



# CRIHB COVID-19 Updates February 16, 2021

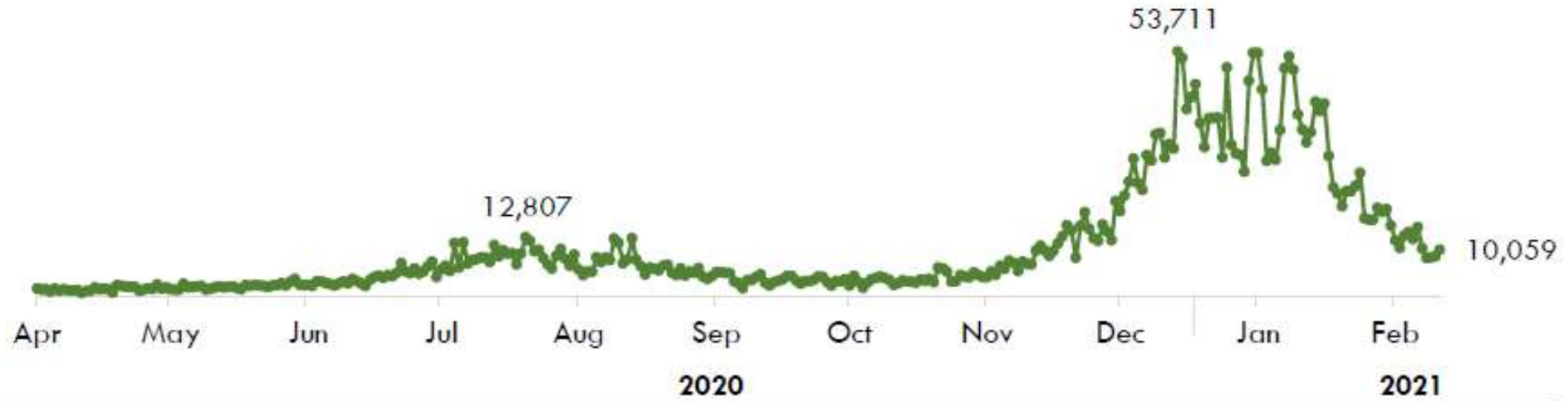
*Please sign-in in the Group  
Chat with your name and  
Tribe or Indian Health  
Program name*



