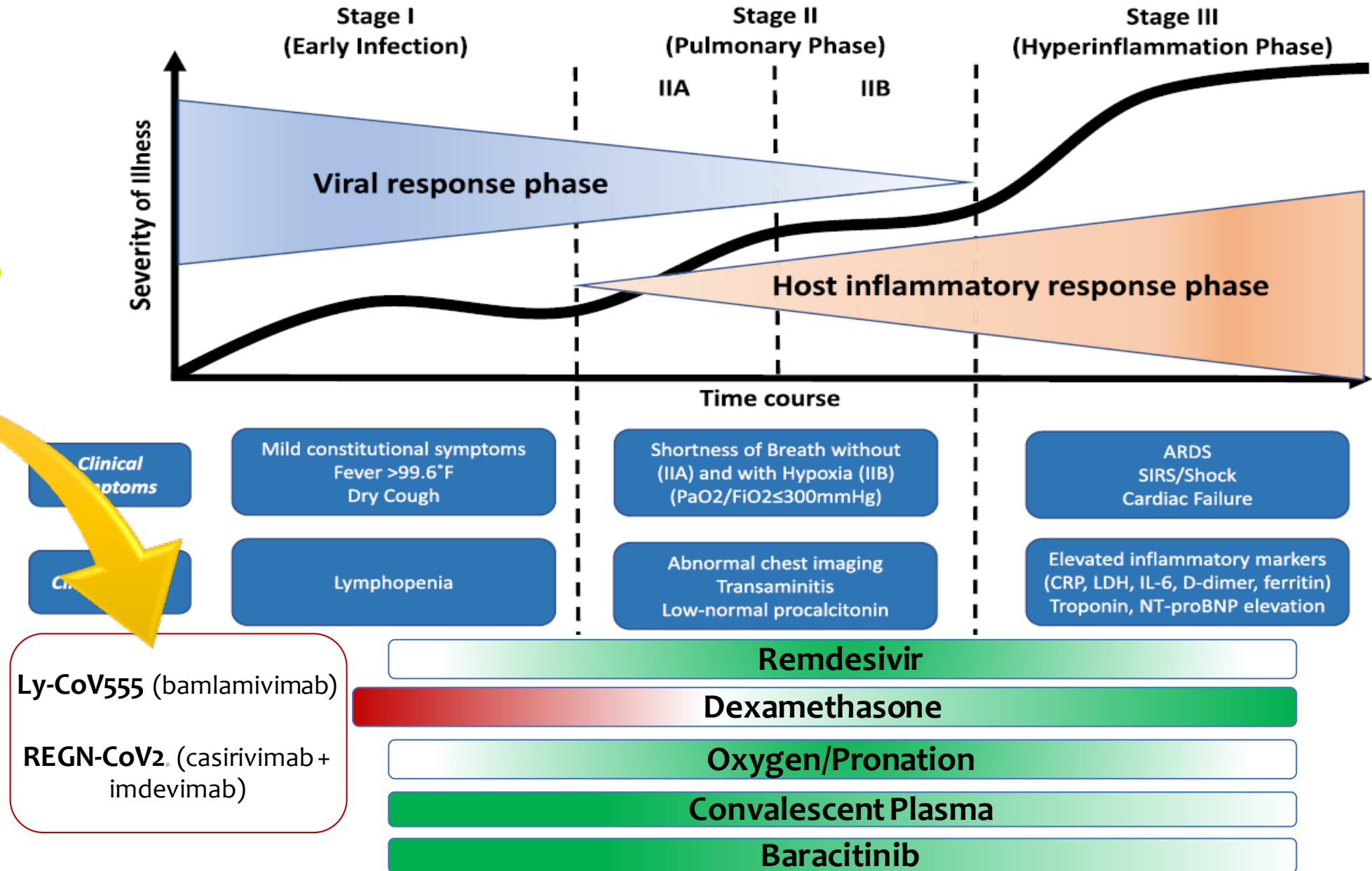


Basic (but important) Principles from the front lines of COVID-19 Treatment

- The vast majority of COVID-19 is diagnosed and managed in the outpatient setting
- COVID-19 cases, hospitalizations, and deaths have disproportionately affected people of color and communities of lower socioeconomic status
- While there has been a focus on ICU management, upstream interventions have potential to decrease burden of hospitalization if deployed strategically with high accessibility and in heavily affected communities
- In the absence of a large-scale strategy, the reality of community-based COVID testing is as fractured as our healthcare system. FQHC-based testing programs have the highest chance of linking chronic medical care to COVID testing results.
- It is difficult to assess whether rapid distribution of mAbs through hospitals has been targeted, impactful, or equitable

