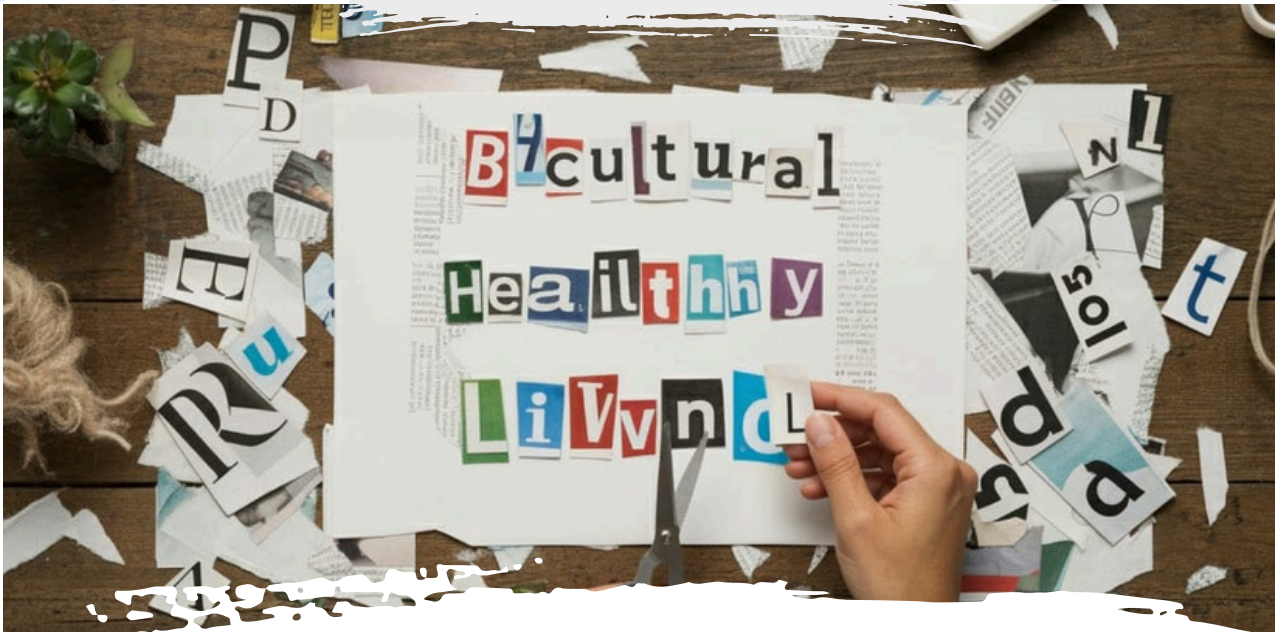
VACCINATION FOR ADULTS



STRATEGY INTRO: Increase demand for, and access to flu, COVID-19, and other adult vaccinations via 40 pop-up community clinics at the places that cultural groups feel comfortable and connected, and increase regularity of vaccine promotion in priority communities; and increase the percentage of pan-Asian and pan-African seniors who are up-to-date with recommended adult vaccinations.

STUDY REVEALS DISPARITIES IN MINNESOTA'S COVID-19 VACCINATION RATES

A recent study titled "Disparities in Minnesota's COVID-19 Vaccination Rates" by Colin Planalp, MPA, Senior Research Fellow, and his colleagues at the State Health Access Data Assistance Center (SHADAC), reveals significant disparities in COVID-19 vaccination rates across various demographic groups in Minnesota. The study analyzed "time-to-vaccination" data—the amount of time it took to vaccinate 50% of different population subgroups—and found that communities of color and rural populations were often left under-vaccinated for significantly longer than others.

