

Unidos en Salud Responds to COVID-19 Science and Service

Diane Havlir and Jon Jacobo, on behalf of Unidos en Salud



UCSF, UCB, CZ Biohub, Latino Task Force, SF DPH & city of SF
Sponsored by UCSF donors and Chan Zuckerberg Initiative

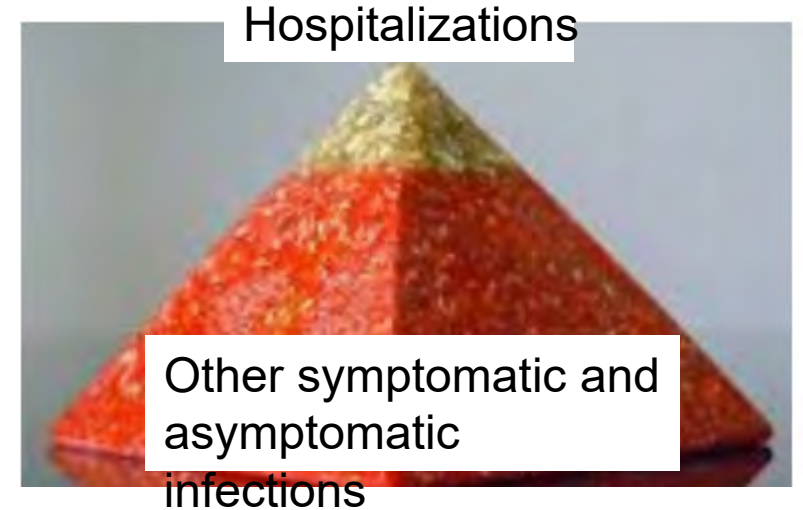
It takes a community to end a pandemic

Unidos en Salud: Partnership to improve health of the community & inform science



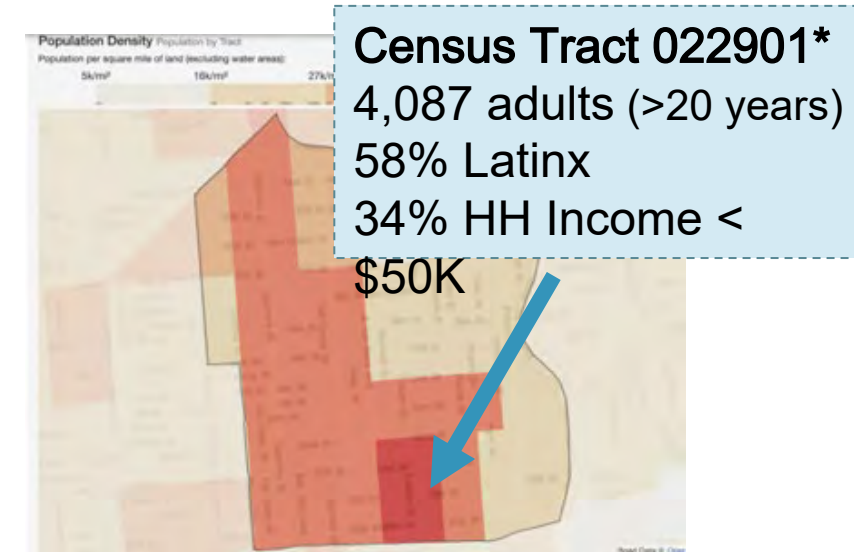
Motivation

- › Latinx hardest hit communities in SF and California
- › Need for data to drive solutions— scientific insights, policy and resources



Initial Approach

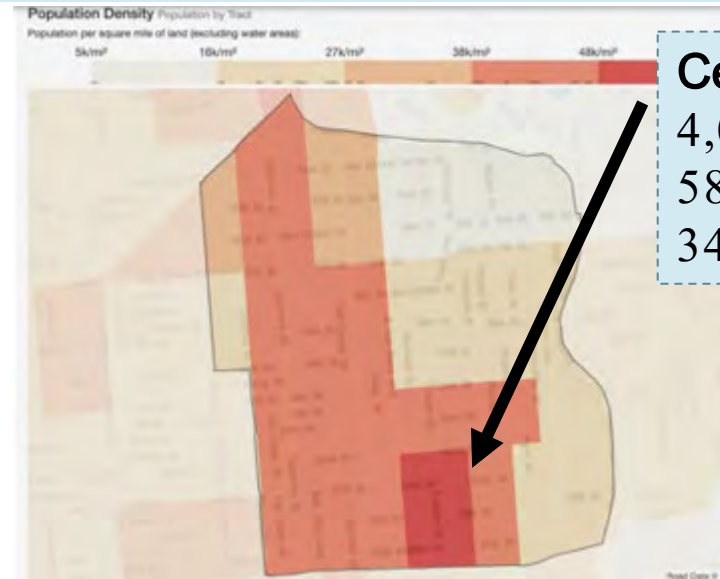
- Community-Academic-City partnership
- “Test and Respond”: PCR & antibody testing in Mission census district 6 weeks into shelter in place



Setting: Mission District

April 25 -28 – 6 weeks into shelter in place

The Mission, San Francisco



Census Tract 022901*
4,087 adults (>20 years)
58% Latinx
34% HH Income < \$50K

This census tract in the Mission is the **second most dense** in San Francisco of all census districts >5,000 persons (and the highest with a significant Latinx population) and with a wide range of household incomes.

**2018 American Community Survey (U.S. Census Bureau)*

Images: <https://statisticalatlas.com>

Is widespread community -based testing possible?

Community Event Logistics

“ No place to do testing (everything in shutdown) ”

“ No persons to do the testing - volunteers willing to put at risk and PPE ”

“ No protocols to handle sick patients ”

Community Perception

“ People unwilling to test if asymptomatic ”

“ People unwilling to leave house given shelter-in-place order ”

“ Is testing safe? Who are you giving my information to? (ICE, other govt., companies) ”

Lab and Technology

“ No lab supplies available to do testing protocol ”

“ No labs able to perform testing at this scale for research ”

“ No systems to get data and results rapidly back to participants ”

What did we do to overcome these barriers?

Community-led Mobilization

Canvassers, with volunteer HQ at the Mission's Brava Theatre, visited countless households ahead of and during the testing campaign

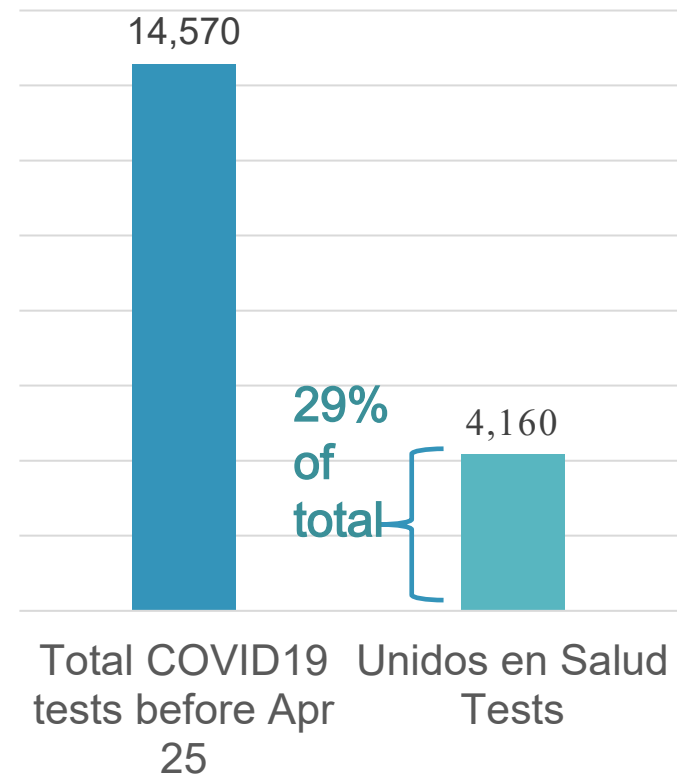
Community groups and media organizations offered radio and TV airtime, as well as plentiful printed news coverage to the testing effort.



