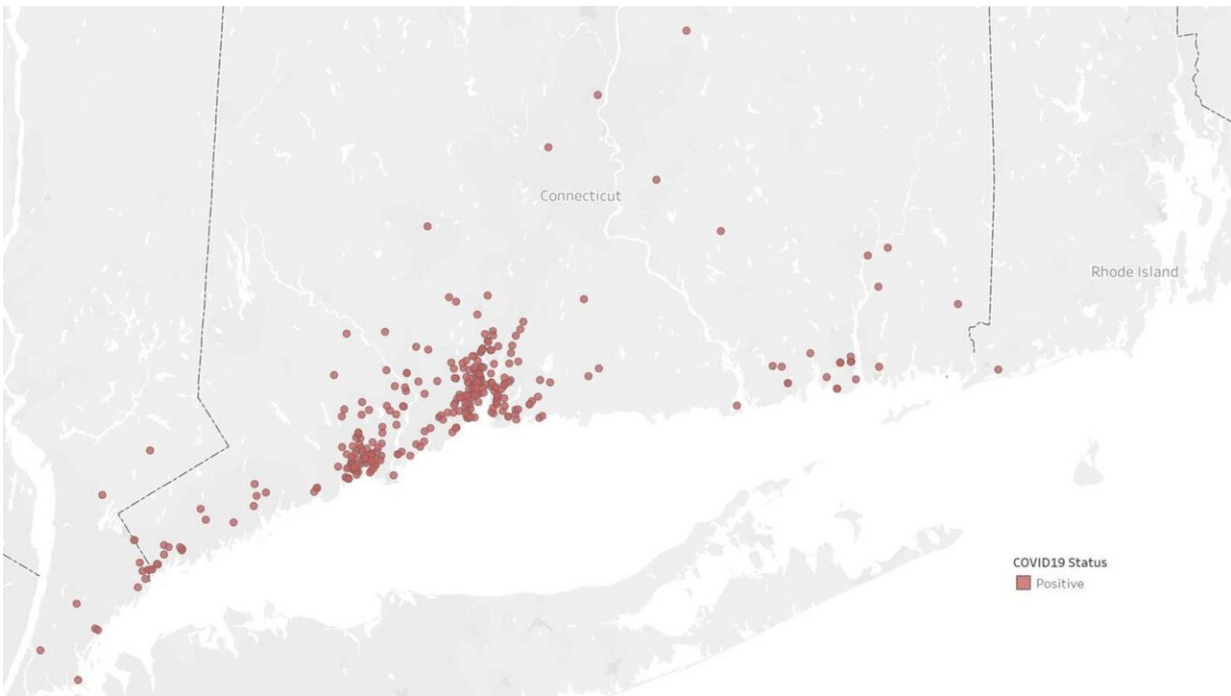


Patient registry provides a connection between heart failure and COVID-19

June 12 2020, by Elisabeth Reitman



COVID-19 positive patients are clustered around low-income, urban centers.
Credit: Yale University