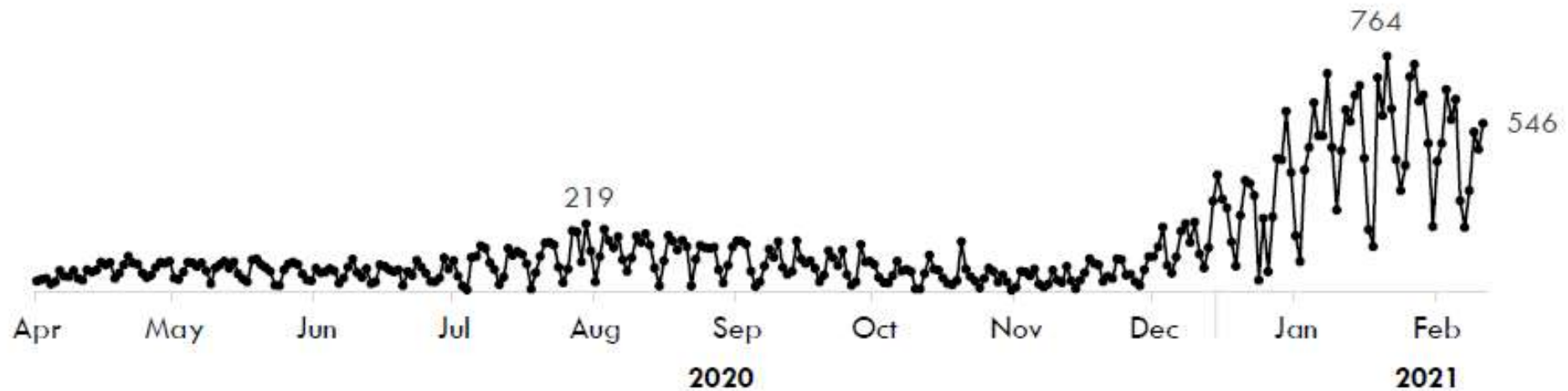
**3,381,615 Cases**  
in California

**46,002 Deaths**  
in California

New Confirmed Cases in California by Date



New Confirmed Deaths in California by Date



As of 2/12/2021. Source: CDPH



California COVID-19 threat level: **Severe outbreak**

**DAILY NEW CASES**

 **111.8** PER 100K

VERY DANGEROUS  
NUMBER OF NEW CASES

**INFECTION RATE**

 **1.03**

COVID IS STILL  
SPREADING, BUT SLOWLY

**POSITIVE TEST RATE**

 **16.1 %**

INDICATES INSUFFICIENT  
TESTING

As of 1/15/2021. Source: COVID Act Now

California COVID-19 threat level: **Active outbreak**

**DAILY NEW CASES**

 **28.6** PER 100K

DANGEROUS NUMBER  
OF NEW CASES

**INFECTION RATE**

 **0.75**

ACTIVE CASES ARE  
DECREASING

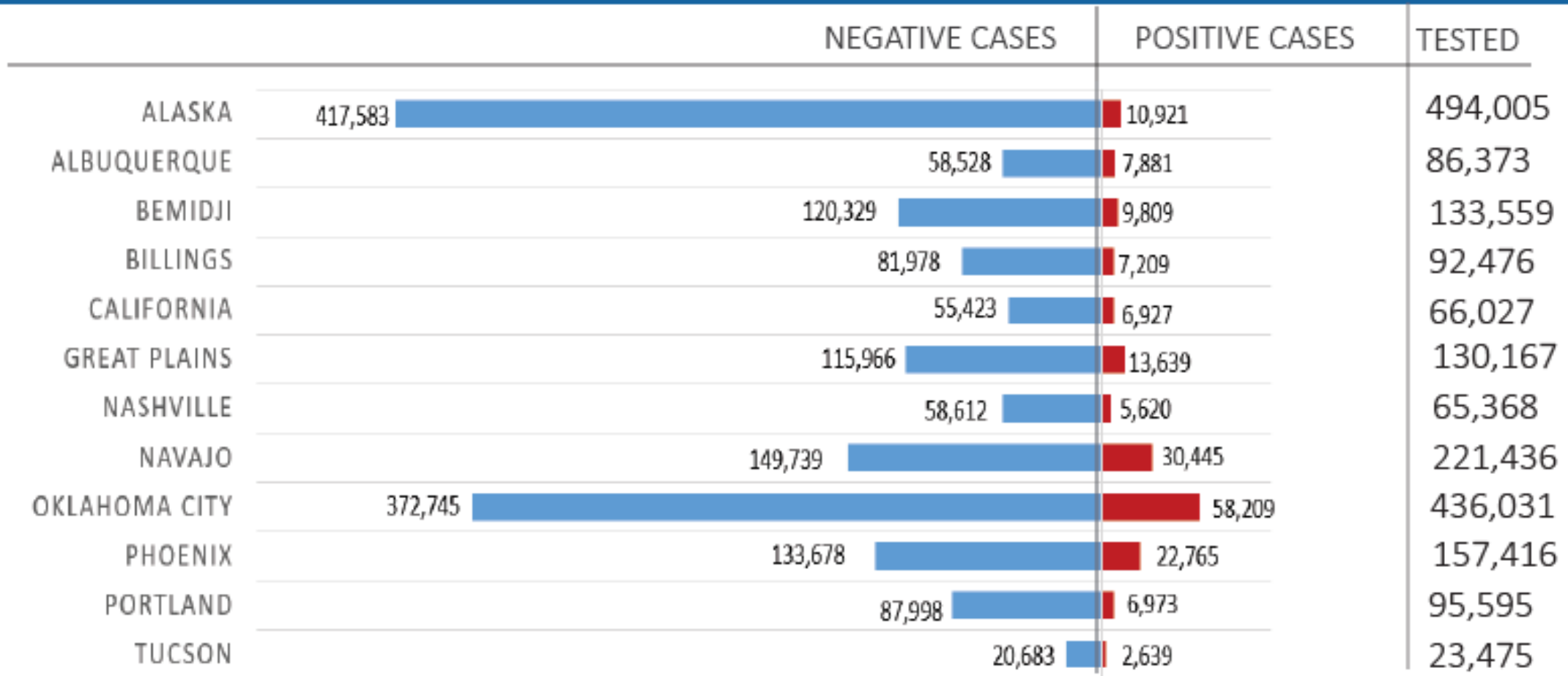
**POSITIVE TEST RATE**

 **7.0 %**

INDICATES ADEQUATE  
TESTING

As of 2/12/2021. Source: COVID Act Now

## COVID-19 CASES BY IHS AREA

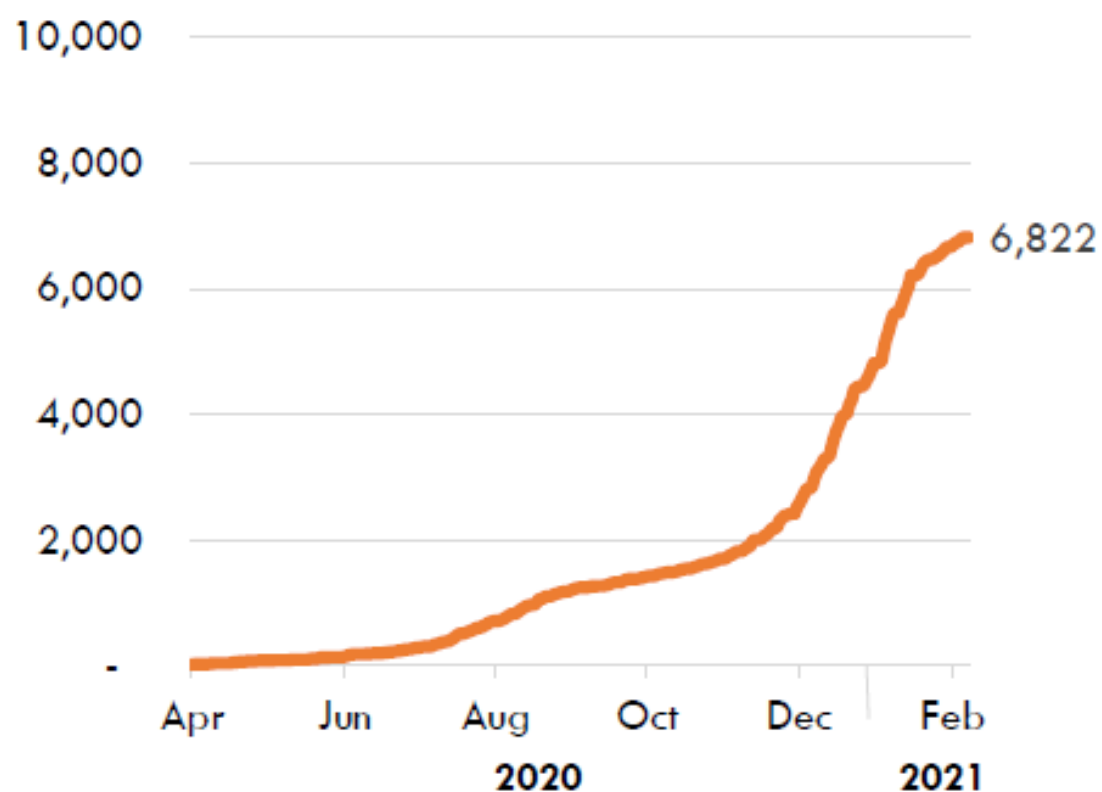


\*as of 11:59PM EST February 10, 2021

Based on self-reported data to IHS

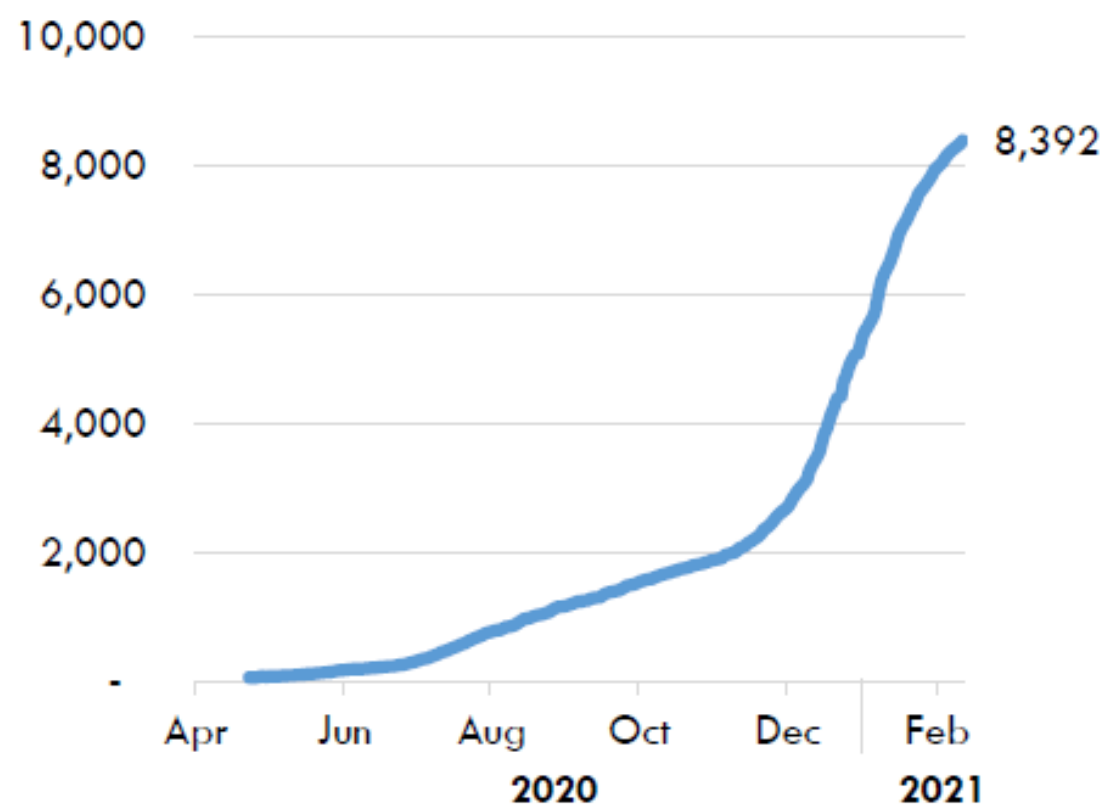
## Two sources for tracking American Indian and Alaska Native (AIAN) cases reported in California

Data from the **Indian Health Service (IHS)** include positive cases reported by Tribal and Urban Indian Health Programs.



