

COVID Update

February 2021

Disclaimer

Reliable Information about any medical condition or treatment requires multiple carefully designed large studies done over many years.

- Small initial studies are often proven wrong by later larger studies
- Early results of a study often change:
 - After the study is completed
 - After other researchers re-analyze the data
- The actual data published does not always support the narrative asserting what the data means
- It's years too early into this illness to view any current information as reliable and I did not review the research methodologies in detail.

COVID Vaccines Under Approved and Under Development

| Phase | One | Two | Three | Limited | Approved |
|--------------|---------------------------|------------------------|----------------------------|--|---|
| Description | testing safety and dosage | expanded safety trials | large-scale efficacy tests | Vaccines in early or limited use | approved for full use |
| Participants | Small number | Hundreds | Thousands | AstraZeneca in UK Russia 2 more China 3 more | Pfizer in Canada Moderna in Canada Sinopharm in China |
| Vaccines | 35 | 26 | 20 | 6 | 4 |

- 67 Vaccines in human trials total

Pfizer/BioNTech and Moderna Vaccines



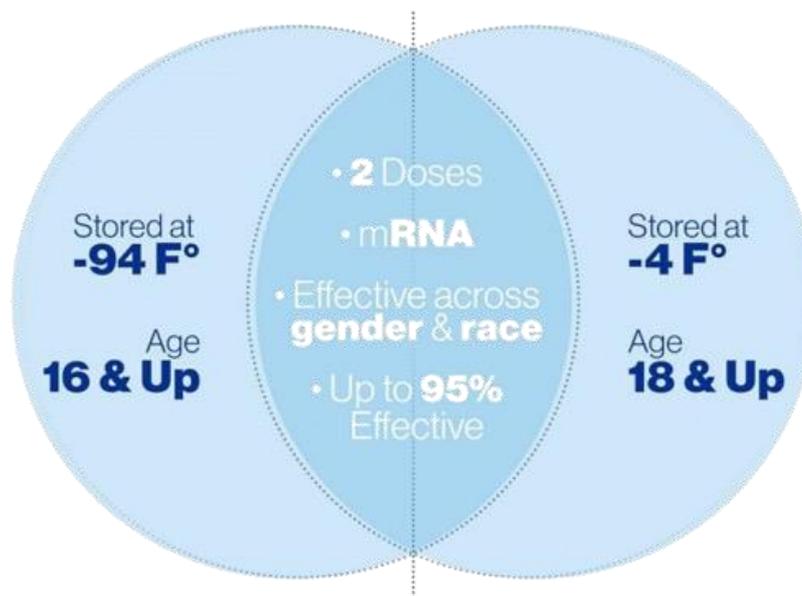
30 MICROGRAM DOSES
ADMINISTERED 21 DAYS APART



36,621
CLINICAL TRIAL
PARTICIPANTS
(16+ YEARS OLD)



PFIZER vs. MODERNA



100 MICROGRAM DOSES
ADMINISTERED 28 DAYS APART



30,350
CLINICAL TRIAL
PARTICIPANTS
(18+ YEARS OLD)