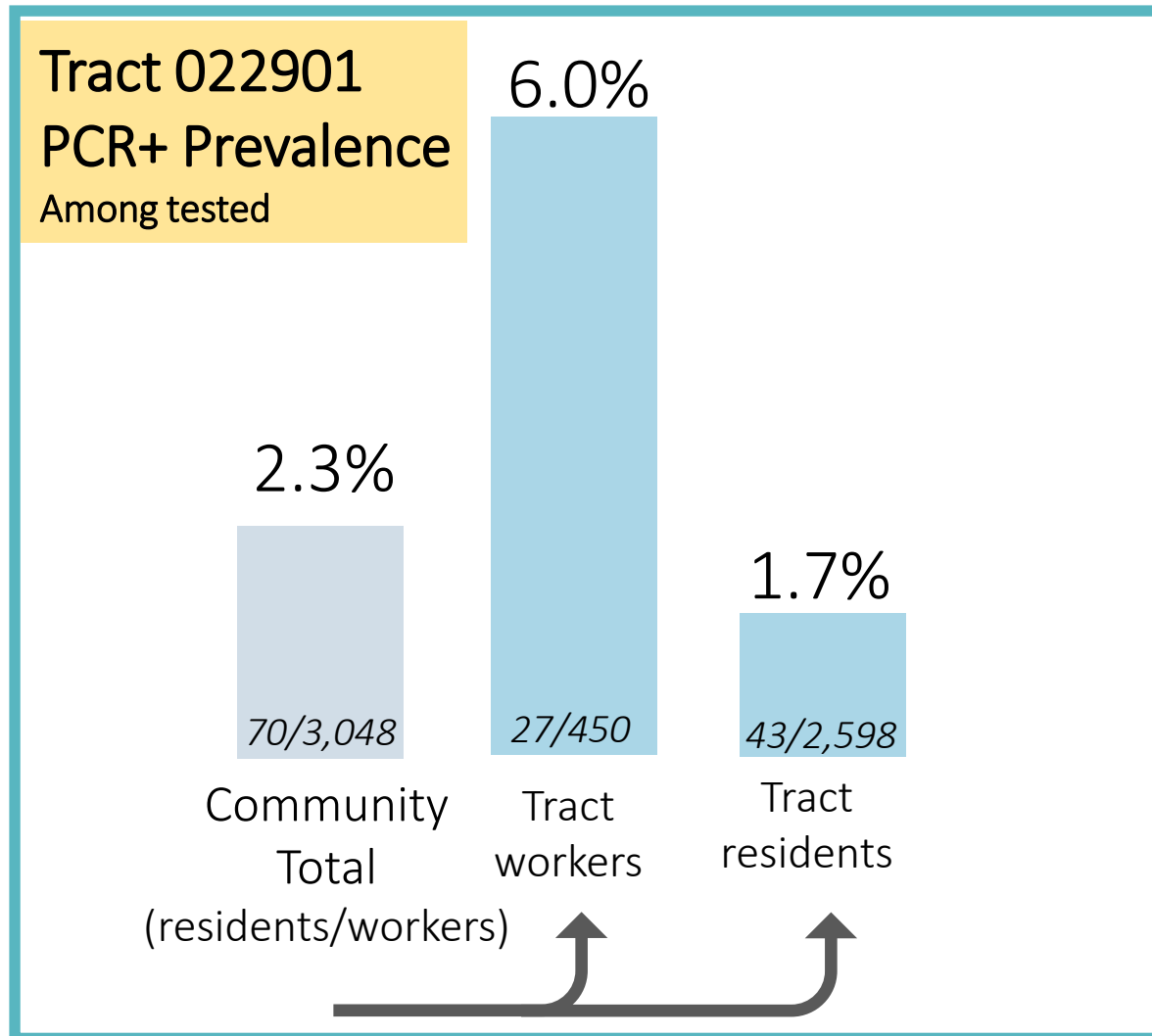
There is high demand for testing in the Community



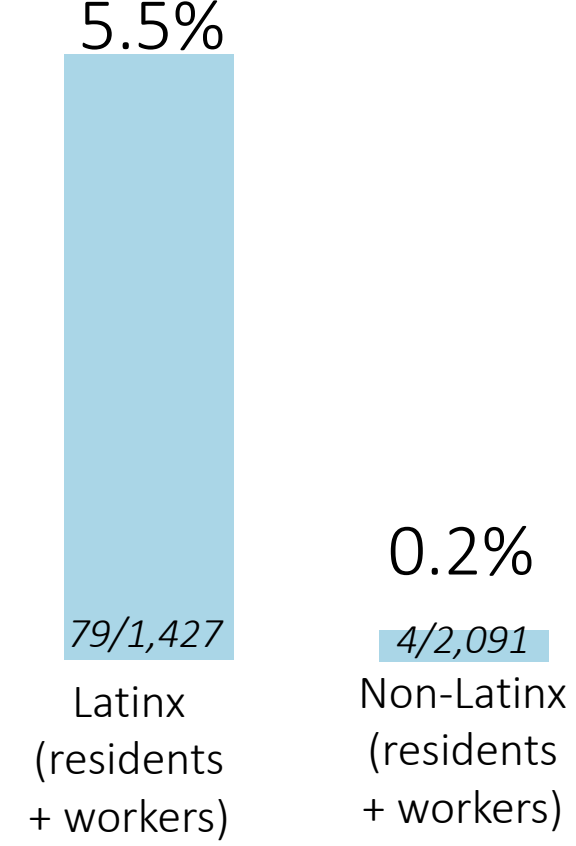
In 4 days, Unidos en Salud increased SF's total # of COVID-19 tests (50+ days) by 29%



1. SARS CoV-2 PCR+ > 20 fold higher in Latinx vs Non-Latinx



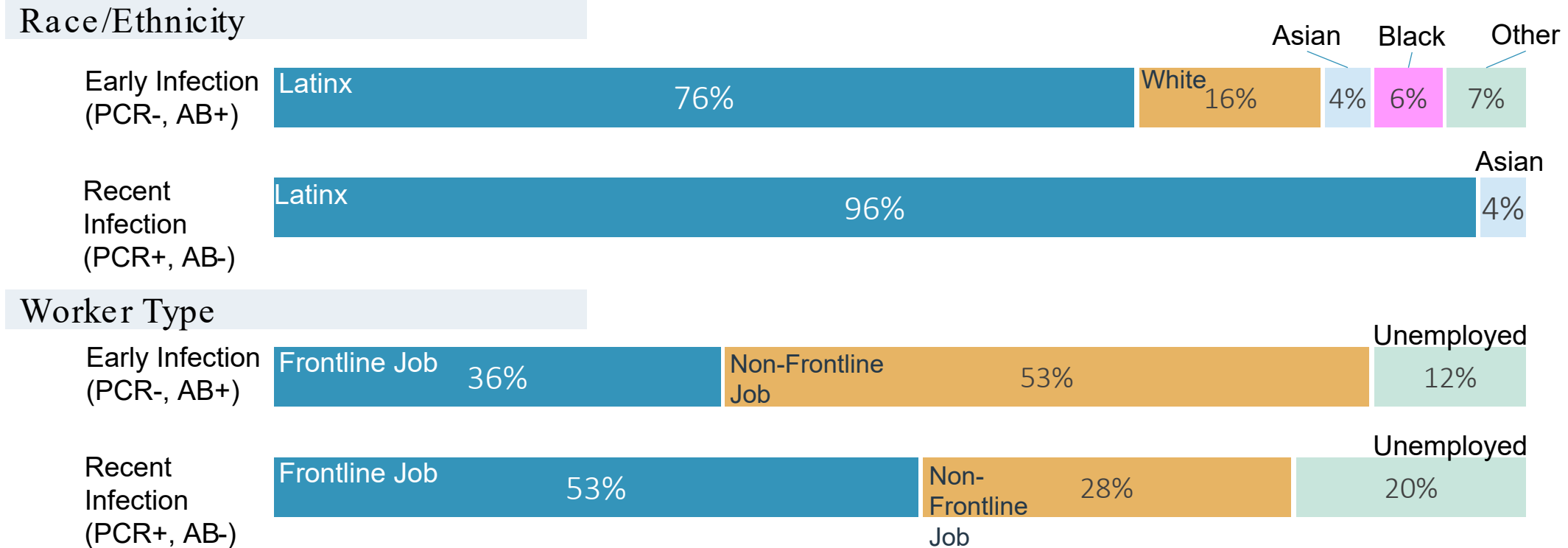
PCR+ > 20 fold higher Latinx vs Non-Latinx (PCR+ % among tested)



Chamie, CID, 2020

2. Evolution of COVID -19 in the Mission

Early infections occurred across a range of demographics and income, then infections were predominantly in in front line workers, predominantly Latinx.

