PRIORITIZE HIGH-RISK DEMOGRAPHICS IN VACCINE ROLLOUT

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Prioritize High-Risk Demographics in Vaccine Rollout

People of color are overrepresented relative to their shares of the total population in coronavirus infections, hospitalizations, and deaths. The same is true for people living in over-crowded multigenerational households. Because people of color are more likely to live in multigenerational households than are Whites, the pandemic is having a double whammy effect in communities of color throughout the U.S.

Strikingly, health officials considered neither race nor living arrangements in the phase-one vaccine rollout. In what essentially constitutes a race-blind strategy, they prioritized instead age—adults 75 or older (subsequently expanded to those 65 and older)—and occupation—essential health care workers—in vaccine administration.

Critically, even this very limited phase-one rollout ignores racial disparities in vulnerability to the deadly virus. Due to a legacy of discrimination in all walks-of-life, Black older adults are three times more likely to live in poverty than White older adults are. They are also more likely to live in structurally deteriorating housing and dangerous neighborhoods that compromise their immune systems and adversely affect their health and wellbeing in other ways. Moreover, non-white essential workers are more likely than their White counterparts are to live in multigenerational households. All of these factors increase the risk of infections in these households.

Mutigenerational households take on multiple configurations. Consider these three types, which illustrate the complexity of such living arrangements among people of color.

- Some are headed by an older adult (single, divorced, or widowed) or adult couples (married or cohabitating) with an adult biological child (two generations) and, in some instances, a biological grandchild (three generations) living in the household.
• Others are made up of younger married or cohabitating couples who are
taking care of an aging parent or parent-in-law (two generations) and their
own biological child or children or some other relative (three generation)
also may be living in the home.

• Then there are households where grandparents—oftentimes it is a single,
divorced, or widowed grandparent—are taking care of a biological grandchild
or multiple grandchildren due illness, institutionalization, or death of the
biological parent(s) (missing generation).

Essential workers can be present in any of these multigenerational households.
Family members who have moved “home” to escape the risks in larger cities and
to reduce expenses as well as non-relatives also can be present. Overcrowding is
often a defining characteristic.

We use the incidence of over-crowded living conditions, known incubators for virus
spread, to illustrate the problem with the current vaccine rollout strategy. The U.S.
Census Bureau considers overcrowded any household with more than one occupant
per room (excluding bathrooms).

Using this definition, overcrowded conditions existed in 4% of U.S households (4.8
million) and 3% of North Carolina households (107,619) in 2019. Disaggregating the
data by race, overcrowded conditions were much less likely in White households
than non-White households in both the U.S. and N.C.
### Absolute and Percent Overcrowded Households by Race, United States, 2019

<table>
<thead>
<tr>
<th>Race</th>
<th>Absolute Number</th>
<th>Overcrowding Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>All races</td>
<td>4,791,222</td>
<td>3.7%</td>
</tr>
<tr>
<td>White, NH</td>
<td>1,137,873</td>
<td>1.4%</td>
</tr>
<tr>
<td>Black</td>
<td>555,430</td>
<td>3.6%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1,807,464</td>
<td>10.8%</td>
</tr>
<tr>
<td>Al/Alaskan Native</td>
<td>69,616</td>
<td>7.3%</td>
</tr>
<tr>
<td>Asian</td>
<td>428,980</td>
<td>7.1%</td>
</tr>
<tr>
<td>Some other race</td>
<td>634,117</td>
<td>14.3%</td>
</tr>
<tr>
<td>Two or more races</td>
<td>131,167</td>
<td>4.9%</td>
</tr>
<tr>
<td>NH/PI</td>
<td>26,575</td>
<td>15.6%</td>
</tr>
</tbody>
</table>

*Overcrowded: 1.01 or more occupants/room

Overcrowding was especially high among Hispanics (11.8%)—almost twelve times higher than the rate of overcrowding for non-Hispanic Whites in the U.S. (1.4%) and in N.C. (1.0%). Hispanics accounted for 38% of all overcrowded households in the U.S. and 29% of all overcrowded households in N.C.

Looking across all race/ethnic groups, compared to their distribution in the total U.S. and N.C. populations, Whites are grossly under-represented and Asians, Blacks, Hispanics, and every other non-white group (including some other race and mixed race households) are either at population parity (Blacks nationally) or over-represented in households experiencing overcrowding—a condition that likely amplifies coronavirus exposure and transmission.
Profile of All and Overcrowded Households by Race of Householder, United States, 2019

<table>
<thead>
<tr>
<th>Category</th>
<th>White</th>
<th>AI/AN</th>
<th>2 or More Races</th>
<th>Black</th>
<th>Asian</th>
<th>NH/PI</th>
<th>Hispanic</th>
<th>Some Other Race</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Households</td>
<td>64%</td>
<td>12%</td>
<td>13%</td>
<td>5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>128,269,862</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overcrowded</td>
<td>24%</td>
<td>12%</td>
<td>38%</td>
<td>9%</td>
<td></td>
<td>12%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4,791,222</td>
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</tr>
</tbody>
</table>

*Overcrowded: 1.01 or more occupants/room

The next phase of vaccine administration must take into account the effects of overcrowded living arrangements because of the increased risk of exposure to and spread of COVID-19. In such situations, the priority target for vaccinations must be every individual in the household. Until we align vaccine rollout with the true demography of high-risk exposure and transmission, the battle to harness the pandemic will continue and the deadly virus, unfortunately, likely will continue to overcome lives and compromise the economic viability of our nation and the state of N.C.


Johnson and Bonds are professors in the Kenan-Flagler Business School at UNC-Chapel Hill. Parnell is the Vice President of the Mebane, NC-based Cedar Grove Institute for Sustainable Communities.
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