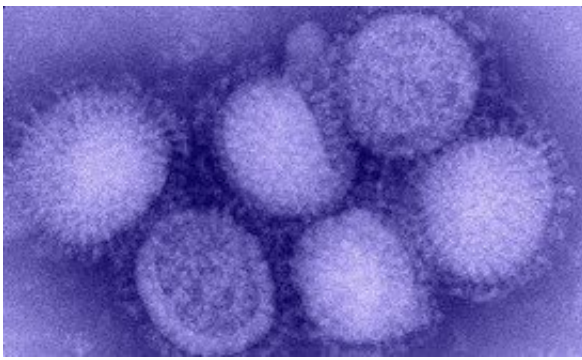


Study finds racial and ethnic disparities in flu vaccine uptake among people aged 65 and older in the USA

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Influenza virus. Credit: CDC, 2020.

A new study published today in *The Lancet Healthy Longevity* journal has found significant racial and ethnic disparities in uptake of the seasonal influenza vaccine among people aged 65 years and over in the U.S..

The findings, based on records from 26.5 million Medicare beneficiaries during the 2015-2016 [flu season](#), revealed that Hispanics (29.1%), Blacks (32.6%) and Asians (47.6%) were less likely to receive a [seasonal flu vaccine](#) than whites (49.4%).

Among those who received a vaccine, there were also inequities in those who were given the High Dose Vaccine (HDV), a more effective

influenza vaccine in people aged 65 and older. More than half of vaccinated [white people](#) received the HDV (53.8%) compared with 37.8% Hispanics, 41.1% Blacks and 40.3% Asians.

These inequities persisted after accounting for region, income, chronic conditions, and patterns of health care use, revealing that among the vaccinated group, minorities were 26-32% less likely to receive the HDV relative to whites.

Taken together, the researchers say their findings point to systemic failings that must be addressed to increase vaccine uptake. The findings may also be relevant for other vaccines, including COVID-19, which has disproportionately affected Blacks and other minorities.

Dr. Salah Mahmud, Canada Research Chair and Professor of Community Health Sciences and Pharmacy at the University of Manitoba (Winnipeg, Canada) said: "Our finding that racial and [ethnic disparities](#) persist even among people who received a flu vaccine rules out the often-cited justifications for inequities in vaccine uptake, such as higher levels of vaccine hesitancy and distrust of public institutions among minority groups. Rather, our study points to deeply rooted structural deficits that systematically hamper access to influenza vaccination, which may have serious implications for our ability to effectively roll out the COVID-19 vaccination programme."

In the U.S., seasonal flu vaccines are recommended for all adults aged 65 years and older. The High Dose flu vaccine, also known as Fluzone High-Dose, was licensed in 2009 as an alternative to the standard-dose vaccines and has been shown to be more effective in older adults aged 65 and older because it elicits a stronger immune response. Although it is widely used in the U.S., HDV is not preferentially recommended and the choice of whether to have HDV or a standard dose vaccine is left to the individual and their healthcare provider. For Medicare beneficiaries,

there are no additional out-of-pocket expenses for receipt of either standard- or high-dose influenza vaccines.

A recent review has shown that flu vaccine uptake among Black and Hispanic older adults living in the community is consistently lower than white older adults. The studies included in this review, however, had significant limitations, including reliance on self-reported vaccination history, which may give a biased view.

In the latest study, researchers analysed anonymised data from the health care records of people in receipt of Medicare benefits between 1 July 2015 and 30 June 2016. The researchers focused on beneficiaries who were older than 65 years at the study start date and who were living in the community rather than in a care home, which amounted to some 26.5 million people.

Across the entire group, slightly less than half of participants received any form of flu vaccine during the 2015-2016 season (47.5%). Women were more likely to be vaccinated than men (49.5% women vs 44.8% men) but were slightly less likely to receive the HDV (52.1% women vs 53.6% men).

When the team looked at the breakdown of HDV versus standard dose among the vaccinated group, all minorities were 30-48% less likely than whites to have received the superior HDV, even after adjusting for age and gender (odds ratios [95% CI]: Black, 0.59 [0.59-0.60]; Asian, 0.58 [0.58-0.59]; Hispanic, 0.52 [0.52-0.53]; Other, 0.70 [0.70-0.71]). The gap narrowed to 26-32% after accounting for region, income, [chronic conditions](#), and patterns of healthcare use, suggesting that these factors may mediate some, but not all of the effect of race on HDV uptake (odds ratios [95% CI]: Black, 0.68 [0.68-0.69]; Asian, 0.71 [0.71-0.72], Hispanic, 0.74 [0.73-0.74]; Other, 0.73 [0.72-0.74]).

Overall, the findings reveal stark disparities in vaccine uptake even among people who received, and presumably wanted, a flu vaccination. This suggests the differences in vaccination rates are not due to higher levels of vaccine hesitancy among minority groups and points to systemic challenges.

Dr. Laura Lee Hall, President of the National Minority Quality Forum's Center for Sustainable Health Care Quality and Equity, said: "These findings are alarming because they point to a level of disparity that can hamper efforts to reduce the burden not just of flu, but for other vaccine-preventable diseases. While people of colour may face more challenges in terms of accessing health care due to lack of providers, costs, health literacy issues, and other social determinants, these factors are themselves the results of deeply ingrained discrimination and implicit bias in the health system and broader society. These failings must urgently be addressed if we are to increase uptake of vaccines among [minority groups](#)."

The authors note several limitations to their study. Notably, the study only included data from the Medicare database, which may underestimate overall levels of vaccine uptake because it may not include those administered during mass vaccination campaigns. Some groups may be more likely to get vaccinated through such mass vaccination campaigns, which may skew the results between racial and ethnic groups. However, there is no reason to suspect that the extent of under-ascertainment of HDV uptake among those captured in the database varies with race or ethnicity.

Additionally, the authors caution that their findings may not be generalisable to other flu seasons. However, the pattern of inequities observed in this study is consistent with previous studies from at least the late 1990s. There is also little indication that the economic and social drivers of inequities have diminished in the last few years, as highlighted

by poorer outcomes among minorities during the COVID-19 pandemic.

Writing in a linked Comment article, Dr. Maria Sundaram, from the University of Toronto, and Dr. John R. Pamplin II, from New York University, who were not involved in the study, said: "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."

More information: Effect of race and ethnicity on influenza vaccine uptake among older US Medicare beneficiaries: a record-linkage cohort study , [DOI: 10.1016/S2666-7568\(20\)30074-X](https://doi.org/10.1016/S2666-7568(20)30074-X) , [www.thelancet.com/journals/lan ... \(20\)30074-X/fulltext](https://www.thelancet.com/journals/lan.../fulltext)

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