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

New Confirmed Cases in California by Date

2020

2021

46,002 Deaths in California

New Confirmed Deaths in California by Date

2020

2021

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

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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
<table>
<thead>
<tr>
<th>Area</th>
<th>Negative Cases</th>
<th>Positive Cases</th>
<th>Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALASKA</td>
<td>417,583</td>
<td>10,921</td>
<td>494,005</td>
</tr>
<tr>
<td>ALBUQUERQUE</td>
<td>58,528</td>
<td>7,881</td>
<td>86,373</td>
</tr>
<tr>
<td>BEMIDJI</td>
<td>120,329</td>
<td>9,809</td>
<td>133,559</td>
</tr>
<tr>
<td>BILLINGS</td>
<td>81,978</td>
<td>7,209</td>
<td>92,476</td>
</tr>
<tr>
<td>CALIFORNIA</td>
<td>55,423</td>
<td>6,927</td>
<td>66,027</td>
</tr>
<tr>
<td>GREAT PLAINS</td>
<td>115,966</td>
<td>13,639</td>
<td>130,167</td>
</tr>
<tr>
<td>NASHVILLE</td>
<td>58,612</td>
<td>5,620</td>
<td>65,368</td>
</tr>
<tr>
<td>NAVAJO</td>
<td>149,739</td>
<td>30,445</td>
<td>221,436</td>
</tr>
<tr>
<td>OKLAHOMA CITY</td>
<td>372,745</td>
<td>58,209</td>
<td>436,031</td>
</tr>
<tr>
<td>PHOENIX</td>
<td>133,678</td>
<td>22,765</td>
<td>157,416</td>
</tr>
<tr>
<td>PORTLAND</td>
<td>87,998</td>
<td>6,973</td>
<td>95,595</td>
</tr>
<tr>
<td>TUCSON</td>
<td>20,683</td>
<td>2,639</td>
<td>23,475</td>
</tr>
</tbody>
</table>

*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.

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

<table>
<thead>
<tr>
<th>Area</th>
<th>Sum of Prime</th>
<th>Sum of Boost</th>
<th>Sum of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albuquerque</td>
<td>19200</td>
<td>11950</td>
<td>31150</td>
</tr>
<tr>
<td>Buffaloe</td>
<td>15400</td>
<td>9900</td>
<td>25300</td>
</tr>
<tr>
<td>Billings</td>
<td>7850</td>
<td>5650</td>
<td>13500</td>
</tr>
<tr>
<td>California</td>
<td>20950</td>
<td>13300</td>
<td>33350</td>
</tr>
<tr>
<td>Great Plains</td>
<td>18650</td>
<td>12700</td>
<td>31350</td>
</tr>
<tr>
<td>Nashville</td>
<td>11725</td>
<td>7725</td>
<td>18450</td>
</tr>
<tr>
<td>Navajo</td>
<td>43725</td>
<td>30325</td>
<td>74050</td>
</tr>
<tr>
<td>Oklahoma City</td>
<td>74950</td>
<td>49000</td>
<td>124000</td>
</tr>
<tr>
<td>Phoenix</td>
<td>28400</td>
<td>12000</td>
<td>40400</td>
</tr>
<tr>
<td>Portland</td>
<td>11625</td>
<td>7325</td>
<td>18950</td>
</tr>
<tr>
<td>Tucson</td>
<td>1800</td>
<td>1200</td>
<td>3000</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>252875</strong></td>
<td><strong>171325</strong></td>
<td><strong>424200</strong></td>
</tr>
</tbody>
</table>


**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
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

- **Tribal Nation Emergency Preparedness Planner (2)**
  - Isabella Kaser, ikaser@cdcfoundation.org
  - Mitchell Saraceno, msaraceno@cdcfoundation.org

- **Tribal Nation Public Health Disease Investigator (2)**
  - Annie Rivera, arivera@cdcfoundation.org
  - Mwihaki Gaciri, 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 26 days apart.
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.
CRIB COVID-19 Resources:

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

“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.”

#CovidVaccineSavesLives

“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.”

#StayHomeSaveLives

California Rural Indian Health Board, Inc.
CRIBS COVID-19 Resources:
https://cribs.org/covid-19-resources/crubs-covid-19/

CITEC
How to reach us for questions:

Clinical-related assistance:
Thomas Kim, MD, MPH
Medical Director/Epidemiologist
tkim@crihb.org

PPE-related questions:
Rosario Arreola Pro, MPH
Director, Health Systems Development
rarreolapro@crihb.org

Community or grant-related assistance:
Vanesscia Cresci, MSW, MPA
Director, Research and Public Health
vcresci@crihb.org

Epidemiologic or data-related assistance:
Aurimar Ayala, MPH
Epidemiology Manager
aayala@crihb.org

Submit CTEC TA online request:
https://crihb.org/technical-assistance-request-form/
Covid-19 Update:
Explaining SARS CoV-2 Variants

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

- 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?
Spike Protein

“Receptor Binding Domain”
B.1.1.7 Variant (UK)

- 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)

- 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)

- 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)

- 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?
How did the variants come about?

- **Theory**
  - Prolonged infection in those with weakened immune system
  - Those treated with convalescent plasma
  - Perhaps in single persons
Percent of Circulating SARS-CoV-2 Variants

Time
California – New Covid19 Cases

<table>
<thead>
<tr>
<th></th>
<th>TOTAL REPORTED</th>
<th>ON FEB. 15</th>
<th>14-DAY CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases</td>
<td>3.4 million+</td>
<td>5,012</td>
<td>-54%</td>
</tr>
<tr>
<td>Deaths</td>
<td>47,115</td>
<td>60</td>
<td>-29%</td>
</tr>
<tr>
<td>Hospitalized</td>
<td>9,299</td>
<td></td>
<td>-36%</td>
</tr>
</tbody>
</table>

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

- 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

DATE: Tuesday February 16, 2021 (3:30PM-4:30PM, PST)  
HOST: CRIHB

Meeting Recording:  
https://us02web.zoom.us/rec/share/Y0L4i4_faGpEiZ1qL/fZhi_43SrU_7njTF5a2dUT8WHqOJrEy2VAZMueYER9dhjCsl.mEt26skNmiN0T2-5  
Access Passcode: .9kU3%%

COVID-19 Update
- 3,381,615 cases and 46,002 deaths in California as of 02/12/21  
- Daily new cases, infection rate, and positive test rate are slowly improving but California is still in an active outbreak threat level

Vaccine Distribution and Allocation
- IHS reports 697,025 doses delivered and 385,284 doses administered

CRIHB Response
- CDC Foundation COVID-19 Corp staff available to assist  
- Vaccine related materials are available on CRIHB website. Posters can be ordered from CRIHB website

Explaining SARS CoV-2 Variants
- What makes one variant more harmful than another?  
  - 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  
- Concerning variant types  
  - 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  
  - B.1.351 (South Africa) In 8 states, recently in CA  
  - P.2 is similar to B.1.351. Detected in Santa Clara county. May be more transmissibly  
  - B.1.429 and B.1.427 (CAL.20c) initially detected in CA, more data needed to assess transmissibility
- What might be the significance of new variants?  
  - It would take years and many more mutations for current vaccines to be fully void  
  - Pfizer and Moderna are preparing for an updated booster shot