THE STATE OF THE COVID-19 PANDEMIC IN ALAMEDA COUNTY
FEBRUARY 25, 2021 * SOPHY S. WONG, MD

WELCOME! PLEASE INTRODUCE YOURSELF WITH YOUR NAME, ROLE AND AGENCY INTO THE CHAT. PLEASE HELP US COMPLETE THE POLL. WHAT’S ON YOUR MIND AROUND COVID TODAY?

No faculty/presenters, planners, including CME committee members, have relative financial relationships with commercial interests.

The Community Health Center Network is accredited by California Medical Association (CMA) to provide continuing medical education for physicians.

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Learning objectives:

1. Review the current state of the COVID-19 pandemic in Alameda County, including case trends, transmission rates, variants and disparities.
2. Discuss the current state of the COVID-19 vaccine roll-out and access in Alameda County.
3. Determine prevention strategies you will use and support clients with.
As nation marks half a million deaths, concerns rise over new California coronavirus variant

Key reasons coronavirus cases are plunging across the Bay Area and California

Case rates in Bay Area counties

Since Jan. 12, Adjusted seven-day average for cases per 100,000 residents

ALAMEDA -69.8%

CONTRA COSTA -63.9%

MARIN -61.3%

NAPA -66.7%

SAN FRANCISCO -55.1%

SAN MATEO -73.6%

SANTA CLARA -73.0%

SOLANO -69.1%

SONOMA -66.0%

Source: California Department of Public Health

Todd Thubell / The Chronicle
COVID-19 VACCINES IN ALAMEDA COUNTY

Data from ACPHD COVID dashboard: vaccination rates (2/24/21)

COVID-19 DISPARITIES: ALAMEDA COUNTY CASES

Cases source: CalREDIE Data Distribution Portal download February 11, 2021 8:00 am.
Alameda County case and death rates (2/24/21): Latinx people are 4x more likely to be diagnosed with COVID-19 and Black/African American residents are nearly 2x more likely to die from COVID-19 compared to their white neighbors.

Alameda County case and vaccination rates (2/24/21): Latinx and Black/African American residents are more likely to get and die from COVID-19 yet white and Asian residents are more likely to have been vaccinated.
**Variants in Alameda County:**

- **The UK variant (B117):** 7 cases
- **The South African variant (B1351):** 1 case
- **No cases of the Brazilian variant (P1) identified yet**

Infographic above left is from the EU CDC, updated 2/8/2021;
Info on CA variants from 2/22/21 Unidos en Salud + UCSF studies and 2/17/21 ACPHD EOC meeting
**VARIANTS: VIRUSES MUTATE WHEN THEY REPLICATE**

Breaking news on the CA variants:
- Frequency in the Bay Area increased from 3% (Nov) to >50% (Jan).
- Increased household transmission by ~35%
- Possible association with ICU, death
- Vaccines expected to remain effective

![Image of people getting tested for COVID-19](image-url)

- Cal.20c variants
- Lineage: B.1427/9
- Mutation: L452R
- Frequency in the Bay Area increased from 3% (Nov) to >50% (Jan).
- Increased household transmission: 26→35%
- Association with ICU, death

Info on CA variants from 2/22/21 Unidos en Salud + UCSF studies and 2/3/21 ACPHD EOC meeting

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**COVID-19 PREVENTION: A RACE AGAINST MUTANTS!**

**COVID-19 harm reduction strategies:**
Use as many of these as you can!

<table>
<thead>
<tr>
<th>Strategy</th>
<th>% reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Vaccination</td>
<td>95% mRNA EUA vaccines</td>
</tr>
<tr>
<td>2. Masking</td>
<td>60-95%</td>
</tr>
<tr>
<td>3. Staying outdoors</td>
<td>~95%</td>
</tr>
<tr>
<td>4. Distancing</td>
<td>53-88%</td>
</tr>
<tr>
<td>5. Eye protection</td>
<td>78%</td>
</tr>
<tr>
<td>6. Hand hygiene</td>
<td>28-45%</td>
</tr>
<tr>
<td>7. Testing/isolation</td>
<td>33%</td>
</tr>
</tbody>
</table>

**WEEKLY UPDATES:**
EBG7Z.ORG/COVID

**EAST BAY GETTING TO ZERO**

Updated 12.23.20 * Data compiled by Sophy S. Wong, MD
Icons by Good Ware, Freepik and Stev on Flaticon.com
Please see EBG7Z.org/resources for the complete list of sources for this table.
Wearing two masks on top of each other (double-masking) and 3+ layered masks can provide more protection so long as you can keep them tight on your face.