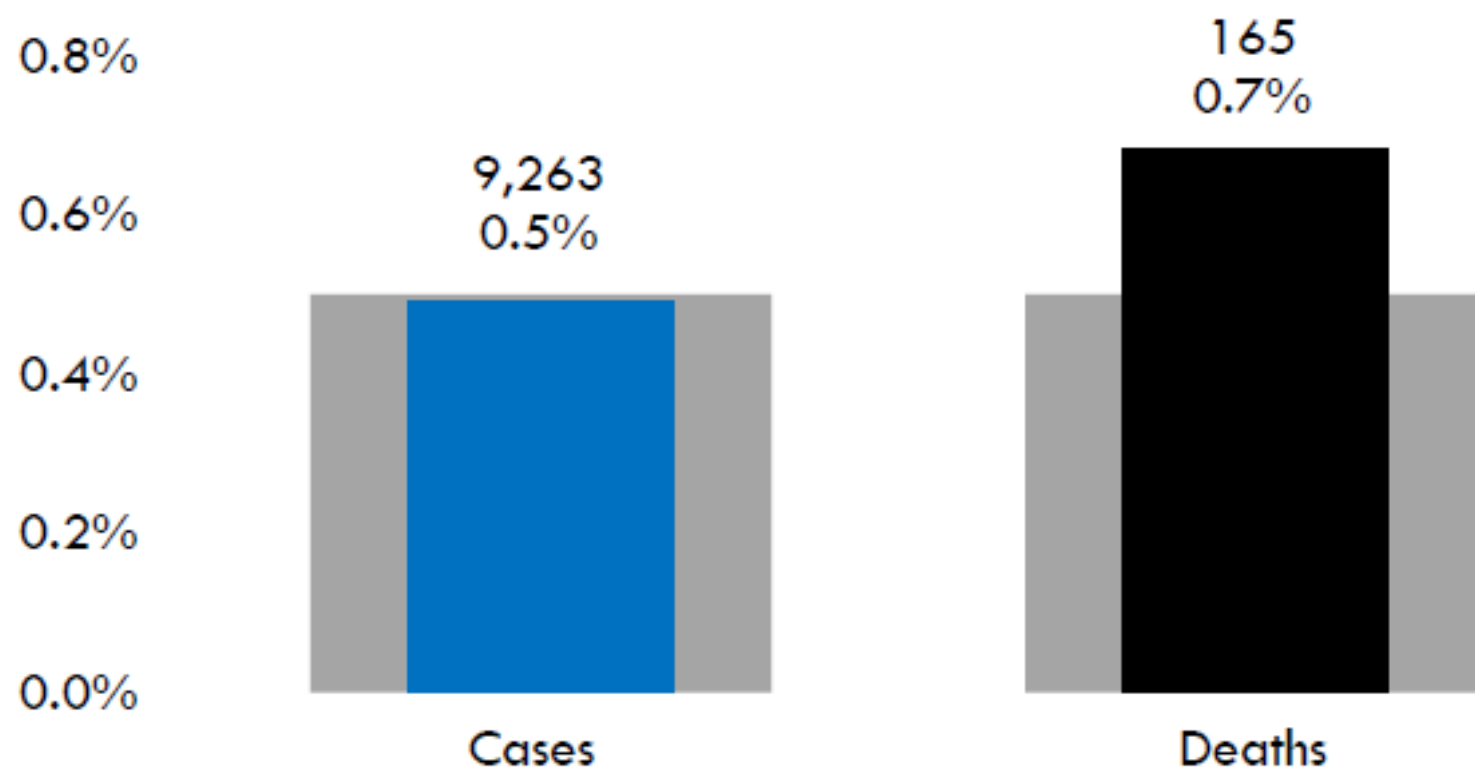
As of 2/9/2021. Source: IHS

Data from **California Department of Public Health (CDPH)** include all positive cases of AIAN diagnosed in California.



As of 2/12/2021. Source: CDPH

CDC data show that AIAN in California are testing positive for COVID-19 at rates that are proportionate to their population in California but dying at rates that are higher. This includes a total of **9,263 cases** and **165 deaths**.



As of 1/4/2021. Source: CDC



Number of positive cases identified by region



## COVID-19 VACCINE ALLOCATION NUMBERS BY IHS AREA

As of January 29, 2021, the Indian Health Service (IHS), has distributed vaccine allocations of the Pfizer vaccine and Moderna vaccine. The table to the right shows the number of vaccine doses distributed to IHS areas to date.

Area	Sum of Prime	Sum of Boost	Sum of Total
Albuquerque	19200	11950	31150
Bemidji	15400	9900	25300
Billings	7850	5650	13500
California	20050	13300	33350
Great Plains	18650	12700	31350
Nashville	11225	7725	18950
Navajo	43725	30525	74250
Oklahoma City	74950	49050	124000
Phoenix	28400	22000	50400
Portland	11625	7325	18950
Tucson	1800	1200	3000
<b>Grand Total</b>	<b>252875</b>	<b>171325</b>	<b>424200</b>

[https://www.ihs.gov/sites/coronavirus/themes/responsive2017/display\\_objects/documents/COVID-19VaccineDistributionArea.pdf](https://www.ihs.gov/sites/coronavirus/themes/responsive2017/display_objects/documents/COVID-19VaccineDistributionArea.pdf)

### Indian Health Svc

Total Doses Delivered: 697,025 (N/A per 100k)

Total Doses Administered: 385,284 (N/A per 100k)

People Receiving 1 or More Doses: 278,647 (N/A per 100k)

People Receiving 2 Doses: 100,756 (N/A per 100k)

<https://covid.cdc.gov/covid-data-tracker/#vaccinations>





# CDC Foundation COVID-19 Corps Staff

- The CDC Foundation has hired following positions to serve California Tribal communities. These are 100% remote and will work directly with California Tribes and Tribal/Urban Indian Health Programs.
- Tribal Nation Epidemiologist (1)
  - Inger Appanaitis, [iappanaitis@cdcfoundation.org](mailto:iappanaitis@cdcfoundation.org)
- Tribal Nation Emergency Preparedness Planner (2)
  - Isabella Kaser, [ikaser@cdcfoundation.org](mailto:ikaser@cdcfoundation.org)
  - Mitchell Saraceno, [msaraceno@cdcfoundation.org](mailto:msaraceno@cdcfoundation.org)
- Tribal Nation Public Health Disease Investigator (2)
  - Annie Rivera, [arivera@cdcfoundation.org](mailto:arivera@cdcfoundation.org)
  - Mwihaki Gaciri, [mgaciri@cdcfoundation.org](mailto:mgaciri@cdcfoundation.org)

# Vaccine related materials

## COVID-19 VACCINE INFORMATION

CDC GUIDANCE

+

COVID-19 VACCINE (PFIZER/MODERNA)  
COMPARISON FLYERS

+

COVID-19 VACCINE UPDATE FLYERS

+

ADDITIONAL RESOURCES

+

## Comparing the Pfizer and Moderna COVID-19 vaccines

The vaccines are  
more alike than  
different and are  
equally effective  
and safe for  
members of the  
general public.

