

## Evaluating the Successes & Limitations of the URM COVID-19 Monoclonal Antibody Program

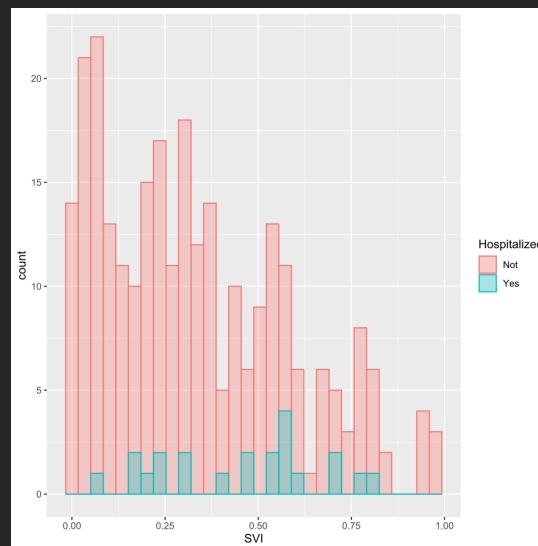
### Background

- Over 2300 deaths have been attributed to COVID-19 in Monroe County.
- Monoclonal antibodies (mAbs) in small studies showed modest benefit in preventing progression of COVID in high risk patients.
- At the University of Rochester Medical Center (URMC), a program was established to provide mAbs to high risk outpatients with mild COVID.
- It is unknown what the clinical outcomes of these patients were, or if the allocation of mAbs was equitable for patients of different socioeconomic groups.

### Methods

1. We performed a retrospective study of 327 outpatients who were high risk for COVID disease progression and who received mAbs in the ID clinic or ED after a referral from their PCP.
2. A chart review of these patients was completed to track the severity of their COVID illness, including hospitalization rates within 30 days of mAb administration, supplemental oxygen requirements, and COVID-related deaths within 90 days of a positive COVID test.
3. Stratification of socioeconomic status was achieved via the social vulnerability index (SVI), with higher scores reflecting greater vulnerability. Each patient's home address was converted to SVI using a CDC database.

The vast majority of patients who received mAbs for COVID avoided severe disease. However, patients with lower SVI received a disproportionately higher share of mAb infusions.

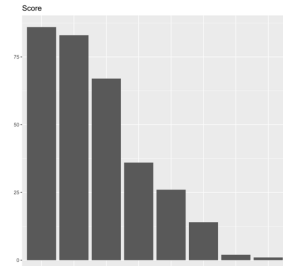


Histograms of SVI of patients with (teal) and without (red) hospitalization or ED visit (significant difference in distributions  $p=0.011$ )

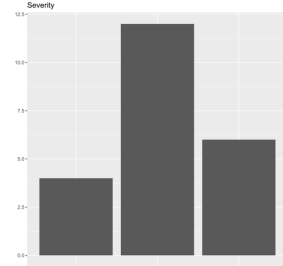


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### Results



Histogram of symptom severity leading to monoclonal administration



Histogram of disease severity after monoclonal administration

### Conclusions

- Patients w/ higher SVI had higher post-COVID hospitalization rates even after receiving mAbs.
- Patients receiving monoclonal antibodies had overall low SVI
- Future programs requiring allocation of novel treatments should take into account patient SVI during planning/design/publicity processes and attempt to remove barriers to accessing care.

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