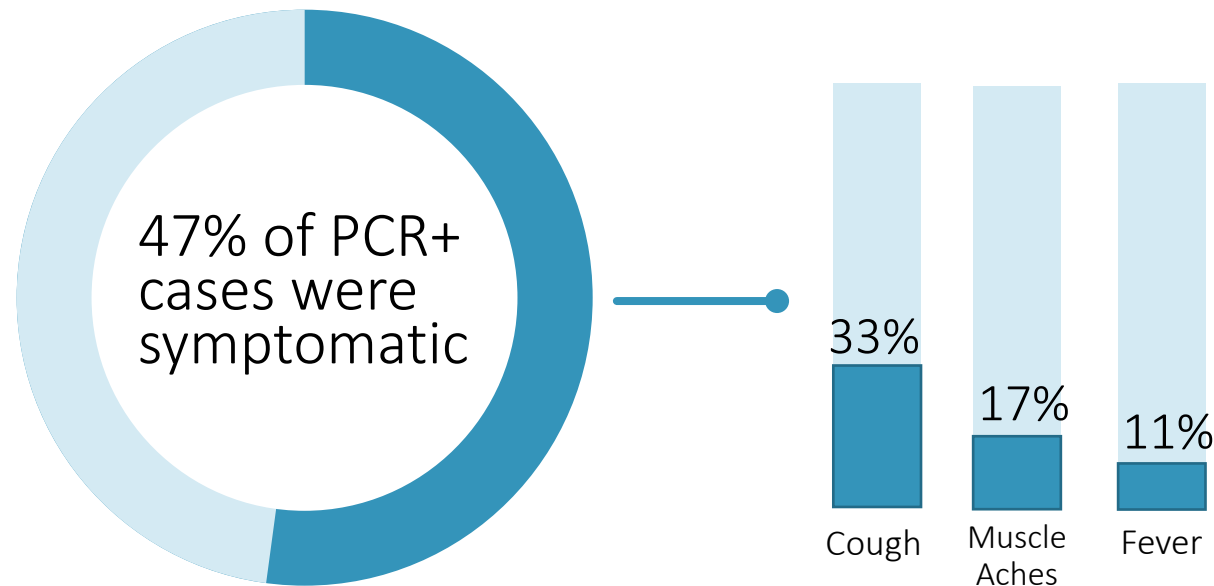


3. PCR+ highest in those who cannot work from home

	PCR+ (n=69)	Overall Tested Residents + Workers
Can work from home	7%	45%
Cannot work from home (still working outside of home, furloughed, unemployed)	93%	55%

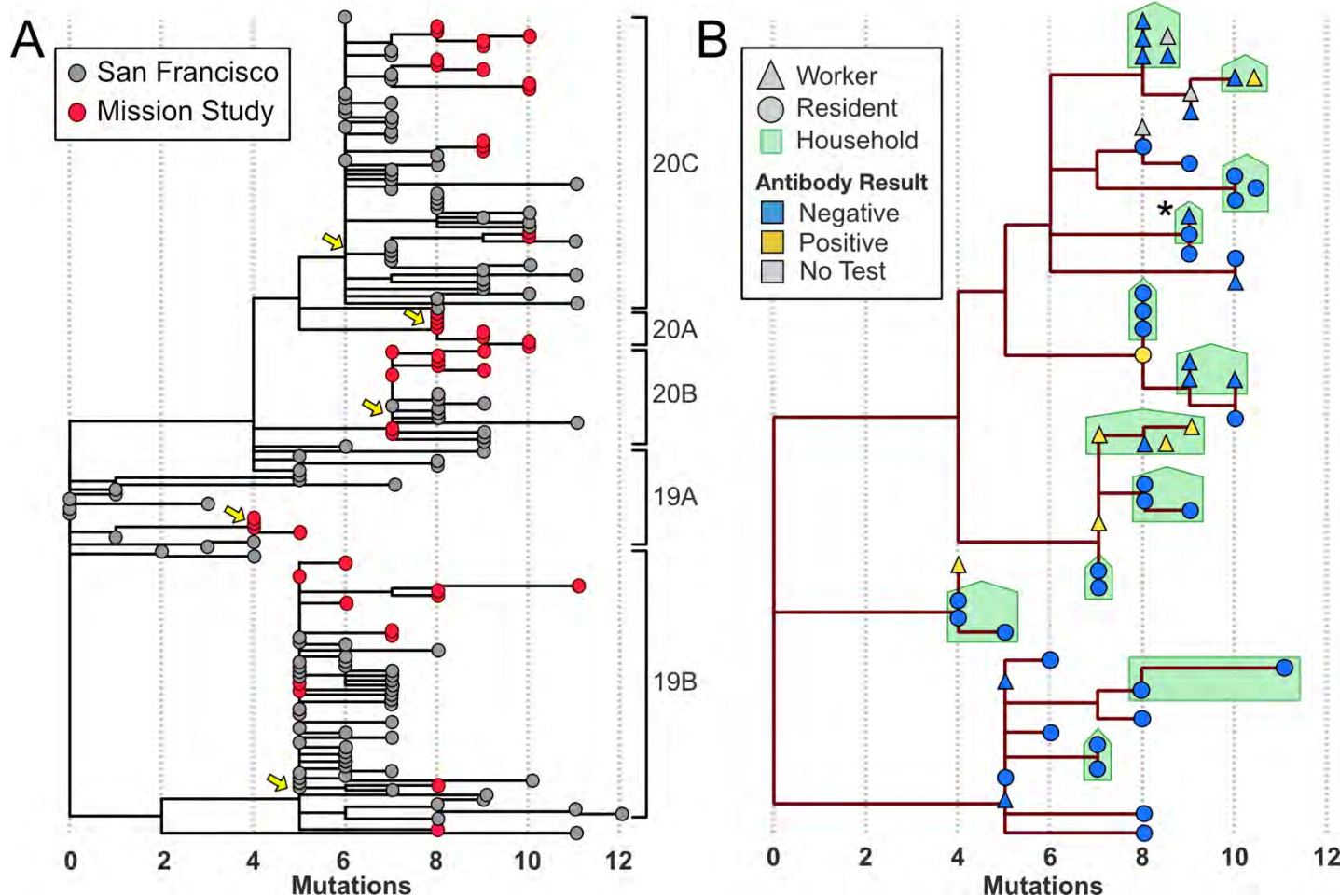
People who cannot sustain their income while sheltering in place are disproportionately represented in the PCR+ cases

4. Can we rely on symptoms for case detection: NO



53% of all PCR+ participants reported no symptoms

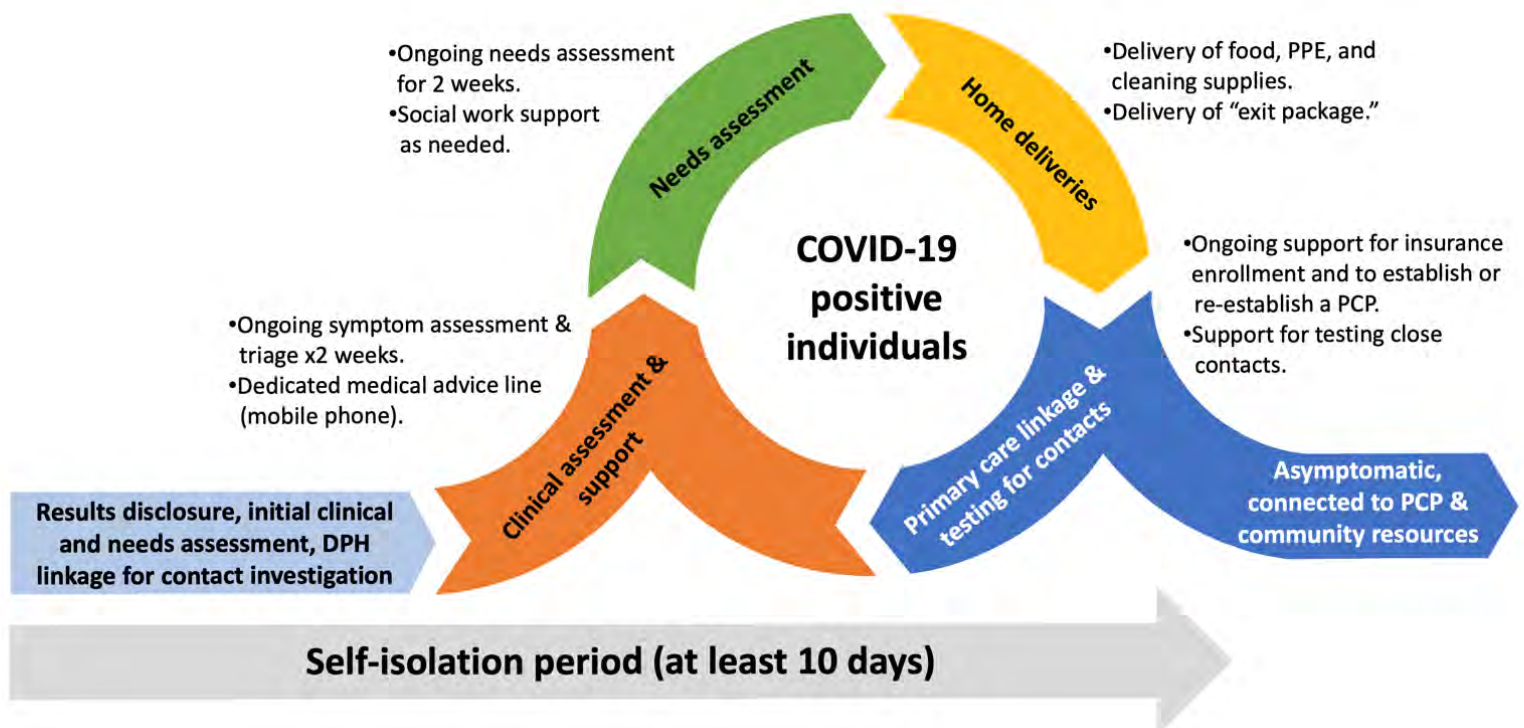
5. Multiple strains of virus causing COVID-19 circulating in San Francisco and the Mission



