

Researchers find racial inequity among adolescents receiving flu vaccine

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Co-author and FSU doctoral student, Benjamin Dowd-Arrow. Credit: FSU /Bruce Palmer

Black adolescents living in the United States tend to receive the influenza vaccine at significantly lower rates than their white and

Hispanic counterparts, according to Florida State University researchers.

A new study, led by former FSU graduate student Noah Webb, along with current graduate student Benjamin Dowd-Arrow and Associate Professors of Sociology Miles Taylor and Amy Burdette, was recently published in *Public Health Reports*.

"Our findings are important because black adolescents and young adults consistently have worse [health](#) profiles than white and Hispanic adolescents and young adults," Dowd-Arrow said. "The black population is also more likely to reside in multigenerational homes, where there is a very real threat of unvaccinated teenagers spreading the flu to unvaccinated children and grandparents."

Although disparities exist among the three racial/ethnic groups examined, the team also identified low influenza vaccination rates in adolescents across the board when compared with other age groups.

"Our research highlights that we're not doing enough for any group," he said. "We should still be trying to address all adolescents out there because they consistently have the lowest vaccination rates among children 18 and under in the United States," he said.

In the paper, the scholars note that recent research suggests achieving an 80 percent increase in influenza vaccination among children and adolescents would likely result in a 91 percent reduction in the total number of influenza illness cases on a population-wide basis.

"Vaccinating more adolescents could strengthen herd immunity, which could ultimately protect vulnerable populations," he said.

Researchers used a study sample of 117,273 adolescents, ages 13 to 17,

after analyzing provider-reported vaccination histories from 2010-2016 from the teen portion of the National Immunization Survey.

"Since the passing of the Affordable Care Act in 2010, we wondered if increased access to health care and preventive health services would increase, reduce or even eliminate flu vaccination disparities by race/ethnicity," Dowd-Arrow said. "We found that disparities between white and Hispanic adolescents have waned over time, but disparities between white and black adolescents have emerged in recent years."

Compared with white adolescents, Hispanic adolescents had higher odds of vaccination, while black adolescents had lower odds.

"We found that, after controlling for key demographic characteristics, Hispanics had higher influenza vaccination rates than white adolescents for much of the study period," Dowd-Arrow said. "However, that advantage tapered roughly midway through the study period and flu [vaccine](#) rates among white and Hispanic adolescents became similar."

Researchers also found that although the rates varied slightly during the initial study period, a disparity in the rates began emerging in 2014.

The 2014-2015 flu season marked one of the highest years on record of the influenza virus, with about 710,000 hospitalizations and 80,000 flu or flu-related deaths.

"It was also a time when Congress began to cut access and states refrained from expanding Medicaid," he said.

By 2016, black adolescents received influenza vaccinations at significantly lower rates than their white counterparts.

"The people most affected by the highest rates of illness and death are

also the people who are most likely to be affected by poverty," Dowd-Arrow said. "The consequences of not getting vaccinated further marginalizes and places a burden on people who really can't afford that."

Researchers said targeted interventions are needed to improve [influenza](#) vaccination rates and reduce racial/ethnic disparities in [adolescent](#) vaccination coverage.

"Parents are hesitant to vaccinate their children and adolescents because of lack of information, concerns about side effects, lack of access of health care due to cost or inadequate transportation," Dowd-Arrow said. "These are areas that, if addressed by public health officials, could ultimately have great public health as well as economic impacts."

Scholars suggest future research should examine variations among Hispanic adolescents, such as Cuban or Puerto Rican youth. Another avenue of study could specifically focus on parental hesitations or concerns about vaccinations that lead to vaccination noncompliance.

More information: Noah S. Webb et al, Racial/Ethnic Disparities in Influenza Vaccination Coverage Among US Adolescents, 2010-2016, *Public Health Reports* (2018). [DOI: 10.1177/0033354918805720](https://doi.org/10.1177/0033354918805720)

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