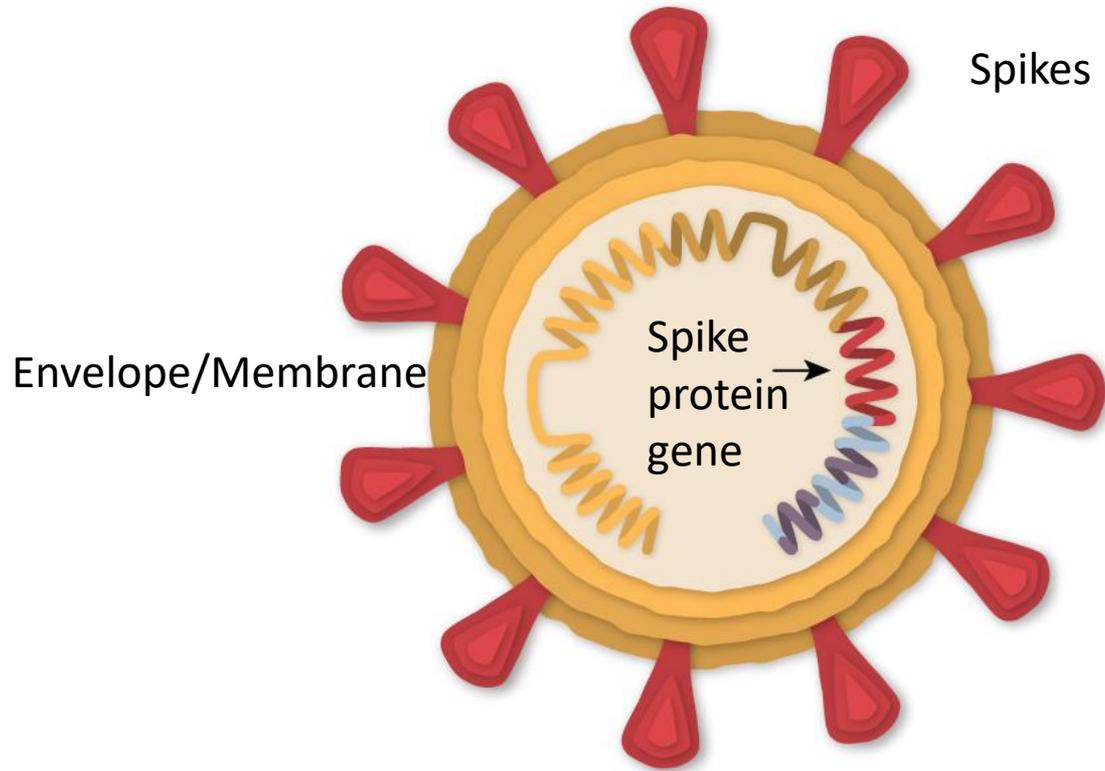
Johnson and Johnson

- genetically modified common cold virus common in chimpanzees produces COVID-19's spike proteins
- Initial efficacy results
 - USA 72%
 - Latin America 66%
 - South Africa 57%
 - 85% effective in preventing severe cases of Covid
- Stores for 3 months at 36-46 F and 2 years at -4 F
- Single dose
- Requested EUA from FDA on Feb 4, FDA review scheduled Feb 26
- But only 7M doses initially available, 30M by April
- Second Phase 3 trial to observe the effects of two doses of their vaccine, instead of just one began in November
- US funding: \$1 B upfront for 100M doses if the vaccine is approved.

