Skip to Main Content
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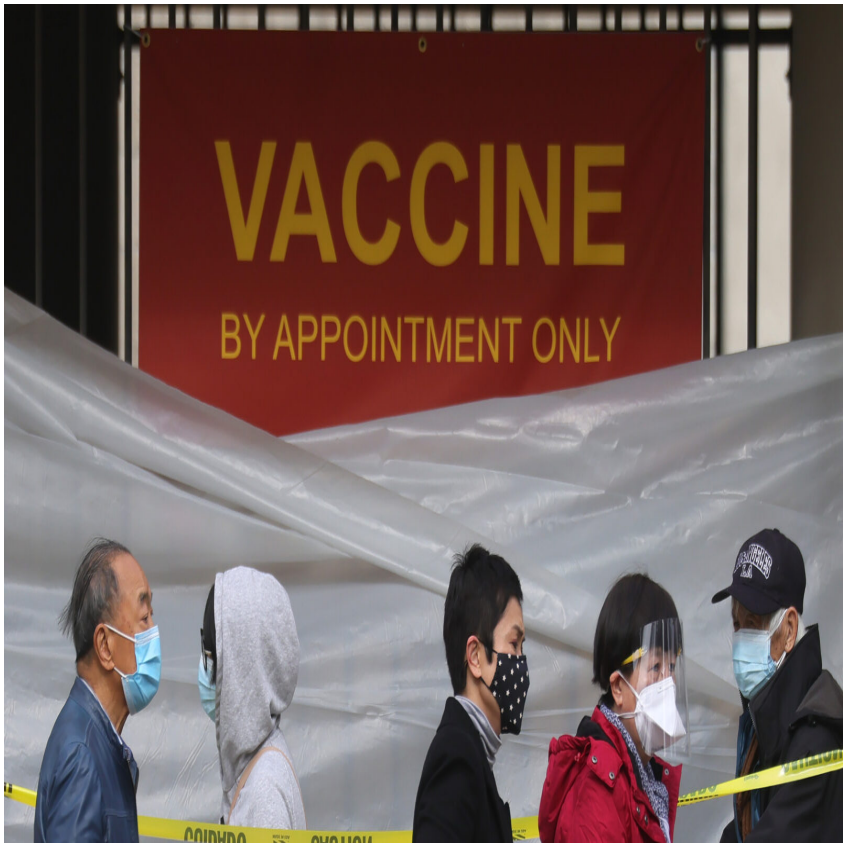
Disadvantage indices can help achieve equitable vaccine allocation

By Harald SchmidtFeb. 1, 2021



People stand in line to receive a Covid-19 vaccine at a vaccination site at Lincoln Park in Los Angeles. *Mario Tama/Getty Images*

Policymakers have wrestled for months with how to fairly prioritize populations for Covid-19 vaccines. But even as vaccines are being rolled out, there's little agreement on the exact sequence of priority groups.

Allocation frameworks vary across states, continue to be revised, and, in apparent disagreement with current federal guidance, the Biden-Harris administration announced that its national Covid-19 strategy will open up previously established priority groups.

Amid the flux, equity must remain constant. While states may vary in how they organize the sequences of priority groups, within each group they should ensure that better-off and worse-off groups are equally likely to be vaccinated. Specifically, if better-off groups receive vaccines at higher rates than worse-off groups, existing health and social disparities will be maintained, or even heightened.

One practical approach can help maintain equity: using disadvantage indices to plan, implement, monitor, and course-correct vaccine allocation where needed.

Disadvantage indices such as the CDC's Social Vulnerability Index (SVI) or the University of Wisconsin's Area Deprivation Index (ADI) integrate a number of separate variables to capture how vulnerable or deprived, on average, are the people living in a particular geographic area. They combine data on typical income, quality of housing, educational attainment, and more to compute an overall score for an area as small as a neighborhood of 600 people.

A number of states are already using these indices for vaccine allocation, in different ways. But without their broader adoption and fully fledged efforts to integrate them into a coherent strategy, it is unclear how the urgent goal of addressing health disparities in allocating vaccines — which is rightly emphasized in the national strategy — can be accomplished.