Diagram from "Uniting Infectious Disease and Physical Science Principles on the Importance of Face Masks for COVID-19" by Dr. Monica Gandhi and Linsey C. Marr. Scientific references for these masking tips are located here.
Wearing a mask that fits tightly to your face can help limit spread of the virus that causes COVID-19.

In lab tests with dummies, exposure to potentially infectious aerosols decreased by about 95% when they both wore tightly fitted masks.

Other effective options to improve fit include:

- Cloth mask over medical procedure mask
- Medical procedure mask with knotted ear loops and tucked-in sides
- Mask fitter
- Nylon covering over mask

CDC.GOV

bit.ly/MMWR21021

Reducing the Risk of COVID-19 Wherever You Are

The safest way to reduce the spread of COVID-19 is to stay home and connect with others via phone or video. If you gather in person, wear a mask and keep it outside, small and short with a stable group of people.
COVID-19 MRNA VACCINES: HOW THEY WORK

How an RNA vaccine would work
Scientists take part of the virus genetic code that tells cells what to build and coat it in a lipid so it can enter the body’s cells.

This is injected into the patient.

The vaccine enters the cells and tells them to produce the coronavirus spike protein.

This prompts the immune system to produce antibodies and activate T-cells to destroy infected cells.

Images from BBC.com and SF Chronicle Explainer

If the patient encounters coronavirus, the antibodies and T-cells are triggered to fight the virus.

Source: Nature

COVID-19 MRNA SNAPSHOT VACCINES

Images from Flaticon (mynamepong) and SF Chronicle Explainer
<table>
<thead>
<tr>
<th>Company</th>
<th>Platform</th>
<th>Doses</th>
<th>Non-clinical results</th>
<th>Number of people who got vaccine</th>
<th>Protection from hospitalization due to COVID-19</th>
<th>Protection from severe disease from COVID-19 (may not be hospitalized)</th>
<th>Efficacy against milder disease from COVID-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>moderna</td>
<td>mRNA-1273 mRNA in lipid nanoparticle</td>
<td>2</td>
<td>Neutralizing Abs; Strong Th1 CD4+, CD8+; protection from challenge (macaques)</td>
<td>~15,000</td>
<td>97% (1 in vaccine arm after 1st dose hospitalized)</td>
<td>97% (30 cases in placebo arm; 0 in vaccine reported but 1 severe per FDA)</td>
<td>94.1%</td>
</tr>
<tr>
<td>Pfizer</td>
<td>BNT162b2 mRNA in lipid nanoparticle</td>
<td>2</td>
<td>Neutralizing Abs; Strong Th1 CD4+, CD8+; protection from challenge (macaques)</td>
<td>~18,600</td>
<td>100%</td>
<td>100% (9 cases in placebo arm; 0 in vaccine - 1 initially severe but not)</td>
<td>95%</td>
</tr>
<tr>
<td>J&amp;J</td>
<td>JNJ-78436725 Non-replicating human adenovirus/DNA</td>
<td>1</td>
<td>Neutralizing Abs; Strong Th1 CD4+ &gt; Th2; CD8+; challenge protection (macaque)</td>
<td>~22,000 US, Latin America, S. Africa</td>
<td>100%</td>
<td>85% across 3 sites (89% in South Africa – 95% of strains 501V2)</td>
<td>72% US; 66% Latin America; 57% S. Africa (95% B.1.351)</td>
</tr>
<tr>
<td>AstraZeneca</td>
<td>AZD 1222 Non-replicating ChimP Adenovirus-DNA</td>
<td>2</td>
<td>Neutralizing Abs; Strong Th1 CD4+ &gt; Th2; CD8+; protection from challenge (macaques)</td>
<td>~8588</td>
<td>100%</td>
<td>100% (15 in placebo – all hospitalized; 0 in vaccine)</td>
<td>70% overall; 76% 1 dose; S. Africa trial halted for mild</td>
</tr>
<tr>
<td>NOVAVAX</td>
<td>NVX-CoV2373 Spike protein/RBD + Matrix M adjuvant</td>
<td>2</td>
<td>Neutralizing Abs; Strong Th1 CD4 &gt; Th2; challenge protection (macaques)</td>
<td>~9700 (Phase 3 UK; 2b SA)</td>
<td>100%</td>
<td>100% (but only 1 severe in placebo; 0 in vaccine)</td>
<td>89.3% UK; 60% S. Africa (94% B.1.351)</td>
</tr>
<tr>
<td>Sputnik V</td>
<td>Ad26 and Ad5 adenovirus/DNA</td>
<td>2</td>
<td>NAbs; IFN-γ secretion PMBCs, cellular response</td>
<td>~14964</td>
<td>100%</td>
<td>100% (20 in placebo; 0 vaccine) Slide from Dr. Monica Gandhi, UCSF</td>
<td>91.6%</td>
</tr>
</tbody>
</table>