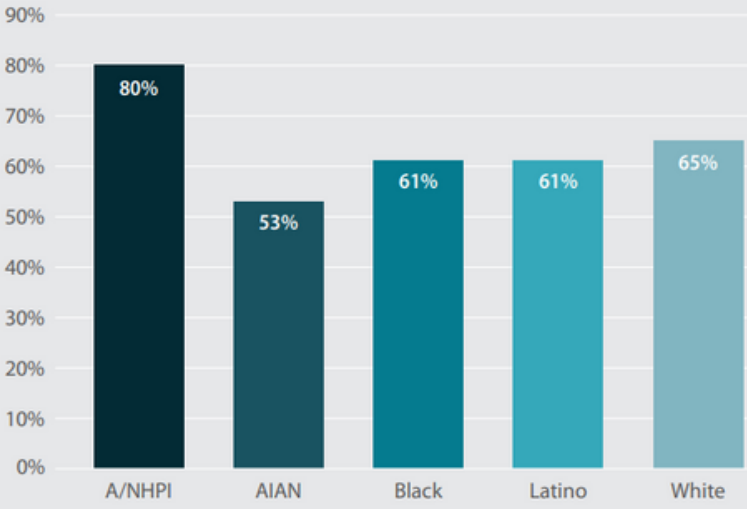
RACIAL DISPARITIES IN VACCINATION RATES

While the development of the COVID-19 vaccine was a major scientific achievement, the rollout exposed deep-rooted inequities in the public health system. The study found that Minnesota's American Indian and Alaska Native populations faced the most prolonged delays. By the end of 2022, only 53% of this group had been fully vaccinated, compared to 65% of white

Minnesotans. It took 15 months for Minnesota to fully vaccinate half of its American Indian and Alaska Native population—more than double the time it took to vaccinate 50% of white, Asian, and Native Hawaiian and Pacific Islander residents.

Even among groups with similar end-of-year vaccination rates, the timeline revealed stark differences. Black, Latino, and white Minnesotans had comparable full vaccination rates by the end of 2022 (61%, 61%, and 65%, respectively). However, while 50% of white residents were fully vaccinated within six months, it took twice as long—about 12 months—for Black and Latino populations to reach the same milestone.

Figure 3: Minnesota COVID-19 Vaccination Rates by Race and Ethnicity, Final Week of 2022



Source: SHADAC analysis of Minnesota EHR Consortium data.
A/NHPI: Asian and Native Hawaiian or Pacific Islander. AIAN: American Indian or Alaska Native.

AGE-BASED VACCINATION DISPARITIES

The study also noted age-based differences in vaccine rollout. Older Minnesotans (65+) were prioritized effectively, with 50% fully vaccinated within three months of emergency-use authorization. By the end of 2022, nearly all elderly residents had been fully vaccinated. In contrast, younger adults (ages 19–24) were slower to reach vaccination milestones, with only two-thirds fully vaccinated by the end of 2022. Racial disparities among young adults were especially pronounced. While 84% of Asian and Native Hawaiian and Pacific Islander young adults were fully vaccinated, only 49% of their American Indian and Alaska Native peers had received full vaccination.

GEOGRAPHIC DIFFERENCES IN VACCINATION RATES

Geography also played a significant role in vaccination outcomes. Residents of urban and suburban areas were vaccinated at much higher and faster rates than those in rural, exurban, or small-town communities. By the end of 2022, 72% of people in urban/suburban areas were fully vaccinated, compared to just over half of those in more remote areas.

Time-to-vaccination data showed that it took:

- Five months to reach the 50% vaccination threshold in urban and suburban areas
- Nine months for small towns
- 12 months for rural and exurban communities

ADDRESSING HEALTH CARE INEQUITIES

Lead author Colin Planalp emphasized that the disparities revealed in the study serve as a stark reminder of persistent inequities in the U.S. healthcare system.

"Identifying these disparities, especially the glaring differences in the time it took to vaccinate various populations across the state, can be a useful tool for policymakers and public health officials in addressing future health emergencies," Planalp said.

Data for the study was sourced from the Minnesota Electronic Health Record Consortium, a collaboration between the Minnesota Department of Health and several large health care providers, aimed at monitoring and improving the state's health care quality.

August 2023

Disparities in Minnesota's COVID-19 Vaccination Rates

shadac
STATE HEALTH ACCESS DATA ASSISTANCE CENTER
MN EHR CONSORTIUM

In a Race to Protect People from the Coronavirus, Data from Minnesota Electronic Health Record Consortium Show that Some Communities were Left Under-vaccinated Longer than Others

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Data provided by the Minnesota Electronic Health Record Consortium

This issue brief focuses on a project led by the Minnesota Electronic Health Record Consortium to examine disparities in COVID-19 vaccination in Minnesota. We present data on disparities from the end of 2022 to illustrate the recent landscape. However, we focus particularly on the length of time it took for population subgroups to reach a threshold of 50 percent (i.e., "most" of each subgroup) being "fully vaccinated." That simple metric illustrates a critical way that inequities in health care in Minnesota manifested during the pandemic: Inequitable administration of vaccines left some marginalized groups vulnerable to COVID-19 for a longer period of time, likely contributing to a preventable disproportionate burden of severe disease and deaths.

