Legionnaires' disease)	☒*O	Taeniasis
☒*	Cholera	☒	Leptospirosis	☒	Tetanus
☒	Coccidioidomycosis (Valley Fever)	☒	Listeriosis	☒	Toxic shock syndrome
☒	Colorado tick fever	☒	Lyme disease	☒	Trichinosis
O	Conjunctivitis, acute	☒	Lymphocytic choriomeningitis	☒	Tuberculosis, active disease
☒	Creutzfeldt-Jakob disease	☒	Malaria	☒	Tuberculosis latent infection in a child 5 years of age or younger (positive screening test result)
☒*O	Cryptosporidiosis	☒	Measles (rubeola)	☒	Tularemia
☒	<i>Cyclospora</i> infection	☒	Melioidosis	☒	Typhoid fever
☒	Cysticercosis	☒	Meningococcal invasive disease	☒	Typhus fever
☒	Dengue	☒	Mumps	☒	Vaccinia-related adverse event
O	Diarrhea, nausea, or vomiting	☒	Novel coronavirus infection (e.g., SARS or MERS)	☒	Vancomycin-resistant or Vancomycin-intermediate <i>Staphylococcus aureus</i>
☒	Diphtheria	☒	Pertussis (whooping cough)	☒	Varicella (chickenpox)
☒	Ehrlichiosis	☒	Plague	☒*O	<i>Vibrio</i> infection
☒	Emerging or exotic disease	☒	Poliomyelitis (paralytic or non-paralytic)	☒	Viral hemorrhagic fever
☒	Encephalitis, parasitic	☒	Psittacosis (ornithosis)	☒	West Nile virus infection
☒	Encephalitis, viral	☒	Q fever	☒	Yellow fever
☒	<i>Escherichia coli</i> , Shiga toxin-producing	☒	Rabies in a human	☒*O	Yersiniosis (enteropathogenic <i>Yersinia</i>)
☒*O	Giardiasis	☒	Relapsing fever (borreliosis)	☒	Zika virus infection

Key:

- ☒ Submit a report by telephone or through an electronic reporting system authorized by the Department within 24 hours after a case or suspect case is diagnosed, treated, or detected or an occurrence is detected.
- * Submit a report within 24 hours after a case or suspect case is diagnosed, treated, or detected,

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- Submit a report within one working day if the case or suspect case is a pregnant woman.
- ☒ Submit a report within one working day after a case or suspect case is diagnosed, treated, or detected.
- ☒ Submit a report within five working days after a case or suspect case is diagnosed,

Measures a local health agency shall:

1. Review each report received under Article 2 for completeness and accuracy
2. Confirm each diagnosis
3. Conduct epidemiologic and other investigations required by this Chapter or in cooperation with the Department
- 4. Facilitate notification of known contacts**
- 5. Conduct surveillance**
6. Determine trends
7. Implement control measures, **quarantines, isolations**, and exclusions as required by the Arizona Revised Statutes and this Chapter
8. Disseminate surveillance information to health care providers
- 9. Provide health education to a disease case or contact to reduce the risk of transmission of the respective disease**
10. Report to the Department, as specified in R9-6-206 and this Article

A.R.S 36-788. Isolation and quarantine during a state of emergency or state of war emergency

A. During a state of emergency or state of war emergency as declared pursuant to section 36-787, the department or local health authority must initiate an investigation if that agency has reasonable cause to believe that a highly contagious and fatal disease exists within its jurisdiction. Subject to the provisions of this article, **persons who have contracted the disease or who have been exposed to the disease may be subject to isolation and quarantine** if the director determines that quarantine is the least restrictive means by which the public can be protected from transmission of the disease, due to the nature of the disease and available preventive measures, or refusal by an individual to accept less restrictive measures to prevent disease transmission. Diseases for which isolation and quarantine may be ordered do not include acquired immune deficiency syndrome or other infection caused by the human immunodeficiency virus.

COVID-19 Work Session

1/7/2022 | Isolation & quarantine

Declaration of a Public Health State of Emergency was declared March 11, 2020

Executive Order 2021-21 was signed December 15, 2021

Arizona Continues to be in a Public Health State of Emergency

Slide 6

GOVERNOR DOUGLAS A. DUCEY

STATE OF ARIZONA

EXECUTIVE ORDER

Executive Order 2021-21

Enhanced Surveillance Advisory
Monitoring and Preventing the Spread of COVID-19

WHEREAS, on January 31, 2020, Secretary Alex Azar (“Secretary”) of the United States Department of Health and Human Services (“HHS”), declared a public health emergency to address COVID-19; and

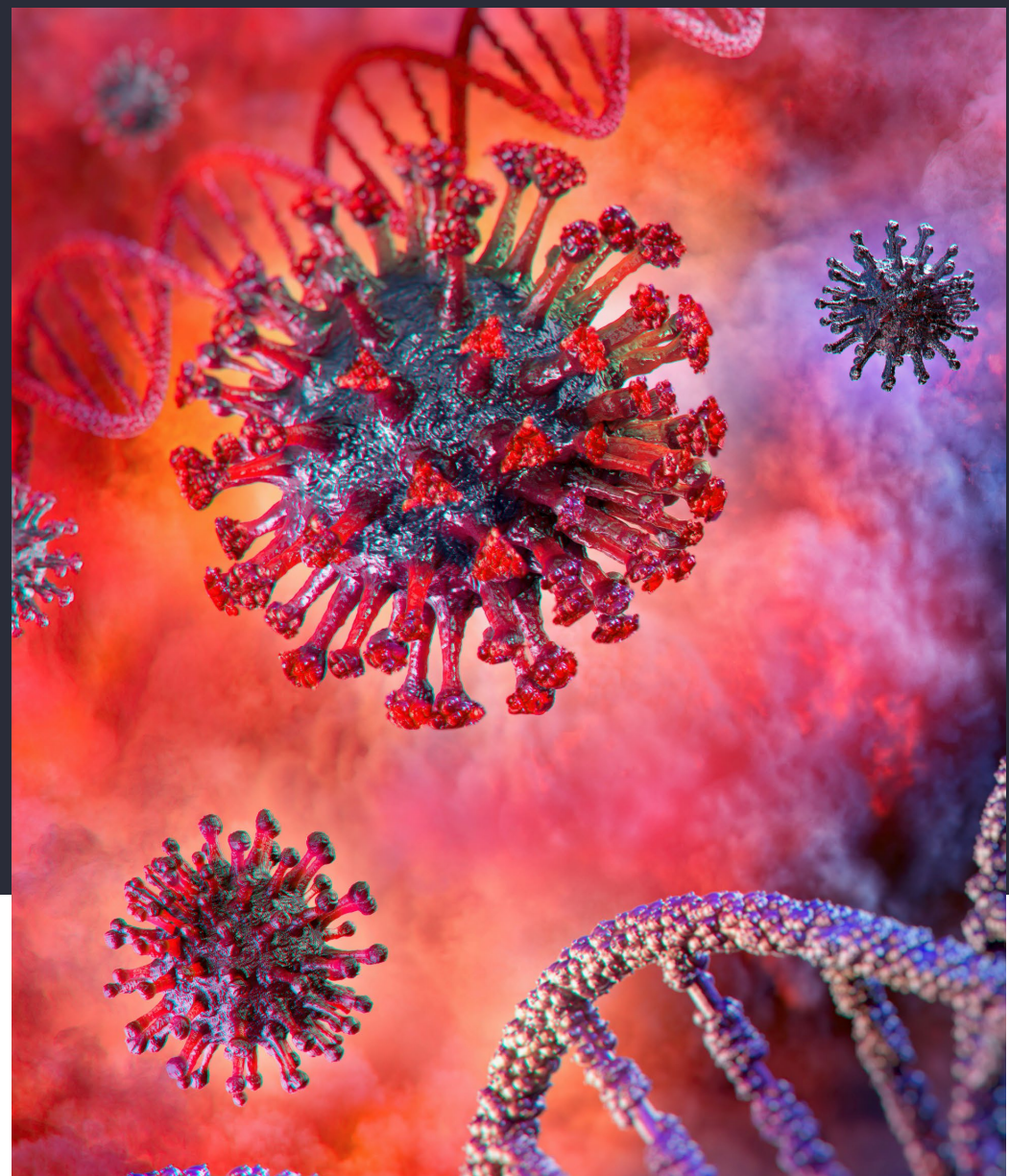
WHEREAS, on March 11, 2020, pursuant to Arizona Revised Statutes (“A.R.S.”) §§ 26-303 and 36-787, I, as Governor of the State of Arizona, issued a declaration of a Public Health State of Emergency due to the necessity to prepare for, prevent, respond to, and mitigate the spread of COVID-19; and

WHEREAS, pursuant to A.R.S. § 36-787, during a public health state of emergency, the Arizona Department of Health Services shall coordinate all matters pertaining to the public health emergency; and

WHEREAS, on March 30, 2020, the Director of the Arizona Department of Health Services (“ADHS” or the “Department”), based on an epidemiological assessment of Arizona specific data and in alignment with the Centers for Disease Control and Prevention (“CDC”) guidance, recommended the State implement enhanced mitigation strategies which are continuing; and

WHEREAS, as of December 15, 2021, there have been 1,323,997 diagnosed cases of COVID-19 in Arizona including 23,324 deaths; and

WHEREAS, the continued spread of COVID-19 and the increase in cases during November 2021 resulted in space and staff constraints in Arizona’s hospitals, with fewer than 8% of intensive care unit (ICU) beds reported



VAERS & Covid-19 Vaccines Side Effects

Erik McLaughlin MD, MPH
Cochise County Medical Director



“The Vaccine Adverse Event Reporting System (VAERS) database contains information on unverified reports of adverse events (illnesses, health problems and/or symptoms) following immunization with US-licensed vaccines. Reports are accepted from anyone and can be submitted electronically at www.vaers.hhs.gov.”