For more information, go to:  
<https://covid19.ca.gov/vaccines/>



### Pfizer



- **Both vaccines** utilize mRNA, or messenger RNA technology, meaning they teach cells to make a protein that prompts an immune response.
- **Both vaccines** have proved remarkably effective in trials, with more than 94% efficacy rates for protecting against COVID-19.
- **Both vaccines** are effective for different races and genders, as well as for people with underlying medical conditions.
- **Both vaccines** have mild and temporary side effects, including pain at the injection site, headache, fever, fatigue, chills, and muscle and joint pain.
- **Pfizer's** vaccine needs to be stored in a special freezer at minus 94 degrees.
- **Pfizer's** vaccine is approved for people 16 years old and older.
- **Pfizer's** vaccine has a series of two shots that must be given 21 days apart.

### Moderna



- **Both vaccines** utilize mRNA, or messenger RNA technology, meaning they teach cells to make a protein that prompts an immune response.
- **Both vaccines** have proved remarkably effective in trials, with more than 94% efficacy rates for protecting against COVID-19.
- **Both vaccines** are effective for different races and genders, as well as for people with underlying medical conditions.
- **Both vaccines** have mild and temporary side effects, including pain at the injection site, headache, fever, fatigue, chills, and muscle and joint pain.
- **Moderna's** vaccine can be kept in a regular freezer at minus 4 degrees.
- **Moderna's** vaccine is approved for people 18 years and older.
- **Moderna's** vaccine has a series of two shots that must be given 28 days apart.

#CovidVaccineSavesLives  
#ProtectOurElders  
#EndthePandemic



California Rural Indian Health Board, Inc.  
CRIHB COVID-19 Resources:  
<https://crihb.org/prevention-and-education/public-health/>

Individuals with severe allergic reactions to other vaccines should consult their doctor in case they may be allergic to a component of the vaccine. It is recommended that individuals who carry an EpiPen for their allergies should bring it to their appointment.

CDC notes that women who are pregnant or breastfeeding can be presented the option to vaccinate. Talk to your health care practitioner if you have any concerns about whether you should receive it.



# Vaccine related materials

## COVID-19 VACCINE INFORMATION

CDC GUIDANCE

+

COVID-19 VACCINE (PFIZER/MODERNA)  
COMPARISON FLYERS

+

COVID-19 VACCINE UPDATE FLYERS

+

ADDITIONAL RESOURCES

+

## COVID-19 VACCINE UPDATE



Two COVID-19 vaccines are currently available in the U.S. Pfizer-BioNTech and Moderna both have received emergency use authorization from the Food and Drug Administration to make their vaccines available to the public.

There will be a limited supply when the first vaccine is approved. The Advisory Committee on Immunization Practices recommends health care workers and people vulnerable to severe illness from the virus — such as those living in long-term care facilities will get first priority access.

While you're waiting for a COVID-19 vaccine, please continue to follow public safety guidelines, including physical distancing, frequent hand-washing, limiting group gatherings, restricting nonessential travel, and wearing a face covering.

**#CovidVaccineSavesLives**  
**#StayHomeSaveLives**

California Rural Indian Health Board, Inc.  
CRIHB COVID-19 Resources:  
<https://crihb.org/prevention-and-education/public-health/>



### COVID-19 vaccine approval timeline:

**On December 11, 2020:** The Food and Drug Administration (FDA) issued an Emergency Use Authorization (EUA) for the Pfizer-BioNTech vaccine.

**On December 18, 2020:** The FDA issued an EUA for Moderna COVID-19 vaccine.

Both vaccines contain messenger RNA (mRNA), which is genetic material. This vaccine contains a small piece of the SARS-CoV-2 virus's mRNA that tells cells in the body to make the virus's "spike" protein. When a person receives this vaccine, their body will produce copies of the "spike" protein. This protein does not cause disease but will trigger the immune system to produce a response against SARS-CoV-2.

Both vaccines have been shown to be very effective, **about 95% effective** in preventing COVID-19.

You will **need two vaccinations** in order to be **fully protected**. The first and second Pfizer vaccinations should be given 21 days apart, and the first and second Moderna vaccinations should be given 28 days apart.

Both vaccines have mild and temporary side effects, including pain at the injection site, headache, fever, fatigue, chills, and muscle and joint pain.

Individuals with severe allergic reactions to other vaccines should consult their doctor in case they may be allergic to a component of the vaccine. They should be observed for 30 minutes following injection rather than the usual 15 minutes. It is recommended that individuals who carry an EpiPen for their allergies should bring it to their appointment.

CDC notes that women who are pregnant or breastfeeding can be presented the option to vaccinate. Talk to your health care practitioner if you have any concerns about whether you should receive it.

For more information about the COVID-19 vaccine, go to: <https://covid19.ca.gov/vaccines/>

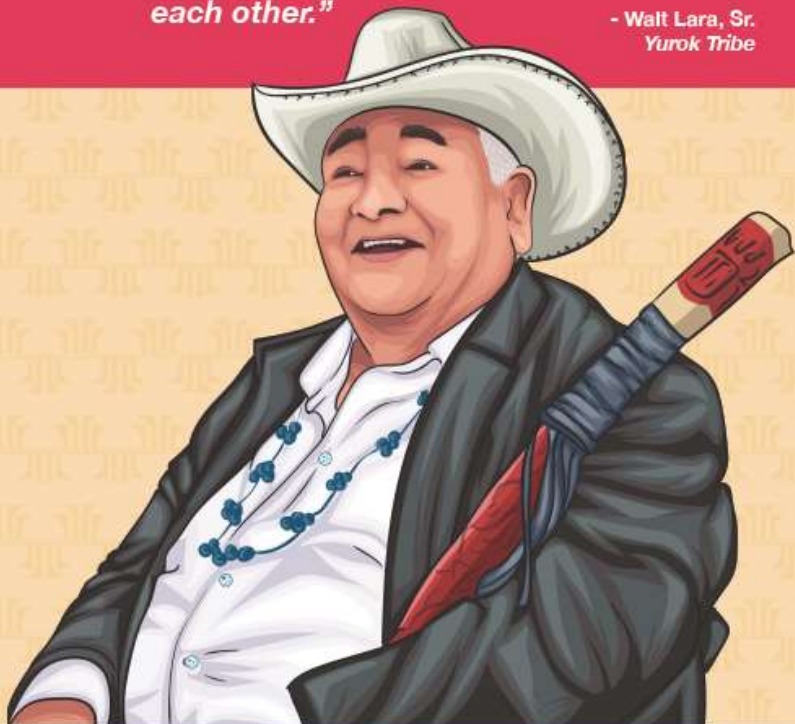
**A COVID-19 VACCINE IS NEEDED  
TO CONTROL THE PANDEMIC**



“

Do all that you can to protect each other.  
Our ancestors gave their lives to protect  
our future. Now it's our turn to protect  
each other.”