- There is evidence of household transmission
- Multi-Family households

Problem: Testing alone is not enough

Solution: Test to care model



Susanna and Suzie Rojas



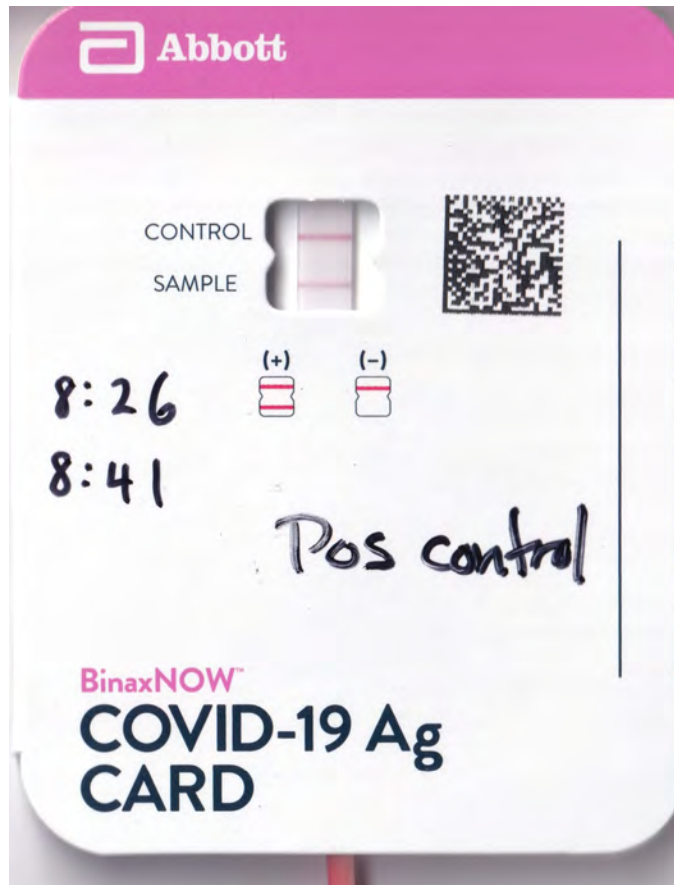
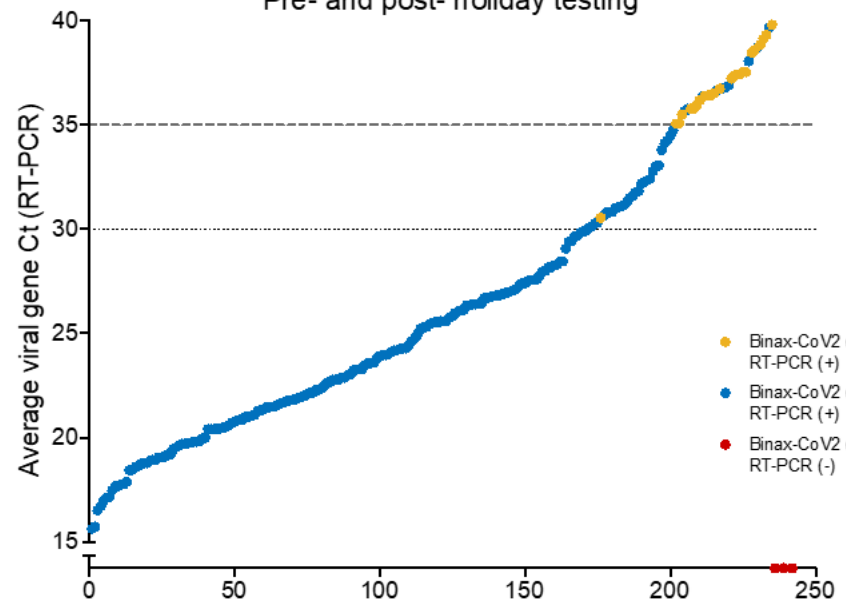
Isolation and Quarantine education, Masks, Gloves, Cleaning supplies, Food (hot meals and supplies), Work excuses

Problem: Results take too long

Solution: Rapid tests



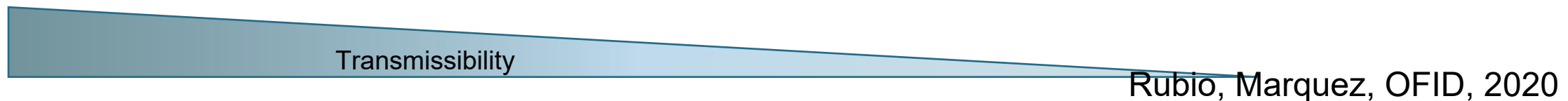
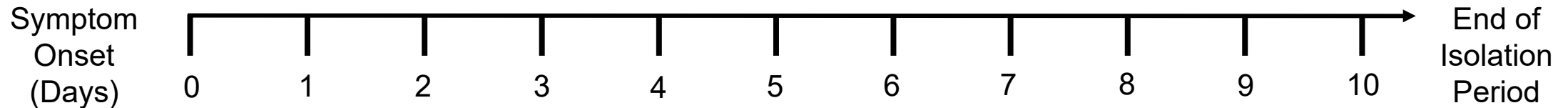
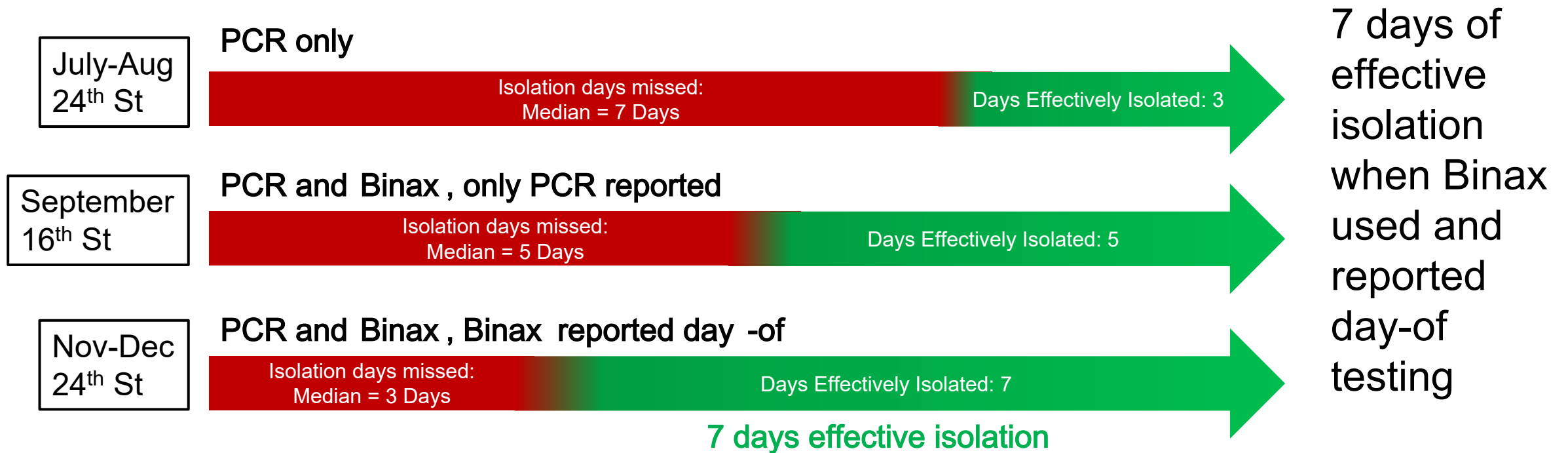
Pre- and post- holiday testing



- › Binax NOW Detects 99.9% of cases with transmissible virus- 30 minutes
- › Works in symptomatic and asymptomatic setting

Pilarowski. Derisi, JID, 2020,
Pilarowski, Havlir, CID, 2020

Rapid testing + supported response = increases time of effective isolation





Impact of Findings on Policy

- › Need for more low barrier testing in San Francisco → New Mission Test site & City adaptive testing model
- › Symptomatic testing insufficient to detect infection → New testing criteria
- › Value of “Test to care” programs → Expanded Community Wellness teams
- › Need for wage replacement → ***“Right to Recover”**
- › Need for faster detection of symptomatic and asymptomatic infection → FDA approval for BinaxNOW rapid asymptomatic testing

*Introduced and shepherded by Supervisor Hillary Ronen, partner in Unidos en Salud

Year End 2020: What is next?