- VAERS reports are unverified and submittable by any person, at anytime
- Concerns are that events reported are not true adverse reactions or associated with vaccine
- Correlation and Causation
- VAERS is a transparent method to collect data and observe possible trends
- Additional epidemiological studies are then done based on VAERS reports

VAERS Overview

<https://vaers.hhs.gov/>



Myocarditis/Pericarditis Basics

- Myocarditis is an inflammation of the heart muscle
- Pericarditis is inflammation of the outer lining of the heart
- Common symptoms include chest pain and rarely arrhythmias or fluid buildup in the body
- Treatment is largely supportive and often managed as an outpatient

COVID mRNA Vaccines & Myocarditis



COVID Vaccines and Myocarditis

- Large study of over 2.3 million people
- 0.8 cases per 1 million patients with first dose
- 5.8 cases per 1 million patients with second dose
- All were men aged 20-32 years old
- All cases resolved with conservative management

<https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2784800>

COVID mRNA Vaccines & Myocarditis



COVID Disease-Induced Myocarditis

- 0.146% risk of myocarditis in patients with COVID disease
- 0.009% risk of myocarditis in patients without COVID disease
- Patients with COVID disease had 15.7 times increased risk for myocarditis

<https://www.cdc.gov/mmwr/volumes/70/wr/mm7035e5.htm>

COVID mRNA Vaccines & Myocarditis



COVID Vaccines & Thrombotic Events

- Vaccine-Induced Immune Thrombotic Thrombocytopenia (VITT)
- Estimated at 1 in 50,000 who received these vaccines
- More associated with Oxford-Astra-Zeneca vaccine (adenovirus vector vaccine) and Janssen Vaccine (adenovirus vector vaccine) than mRNA vaccines.

<https://media.nature.com/original/magazine-assets/d41586-021-02291-2/d41586-021-02291-2.pdf>

COVID mRNA Vaccines & Thrombotic Events



The vaccine is building a measure of tolerance to the allergen, the spike protein. True or false?

False. The spike protein in SARS CoV-2 functions more like a key in a lock than an allergen. If this is a reference to vaccine evasion by Omicron then the analogy is inaccurate.

The vaccines do not change, the virus changes/mutates to have different properties of virulence, infectivity and replication.

COVID mRNA Vaccines True or False?



Does the spike protein cause an auto immune reaction?

No. The spike protein facilitates entry of the virus into a host cell. Autoimmune reactions are believed to be associated with COVID illness but are separate from spike proteins.

**COVID
mRNA Vaccines
True or False?**



Do people die from the vaccine?

Yes. There have been fatalities associated with vaccines against SARS CoV-2.

- J and J vaccine has been associated with 9 deaths in 17.2 million doses of this vaccine due to thrombosis and thrombocytopenia (TTS syndrome).
- 3 cases of TTS have been associated with mRNA COVID vaccines over 470 million doses. There is no statistically significant association with mRNA covid vaccines and TTS.
- 496 million doses of vaccine have been delivered from Dec 14, 2020 to Dec 20, 2021. A total of 10,688 reports of death have been sent to VAERS. (0.0022%)
<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/adverse-events.html>
- **Unvaccinated people are 14 times more likely to die from COVID than vaccinated people.**

**COVID
mRNA Vaccines
True or False?**



Why is there a 14 day lag in statistics involving vaccination status?

- There is a 14 day lag of vaccine penetration or uptake reports due to moving of information, technology limitations and software interface issues. This is generally much faster but can take up to 14 days. Multijurisdictional agencies such as federal, state and county all use different software systems on multiple levels.
- This question could also be references “cure time” for a vaccine to be fully effective. This is due to the time needed for the body to create protective antibodies.

COVID mRNA Vaccines True or False?



Do women have miscarriages due to the vaccine?

COVID vaccines do not cause miscarriages. COVID disease does kill pregnant women.

- 13,956 women (5.5% vaccinated) and 4521 women with miscarriages (5.1% were vaccinated) showed median number of days between vaccine and miscarriage to be 19.
- There is no evidence of increased risk for early pregnancy loss after COVID vaccination.

<https://www.nejm.org/doi/full/10.1056/NEJMc2114466>

<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/pregnancy.html>

**COVID
mRNA Vaccines
True or False?**



Do people develop myocarditis due to the vaccine?

Myocarditis **is a rare complication** from COVID vaccines.
This is discussed elsewhere in the presentation.

**COVID
mRNA Vaccines
True or False?**



**A vaccine is something to develop immunity and avoid sickness.
True or false?**

Short answer is **FALSE**.

- Taber's Medical Dictionary defines vaccine as: Any suspension containing antigenic molecules derived from a microorganism, given to stimulate an immune response to an infectious disease.
- My personal interpretation is that a vaccine enhances a person's immune system against a specific infectious disease. This can be decreasing risk of infection or decreasing morbidity/mortality of an infection.
- Vaccines do not treat an illness but help to prevent infection or mitigate morbidity/mortality from an infection.

**COVID
mRNA Vaccines
True or False?**



A therapeutic medicine treats illness. True or false?

True*

- National Cancer Institute defines “drug therapy” as Treatment with any substance, other than food, that is used to prevent, diagnose, treat, or relieve symptoms of a disease or abnormal condition.
- <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/drug-therapy>

**COVID
mRNA Vaccines
True or False?**



Considering the “breakthrough cases” of 17% vaccinated, what is the true nature of what we call “the vaccine” according to definitions in questions 7 and 8?

A large study from the UK shows:

Vaccine protection against Omicron symptoms and hospitalization

A table showing percentages of vaccine protection against Omicron symptoms and hospitalization

Note: Data is from all vaccine brands combined. Numbers are averaged. Source: [UKHSA](#)

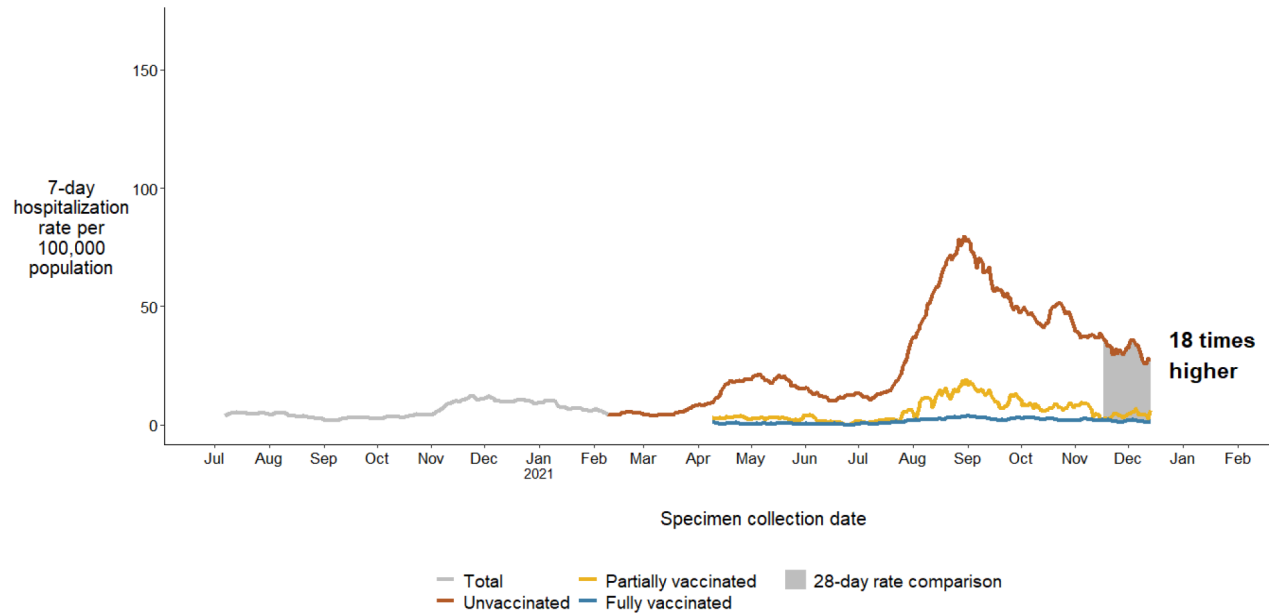
	DOSE 1	DOSE 2	DOSE 2	DOSE 3
Time after dose	4+ weeks	2–24 weeks	25+ weeks	2+ weeks
Reduced risk of symptomatic COVID-19 relative to unvaccinated people	26% less risk	18% less risk	2% less risk	63% less risk
Reduced risk of hospitalization from COVID-19 relative to unvaccinated people	35% less risk	67% less risk	51% less risk	68% less risk

- A recent body of work presented in NEJM looking at South African cases demonstrated 70% vaccine efficacy against omicron versus 93% against Delta.
- <https://www.nejm.org/doi/full/10.1056/NEJMc2119270>
- The “true nature” of the current covid vaccines is that mRNA vaccines dramatically reduce risk of death from COVID.
- The National Institute for Health Research from the UK demonstrated that two doses of Pfizer vaccine reduced risk of COVID by 90%. Astra-Zeneca vaccine reduced risk by 91%.
- <https://www.nihr.ac.uk/news/vaccination-greatly-reduces-risk-of-dying-from-covid-19-delta-variant/29018>

COVID mRNA Vaccines True or False?