- Walt Lara, Sr.  
Yurok Tribe



#ProtectOurElders  
#CovidVaccineSavesLives



California Rural Indian Health Board, Inc.  
CRIHB COVID-19 Resources:  
<https://crihb.org/prevention-and-education/public-health/>

#ProtectOurElders



Michael Hunter, Chairman,  
Coyote Valley Band of Pomo Indians

“Getting the vaccine will keep you, your family, and our  
elders healthy and safe. With an efficacy of 95%, the  
COVID-19 vaccine is effective at protecting you from the  
virus. By getting vaccinated, you can prevent more  
illnesses and deaths in our Tribal communities and  
protect our language speakers.”



California Rural Indian Health Board, Inc.  
CRIHB COVID-19 Resources:  
<https://crihb.org/prevention-and-education/public-health/>



#CovidVaccineSavesLives

#ProtectOurElders

“I wear a face covering to  
PROTECT the ELDERS  
and CHILDREN  
in our community.”

“I wear a face covering  
because it is ONE STEP  
in FIGHTING COVID-19.”

“I wear a face covering  
because I want to HELP  
OUR COMMUNITY  
STAY HEALTHY  
and SAFE.”



Rosee Hammock, Big Valley Band of Pomo Indians and Round Valley Indian Tribes

#StayHomeSaveLives



California Rural Indian Health Board, Inc.  
CRIHB COVID-19 Resources:  
<https://crihb.org/prevention-and-education/public-health/>







Jack Potter Jr., Chairman,  
Rocking Rancheria

“ I took the COVID-19 vaccine to help

#CovidVaccineSavesLives



#ProtectOurElders



Wear a face covering to  
ni-wūkawa (protect us)

“  
The COVID-19 vaccine can  
protect our elders, families,  
and children as they are  
the future generation.  
Wear a face covering  
to protect our Tribal  
communities.”

Ü-Dübba-neika a-woboa  
(cover your mouth)

#CovidVaccineSavesLives

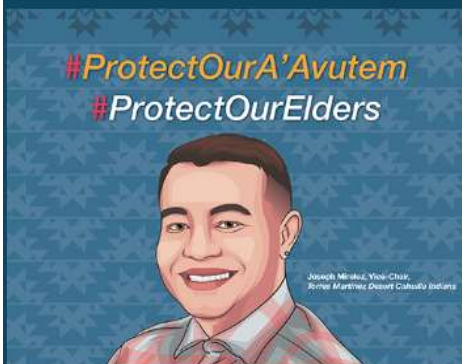


#CovidVaccineSavesLives  
#ProtectOurElders

“Behave yourselves  
and wear your  
face covering”

Joy Sandberg, Yurok  
Former Chairwoman,  
Cher-Ae Heights Indian Community

#CovidVaccineSavesLives



Joseph Moshu, Vice Chair,  
Maricopa Desert Cultural Indians

#CovidVaccineSavesLives



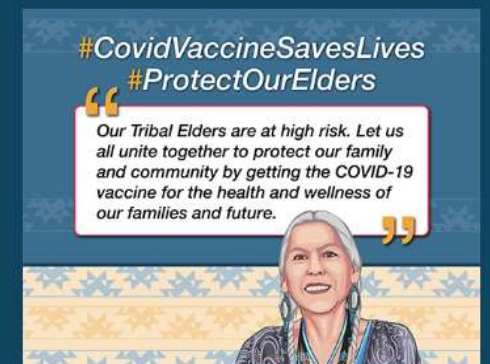
#CovidVaccineSavesLives



#ProtectOurElders



#ProtectOurElders



#CovidVaccineSavesLives  
#ProtectOurElders

“  
Our Tribal Elders are at high risk. Let us  
all unite together to protect our family  
and community by getting the COVID-19  
vaccine for the health and wellness of  
our families and future.”

#ProtectOurElders



*Submit CTEC TA online request:*

<https://crihb.org/technical-assistance-request-form/>

## How to reach us for questions:

### Clinical-related assistance:

Thomas Kim, MD, MPH

Medical Director/Epidemiologist

[tkim@crihb.org](mailto:tkim@crihb.org)

### PPE-related questions:

Rosario Arreola Pro, MPH

Director, Health Systems Development

[rarreolapro@crihb.org](mailto:rarreolapro@crihb.org)

### Community or grant-related assistance:

Vanesscia Cresci, MSW, MPA

Director, Research and Public Health

[vcresci@crihb.org](mailto:vcresci@crihb.org)

### Epidemiologic or data-related assistance:

Aurimar Ayala, MPH

Epidemiology Manager

[aayala@crihb.org](mailto:aayala@crihb.org)



# Covid-19 Update: Explaining SARS CoV-2 Variants

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THOMAS J. KIM, MD, MPH  
HEALTH SYSTEMS DEVELOPMENT  
CALIFORNIA TRIBAL EPIDEMIOLOGY CENTER  
FEBRUARY 17, 2021

# Topics

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- What makes one variant more harmful than another?
- Concerning variant types
- What might be the significance of new variants?

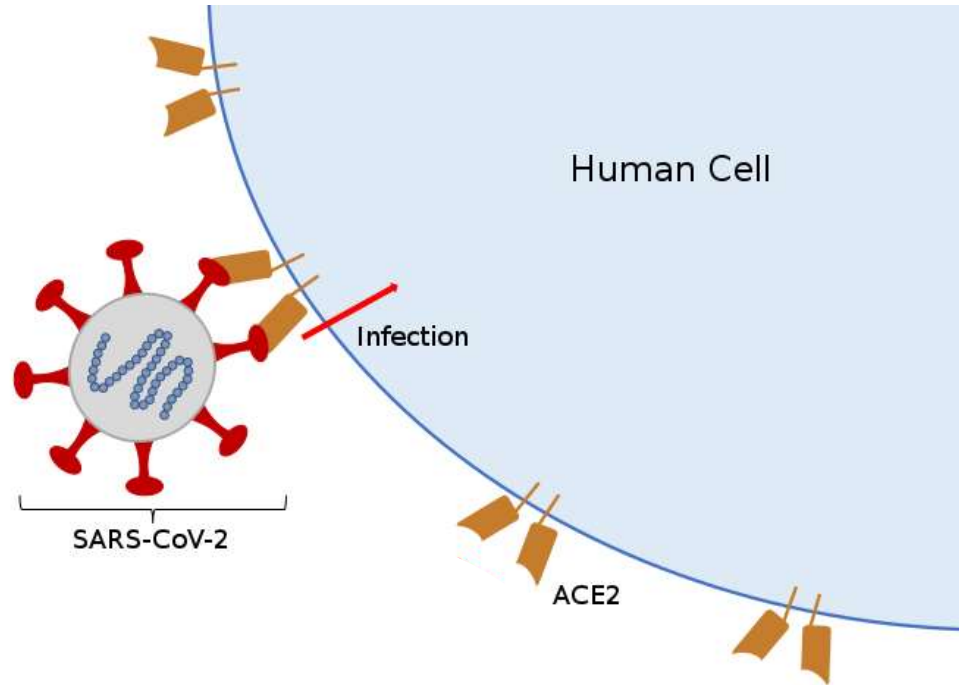


”South Africa halted use of the AstraZeneca-Oxford coronavirus vaccine on Sunday [Feb 7] after evidence emerged that the vaccine did not protect clinical trial volunteers from mild and moderate illness caused by the more contagious virus variant that was first seen there.”