Of the 6 vaccines with clinical trial data overall reductions in infections were:

- **94%**: Moderna
- **95%**: Pfizer (94% real-world)
- **72%**: J&J in US
- **70%**: AstraZeneca
- **89%**: Novavax
- **92%**: Sputnik

**Bottom line:**

100% protection against hospitalization after full vaccination!
COVID-19 VACCINES: WHAT ABOUT VARIANTS?

- Lab and clinical trial data show less efficacy against mild-moderate disease in South African variant.
- Still high enough titers of antibodies in lab studies.
- 100% effective in clinical trials against hospitalization/death.

COVID-19 VACCINES: PREVENT TRANSMISSION?

- Data suggest that vaccinated people have lower likelihood of transmitting the virus:
- Hot off the press! Data from 1.2 million people in Israel suggest a 90% reduction in asymptomatic infection. ([Dagan](https://www.nejm.org/doi/full/10.1056/NEJMoa2101064), 2/24/21)
- Lower viral loads when infected (↓4-10x).
- Asymptomatic infection and lower viral loads are linked to less viral spread.
## COVID-19 MRNA VACCINE: WHAT ABOUT SAFETY?

**CDC study of 14 million doses and 1.6 million reports (VAERS and v-safe)**

- **Anaphylaxis was rare:** 4.5 cases per million doses (0.00045%)  
- **Death was not linked:** People who died after receiving the vaccine were not found to have a causal relationship with vaccination.  
- **Most common side effects** or adverse reactions (more after 2\textsuperscript{nd} dose):
  - 71% injection site pain  
  - 34% fatigue  
  - 30% headache  
  - 23% muscle aches  
  - 11-12% chills, fever, injection site swelling

## COVID-19 MRNA VACCINE SAFETY

**CDC study of 1.6 million people from VAERS and v-safe (2/19)**

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  - 34% fatigue  
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  - 23% muscle aches  
  - 11-12% chills, fever, injection site swelling

*This is our immune system training to protect us from COVID-19!*
**COVID-19 VACCINES: US TRIAL DEMOGRAPHICS**

Table 1: Race/Ethnicity of Participants in Pfizer-BioNTech and Moderna COVID-19 Vaccine Clinical Trials

<table>
<thead>
<tr>
<th></th>
<th>Pfizer-BioNTech</th>
<th>Moderna</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>258 million</td>
<td>27,817</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>73.6%</td>
<td>81.9%</td>
</tr>
<tr>
<td>Black</td>
<td>12.3%</td>
<td>9.8%</td>
</tr>
<tr>
<td>Asian</td>
<td>5.9%</td>
<td>4.0%</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>0.8%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>0.2%</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>17.6%</td>
<td>26.2%</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>82.4%</td>
<td>73.2%</td>
</tr>
</tbody>
</table>

**NOTES:** Pfizer-BioNTech data are for all participants globally, of which 76.7% are in the United States. Pfizer results provided for Phase 2/3 trial; Moderna results for Phase 3 trial. The Pfizer trial included those ages 16 and older. The Moderna trial included those ages 18 and older.