Time/Severity-dependent Effect of Therapeutics

You are
here



The Inverse Equity Hypothesis

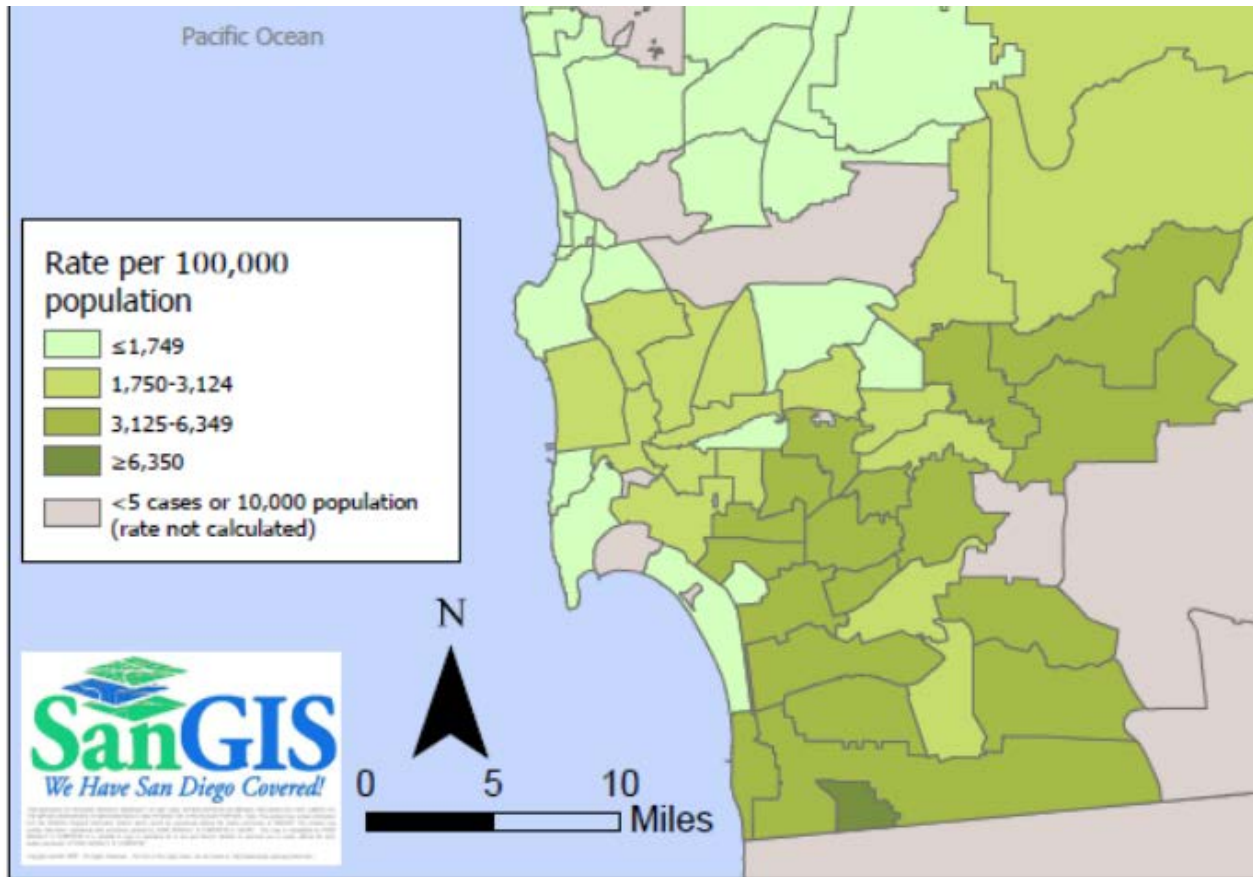
- **1979 – Inverse Care Law:** Availability of good medical care tends to vary inversely with the need for it in the population served
- **2000 – Inverse Equity Hypothesis:** Newly introduced health interventions will be initially adopted by the wealthier segments of a population who likely had the least need or such interventions
 - In the short term, absolute health inequalities would increase and only decline as the intervention gradually reaches the most deprived sectors of the population, by which time coverage among the most privileged sectors was already close to 100%
- Paul Farmer: “Any Serious Examination of epidemic disease has always shown that microbes make a ***preferential option for the poor***. But medicine and its practitioners, even in public health, do so all too rarely.”