- New York Times, February 7, 2021

"The data that we got from South Africa is really quite sobering..."

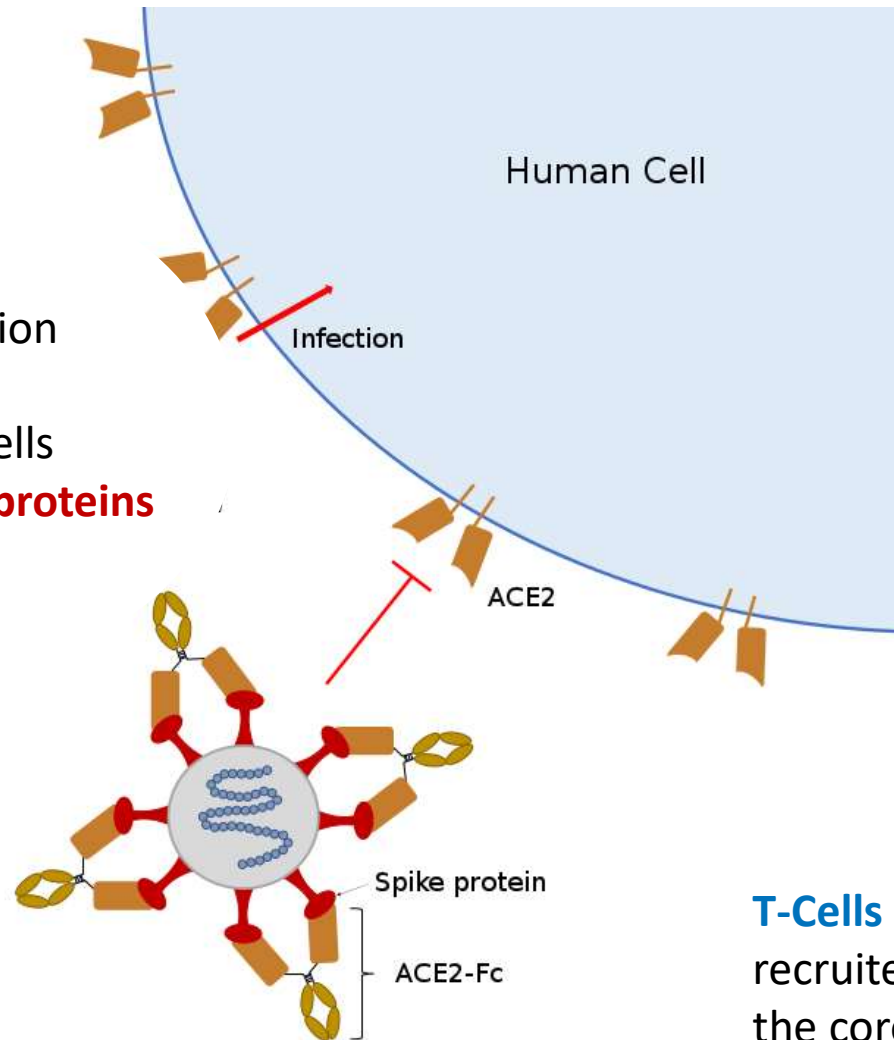
-Dr. Anthony Fauci.



**Spike proteins** are the “key” or docking point to allow the coronavirus to enter into human cells and then multiply

## Neutralizing Antibodies

from either natural infection  
or the Covid-19 vaccine  
block entry into human cells  
by covering up the **spike proteins**



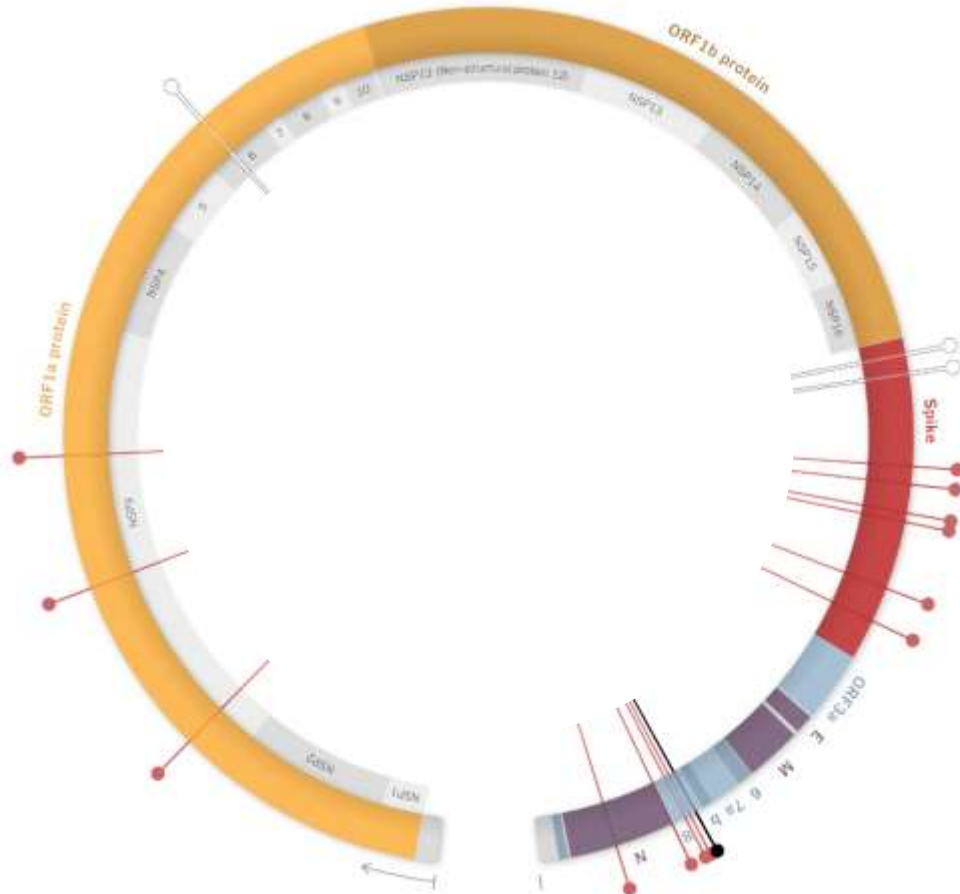
**T-Cells** are also  
recruited to fight  
the coronavirus



Why are some SARS CoV-2 variants harmful and others not?