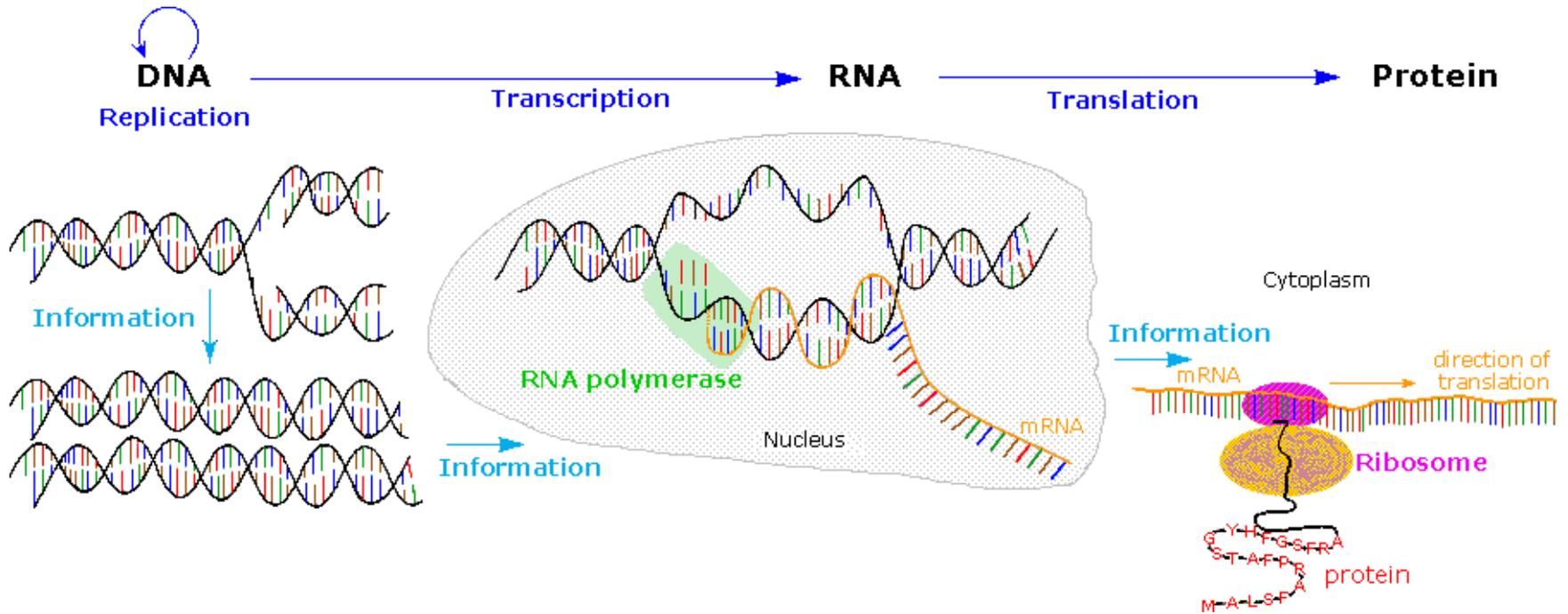
NovaVax

- Grows spike proteins in moth cells (same method used in flu and HPV vaccines) then places the spike proteins onto microscopic particles that trigger an immune response after injection.
- Initial efficacy results
 - Britain 90%
 - South Africa 60%
- Stores for 3 months at 36-46
- Two doses
- US Funding: \$1.6 B upfront in July, contract for 100M doses if approved
- Current phase 3 trials underway
 - Dec 28 launched 30,000 volunteer trial in US

COVID Virus Structure



Three Ways get spike protein to Stimulate Immunity



Attenuated virus
Adenovirus
DNA vaccines

RNA vaccines

Protein vaccines

Vaccine Approaches to Building Immunity to COVID

- **Inactive or Attenuated Virus** uses a weakened or inactivated DNA version of the actual virus with its causing the illness to trigger an immune response
- **Adenovirus vaccines** use common cold viruses as a “Trojan horse” to carry the target virus DNA into the body to trigger an immune response. It can enter cells, but it can’t replicate inside them.
- **Protein vaccines** use small proteins from the target virus to trigger an immune response.
- **RNA vaccines** use some but not all of the RNA from the target virus to trigger an immune response.
- **DNA vaccines** use some but not all of the DNA from the target virus to trigger an immune response

Vaccine Types – Available or in Phase 3 Trials

| Vaccine Delivery Approach | Traditional Vaccines | COVID Vaccines |
|---------------------------------------|---|------------------------------------|
| Inactivated and Live Attenuated Virus | influenza, chickenpox, measles, mumps, rubella, flu | (3 versions in China) |
| Adenovirus (common cold) | Rabies, Distemper, Smallpox, Ebola, flu, HIV* | AstraZeneca* Johnson & Johnson* |
| Protein based | HPV, Shingles, Hepatitis B | Novavax* |
| RNA | | Pfizer, Moderna |
| DNA | Zika* - None approved in US | |

Emergency use authorization (EUA)

* In Phase 3 Trials

Vaccination Progress Report – February 7

- Fully Vaccinated 9.1 M (1.7%)
- At least one dose 31.6 M (9.5%)
- Average Vaccinations per day 1.4 M
- Doses Delivered 59.3 M
- Doses used 69%
 - North Dakota 96%
 - Alabama 57%

Estimated date to 70% at least partially vaccinated
(herd immunity) – Sept 16

COVID Variants Appearing

- Britain (.1.1.7) – More contagious, may be slightly more deadly
- South Africa (B.1.351) – not as susceptible to vaccine induced antibodies but vaccines are still effective
- Brazil (B.1.1.28.1 or P.1) – similar to South African variant
- Currently USA has no national surveillance program checking virus genomes for new mutations

Persons with SMI or SUD should be CDC Priority Phase 1c

- CDC Priority Phase 1c populations
 - Age 65-75
 - **Age 16-64 with medical condition putting them at high risk of Hospitalization, illness, death**
 - Essential Workers
- Increased risk due to SMI or SUD
 - Persons with SMI die 10-25 yrs younger mostly due to medical illness
 - Two national studies report increased rates of COVID in persons with MI
 - Study in NY found persons with schizophrenia had 2-3X COVID mortality
 - Study of 73M people found persons with SUD at 8.7X risk COVID infection
 - Study 54,529 people found persons with SUD had 2.3-1.8X risk of hospitalization, ventilator, and mortality