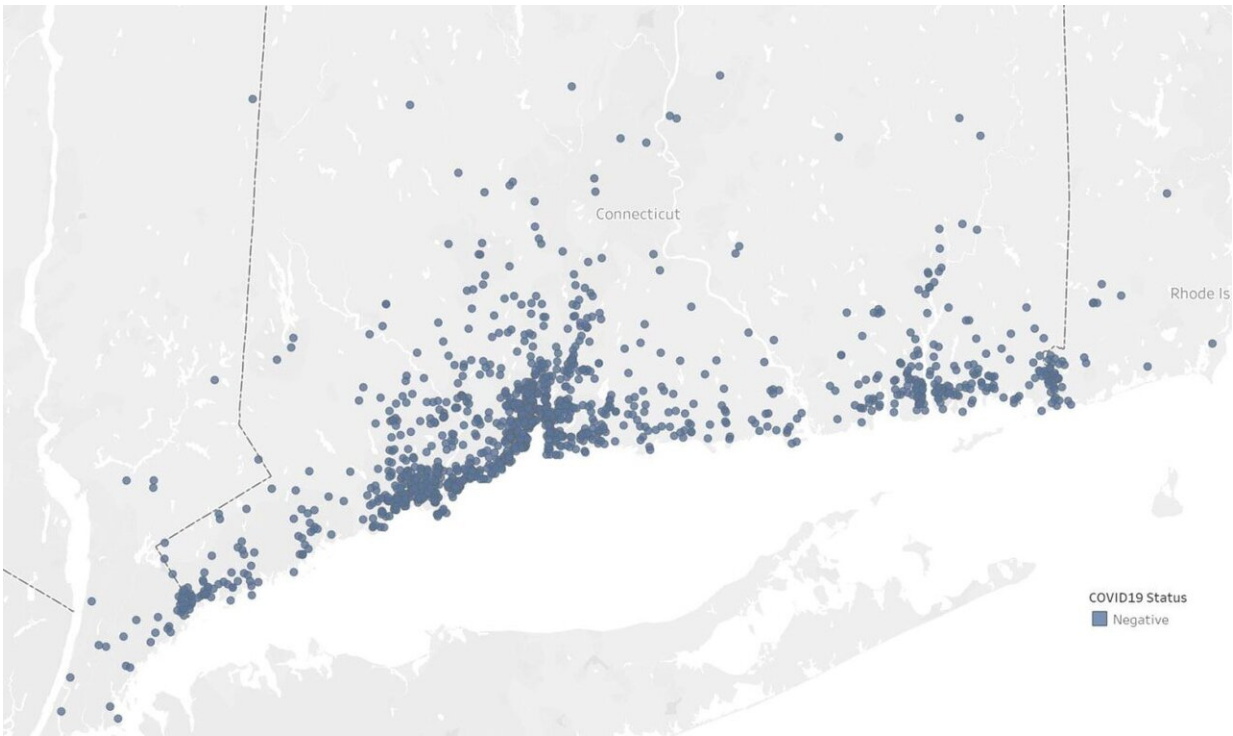
Targeted public health interventions are essential to confront the coronavirus. Physicians at Yale New Haven Health created a registry to help identify which patients are most susceptible to the virus.

Nihar Desai, MD, and Tariq Ahmad, MD, built the Heart Failure

Registry to improve the quality of care and [patient outcomes](#). The registry captures data on all [heart](#) failure patients within the Yale New Haven Health System network. After the pandemic began, Desai and Ahmad included COVID-19 information in the registry.

The registry includes patient demographics, comorbidities, laboratories, left ventricular ejection fraction (LVEF), medications, geospatial mapping, and clinical outcomes (including hospital readmissions). Registry data connects to the National Death Index, a centralized database of death record information. The registry updates daily. Clinicians can search for relevant questions aimed at research and quality improvement.

An analysis of [heart failure patients](#) in Connecticut found that few had been tested for SARS-CoV-2, but 20% of those who tested positive died. The mortality rate was at least 36% among [elderly patients](#) ages 85 and older, and rates of continuing hospitalization was 62%. The results are published in the preprint server [medRxiv](#).



COVID-19 negative patients are spread across the state of Connecticut. Credit: Yale University

The majority of patients who tested positive were African Americans with multiple comorbidities. Geographic information also indicated that infection rates were highest in low-income communities.

According to the data, patients who tested negative live across the state. Those who tested positive tended to have a lower socioeconomic status.

"This data also shows that we should develop a more nuanced and regional approach to addressing this virus," noted Ahmad, who treats patients with advanced heart failure. "It clearly has a varied impact on different communities."

COVID-19 patients are at heightened risk for heart failure. An overactive response from the [immune system](#) can trigger a cytokine storm, or an excess of inflammatory cytokines. The excess inflammation may cause myocardial damage and eventual heart failure.

As our understanding of COVID-19 evolves, the Yale Heart Failure Registry may improve outcomes for patients.

More information: Cesar Caraballo et al. COVID-19 Infections and Outcomes in a Live Registry of Heart Failure Patients Across an Integrated Health Care System, (2020). [DOI: 10.1101/2020.04.27.20082016](#)

Provided by Yale University

Citation: Patient registry provides a connection between heart failure and COVID-19 (2020, June 12) retrieved 23 May 2024 from <https://medicalxpress.com/news/2020-06-patient-registry-heart-failure-covid-.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--