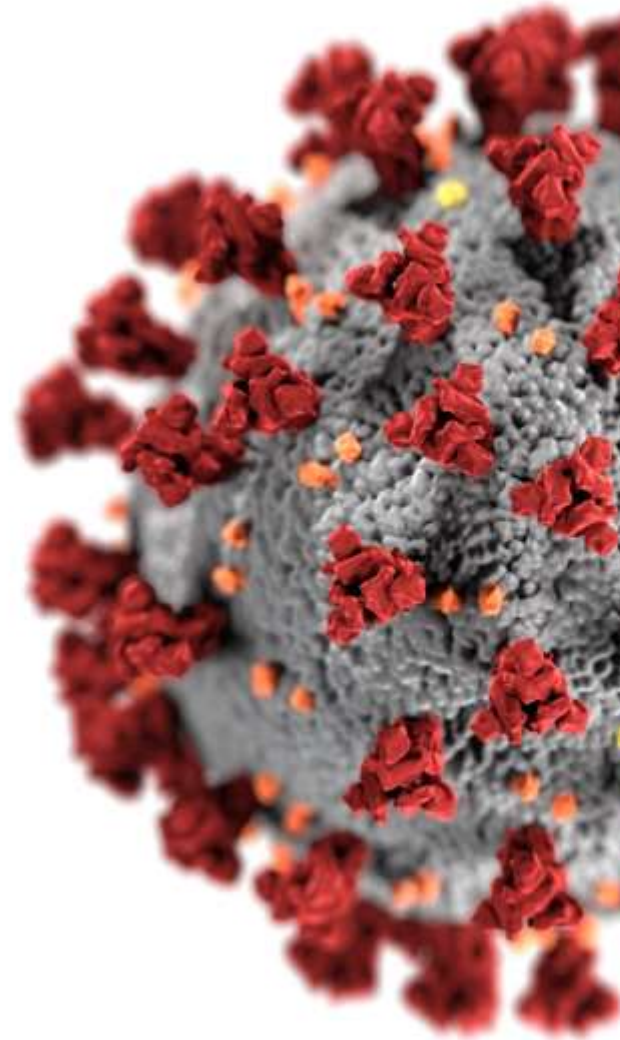
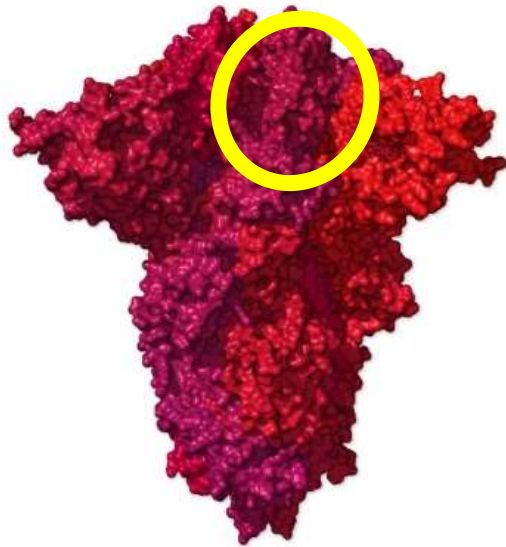
This file is made available under the [Creative Commons CC0 1.0 Universal Public Domain Dedication](https://creativecommons.org/licenses/by/4.0/)



# Spike Protein

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“Receptor Binding Domain”



# B.1.1.7 Variant (UK)

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- Key mutations:
  - N501Y creates **tighter receptor fit**
  - H69-V70 and Y144/145 deletion may make it **harder for antibodies to attach**
- Increases transmissibility, possibly up to 50%; likely more severe illness (UK study)
- Detected in >80 countries
- May become dominant variant in US by end of March
- Detected in CA since Dec 2020
  - ~153+ cases
  - Responsible for small clusters
- Pfizer and Moderna vaccines remains effective but less so; Pfizer vaccine antibodies able to lock onto virus

# B.1.351 (South Africa)

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- Key mutations:
  - N501Y and K417N creates tighter receptor fit
  - E484K helps evades antibodies
- AstraZeneca-Oxford vaccine significantly less protection
- South Africa suspended rollout of this vaccine 2/7
  - May be harbinger of similar responses globally with more variants
- Pfizer and Moderna still effective; less potent
- In 8 states, recently detected in California



# P.2 Variant (Brazil)

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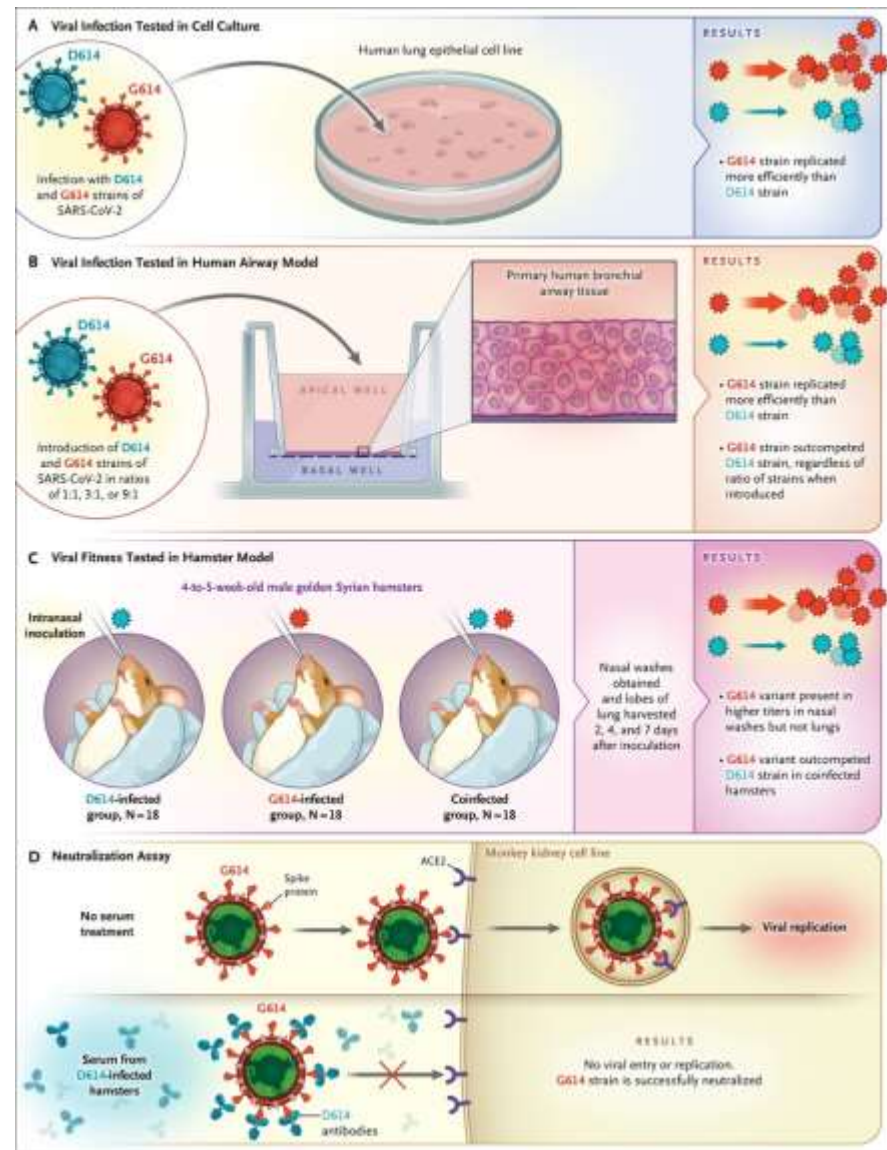
- Also known as 20J/501Y.V3;
- Mutations very similar to B1.351
- In three states; detected in Santa Clara county
- Issues
  - Does not seem to cause more severe disease
  - Possibly more transmissible, but anecdotal
  - Significant concern that it seems to evade current vaccines
- More data needed

