Race and Place to Enhance Policy Making and Public Health Action

As part of COVID-19 mortality assessment, the California Department of Public Health (CDPH) leveraged information on death certificates (April 2020 to Feb. 2021) for race/ethnicity and residential address, which was linked by census tract to its HPI score. When combined with census tract population data from the American Community Survey (2015-2019), CDPH tabulated statewide mortality rates, simultaneously stratifying on race and place.¹

Table 1. COVID-19 Mortality Rates per 100,000 by Race/ethnicity and HPI Quartile, California, April 2020 - February 2021

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>HPI Quartile³ (Q1 = Least Healthy)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1</td>
</tr>
<tr>
<td>Asian</td>
<td>198</td>
</tr>
<tr>
<td>Black</td>
<td>157</td>
</tr>
<tr>
<td>Latino</td>
<td>179</td>
</tr>
<tr>
<td>NHPI</td>
<td>264</td>
</tr>
<tr>
<td>White</td>
<td>168</td>
</tr>
<tr>
<td>Total</td>
<td>178</td>
</tr>
</tbody>
</table>

¹ Statewide ranking
² Asian, Black, NHPI, and White were not of Hispanic/Latino ethnicity
³ American Indian/Alaska Native, Multiple race and Other race not reported by CDPH

PAF, population attributable fraction using Q4 of each group as the reference

Race and place — each taken alone — show stunning mortality disparities by race/ethnicity and an equally stunning mortality gradient by HPI quartile (Figures 1 & 2). There was also a strong and consistent mortality gradient by HPI quartile within each race/ethnicity group (Figure 3). For each race/ethnicity, living in the quartile of census tracts with the healthiest community conditions (highest HPI scores) was the most protective against the risk of COVID-19 death. Residents in the HPI quartile of census tracts with the least healthy community conditions experienced the highest rate of COVID-19 mortality.
Figure 1. Cumulative COVID-19 Mortality Rates (per 100,000) by Race/Ethnicity, California, February 2021

Source: California Department of Public Health

Figure 2. COVID-19 Mortality Rates per 100,000 by HPI Quartile (Q1 = Least Healthy), California, February 2021

Source: California Department of Public Health
The analysis of place and race also show Native Hawaiian Pacific Islanders (NHPI) have persistently high mortality rates over the three HPI quartiles with the least healthy community conditions. This amplifies the call for direct outreach to NHPI communities across all geographic areas (and HPI quartiles) as part of an overall prevention strategy. It is justifiably concerning that the NHPI mortality rates in the second and third HPI quartiles are higher than the most disadvantaged quartile of other groups. What might explain the mortality differential in NHPI should be a research priority.6,7

The unique findings for NHPI highlight the need to have complementary race- and place-based analyses to support a full range of policy making and public health actions that address all populations.

This analysis illustrates that prioritizing pandemic resources for disadvantaged communities by place3-5 benefits each race/ethnicity and is one component of a sound policy backed up by data. In the short term, this includes the geographic targeting of preventive clinical services such as COVI-19 vaccination. In the long-term, this includes prioritizing resources so that all communities are as resilient as those in the HPI quartile of census tracts with the healthiest community conditions – a healthy community is a resilient community.
References