1. Hart JT. The inverse care law. Lancet 1971;1(7696): 405-412

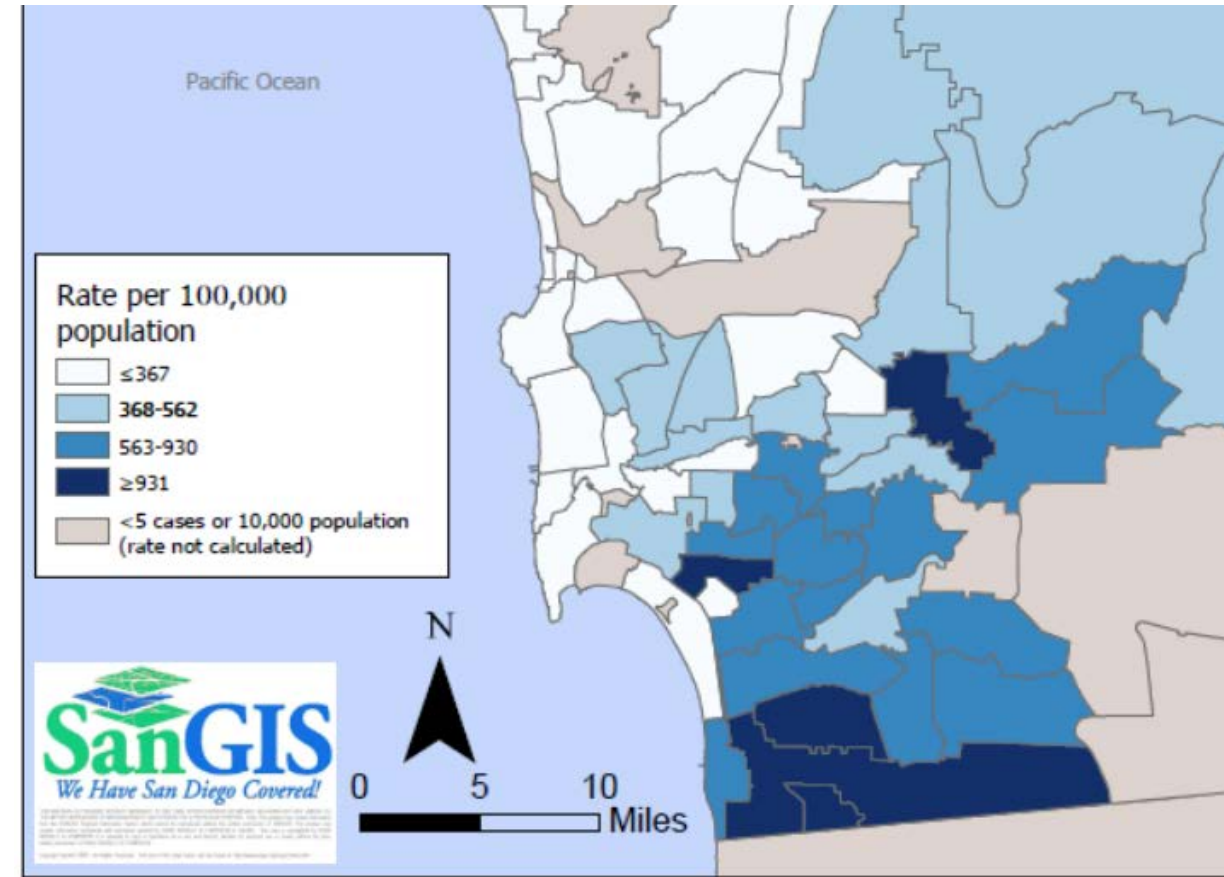
2. Victora CG, et al Explaining Trends in inequities: evidence from Brazilian child health studies. Lancet 2000; 356(9235): 1093-1098

Cumulative and Recent (11/22-12/5) COVID-19 Case Rates

Cumulative COVID-19 Rate by Zip codes



Prior 2 week COVID-19 Rate by Zip Codes



- Obvious and persistent geographic disparity of COVID-19 cases along racial and sociodemographic characteristics