January 2021: A New Vision

“Bridge to the end of the pandemic”

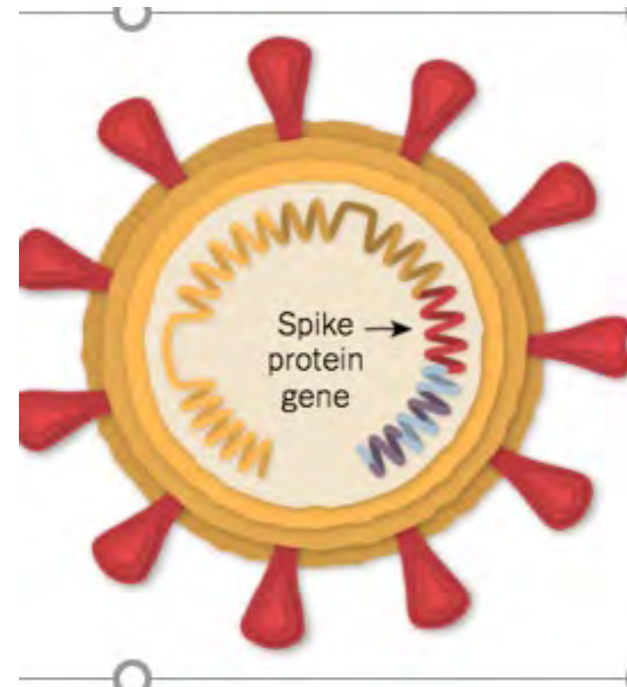
- › Shut down COVID transmission and improve lives and livelihoods in communities most impacted by COVID due to health disparities
 - › Continue test /respond and conduct surveillance for emerging COVID variants
 - › Prepare, prototype and activate low barrier vaccine sites
 - › Support safe reopening

A race between the virus and the vaccine

SARS CoV-2 Variants of Concern

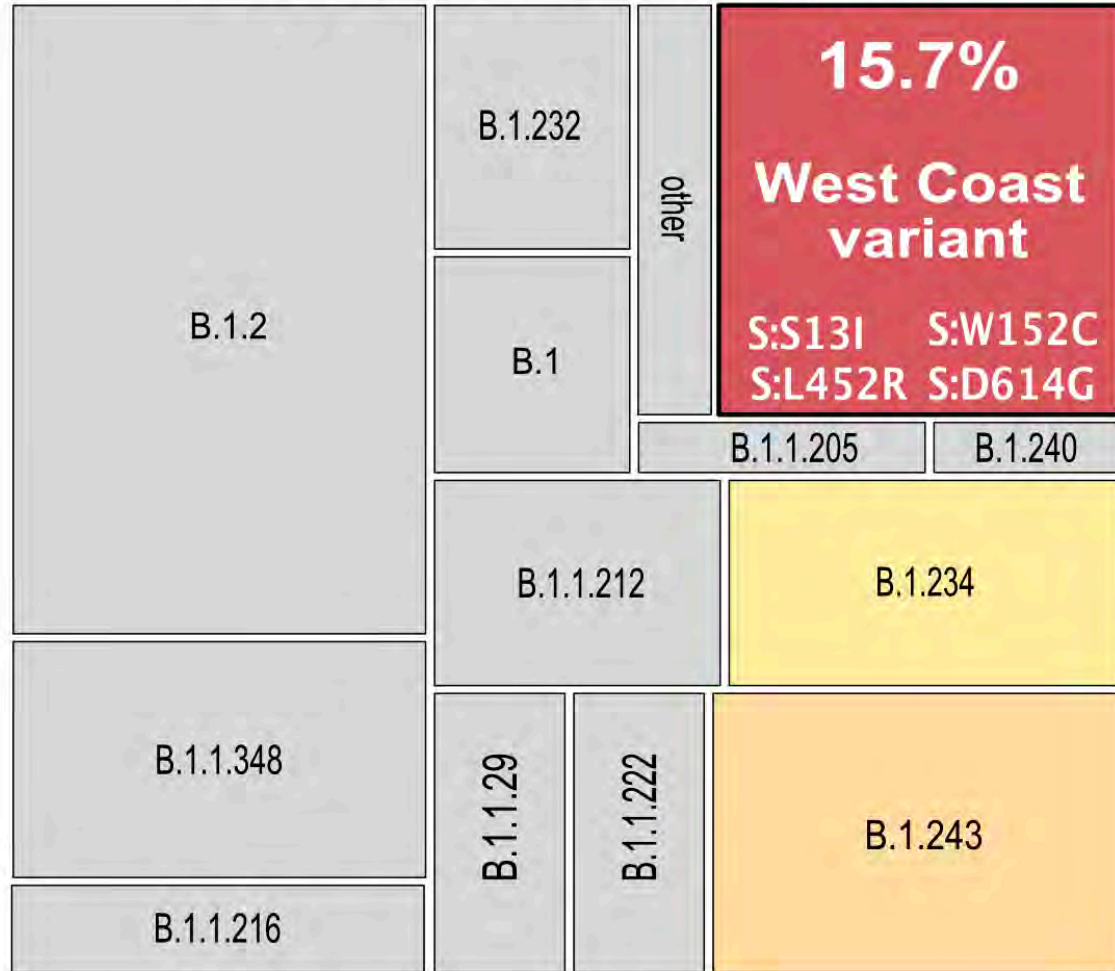
1. What are circulating variants among testers?
2. What is the proportion and characteristic of persons who have been vaccinated who have breakthrough infection?
3. What do we know about chains of transmission among variants of concern?

- **UK:** *B.1.1.7*
- **South Africa:** *B.1.351*
- **Brazil:** *P.1*
- **New York:** *B.1.526*
- **West Coast:** *B.1.427/429*
- **India:** *B.1.617*



Evolving SARS CoV -2 over time in Mission District

November 23 - Dec 1, 2020



Jan 10th – March 5th, 2021



Derisi, et al

Characteristics of “West Coast Variant”



- › Transmissibility– slight increase ~ 31%
- › Disease severity– no difference
 - › Same levels of virus
 - › Same % of persons with symptoms
- › Unlike the UK, B.1.1.7 strain, the West Coast strain has only small increase in transmissibility, and no increase in disease severity.

First report of characteristics of West Coast variants

What are current attitudes to vaccination?



› 4,436 adults tested and surveyed in 9 days (January 10-20)¹

› By age:

› 91% Age < 65

› 9% Age ≥ 65

› By ethnicity:

› 73% Latinx

› 10% White

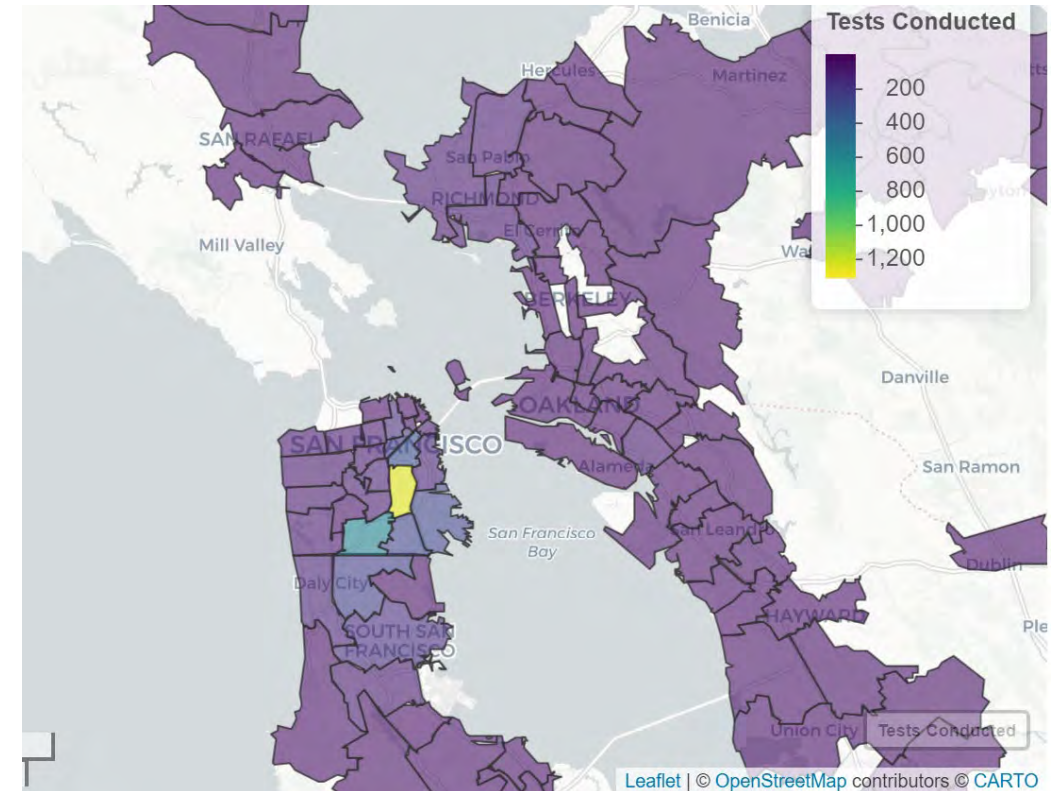
› 8% Asian

› 3% Black

› 77% household income <\$50k

› 46% frontline worker²

› 47% first-generation immigrant



76% of participants live in San Francisco

¹ 79% of all tested completed vaccine attitudes portion of questionnaire.

² Frontline workers defined as currently working in food & beverage, healthcare, construction, grocery store, transportation, service, education, law enforcement, or postal delivery.

What proportion of respondents are interested in receiving a vaccine?

When you become eligible for a free COVID-19 vaccine, will you...?

Definitely get it Probably get it Probably not get it Definitely not get it



If a vaccine for COVID-19 were available now, do you think you would...?