# B.1429 and B.1427 (CAL.20C)

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- L452R mutation
- Initially detected in CA, now in >10 states
- Found to be main strain in a few outbreaks
- Currently not considered by CDC as a variant of concern due to limited epidemiological data
- No evidence more transmissible, more severe disease or evades vaccine

# How do test variants for its ability to infect human cells?



RS Baric. N Engl J Med 2020;383:2684-2686.

# How did the variants come about?

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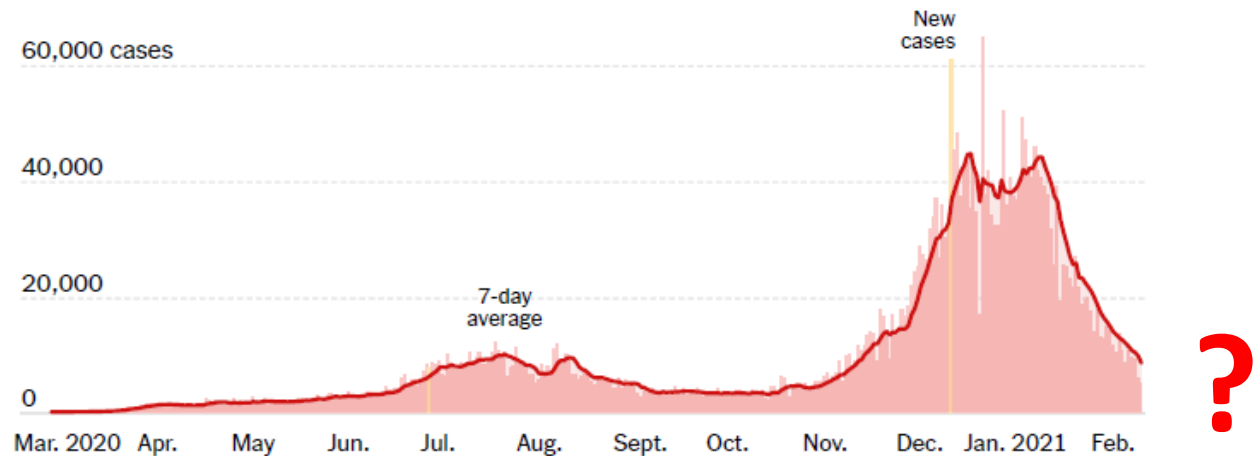
## ■ Theory

- Prolonged infection in those with weakened immune system
- Those treated with convalescent plasma
- Perhaps in single persons





# California – New Covid19 Cases



	TOTAL REPORTED	ON FEB. 15	14-DAY CHANGE
<b>Cases</b>	3.4 million+	5,012	-54% →
<b>Deaths</b>	47,115	60	-29% →
<b>Hospitalized</b>		9,299	-36% →

Day with reporting anomaly. Hospitalization data from the Covid Tracking Project; 14-day change trends use 7-day averages.

# Concluding Thoughts

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- It would likely take years and many more mutations for the virus to avoid current vaccines
- Vaccination and natural immunity is key but how will that alter the virus over time?
- Pfizer and Moderna are preparing new forms of its vaccine for an updated booster shot (SA variant)
- Ongoing monitoring, testing, epidemiologic studies
- *We should not let our guard down in vaccination efforts*

# CRIHB COVID-19 Meeting Notes

<div>TRIBE, THP, and UIHP</div> <div>ATTENDEES:</div> <div><div>1. Mathiesen Memorial Health Clinic</div><div>2. Pit River Health Service</div><div>3. Southern Indian Health Council, Inc.</div><div>4. K’ima:w Medical Center</div><div>5. Karuk Tribe Health &amp; Human Services</div><div>6. Indian Health Center of Santa Clara Valley</div><div>7. United Indian Health Services</div><div>8. Fresno American Indian Health Project</div></div> <div>CRIHB STAFF</div> <div>ATTENDEES:</div> <div><div>Aurimar Ayala, Dr.</div><div>Thomas Kim, Rosario</div><div>Arreola Pro</div></div>	<div>DATE: Tuesday February 16, 2021 (3:30PM-4:30PM, PST)</div> <div>HOST: CRIHB</div> <div>Meeting Recording:</div> <div><a href="https://us02web.zoom.us/rec/share/Y0L4i4_faGpEiZ1qLfZH_43SrU_7njTF5a2dUT8WHq0JrEyzVAZMueYER9dhjCsl.mEt26skNmiNOT2-5">https://us02web.zoom.us/rec/share/Y0L4i4_faGpEiZ1qLfZH_43SrU_7njTF5a2dUT8WHq0JrEyzVAZMueYER9dhjCsl.mEt26skNmiNOT2-5</a></div> <div>Access Passcode: .9kU3%%J</div> <div>COVID-19 Update</div> <div><ul style="list-style-type: none"><li>3,381,615 cases and 46,002 deaths in California as of 02/12/21</li><li>Daily new cases, infection rate, and positive test rate are slowly improving but California is still in an active outbreak threat level</li></ul></div> <div>Vaccine Distribution and Allocation</div> <div><ul style="list-style-type: none"><li>IHS reports 697,025 doses delivered and 385,284 doses administered</li></ul></div> <div>CRIHB Response</div> <div><ul style="list-style-type: none"><li>CDC Foundation COVID-19 Corp staff available to assist</li><li>Vaccine related materials are available on CRIHB website. Posters can be ordered from CRIHB website</li></ul></div> <div>Explaining SARS CoV-2 Variants</div> <div><ul style="list-style-type: none"><li>What makes one variant more harmful than another?<ul style="list-style-type: none"><li>Most variants are inconsequential however there are a few variants that have mutations to spike proteins that make the virus more transmissible or more severe</li></ul></li><li>Concerning variant types<ul style="list-style-type: none"><li>B.1.1.7 Variant (UK) has increased transmissibility and likely results in more severe illness. Pfizer and Moderna vaccines are effective but less so. Detected in CA in Dec 2020</li><li>B.1.351 (South Africa) In 8 states, recently in CA</li><li>P.2 is similar to B.1.351. Delectated in Santa Clara county. May be more transmissibly</li><li>B.1429 and B.1427 (CAL.20C) initially detected in CA, more data needed to assess transmissibility</li></ul></li><li>What might be the significance of new variants?<ul style="list-style-type: none"><li>It would take years and many more mutations for current vaccines to be fully void</li><li>Pfizer and Moderna are preparing for an updated booster shot</li></ul></li></ul></div>
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