Summary of COVID-19 Cases by Race/Ethnicity

COVID-19 Case Summary	San Diego County Residents		
Total Positives	107,372		
		% of Total with Known Race/Ethnicity (N= 93,266)	Rate per 100,000**
Race and Ethnicity*	Count		
Hispanic or Latino	53,744	57.6%	4,915.4
White	23,854	25.6%	1,579.4
Black or African American	3,476	3.7%	2,063.5
Asian	5,158	5.5%	1,206.2
Native Hawaiian/Pacific Islander	792	0.8%	5,552.4
American Indian/Alaska Native	292	0.3%	1,341.2
Multiple Race	1,252	1.3%	1,158.8
Other Race	4,698	5.0%	
Race/Ethnicity Unknown	14,106		

Summary of COVID-19-associated Deaths by Demographics

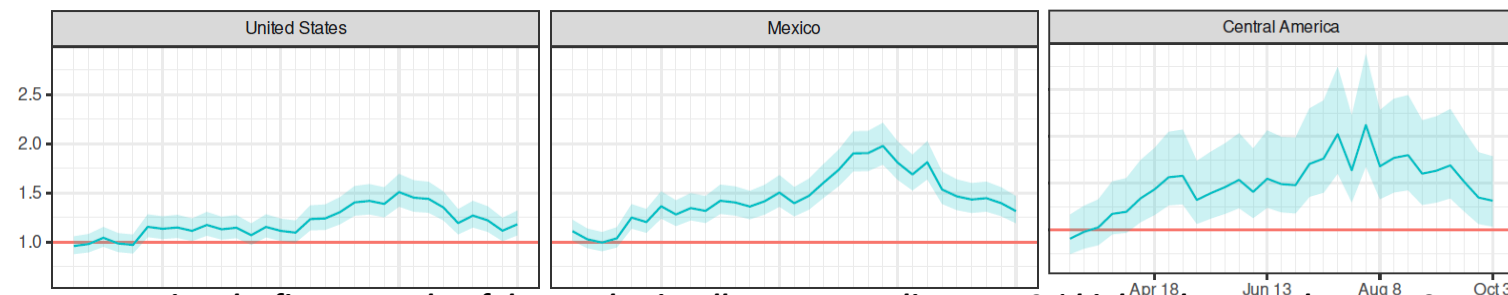
	San Diego County Residents	
Total Deaths	1,162	
Selected Characteristics	Count	% of Deaths with Known Demographics
Race/Ethnicity*		
Hispanic or Latino	565	48.8%
White	407	35.2%
Black or African American	52	4.5%
Asian	113	9.8%
Native Hawaiian/Pacific Islander	5	0.4%
American Indian/Alaska Native	2	0.2%
Multiple Race	8	0.7%
Other Race	5	0.4%
Race/Ethnicity Unknown	5	

Summary of COVID-19 Cases that Required Hospitalization

COVID-19 Hospitalizations*	San Diego County Residents	
Total Hospitalizations	5,139	
Selected Characteristics	Count	% of Total with Known Demographics
Race/Ethnicity**		
Hispanic or Latino	2,862	57.4%
White	1,215	24.4%
Black or African American	256	5.1%
Asian	348	7.0%
Native Hawaiian/Pacific Islander	47	0.9%
American Indian/Alaska Native	13	0.3%
Multiple Race	58	1.2%
Other Race	187	3.8%
Race/Ethnicity Unknown	153	

- Despite comprising 32.6% of the population of San Diego county. Hispanic/Latino community has made up:

- 57.6% of COVID-19 cases
- 57.4% of COVID-19 hospitalizations
- 48.5% of COVID-19 deaths



During the first 7 months of the pandemic, all-cause mortality was 49% higher than usual among Central American-born Latinos in CA, 44% higher than usual among Mexican-born Latinos in CA, and 19% higher than usual among U.S.-born Latinos in CA.