Get it as soon as you can Wait and see how it is working Get it only if required



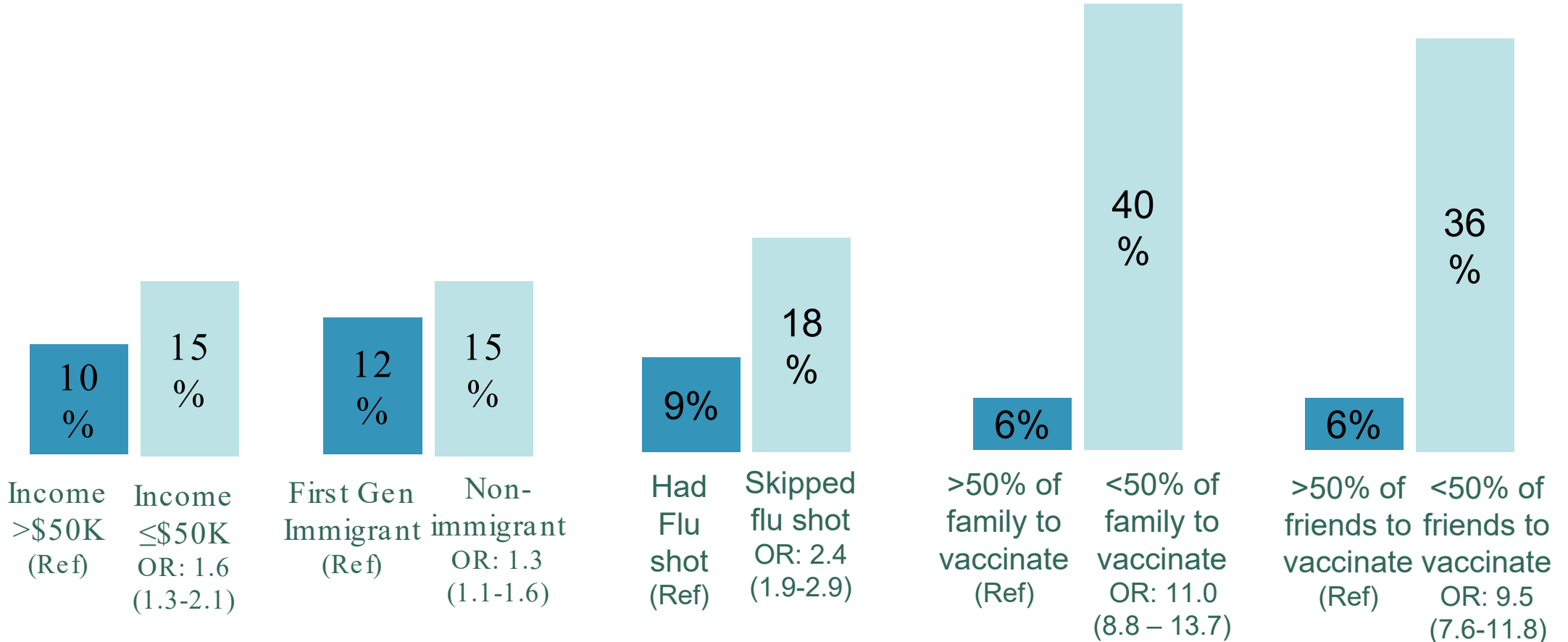
What factors are predictive of a person being vaccine -hesitant?



- Low-income persons, nonimmigrants, those who skipped their flu shot or have vaccine-reluctant friends/family are more likely to be vaccine-hesitant

Percent indicating will probably not or definitely not get the vaccine

Odds ratio univariate logistic regression



Of persons not interested, what are some concerns and who do they trust?

- Of *participants not interested in a vaccine*, most indicated that they were worried about side effects and didn't trust the vaccine's safety.

Concern	Percent of respondents with concern
Worried about side effects	41%
Don't trust safety	28%
Too new	23%
Don't trust healthcare system	21%
Don't trust vaccine is effective	12%

- Many *vaccine-hesitant persons* indicated a fair or great amount of trust in their doctors, but low trust in other groups.

Entity	Percent of respondents with a fair or great amount of trust
Doctor/primary care provider	63%
Latino Task Force	42%
Local/state government	34%
Federal government	30%
Newspapers, TV	25%
Social media	18%

Vaccination strategy

Motivate

Door to door, community and staff education,, outreach to local business and organization, trusted messengers

Vaccinate

On site registration & "navigation" with transportation for full Welcoming environment, respect for elders, accommodation of disability

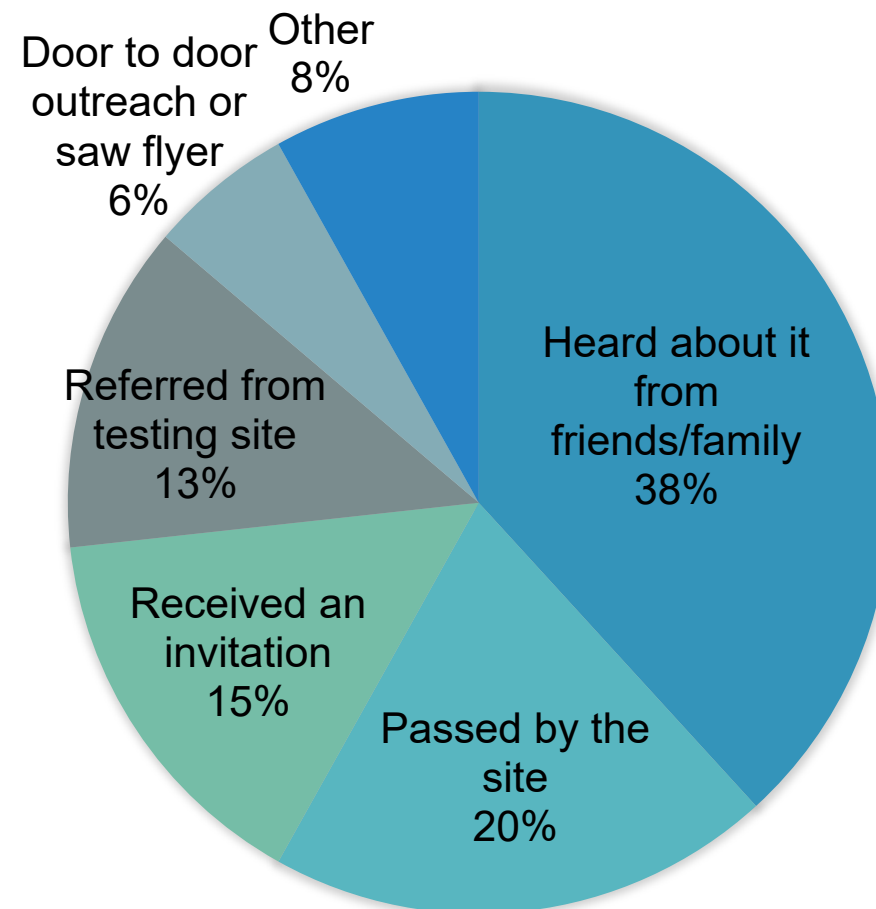
Activate

Each vaccinated person empowered to recruit others - community health team



How is our vaccine strategy working?

- 20,000 persons vaccine
 - 85% persons of color
- Most clients surveyed heard about the site from friends & family (38%), followed by passing by the site (20%) and receiving an invitation (15%)



Why chose our vaccine site?



- Most chose the vaccine site because of easy scheduling and it was in their neighborhood

Primary Reason	Percent
Easy, convenient scheduling	32%
In my neighborhood	29%
Someone suggested it to me	14%
Previous positive experience with UeS/LTF	9%
Staff are bilingual	8%
Could not get vaccinated elsewhere	7%

- Over 50% of those surveyed thought they would have received the vaccine later had the site not existed

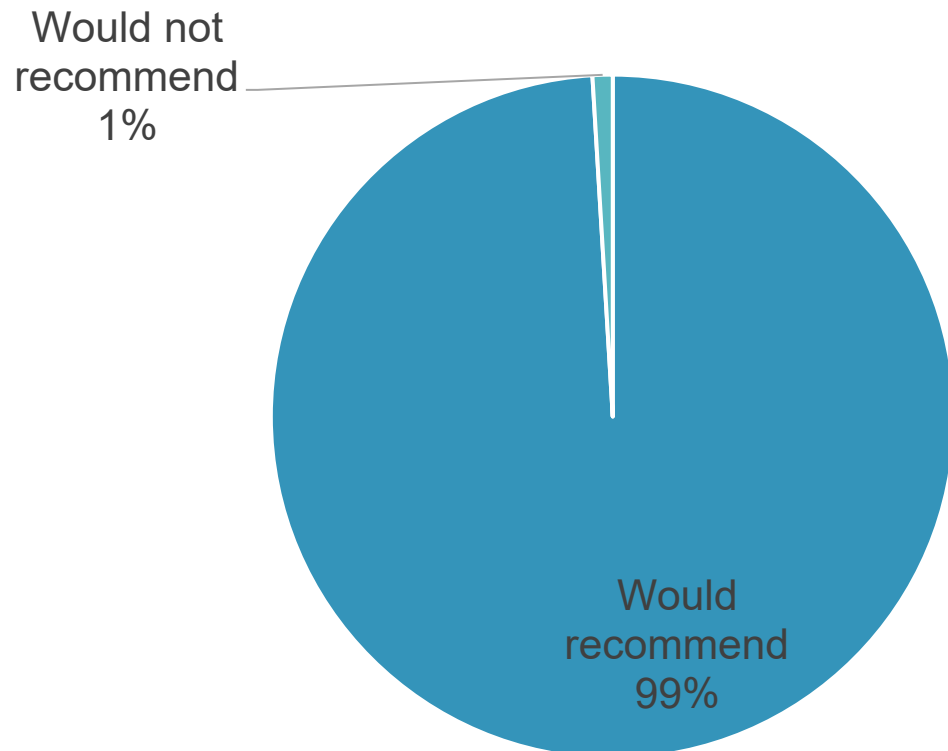
If site had not existed, would you have been vaccinated earlier, later, or about the same time?	Percent
Later	51%
At the same time	35%
Earlier	13%

