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## Addressing Influenza Vaccination Disparities During the COVID-19 Pandemic

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**Each year**, influenza poses a substantial burden on communities and health care systems. During the 3 most recent influenza seasons (2016–2017, 2017–2018, and 2018–2019), influenza is estimated to have been associated with 29 million to 45 million illnesses, 14 million to 21 million medical visits, 490 600 to 810 000 hospitalizations, and 34 200 to 61 000 deaths each season in the US.<sup>1</sup> During the fall of 2020, both influenza and severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; the virus associated with coronavirus disease 2019 [COVID-19]) are anticipated to circulate.

As of August 17, 2020, SARS-CoV-2 has been associated with more than 5.3 million infections and more than 168 000 deaths in the US.<sup>2</sup> Even a moderately severe influenza season in the presence of circulating SARS-CoV-2 would significantly amplify cases of acute respiratory illness, and more intensely stress health care personnel and resources, including hospitals, emergency departments, outpatient departments, and physicians' offices.

However, less than half of US adults receive an influenza vaccine each year (Table).<sup>3</sup> Even after the severe 2017–2018 influenza season, overall vaccine coverage remained at about 45% during the subsequent (2018–2019) season, and long-standing and substantial disparities, particularly by race and ethnicity, persisted in estimated coverage. Specifically, vaccine coverage estimates remained substantially lower for non-Hispanic Black, Hispanic, and American Indian/Alaskan Native adults relative to non-Hispanic White adults (Table).<sup>3</sup>

These gaps in vaccination coverage are particularly concerning this season as COVID-19 reveals another facet of health inequity in the US. Non-Hispanic Black, Hispanic, and American Indian/Alaskan Native individuals have had the lowest influenza vaccination coverage and also have been disproportionately affected by COVID-19.<sup>4</sup> Surveillance data from the US Centers for Disease Control and Prevention of 1 320 488 cases reported through May 2020 indicate that among persons diagnosed with COVID-19 for whom race

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and ethnicity were known (n = 599 636; 45%), 33% were Hispanic, 22% were Black, and 1.3% were American Indian/Alaskan Native individuals but these groups comprise only 18%, 13%, and 0.7% of the US population, respectively.<sup>5</sup> An analysis of a national sample of publicly available data through mid-April 2020, and covering 3142 US counties, reported that the 20% of disproportionately Black counties (defined as those with 13% Black residents) accounted for more than half of COVID-19 diagnoses (52%) and deaths (58%).<sup>6</sup>

Prevention or reduction in severity of as many cases of acute respiratory illnesses as possible will be a critical step to reduce morbidity and mortality and conserve already strained health care resources. Influenza vaccines will be a critical intervention in this effort. Influenza vaccine effectiveness varies depending on factors such as the recipient's age and health, and the match between the viruses represented in the vaccine and the ones that circulate in the community.

However, even in a season of suboptimal match and low vaccine effectiveness, vaccination results in a substantial reduction in the burden of illness and the strain to the health care system. For example, even though the estimated vaccine effectiveness for the 2017–2018 season (for which estimated burden of influenza illness was most severe since the 2009 pandemic) was relatively low at 38%, vaccination is estimated to have prevented 7.1 million illnesses, 3.7 million medical visits, 109 000 hospitalizations, and 8000 deaths in the US.<sup>7</sup>

The reasons for disparities in COVID-19 incidence, morbidity, and mortality are multifactorial.<sup>4</sup> Members of racial and ethnic minority groups may be more likely to have barriers to obtaining affordable, high-quality health care, including more limited access to health insurance, transportation, and childcare. Barriers to routine medical care mean fewer opportunities to benefit from preventive interventions and increased vulnerability to chronic conditions such as cardiovascular disease, pulmonary disease, and diabetes that are associated with worse outcomes in both influenza and COVID-19.<sup>5,8</sup>

Distrust of the medical care system may be more prevalent among members of racial and ethnic minority populations due to a history of discrimination<sup>9</sup> and past instances of medical experimentation.<sup>10</sup> Exacerbating factors include inequities in education, employment, income, paid sick leave, and housing<sup>4</sup> that make for increased difficulty with basic but critical self-care actions such as getting adequate rest and proper nutrition as well as those important in keeping self, family, and community healthy during a pandemic such as staying at home from work when ill.

Until a safe and effective SARS-CoV-2 vaccine is available and the majority of the population is vaccinated, COVID-19 cases and associated morbidity and mortality will likely continue. Without tailored interventions and additional research on social determinants of vaccine acceptance and coverage, racial and ethnic minority populations are likely to continue to bear a disproportionate burden of both influenza and COVID-19.

To address these persistent health disparities, physicians and other health care professionals can in the short term make better use of the tools already at their disposal, including vaccination for preventing and controlling influenza. However, vaccinating as much of the population as possible against influenza will neither directly reduce the effects of

COVID-19, nor repair systemic societal issues that result in some populations having greater vulnerability to illness and poorer health.

Increasing the uptake of influenza vaccination this season will help ameliorate the compounding of illness and health care system stress caused by the additional circulation of another potentially life-threatening viral respiratory disease. Clinicians should strongly recommend influenza vaccination to all patients throughout the season, and should administer influenza vaccine in their offices whenever possible.

Prioritizing measures to help reduce the disproportionate effect of these illnesses on racial and ethnic minority populations must be part of the national strategy. Medical and public health professionals should work with partners trusted by racial and ethnic minority communities to establish trust and identify the best ways to meet health care needs in disproportionately affected populations. Ensuring full and equal access to influenza vaccination will ensure all people in the US are maximally protected.

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**Table.**

Estimated Influenza Vaccination Coverage Among US Adults by Race and Ethnicity for 2017–2018 and 2018–2019 Influenza Seasons<sup>3</sup>

Group	Vaccination coverage, %	
	2017–2018	2018–2019
Overall	37.1	45.3
Non-Hispanic		
White	40.2	48.7
Black	32.3	39.4
Hispanic	28.4	37.1
Asian	42.0	44.0
American Indian/Alaskan Native	33.1	37.6
Other or multiple races	32.4	39.7