Introduction

The breathtaking speed with which medical science produced vaccines against COVID-19 is widely considered a technological triumph. Researchers quickly sequenced and published the SARS-CoV-2 virus's genome, then deployed leading-edge technologies and tested their innovations with accelerated clinical trials. Within roughly 12 months of the first documented cases of the novel virus, the U.S. Food and Drug Administration (FDA) granted emergency use authorization to not only one but multiple vaccines. To do any good, though, those vaccines needed to find their way into people—a challenge that has proved daunting.

Infectious diseases have haunted humanity for millennia, and they will continue posing a serious threat for the foreseeable future. Scientific discoveries and medical breakthroughs have given us tools to fight back against pathogens, but stumbles in U.S. vaccination efforts have illustrated how technical ingenuity alone cannot protect us. We need to learn from the shortcomings in our COVID-19 vaccination campaigns to avoid repeating the same mistakes during our next public health crisis. A novel distributed data model, the Minnesota Electronic Health Record Consortium (the Consortium), was developed by Minnesota health systems and produced statewide data to examine the progress of COVID-19 vaccination.

Background

After emerging in late 2019, the SARS-CoV-2 novel coronavirus quickly spread across the globe. Since then, there have been hundreds of millions of confirmed infections and millions of reported deaths, surely an underestimate of the true toll.[1] In the U.S. alone, more than a million people have died of COVID-19—the highest count in the world.[2]

> "A virus does not harbor prejudices. The disparities we see in COVID-19's impact are largely the result of social inequities that left some people more vulnerable."

However, the harm has been distributed unevenly. For instance, elderly adults (age 65 or older) have much higher death rates than younger adults and children.[3] Another realm of COVID-19 health disparities can be found by race and ethnicity. In the U.S., American Indian and Alaska Native people, Black people, and Latino people were more likely to be infected, be hospitalized, or die of COVID-19 during the pandemic.[4] But a virus does not harbor prejudices. The disparities we see in COVID-19's impact are largely the result of social inequities that left some people more vulnerable—injustices perpetuated by social systems that humans created and that only humans can fix.

Using almost a year of experience with the pandemic and data showing which segments of the population were at greatest risk from the virus, Minnesota and other states developed plans for how to prioritize people for vaccinations and how to reach those people and administer shots.[5] In the initial weeks after the first vaccines were authorized by the FDA, supply was in precious short supply, so beginning January 4, 2021, Minnesota first focused on relatively small groups with unique situations. First, the state prioritized health care workers, who faced regular occupational exposure to the virus and who were desperately needed to treat other people with COVID-19 and myriad other health conditions. At the same time, it also first prioritized residents of long-term

A CALL FOR MORE EQUITABLE PUBLIC HEALTH EFFORTS

This study serves not only as a snapshot of the state's pandemic response but also as a call to action to ensure more equitable health outcomes in the future. The study highlights the need to develop targeted vaccination outreach strategies for American Indian and Alaska Native populations, who experienced the longest delays in reaching vaccination milestones. Health officials should create culturally responsive public health campaigns specifically addressing barriers faced by Black and Latino communities, who took twice as long as white residents to reach the 50% vaccination threshold. Young adults (ages 19-24) need dedicated education and incentive programs to improve their vaccination rates, with particular focus on closing racial disparities within this age group. Resources also should be redirected to rural, exurban, and small-town communities which had significantly lower vaccination rates than urban areas, requiring special attention to transportation and accessibility issues.

These findings highlight how differences in vaccination timing and access impacted various communities across Minnesota, especially those already facing systemic barriers. These insights reinforce the importance of inclusive and culturally responsive public health efforts. However, ongoing progress is now at risk. Due to sudden federal funding cuts, the Minnesota Department of Health (MDH) has been forced to suspend partner-led vaccine clinics, delay upgrades to the state's immunization information system, and reduce overall public health preparedness. Without sustained investment, the state may struggle to close longstanding gaps and protect vulnerable communities in future health emergencies.

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