Table from Kaiser Family Foundation, 1/26/21

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- Black/African Americans: 10%
- Latinx Americans: 20-26%
- Asian Americans: 4-5%
- Native Americans: 0.6-0.8%
- Native HI/Pacific Islanders: 0.2%

Table from Kaiser Family Foundation, 1/26/21
State Update: Expanded Eligibility for Vaccine as of 3/15/21

People with underlying medical conditions:

- Cancer
- Chronic kidney disease (stage 4 and above)
- Chronic pulmonary disease (oxygen dependent)
- Down syndrome
- Immunocompromised state from solid organ transplant
- Pregnancy
- Sickle cell disease
- Heart conditions (excludes hypertension)
- Severe obesity (Body Max Index ≥ 40kg/m2)
- Type 2 diabetes mellitus (with hemoglobin A1c level greater than 7.5%)

OR

If as a result of a developmental or other severe high-risk disability one or more of the following applies:

- Individual is likely to develop severe life-threatening illness or death from COVID-19 infection
- Acquiring COVID-19 will limit the individual’s ability to receive ongoing care or services vital to their well-being and survival
- Providing adequate and timely COVID care will be particularly challenging due to individual’s disability
REASONS FOR DECLINING VACCINES AT ALAMEDA COUNTY SITES

- Fear of how new and how quickly the vaccines were developed.
- Fear of the vaccine being experimental.
- Fear of side effects and new technology; want to see how others do first.
- Not enough evidence or information about the vaccine yet.
- Belief that it’s just a placebo effect: skepticism of efficacy.
- Belief you don’t need a vaccine if you’ve had COVID.
- Belief that the vaccine gives you the virus.

WHAT ARE WE DOING TO INCREASE VACCINE CONFIDENCE & ACCESS FOR OUR PATIENTS?

COVID-19 VACCINE IS HERE
STAY INFORMED. KEEP WEARING YOUR MASK.
- Validated by the nation’s top medical experts to be safe and effective
- Provided at no cost
- Phased distribution plan based on risk and level of exposure
- Widely available later in 2021

EXPERTOS MÉDICOS RESPALDAN LAS VACUNAS DEL COVID-19
Tu seguridad es prioridad.
Proveída sin costo.
Con la vacuna podemos acabar con la pandemia.

COVID-19 疫苗到了
及时瞭解最新動態，繼續戴口罩。
- 經全國頂尖醫學專家認證，此疫苗是安全有效的
- 免費提供
- 依照風險與暴露等級而定的階段性分配計畫
- 之後將在 2021 年被廣泛提供
Focus on communities with disproportionate COVID-19 impacts

Zip codes in priority neighborhoods
- San Antonio/Fruitvale - 94606, 94601
- Next: East Oakland - 94621, 94603
- Next: Ashland/Cherryland - 94578, 94541, 94580
- So. Hayward - 94544
- West Oakland – 94607
- Fremont
Vaccine capacity at Alameda County vaccination sites

<table>
<thead>
<tr>
<th>Rolling POD Plan</th>
<th>Current capacity (week)</th>
<th>Full/ Next week</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Community PODs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Castro Valley Library</td>
<td>4,406</td>
<td>3,840</td>
</tr>
<tr>
<td>Fruitvale Fremont HS</td>
<td>1,800</td>
<td>1,920</td>
</tr>
<tr>
<td>New sites will be coming...</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FireHouse Pop-ups</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fremont Fire</td>
<td>800</td>
<td>1,200</td>
</tr>
<tr>
<td>Union City</td>
<td>200</td>
<td>350</td>
</tr>
<tr>
<td>So. Hayward</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>San Lorenzo/Cherryland/Ashland (ACF)</td>
<td>1,200</td>
<td>3,000</td>
</tr>
<tr>
<td><strong>Mega PODs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coliseum</td>
<td>31,000</td>
<td>42,000</td>
</tr>
<tr>
<td>Fairgrounds</td>
<td>3,248</td>
<td>36,000</td>
</tr>
<tr>
<td>Buchanan Parking Lot (AC/COB POD)</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Closed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Santa Rita Jail</td>
<td>480</td>
<td>960</td>
</tr>
<tr>
<td>Emergency Services: OES</td>
<td>1,100</td>
<td>2,200</td>
</tr>
<tr>
<td><strong>Clinics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated Combined Total</td>
<td>5,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Mobile</td>
<td>1,300</td>
<td>1,300</td>
</tr>
<tr>
<td>Local Pharmacies</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>47,234</td>
<td>97,470</td>
</tr>
</tbody>
</table>