Excellent vaccine site Experience



- >99% of surveyed clients said they would recommend the vaccine site

- Clients liked the friendly staff, site efficiency, and staff being bilingual, among other things



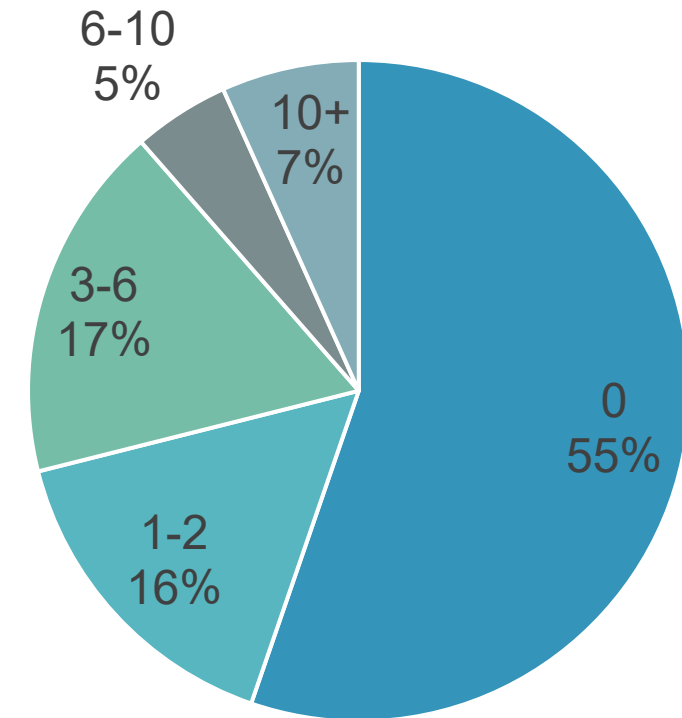
What did you like about the site? (multi -select)	Percent
Friendly/professional staff	76%
Fast/efficient	66%
Bilingual staff	49%
Able to book 2 nd dose easily	41%
Liked being vaccinated in community	38%
Did not have to provide documentation	27%

“Activate”: Unvaccinated social contacts



- 45% of those surveyed said they had at least one family member, coworker, or friend who has not been vaccinated
- Top reason described for vaccine hesitancy among social contacts was fear of safety and side effect of vaccines
 - Another common reason was not being able to find a vaccine appointment
- Over 50% contacted friend/family to encourage vaccination

Number of unvaccinated contacts

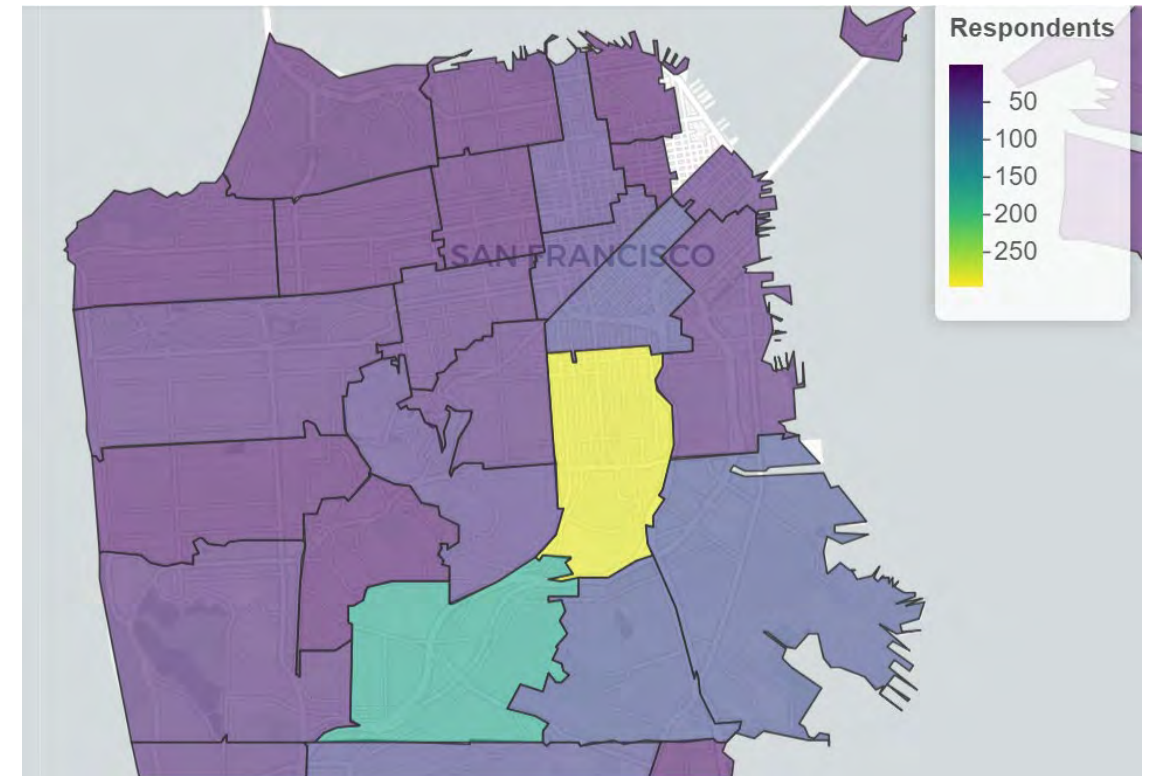


What do parents think about vaccinating their children?



1,047 parents: tested or vaccinated April 4-28

- 52% female , 48% male
- 76% Latinx, 12% White, 5% Asian
- Age group of child/children:
 - 20% with 16-17 year old
 - 37% with 12-15 year old
 - 50% with 5-11 year old
 - 34% with 0-4 year old
- 93% who have received at least one vaccine shot