Goal number six of the strategy instructs the CDC to "work with states and localities to update their pandemic plans to describe how they have or will provide equitable access to Covid-19 resources within highly vulnerable communities, including Tribal communities, using CDC's Social Vulnerability Index [SVI] or other indices as appropriate."

Highlighting the use of a disadvantage index in the national strategy is an important step toward equity. But more specificity is required. Four main uses can be distinguished. As states are reviewing — once again — their allocation plans in light of new federal directions, it is critical to distinguish these and realize their power to integrate what could otherwise become a disjointed set of sprawling activities.

First, the most obvious use is for planning where to place dispensing sites so locations are easy to reach, especially for disadvantaged populations who may have less flexible working hours, informal caring obligations that make it difficult to spend several hours on a vaccine appointment, or transportation challenges. New Jersey already indicates it is doing this. This approach will also help plan locations for nontraditional sites for vaccinating Americans such as school gyms, sports stadiums, community centers, and mobile clinics that were announced under the Biden administration's national strategy.

This use can also help more fully engage pharmacies, which are intended to be tapped to help with the vaccination effort: an index such as the ADI can enable mapping to the level of neighborhoods, and hence help ensure that people in more disadvantaged areas are not skipped over, in offering vaccines.

Second, disadvantage indices can be used to plan outreach and communication strategies, something that Arizona, Vermont, and Washington are doing. Such efforts matter immensely: Vaccine dispensing sites are worth nothing if people don't use them, or don't trust them, perhaps because of patterns of unfair treatment in interactions with health care providers and government services. Working proactively with community groups in disadvantaged areas to determine easily reachable and trusted sites can help match supply with uptake among communities in greatest need.

Third, an important way of promoting equity is to ensure that more vulnerable groups are offered larger shares of vaccines each time a state or city-level jurisdiction receives a new batch. Doing so reduces scarcity for these groups and means they can receive vaccines more quickly. In adapting the National Academies proposal for equitable allocation, planners in Massachusetts, New Hampshire, and Tennessee already adjust the number of vaccines shipped to allocation sites so more-vulnerable populations are offered more than they would have received based on numbers alone. This approach can also counteract the tendency of better-off and well-connected groups to work the system to their advantage.

Fourth, each new vaccine shipment offers an important opportunity to monitor equitable allocation and course-correct, where needed.

Disadvantage indices should serve as the country's compass for equitable distribution of Covid-19 vaccines.

Monitoring equitable allocation seems to be implied in the Biden administration's reference to disadvantage indices in its national strategy, and is echoed in its emphasis on a data-driven response. But it is not articulated or carried through as fully as it might be.

The Biden-Harris plan could not be more clear that Covid-19's disparate impact on racial and ethnic groups is "unacceptable and unconscionable" and that equity is "central" to its Covid-19 response. Yet there is currently no mention of accountability: no targets, no clear reporting requirements, no incentive structures that would reward equitable vaccine distribution. Disadvantage indices can facilitate each of these essential measures. States as different as Ohio and California have already committed to using indices for monitoring purposes, which can, and should be, adopted far more widely.

Importantly, disadvantage indices also matter for clarifying the relationship between racial and social justice. Justice does not require us to ensure that the Obama family receives Covid-19 vaccines before the Clinton family. Race is irrelevant here, as both families can live safely until it is their turn to be vaccinated.

Instead, justice requires us to respond to the fact that communities of color have been hit harder by Covid-19 because they account for larger shares of the nations' disadvantaged people which is due, in turn, to society being structured in ways that reduce their economic mobility and odds of leading long and healthy lives.

Addressing equity through an index that measures a generalized concept of disadvantage helps directly address the situation of worse-off populations but is not limited to race-based justice. As such, it can avoid legal challenges and recognizes that disadvantage can take many different forms that matter independently.

The Biden-Harris administration's commitments to allocate vaccines equitably and in ways that reduce disparities could not be more timely. To convert this commitment into action in allocating vaccines within and across states, we need to dovetail it with the innovative uses of the SVI and other indices in state-level allocation plans to systematically plan, track, and adjust vaccine coverage rates along the disadvantage spectrum.

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