Vitka Eisen, MSW, Ed.D
Chief Executive Officer



Dr. Ana Valdés, MD
Chief Healthcare Officer

HealthRIGHT 360 and California Context

- **Who We Are**

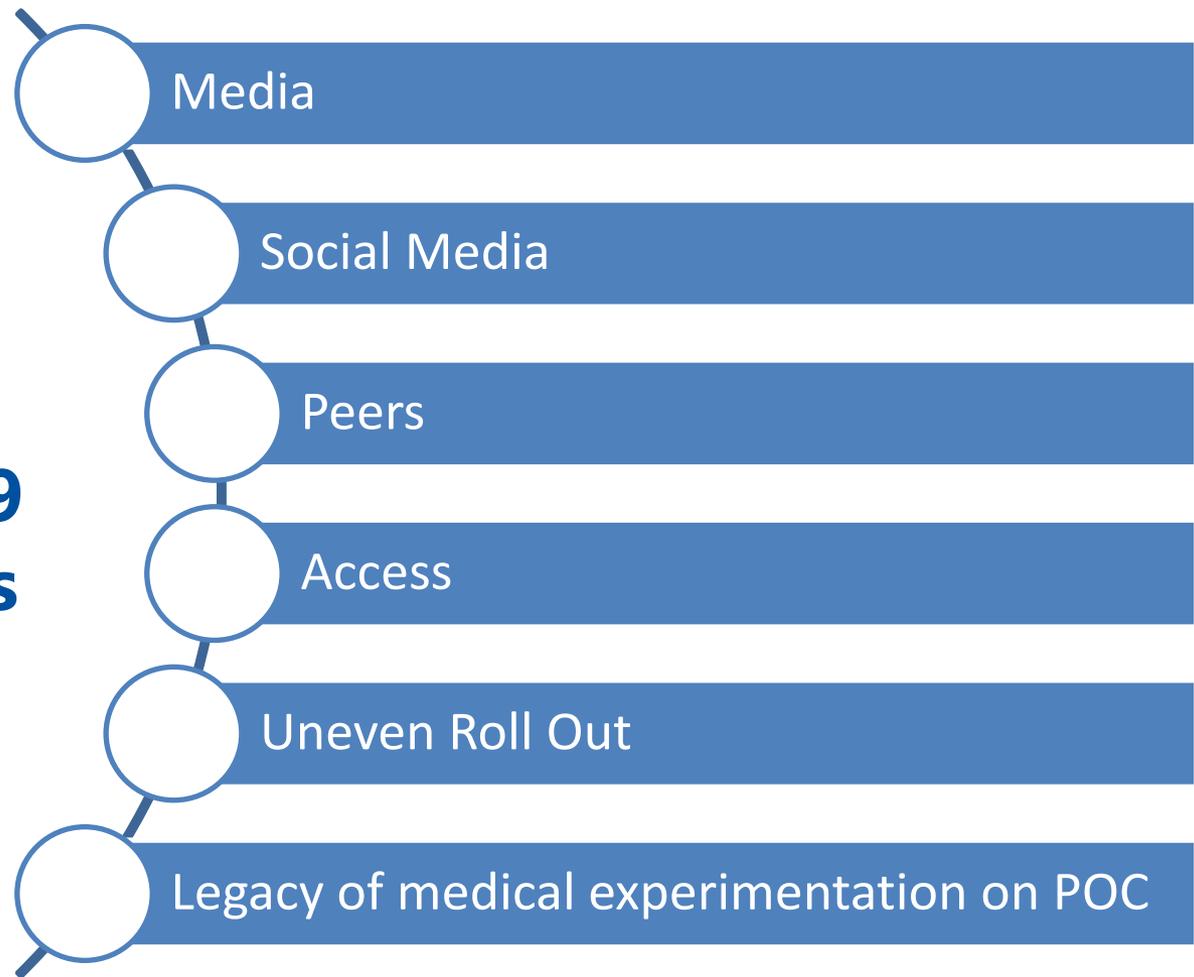
- Federally Qualified Health Center (FQHC)
- Certified Community Behavioral Health Clinic (CCBHC)
- Behavioral Health SUD Treatment Providers (inpatient and outpatient)
- Reentry Service Providers