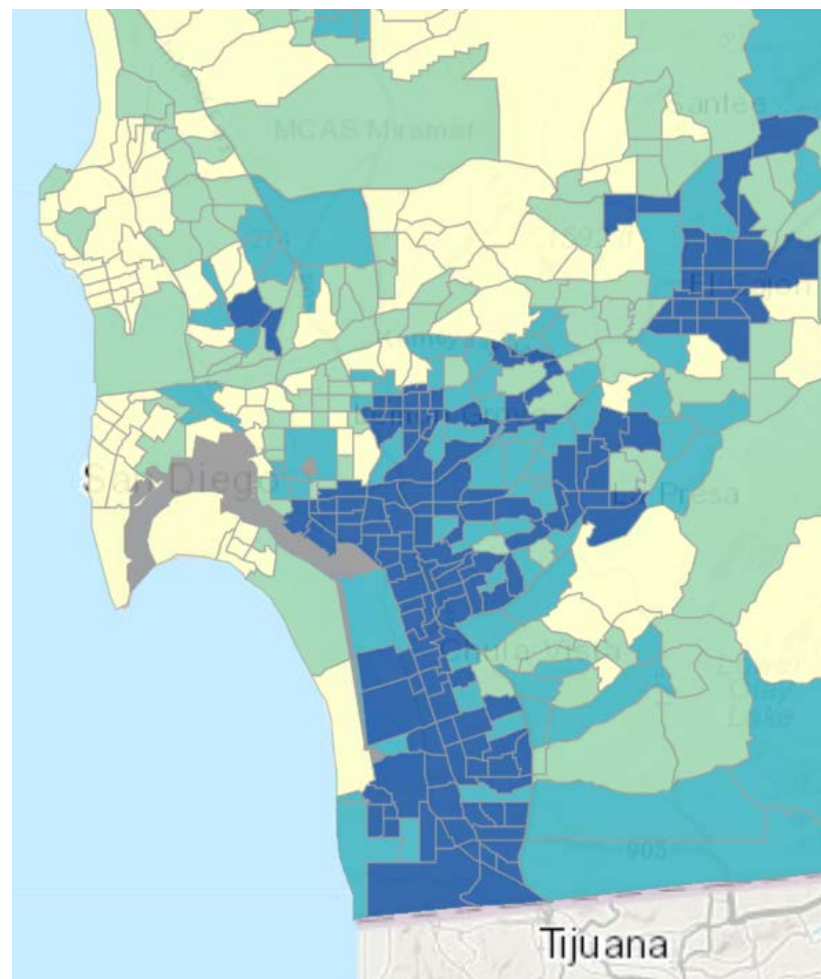
<https://www.sandiegocounty.gov/content/dam/sdc/hhsa/programs/phs/Epidemiology/COVID-19%20Race%20and%20Ethnicity%20Summary.pdf>

https://www.sandiegocounty.gov/content/dam/sdc/hhsa/programs/phs/Epidemiology/COVID-19%20Hospitalizations%20Summary_ALL.pdf

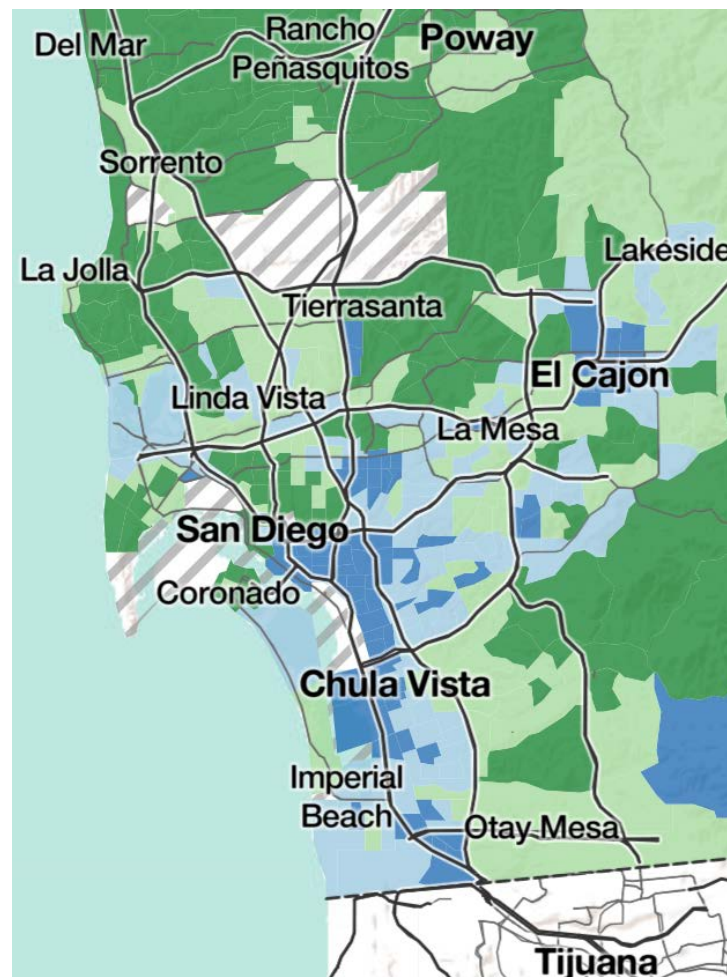
<https://www.sandiegocounty.gov/content/dam/sdc/hhsa/programs/phs/Epidemiology/COVID-19%20Deaths%20by%20Demographics.pdf>