More info on vaccine access:
- [www.ebgtz.org/covid-vaccines/](http://www.ebgtz.org/covid-vaccines/)
- [https://covid-19.acgov.org/vaccines](https://covid-19.acgov.org/vaccines)
- [Oaklandside](https://www.oaklandside.org/)

Moisés Cruz Jáuregui, EBGTZ, dice: “Una vacuna significa tener la posibilidad de prevenir una enfermedad. El COVID19 ha lastimado mucho nuestra comunidad y a la vez nos ha enseñado lo fuertes que podemos ser juntos. Tuve la oportunidad de recibir la vacuna y me siento muy agradecido y afortunado por mi mismo y por la comunidad con la trabajo. Cuando tengan la oportunidad, aprovechenla y opten por protegerse y proteger a los que aman!”
Shirley Gainey, Cal-PEP: The reason I got vaccinated is that I miss hugging my baby boy... My landlord is 83 years old. I don’t want to place him in harm’s way. I miss going to campus. I am so over virtual everything!

Jesse Brooks, EBGTZ/AHF: Being vaccinated was important to me, I can’t wait to get back to some resemblance of normalcy. I miss my family, and especially my 86-year-old mother... As a community leader I felt the demonstration to the community and my family was important, knowing the mistrust that exists and knowing that it’s a challenge to put those fears to rest.
Trustee messengers: us!
- Medical providers
- Community health workers, promotoras
- Public health and medical professional organizations
- Family members
- Race/ethnicity concordance
BUILDING VACCINE CONFIDENCE: MESSAGES

- **Messages that resonate**
  - Acknowledge distrust and racism.
  - **Validate and address concerns.** Use plain, clear language to describe vaccine development and safety.
  - **Stick to the positive:** be inviting, respectful. “The choice is yours to make.” Avoid demand, negativity, fear.
  - **Focus on how vaccines help family and community.** “This protects all of us so we can get together again.”

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I see you haven’t gotten your COVID vaccine. I’ve gotten mine and recommend it for you. I’d like to take care of that today. What questions do you have about it?

Is it even safe? They made this thing way too fast. I heard a bunch of people have died from it. I don’t want to be experimented on.

Yes, there’s a lot of concern about the government and the racism many communities have dealt with. I can see why you have these questions. The mRNA vaccines have been in development for over 20 years. We now have over 14 million people in the US who’ve gotten the vaccine, and they have been safe and effective in protecting ourselves, loved ones and our communities...
BUILDING VACCINE CONFIDENCE: SYSTEMS

• Share photos and testimonials with us!
• **Counsel on vaccines at each visit**: any/all team members; billable with code Z71.89 (vax counseling) with a principal diagnosis code.
• **Set up systems for tracking outreach, acceptance/declines, doses.**
• **Follow-up with patients who decline** to address questions and concerns, especially with their most trusted team member.
• **Follow-up to make sure patients get vaccine dose #2.**

CASE: BUILDING VACCINE CONFIDENCE

Mr. Ramirez is a 60 year old Spanish-speaking cisman and grocery store worker with diabetes and living in a large extended family household. He had a mild case of COVID last summer and has questions on whether he should get the vaccine or not.
Ms. Johnson is a 40 year old English-speaking transwoman living with HIV and a CD4 count of 180, smokes cigarettes, takes HIV medications and hormones and is concerned about vaccine safety.

CASE: BUILDING VACCINE CONFIDENCE

QUESTIONS FOR DISCUSSION

1. What questions or concerns are on your mind around the pandemic?
2. What will you counsel clients on around masking and other harm reduction practices?
3. What is your plan for discussing vaccines with clients?
4. What was most useful for you?

CHECK OUT OUR WEEKLY UPDATES: [WWW.EBGTZ.ORG/COVID](http://WWW.EBGTZ.ORG/COVID)

TO VOLUNTEER AT A COUNTY VACCINATION SITE: [WWW.HEALTHCAREVOLUNTEERS.CA.GOV](http://WWW.HEALTHCAREVOLUNTEERS.CA.GOV).