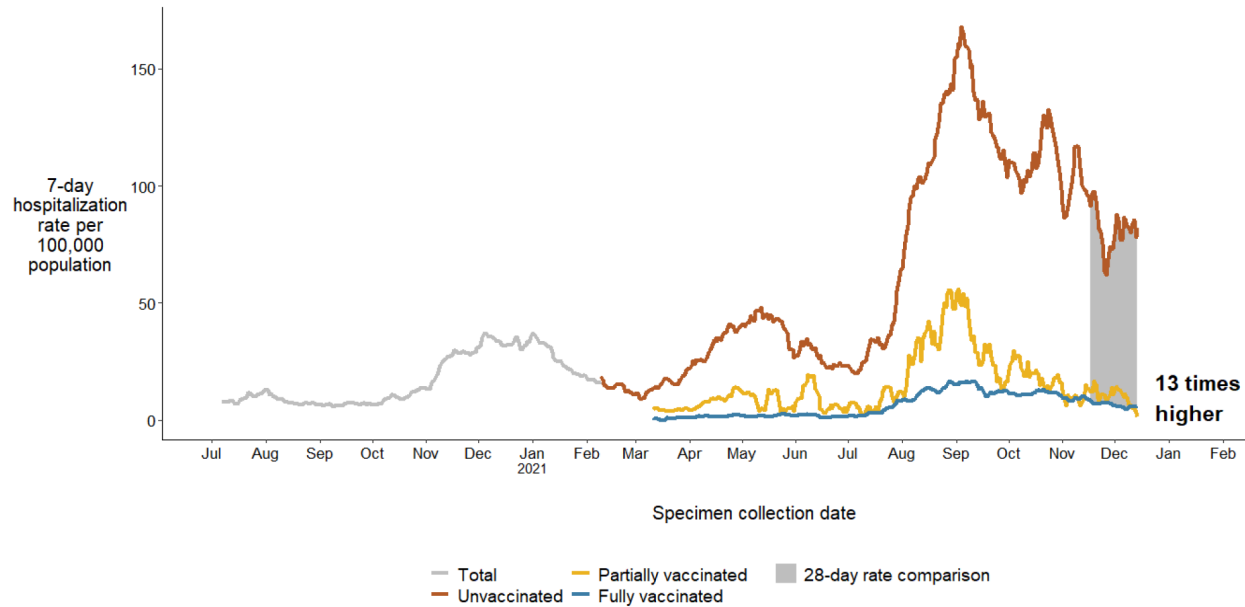
COVID-19 hospitalization rates among 35-64 year-old individuals are 18 times higher in the unvaccinated population than in the fully vaccinated population



COVID-19 Hospitalization



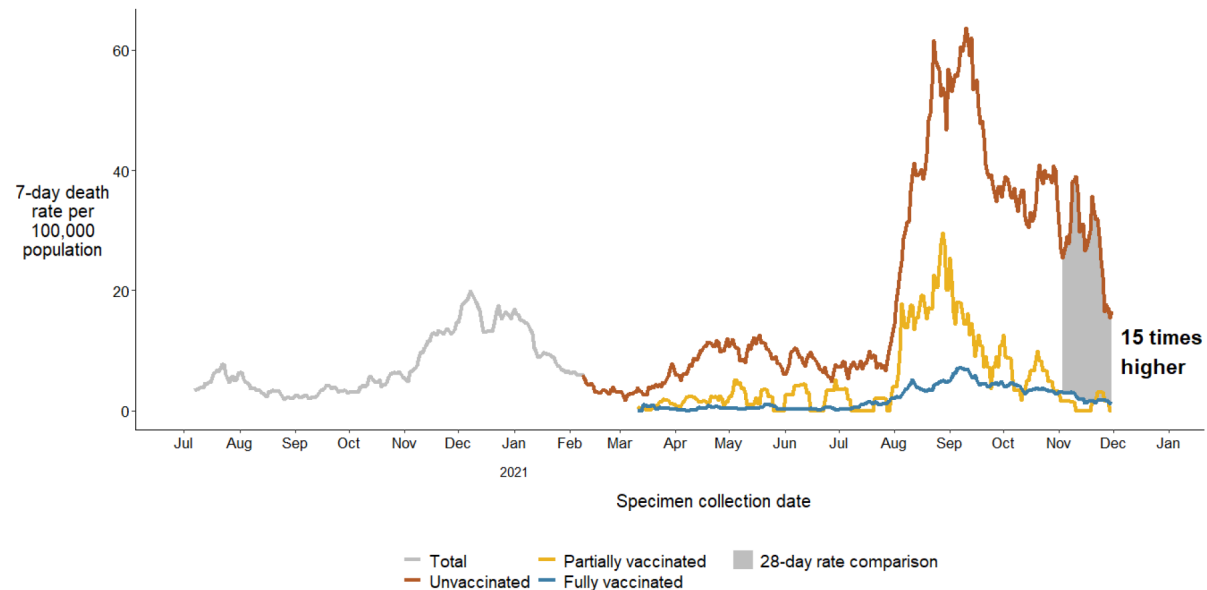
COVID-19 hospitalization rates among 65+ year-old individuals are 13 times higher in the unvaccinated population than in the fully vaccinated population



COVID mRNA Vaccines



COVID-19 death rates among 65+ year-old individuals are 15 times higher in the unvaccinated population than in the fully vaccinated population



COVID-19 Deaths



COVID-19 death rates per 100,000 population from November 03 to November 30, 2021

Age group	Age-specific rate per 100,000 in unvaccinated individuals	Age-specific rate per 100,000 in fully vaccinated individuals	Impact
65+	131.5	8.7	15 times higher in unvaccinated

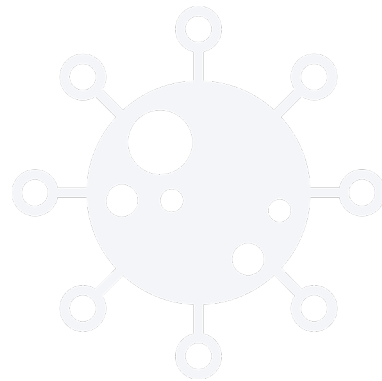
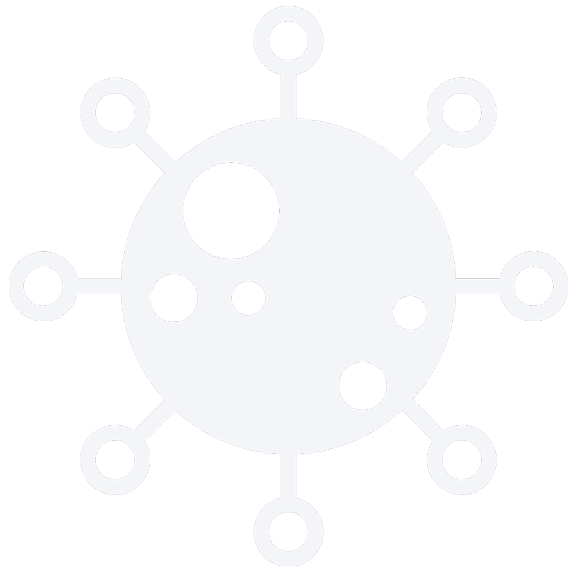
- Case rates are calculated using population data for the specified age group

COVID-19 Deaths



References

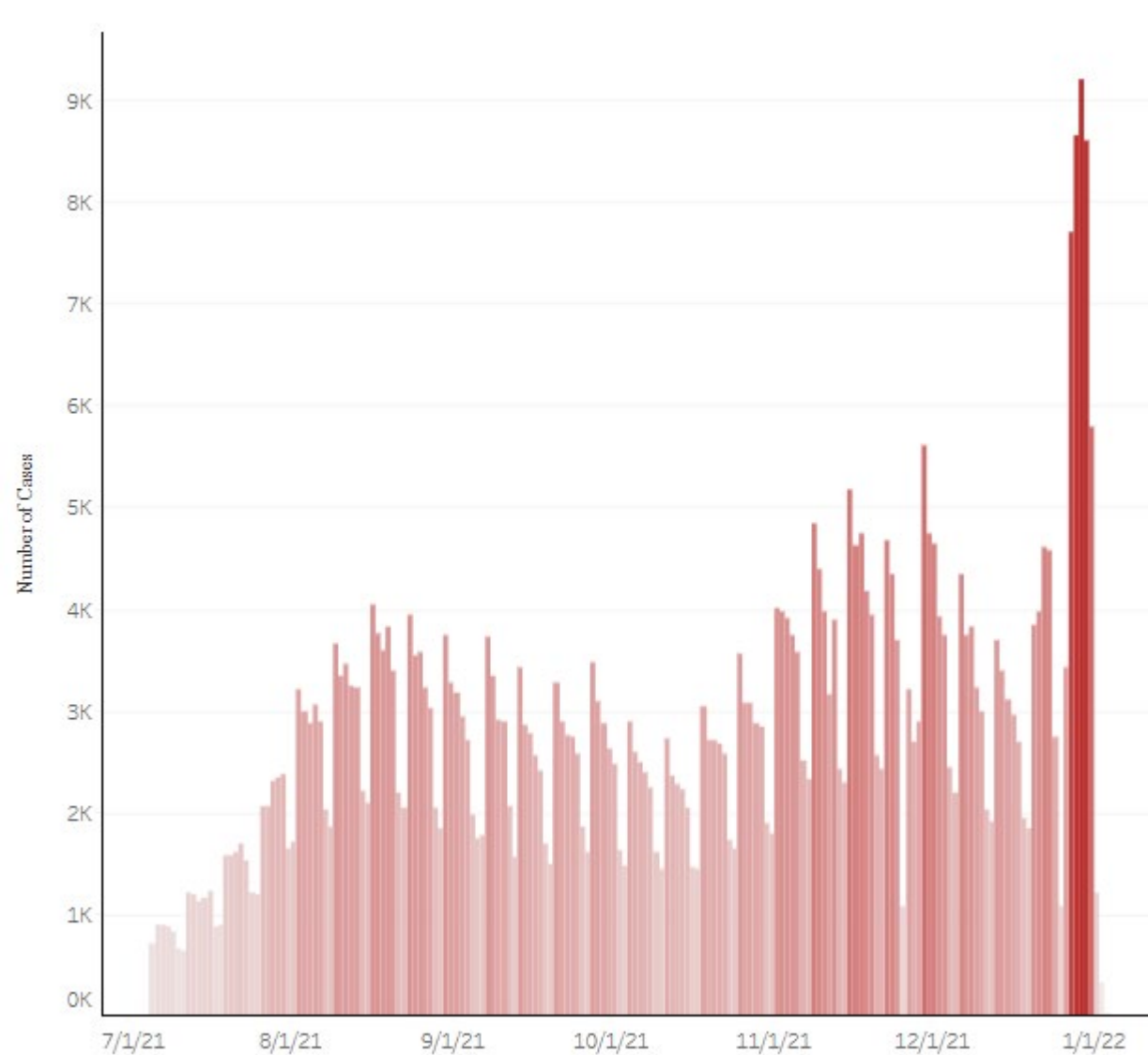
<https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/data-tables/421-010-CasesInNotFullyVaccinated.pdf>