Riley, Alicia R. et al. 2020. Unpublished Manuscript. Excess deaths among Latino people in California during the COVID-19 pandemic: risk by place of birth, education, and occupation.

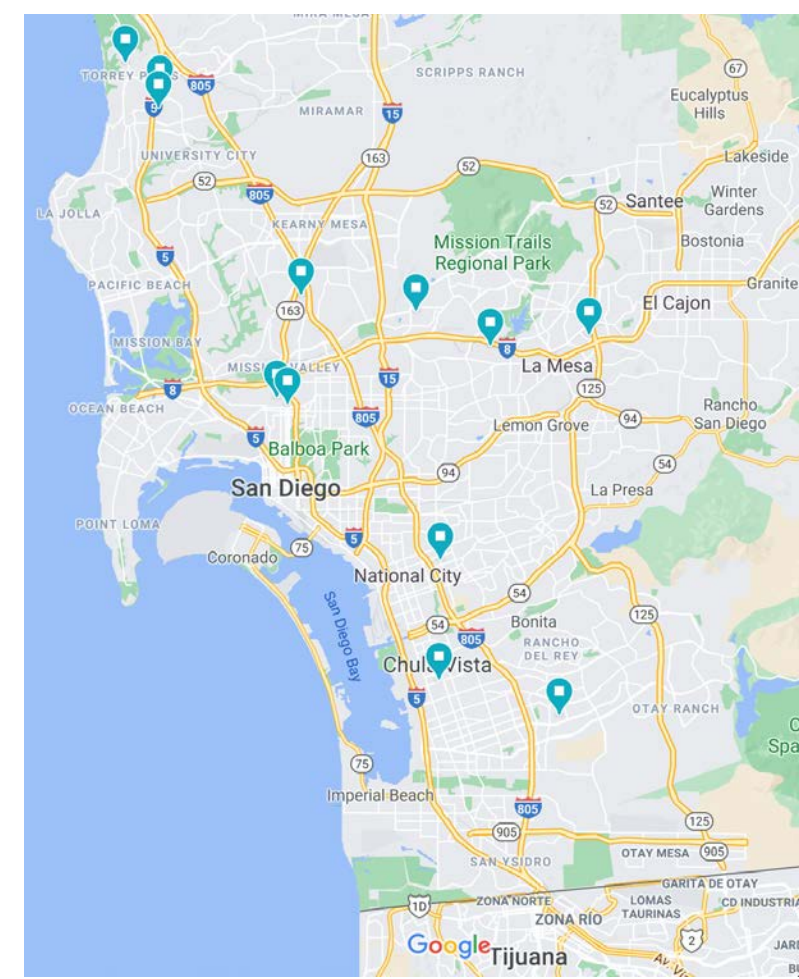
Mapping of Social Determinants of Health vs. Bamlanivimab Distriution



2016 CDC Social Vulnerability Index



California Healthy Places Index



Hospital Sites of OWS mAb allocation

<https://svi.cdc.gov/map.html>

<https://map.healthyplacesindex.org/>

Bamlanivimab distribution by hospital – SD County Data (unpublished)

Conclusions

- Monoclonal Ab allocation was rushed initially without sufficient attention to equity
- Signs that OWS is pivoting to more equitable considerations
- San Diego allocation is an example of how local officials can be responsive
- FQHCs are well-positioned to test and identify underserved communities with high-risk patient most likely to benefit from limited supply of mAbs. Many have demonstrated capability to bring on new infusion service line to reduce hospitalizations
- Just as with testing resources, vaccine distribution, mAb allocation must actively work to avoid 'Inverse Equity Hypothesis' where new interventions only reach those least in need