

Racial disparities in influenza vaccination



There are an estimated 900 000–5 800 000 cases of seasonal influenza each year among adults aged 65 years and older in the USA.¹ These illnesses represent 87 000–523 000 hospital admissions and 3000–43 000 excess deaths per year. Older adults are at heightened risk for severe influenza, due to immunosenescence and the increased likelihood of additional underlying high-risk health conditions, exacerbated by the fact that the standard dose of influenza vaccine underperforms in the older population.² Importantly, this burden is not equally distributed by race. Non-Hispanic Black individuals have the highest influenza-related hospital admission rates in the USA (nearly twice that of non-Hispanic white individuals); Hispanic or Latino individuals have the third highest influenza-related hospital admission rates and have been found to have a higher risk of exposure to influenza than non-Hispanic white individuals.³

Influenza vaccination is the most important public health tool to prevent influenza illnesses, hospital admissions, and deaths, especially for older adults.² Among older adults, the high-dose influenza vaccine is more immunogenic and more efficacious than the standard dose, and therefore could provide additional protection.^{4,5} When implemented with an equity focus, such vaccines can help to resolve disparities in influenza outcomes.⁶ However, when this focus is lacking, vaccines can instead exacerbate existing inequities.⁷ It is for this reason that we read with great interest an analysis of racial disparities in influenza vaccination by Salaheddin M Mahmud and colleagues, published in *The Lancet Healthy Longevity*.⁸

Mahmud and colleagues report the results of a large-scale historical record-linkage cohort study of 26.5 million US Medicare beneficiaries from July 1, 2015, to June 30, 2016. Results from this dynamic cohort analysis showed that influenza vaccine coverage was less than 50% among US older adults, and that unacceptable disparities existed in vaccine coverage by race and ethnicity, with Black, Hispanic, and Asian individuals all being substantially less likely to receive an influenza vaccine than non-Hispanic white individuals. Unfortunately, these findings are not new: both low overall coverage and racial disparities in influenza vaccination have been consistently reported for more

than a decade.⁹ However, Mahmud and colleagues' analysis offers two key additional strengths to the existing literature.

First, the authors explicitly defined and analysed race as a social construct, outlining a causal framework that placed race—and thereby racism—as the originating factor for associated determinants of vaccine uptake. In doing so, the authors were able to appropriately conceptualise factors including income and patterns of health-care use (commonly associated with race) as mediators (not confounders) of the relationship between race and vaccination status. This analytical approach highlights race, rather than social class, as the salient factor for observed disparities, while also identifying mechanisms such as differential income as illustrations of structural racism—rather than separate independent factors.¹⁰ These mechanisms are important contributors to structural racial inequity, and therefore should be included in any discussion of structural interventions.

The second strength of this work is the identification of racial disparities in the receipt of high-dose versus standard-dose influenza vaccine. Vaccinated Black, Hispanic, and Asian individuals were all 30–48% less likely to have received the high-dose vaccine than vaccinated non-Hispanic white individuals. This inequity was observed across intersectional identities as well, as Black and Hispanic women had even greater disparities. Black women in particular had the lowest odds of receiving the high-dose vaccine, relative to any other race or ethnicity by gender group.

As this analysis was restricted to those beneficiaries who received an influenza vaccine, racial disparities in the receipt of high-dose versus standard-dose influenza vaccine are unlikely to be caused by commonly cited factors for inequities, such as greater vaccine hesitancy and distrust in medical institutions among minority groups, physical or geographical barriers to access, and other living circumstances including homelessness. The exclusion of these factors shifts the narrative regarding responsibility for inequities away from the behaviours and circumstances of minoritised individuals and instead, refocuses it on structural factors within medical institutions, including the potential roles of bias in prescribing and poor support for adequate pharmacy

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ordering and capacity. In communities with fewer resources and reduced access to health care, pharmacies might order fewer high-dose vaccines and could have reduced capacity to stock the amount sufficient to provide them to all older adults who want them.

Research on interventions for racial disparities in influenza vaccination has been sparse. Existing studies have largely focused on improving health literacy and addressing vaccine hesitancy among minoritised groups.⁷ Although these interventions are well intentioned, they do not address the sources of inequity that are external to the individual, such as provider-level and structural factors. Structural factors are especially salient because they reproduce inequity in a myriad of other outcomes, including access to COVID-19 vaccinations. Mahmud and colleagues point out that the inequity of access to COVID-19 vaccinations should be of great concern.

The study by Mahmud and colleagues highlights the reality that public health programmes that are implemented without explicit consideration of racial equity frequently produce inequities downstream. In some cases, the magnitude of these disparities might eclipse the effectiveness of the programme itself. Interventions to resolve these disparities should therefore be a primary focus among influenza epidemiology research, lest we forget a core tenet of vaccine epidemiology: vaccines do not save lives—vaccinations do.

We declare no competing interests.

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