References

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COVID-19 Trends in AZ



	CASES DAILY AVG.	PER 100,000	14-DAY CHANGE
Arizona	5,987	82	+105%
Cochise >	61	49	-2%

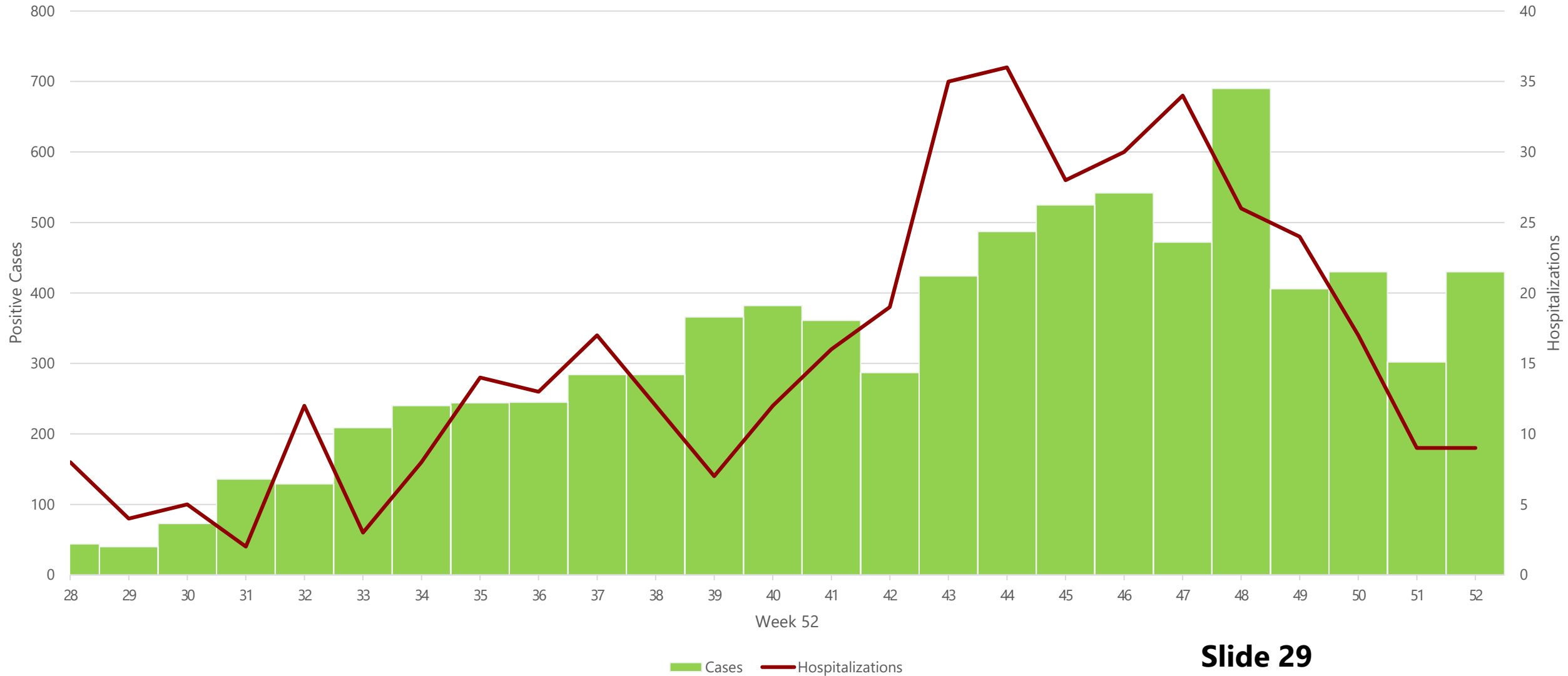
As 01/05/2022 for Cochise County

Confirmed cases:	20,399 (+1,121 since 12/17)
Hospitalizations:	1,153 (+64)
Deaths:	476 (+43)

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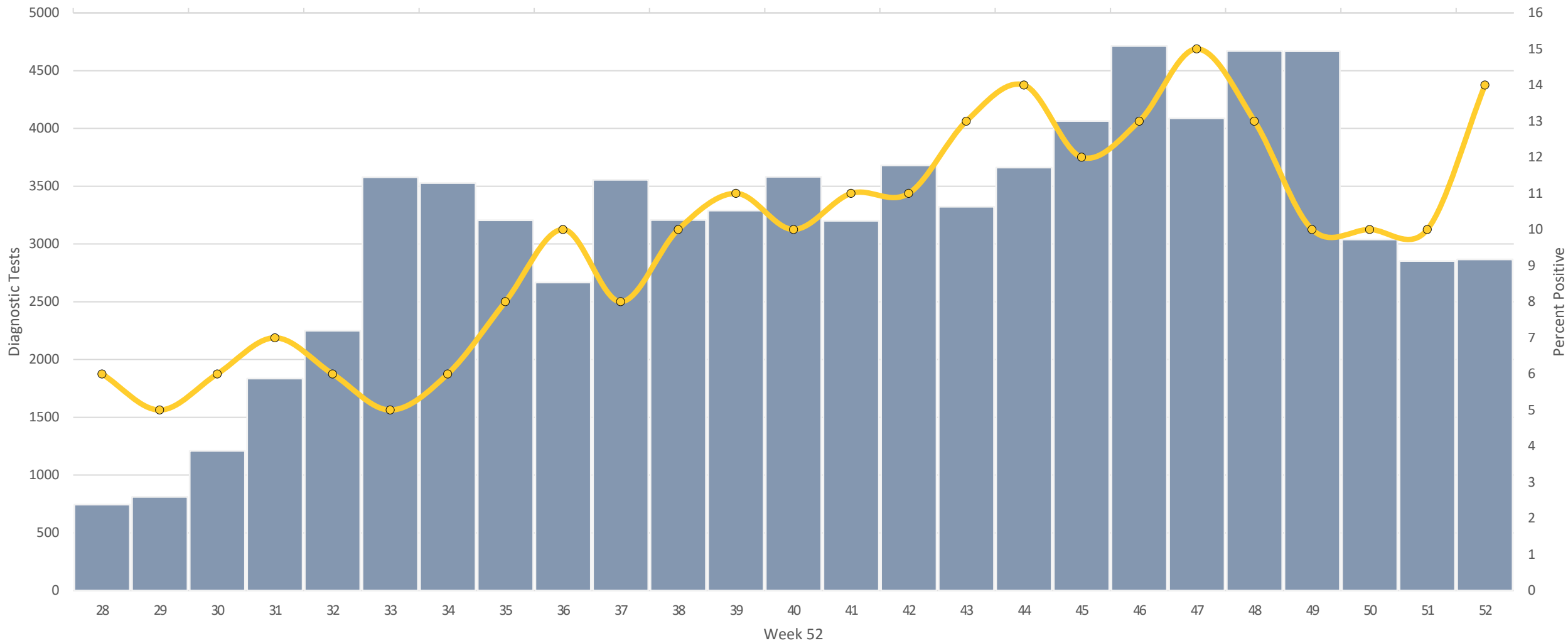
Cases & Hospitalizations