- **California's Landscape**

- 58 Counties
- 60 Health Departments



Barriers **to COVID-19** **Vaccinations**



Effort to Increase Vaccine Uptake

- Virtual CHO Town Halls
- Messaging from CEO
- Vaccine FAQs
- Videos of POC leadership getting vaccinated
- Program level education
- Program level COVID committees
- PSA's
- Peer discussions
- Partnering with the Union to discuss ideas for engaging staff and clients



Radawn Alcorn, MSW, LCSW
VP of BH NorCal

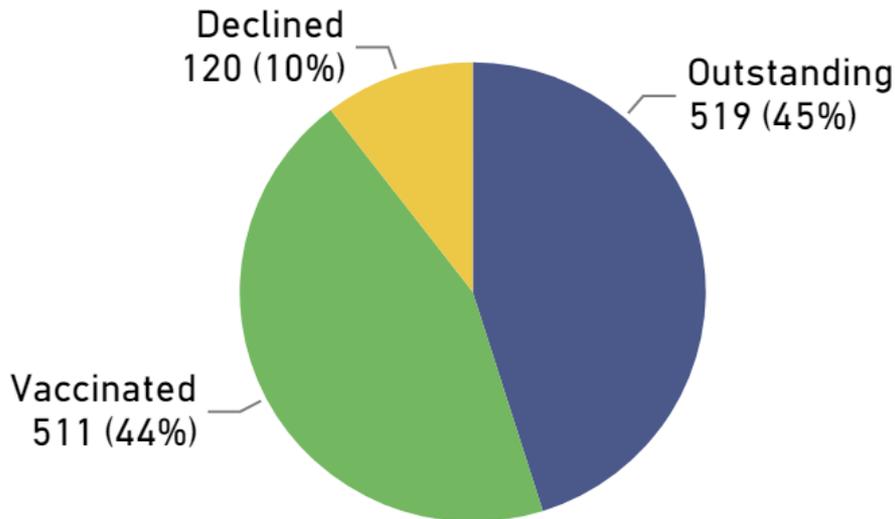


HealthRIGHT 360 Vaccination Results

| | | | | |
|---------|------------|--------------|---------------|---------------|
| 1150 | 120 | 511 | 519 | 45% |
| # Staff | # Declined | # Vaccinated | # Outstanding | % Outstanding |

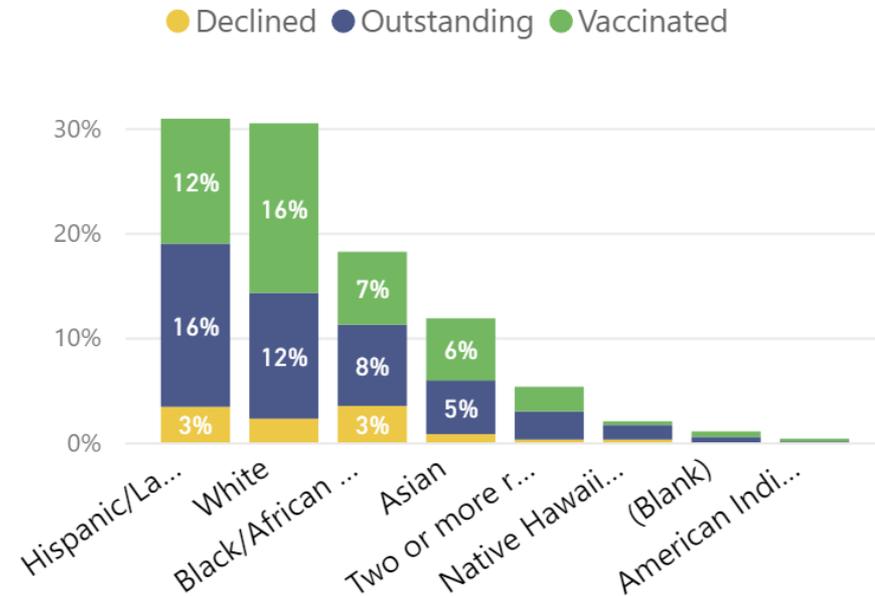
Dashboard

Declined, Outstanding and Vaccinated



Racial and Ethnic Disparities

Count and percent of Status by Race/Ethnicity



Pivoting as an Organization

- Keeping our staff updated with information
- Survey
- Trust building
- Incentives



Questions?

Thank You

for being an important part of
the National Council community.