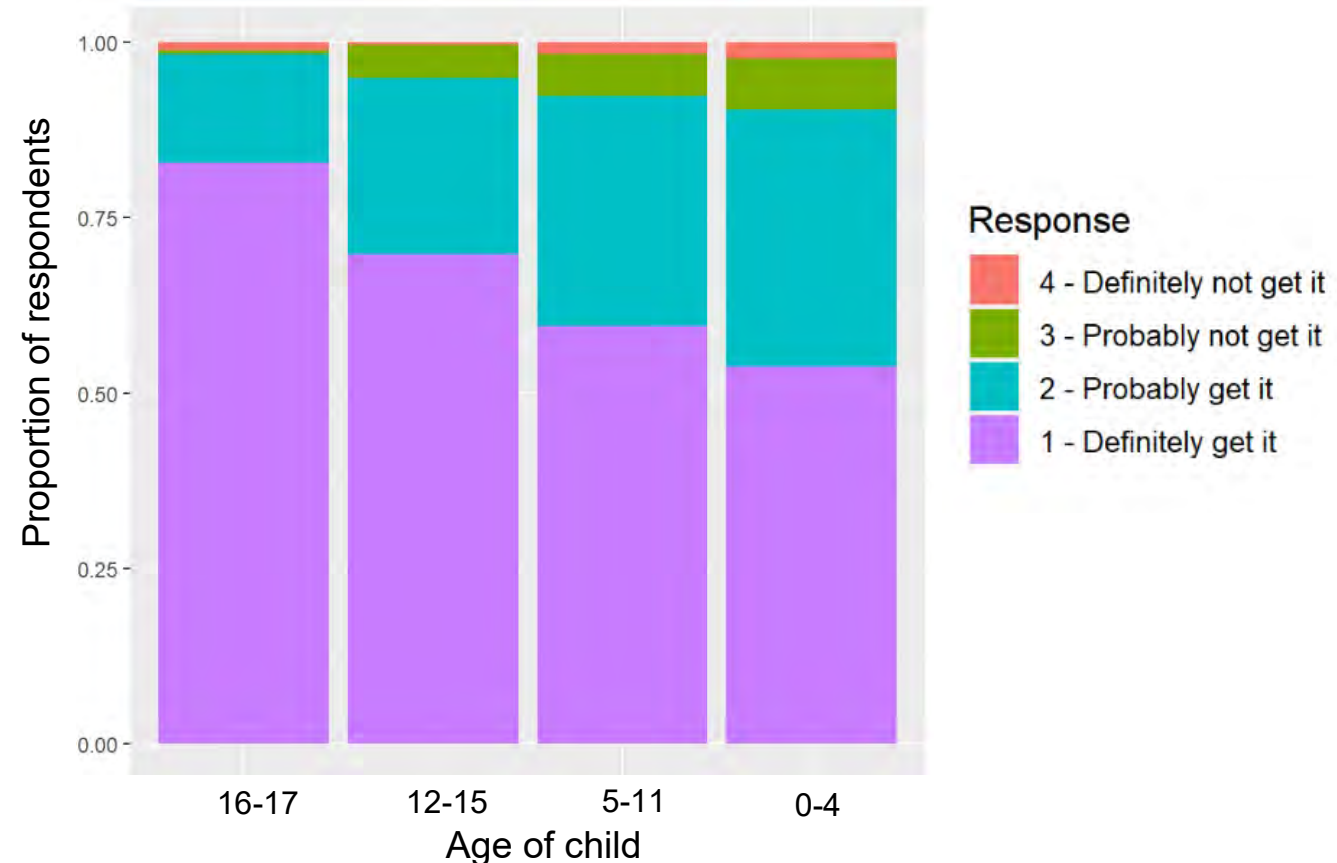


Interest in vaccine for children <18 years of age



- High interest in a vaccine for children, with over 90% of parents in all age groups responding that their children will “probably” or “definitely” get vaccinated
- Higher proportion of *vaccine hesitancy* among parents with younger children

*If your child/children becomes eligible for a COVID-19 vaccine, will your child/children...?**



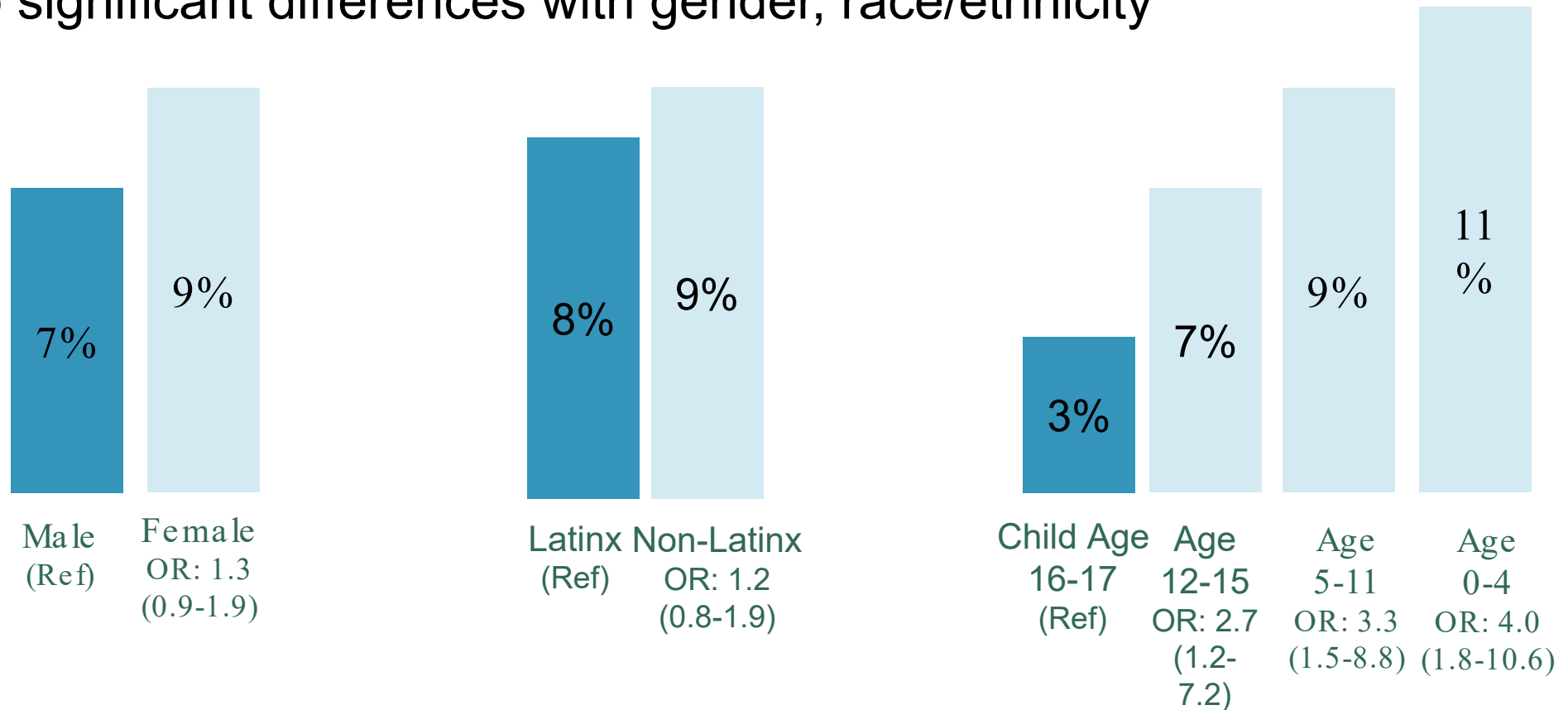
* Survey questions were asked for each age group of child



Predictors of vaccine hesitancy

- Those with younger children more likely to be vaccine-hesitant
 - No significant differences with gender, race/ethnicity

Percent indicating will probably not or definitely not get vaccine for children



Odds ratio univariate logistic regression

Concerns and motivations of parents



Concerns of parents who are vaccine-hesitant

Concern	Percent of respondents with concern
Worried about side effects	60%
Worried about long-term effects	41%
Might affect child's ability to have children	18%
Not at risk for severe COVID	9%
Not at risk for contracting COVID	8%

Motivations of parents who are vaccine-motivated

Motivation	Percent of respondents with motivation
Keep child safe	92%
Keep community safe	66%
Keep adults in the household safe	63%
Vaccine may be required for school/daycare	61%

Preference for location of parents to vaccinate children



- › 60% Community site such as Capp and 24th
- › 18% Doctors office
- › 14% School
- › 6% Other

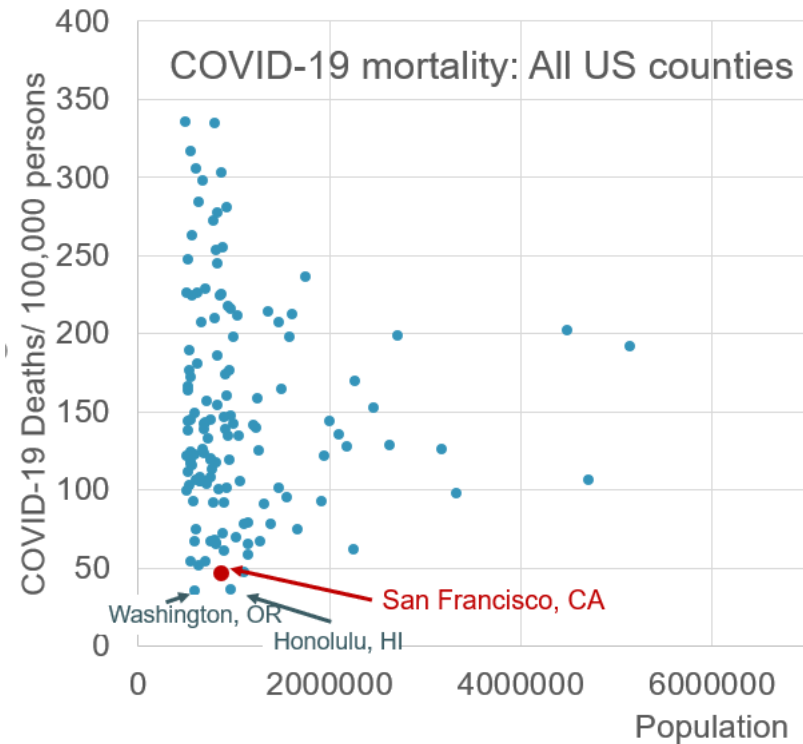
Summary Vaccine Strategy



- › Our community based vaccine strategy is working and is reaching highly affected populations
 - › Vaccinated persons are serving as “ambassadors to unvaccinated persons”
- › Among over 1000 vaccinated parents, the majority desire to have their children vaccinated
 - › Enthusiasm is higher for older vs younger children
 - › Concerns are predominantly around safety– long term side effects and any possible effects on reproductive health for both males and females
 - › For this group that was vaccinated at a community site, they are comfortable having their children get vaccinated at this same site
- › We are now vaccinating youth!

It takes a community to end a pandemic

Lives saved



Livelihoods restored





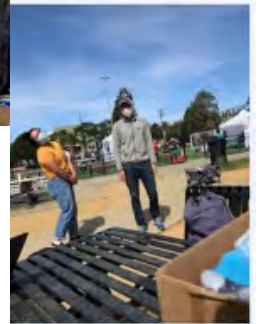
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<https://unitedinhealth.org/>



Bay Area
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Monica Gandhi and Ward 86



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