Cases and Case Hospitalizations by MMWR Week



COVID-19 Work Session 1/7/22 | % Positive

Diagnostic Tests and Percent Positive by MMWR Week

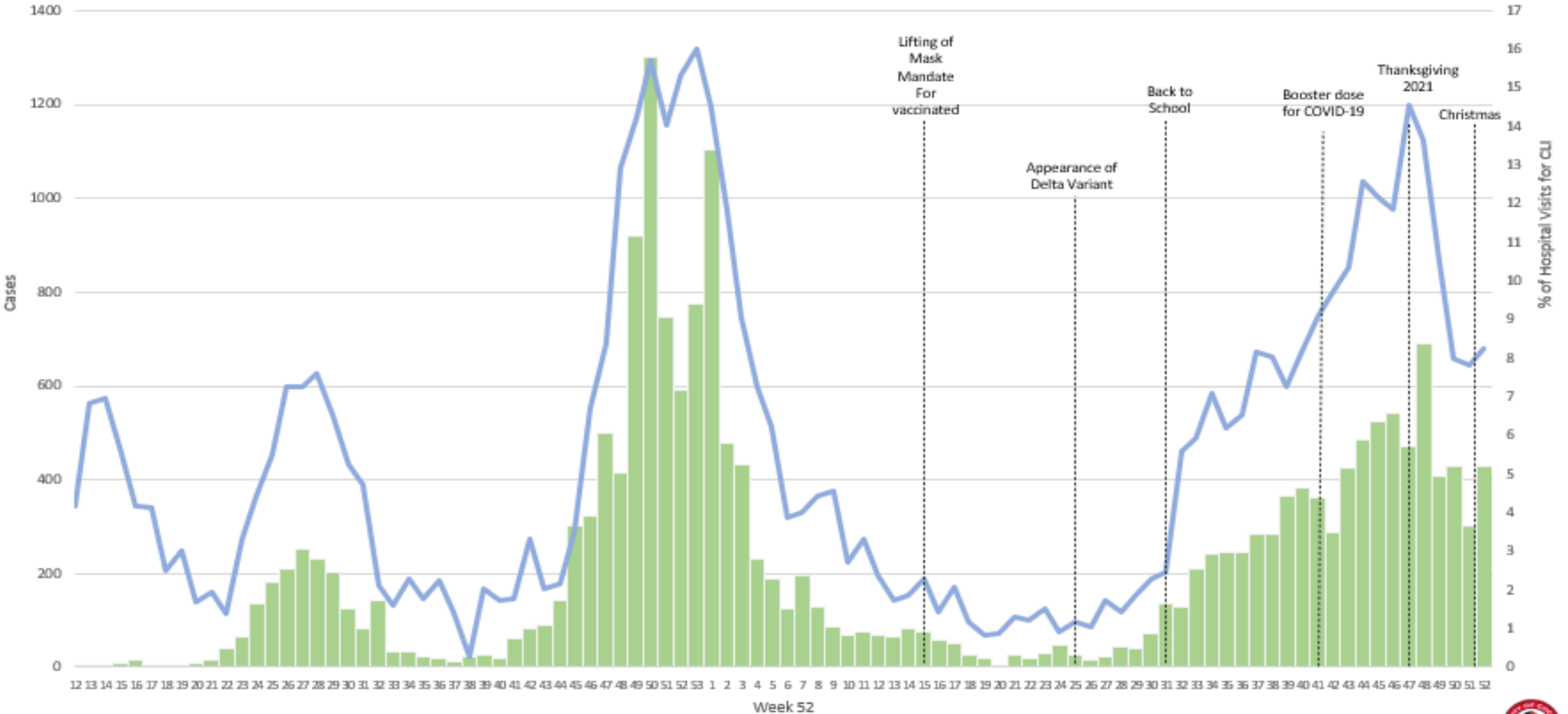


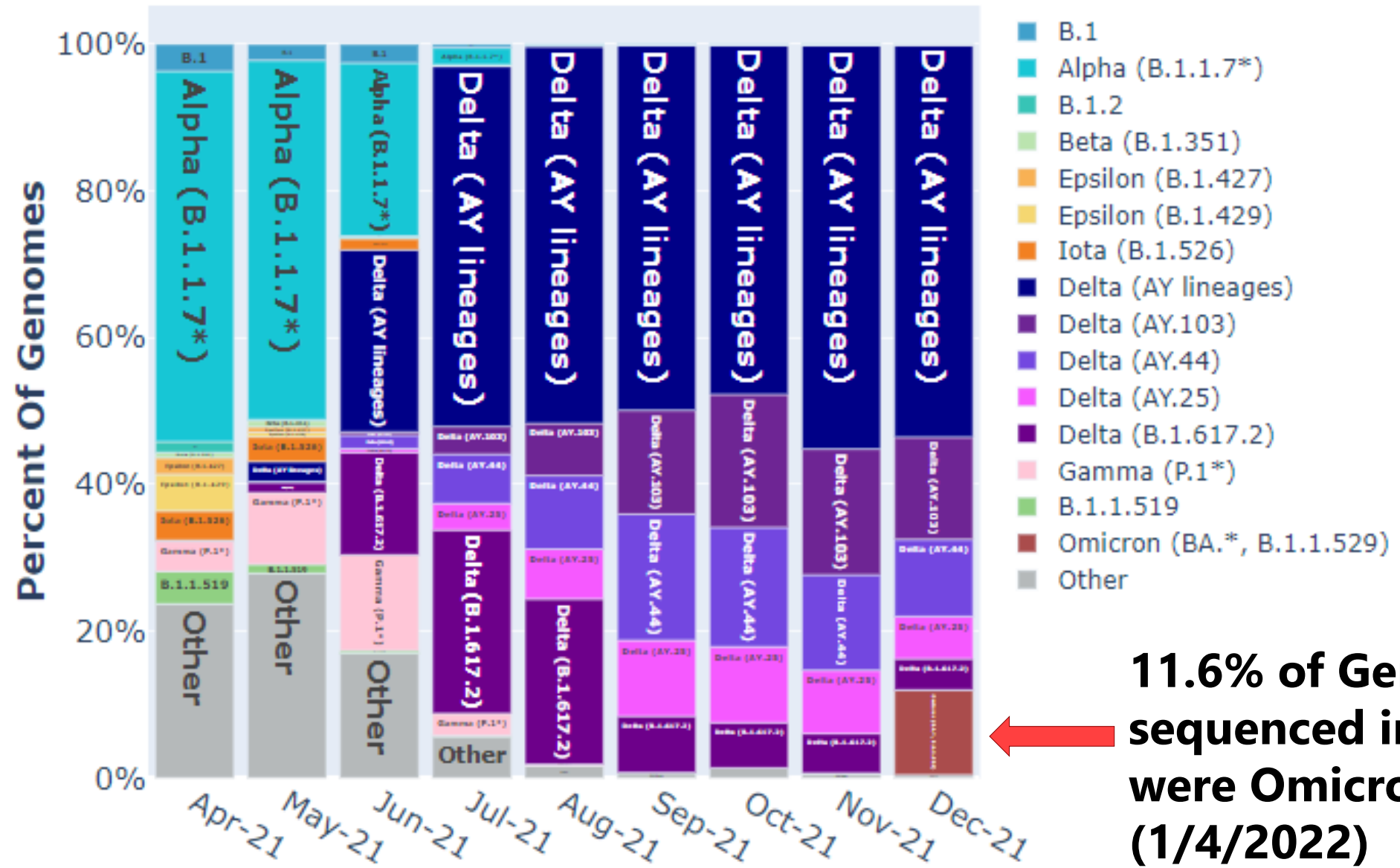
Diagnostic Tests Conducted | Percent Positive

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Cases & CLI ED Visits

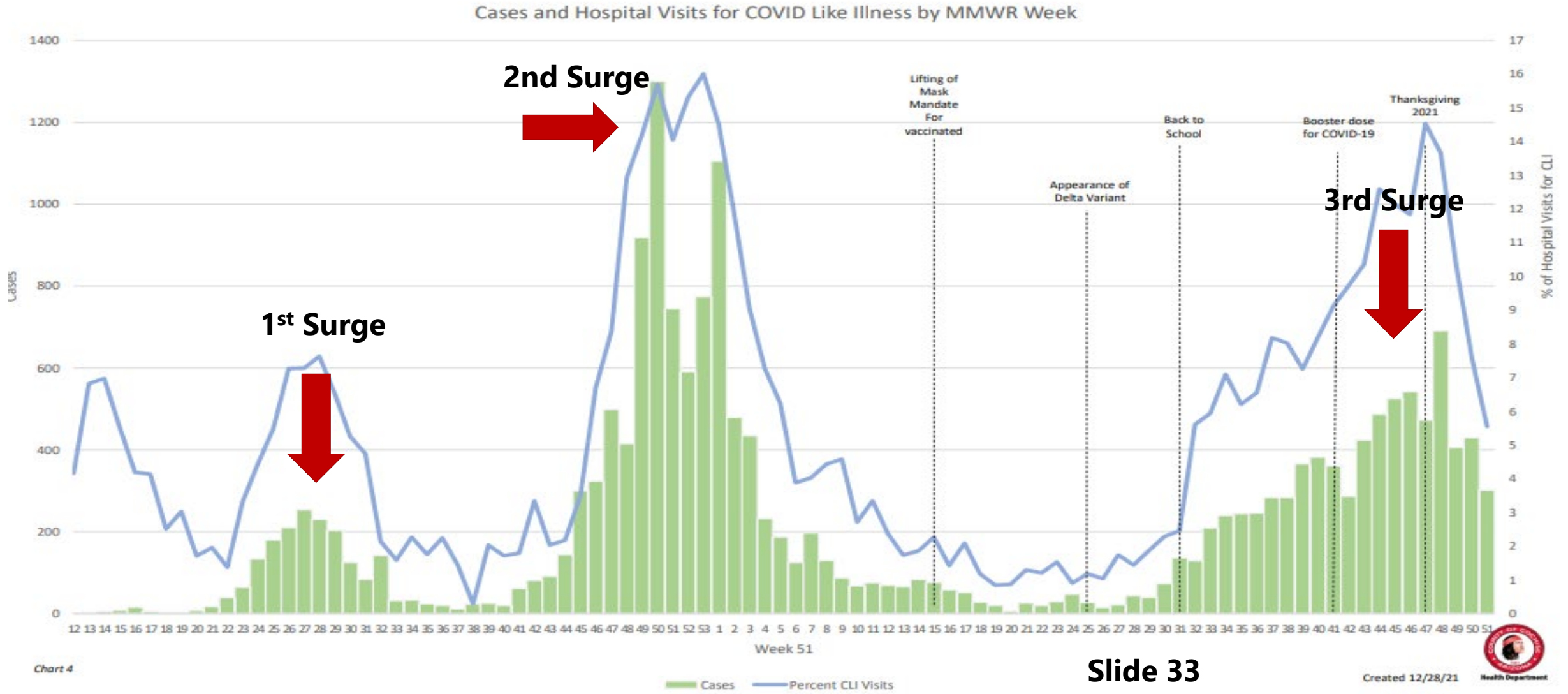
Cases and Hospital Visits for COVID Like Illness by MMWR Week





11.6% of Genomes sequenced in Arizona were Omicron (1/4/2022)

COVID-19 Work Session 1/7/22 | Compare & Contrast Cochise County's Three COVID-19 Surges



COVID-19 Work Session 1/7/22 | Compare & Contrast



1st COVID Surge

March-October 2020

Total of 7 Months

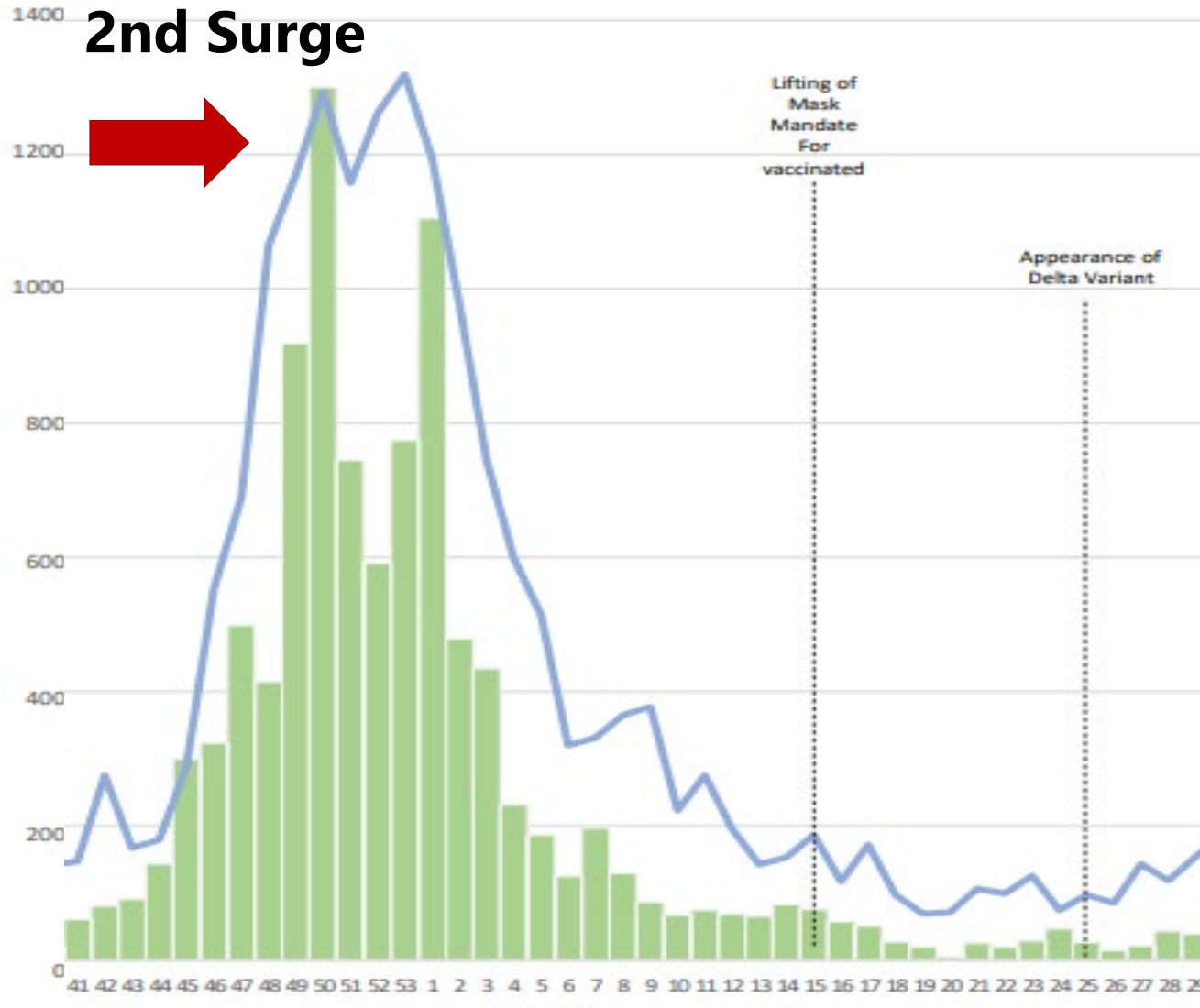
Total COVID cases: **1,960**

Total COVID Hospitalizations: **217**

% Hospitalized: **11%**

Total COVID DEATHS: **75**

COVID Case Fatality Rate: **3.8%**



2nd COVID Surge

October 2020-July 2021

Total of **10** Months

Total COVID cases: **10,390**

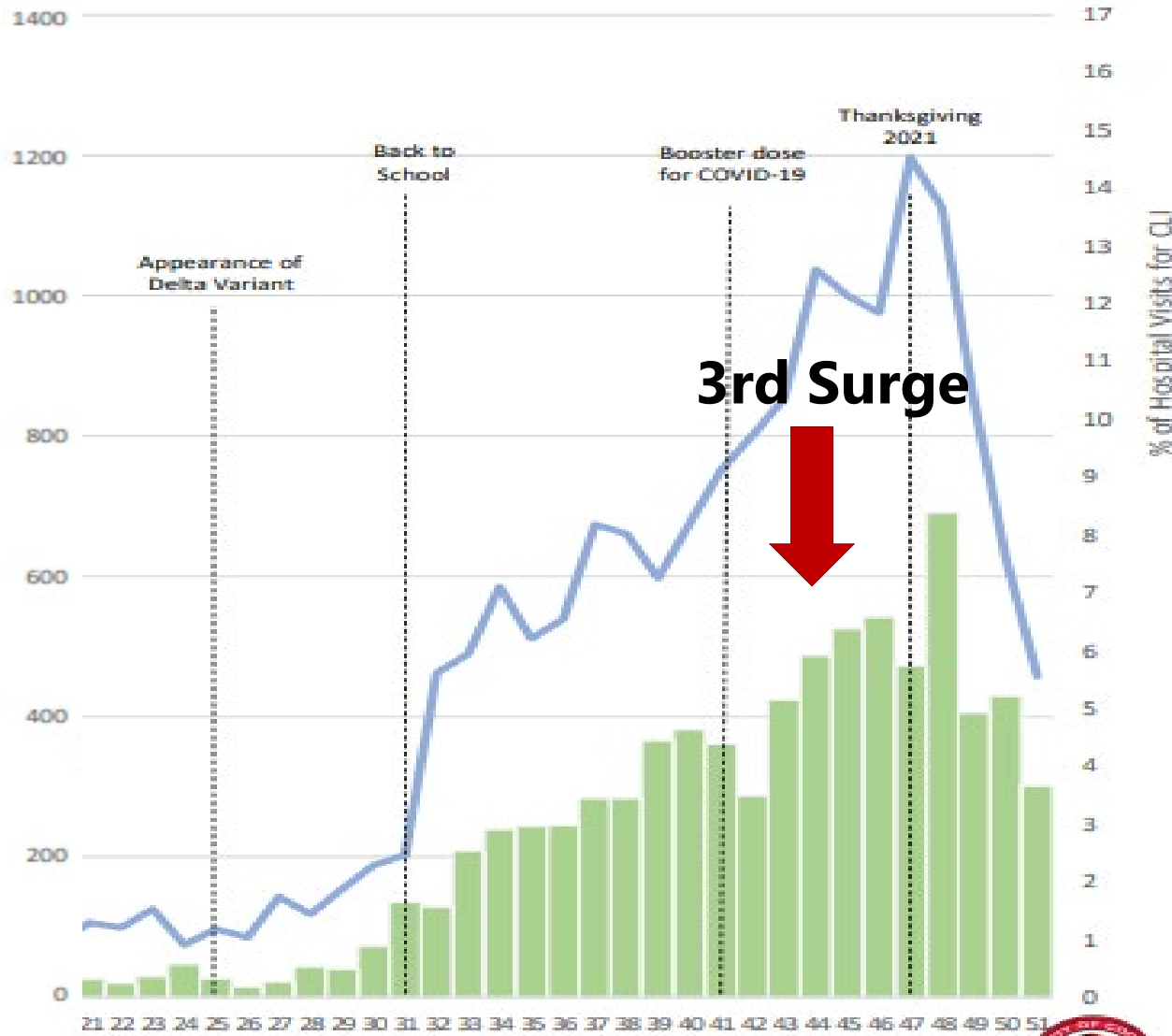
Total COVID Hospitalizations: **534**

% Hospitalized: **5%**

Total COVID DEATHS: **223**

COVID Case Fatality Rate: **2.1%**

COVID-19 Work Session 1/7/22 | Compare & Contrast



3rd COVID Surge

July 2021-December 2021

Total of **5.25** Months

Total COVID cases: **7,638**

Total COVID Hospitalizations: **400**

% Hospitalized: **5%**

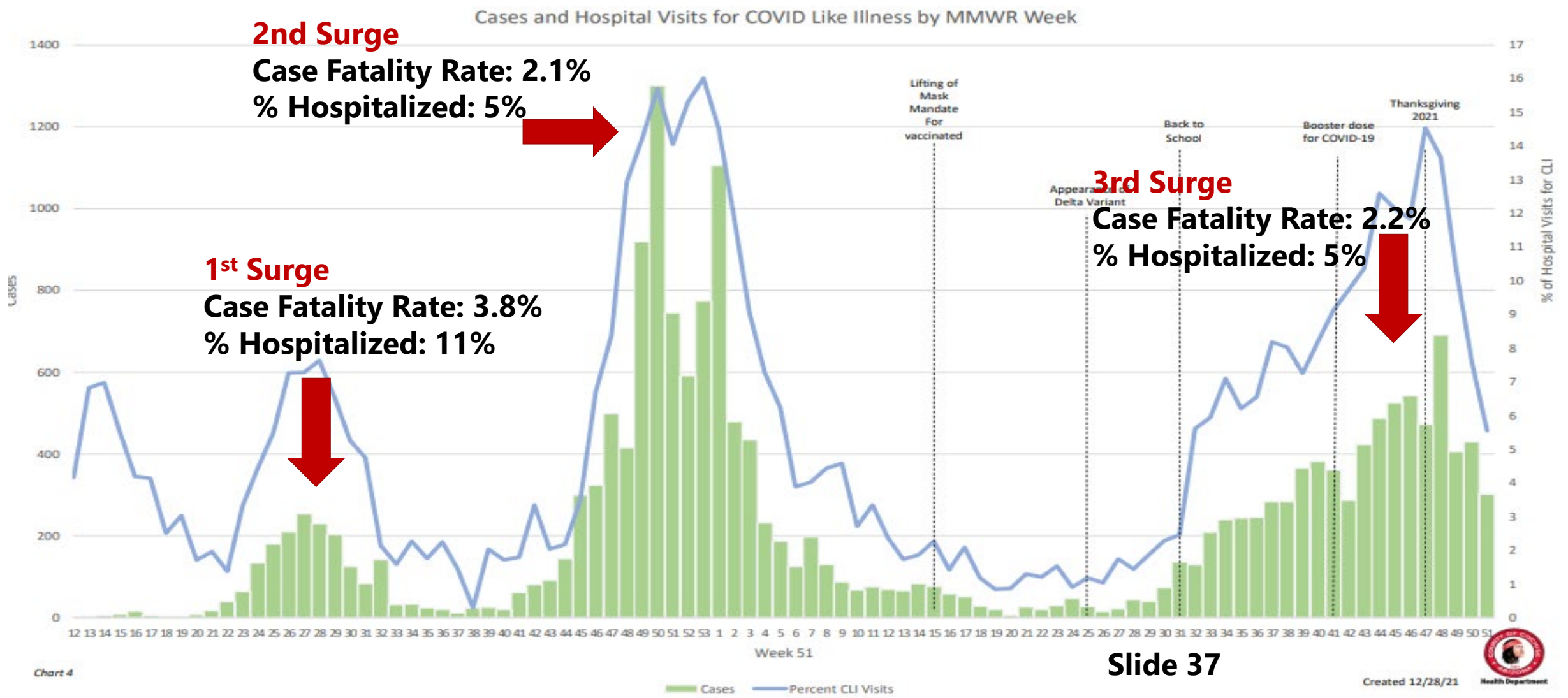
Total COVID DEATHS: **168**

COVID Case Fatality Rate: **2.2%**

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Compare & Contrast:

Conclusion



COVID-19 Work Session 1/7/22 |

New Shorten Recommended Isolation & Quarantine Period for General Population

If You Test Positive for COVID-19

Isolation

Everyone, regardless of vaccination status.

- Stay home for 5 days.
- If you have no symptoms or your symptoms are resolving after 5 days, you can leave your house.
- Continue to wear a mask around others for 5 additional days.

If you have a fever, continue to stay home until your fever resolves.

Slide 38

If You Were Exposed to Someone with COVID-19

Quarantine

If you:

Completed the primary series of Pfizer or Moderna vaccine over 6 months ago and are not boosted

OR

Completed the primary series of J&J over 2 months ago and are not boosted

OR

Are unvaccinated

- Stay home for 5 days. After that continue to wear a mask around others for 5 additional days.
- If you can't quarantine you must wear a mask for 10 days.
- Test on day 5 if possible.

If you develop symptoms get a test and stay home

COVID-19 Work Session 1/7/22 |

New Shorten Recommended Isolation & Quarantine Period for General Population

If You Were Exposed to Someone with COVID-19 but are **fully vaccinated**:

Do not need to Quarantine

If you:

Have been boosted

OR

Completed the primary series of Pfizer or Moderna vaccine within the last 6 months

OR

Completed the primary series of J&J vaccine within the last 2 months

- Wear a mask around others for 10 days.
- Test on day 5, if possible.

If you develop symptoms get a test and stay home.

Fully Vaccinated:

Completed a 2-dose FDA-approved COVID-19 vaccine series within 6 months

OR

Completed a single-dose series (Janssen) within 2 months

OR

Completed a primary series AND received a booster dose

Partially Vaccinated:

Primary series not completed

OR

Primary series completed but not boosted (2 months after 1-dose series or 6 months after 2-dose series)

County Vaccination Statistics: as of 1/5/2022

Vaccine Administration

County of Residence **County of Administration**

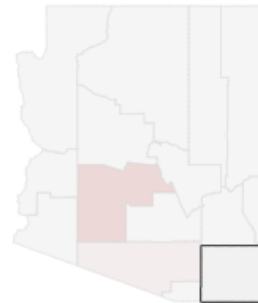
Date updated: 1/5/2022

Hover for more information.

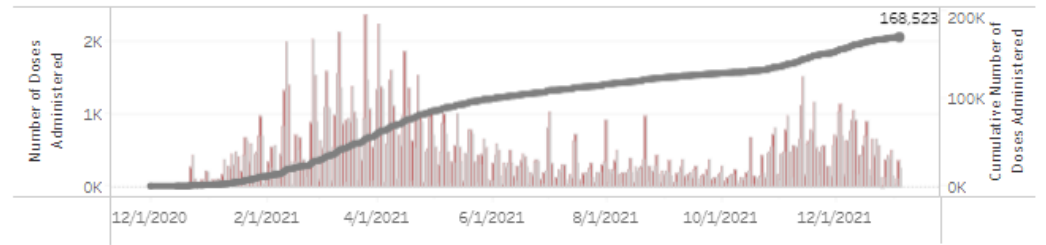


Doses in Cochise	People in Cochise
Total number of COVID-19 vaccine doses administered: 168,523	Total number of people who have received at least one dose of COVID-19 vaccine: 82,834
Total number of doses reported yesterday: 580	Percent of people vaccinated: 63.3%
	Percent of <i>eligible</i> people vaccinated: 67.3%
	Number of people who are fully vaccinated against COVID-19: 67,685

Click below to filter data by the county of residence.



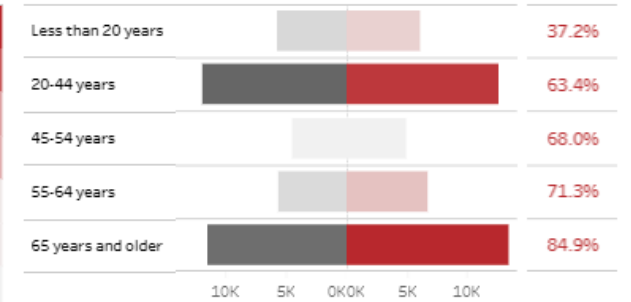
The number of doses administered by administration date (■ cumulative sum ■ doses by day)



People who have received at least one dose by race/ethnicity

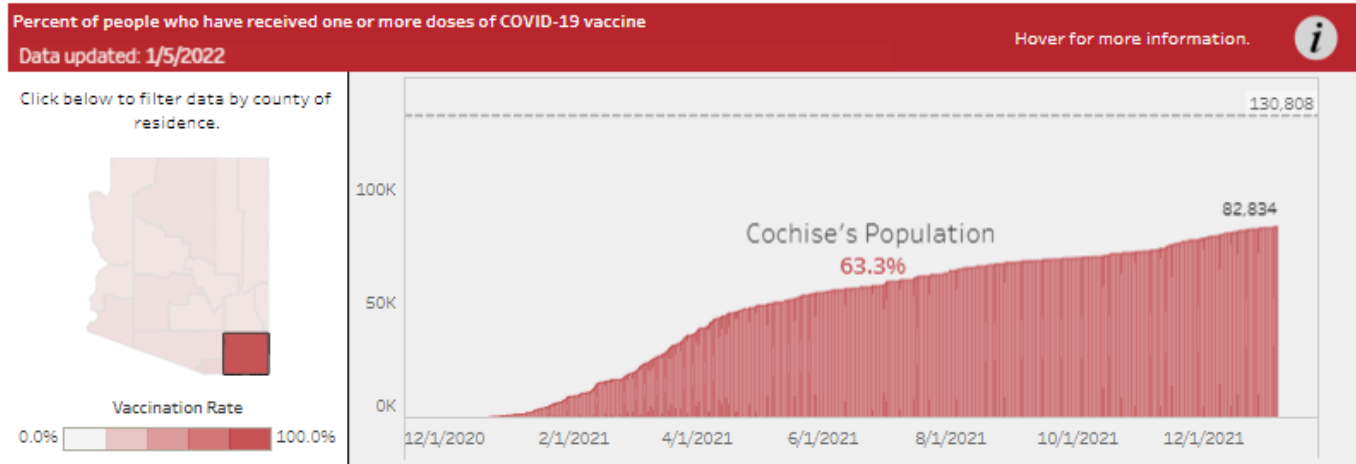
White, non-Hispanic	33,551 (40.5%)
Hispanic or Latino	23,854 (28.8%)
Other Race	12,048 (14.5%)
Unknown	9,900 (12.0%)
Black or African American, non-Hispanic	1,606 (1.9%)
Asian or Pacific Islander, non-Hispanic	1,508 (1.8%)
American Indian or Alaska Native, non-Hispanic	367 (0.4%)

People who have received at least one dose by age and gender (■ male ■ female) and vaccination rates by age group

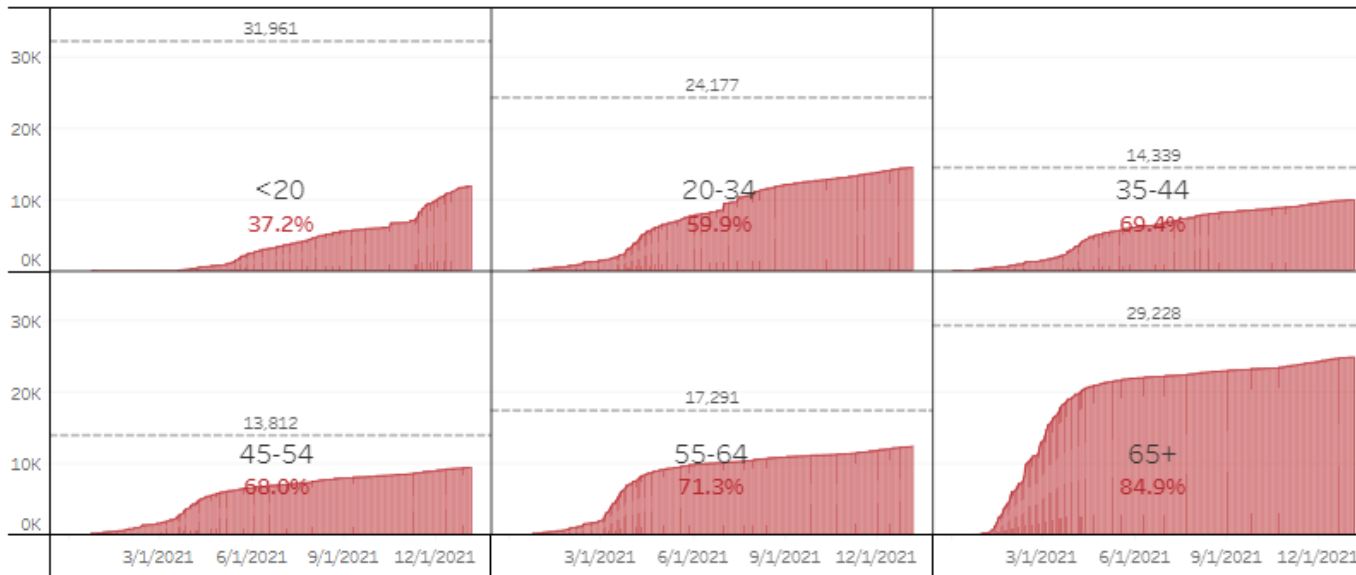


*491,152 doses administered to out-of-state residents.

County Vaccination Statistics: as of 1/5/2022



Vaccination Rates by Age Group



For our residents we have an overall vaccination rate of 63.3%

- Highest percentage of vaccinations are with the 65+ group -24,814 given
- 11,889 vaccines given to <20-year-olds
- Approximately 5,700, 5-11 vaccines have been administered in the county

As of 1/5/2022—COUNTY OF RESIDENCE – Cochise County

- **Vaccines Administered: 168,523 (increase of 9,561 since our last meeting 12/17/21)**
- **Percent of eligible County Residents fully vaccinated: 67,685 divided by 123,163 = 55%**

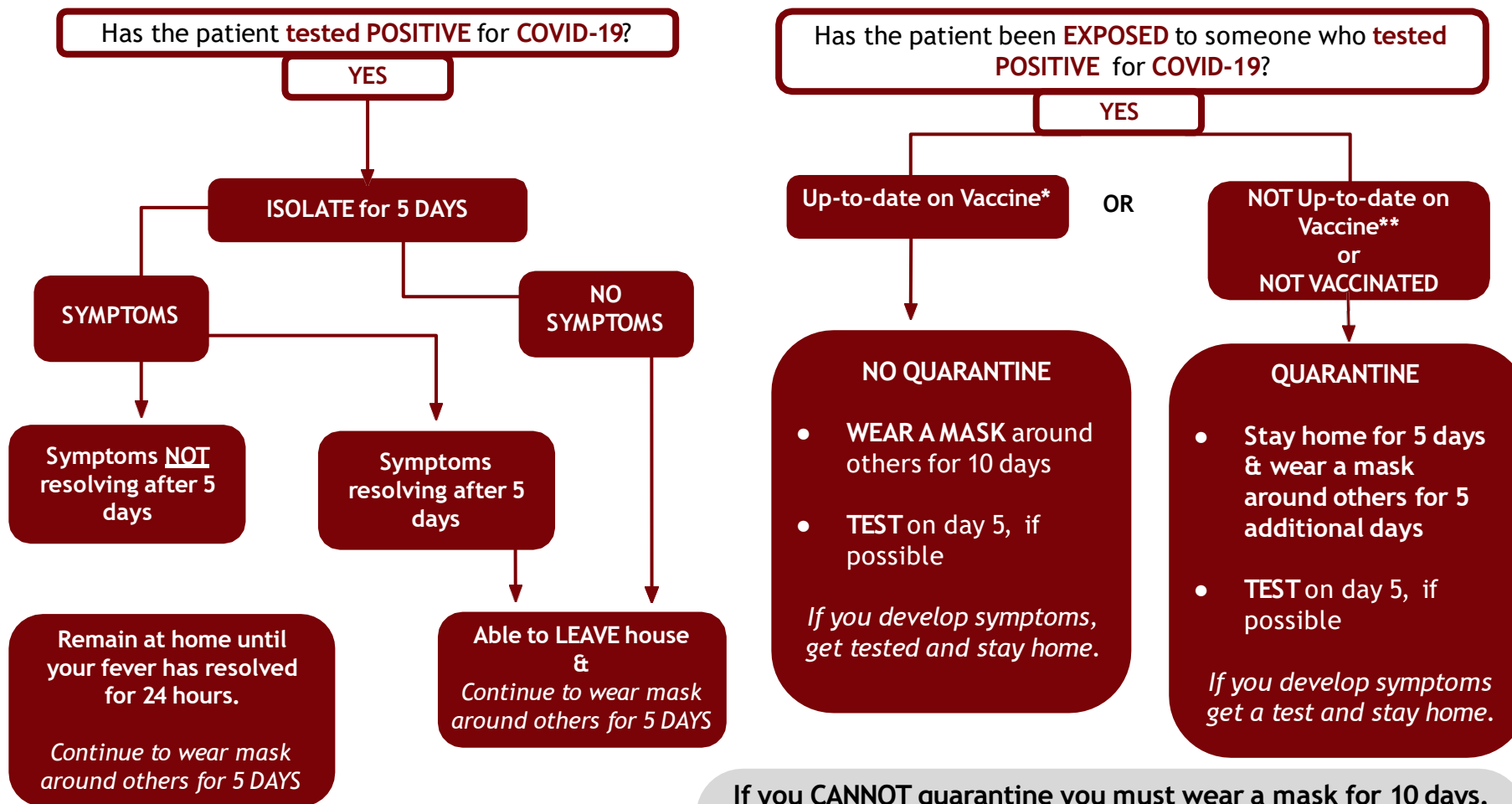
<https://www.azdhs.gov/covid19/data/index.php#vaccine-admin> Cochise County Specific

Definition of Eligible: COVID-19 Vaccine is available for those who are 5 years of age or older, any one 5 years or older is currently considered eligible

What's New?

- New vaccine guidelines
 - Boosters of Pfizer are approved 5 months after primary vaccines and 16–17-year-olds are now eligible for booster
 - Booster of Moderna continues to be 6 months after primary vaccines
 - For immunocompromised 5–11-year-old children, a 3rd dose (28 days after 2nd dose of Pfizer) is recommended for the primary series.
 - ACIP Guidelines are recommending the use of Pfizer or Moderna mRNA vaccines over J&J due to increased effectiveness

AzDHS Release from Quarantine and Isolation Flow Chart



If you CANNOT quarantine you must wear a mask for 10 days.

**Up-to-date on Vaccine: Completion of a 2-dose series within 6 months; OR completion of a single-dose series within 2 months; OR completion of primary series AND received a booster dose.*

***NOT Up-to-date on Vaccine: Primary series not completed; OR primary series completed, but NOT boosted (2 months after 1-dose series, 6 months after 2-dose series).*

As of 1/5/22

Fall Semester 2021

- **1430** school related cases since the start of the Fall semester (8/4/21) to the beginning of the Spring semester (1/2/22).
 - Up **100** (-50%) new cases since last meeting (12/17/21).
 - **8%** of total cases were new cases added since last meeting (12/17/21)

Spring Semester 2022

- **15** school related cases since the start of the Spring semester (1/3/22).
- **3/65** schools have met the outbreak definition since the start of the semester (1/3/22).
- **1/65** school engaged in state funded pool testing.

QUESTIONS/COMMENTS?