

Identifying Health Centers in Areas with Low Rates of Vaccine Confidence and High Rates of Unvaccinated or Incomplete Vaccination (COVID-19)

Michael Topmiller, PhD¹ Jennifer Rankin, PhD¹ Jessica McCann, MA¹ David Grolling, MS¹ Mark Carrozza, MA¹
¹HealthLandscape, American Academy of Family Physicians

INTRODUCTION

- Increasing numbers of U.S. adults and teenagers are being vaccinated, though COVID-19 vaccination rates vary significantly across racial/ethnic groups, ages, and geographic locations¹
- Lack of COVID-19 vaccine confidence has played a key role in reducing vaccination rates and makes achieving herd immunity difficult²
- Health centers funded by the Health Resources and Services Administration (HRSA) have played a major role in administering COVID-19 vaccinations and have the potential to vaccinate large numbers of people, particularly vulnerable populations³
- Targeting health education outreach on vaccine confidence in areas with low COVID-19 vaccination rates and low vaccine confidence could assist the U.S. in achieving herd immunity and overcoming the COVID-19 pandemic

PURPOSE

- This research has the following three aims:
- (1) to identify U.S. counties with low rates of COVID-19 vaccine confidence and high rates of unvaccinated or incomplete vaccination,
- (2) to explore demographic and socioeconomic characteristics of these counties, and
- (3) to identify health centers located in these areas for targeted vaccine outreach

DATA SOURCES & MEASURES

- Vaccine hesitancy data from the U.S. Department of Health & Human Services, Office of the Assistant Secretary for Planning and Evaluation (ASPE, May 7, 2021)¹
- COVID-19 vaccination rates (% of population fully vaccinated for COVID-19) from the Centers for Disease Control and Prevention (CDC, September 9, 2021)²
- Health Center Program (HCP) awardee access points; and data on Health Center Program awardees from HRSA (2020)⁴⁻⁵
- Data are excluded for U.S. counties for which data on COVID-19 vaccination and COVID-19 vaccine hesitancy are not available (n=2,825), including Texas, New Mexico, and Puerto Rico

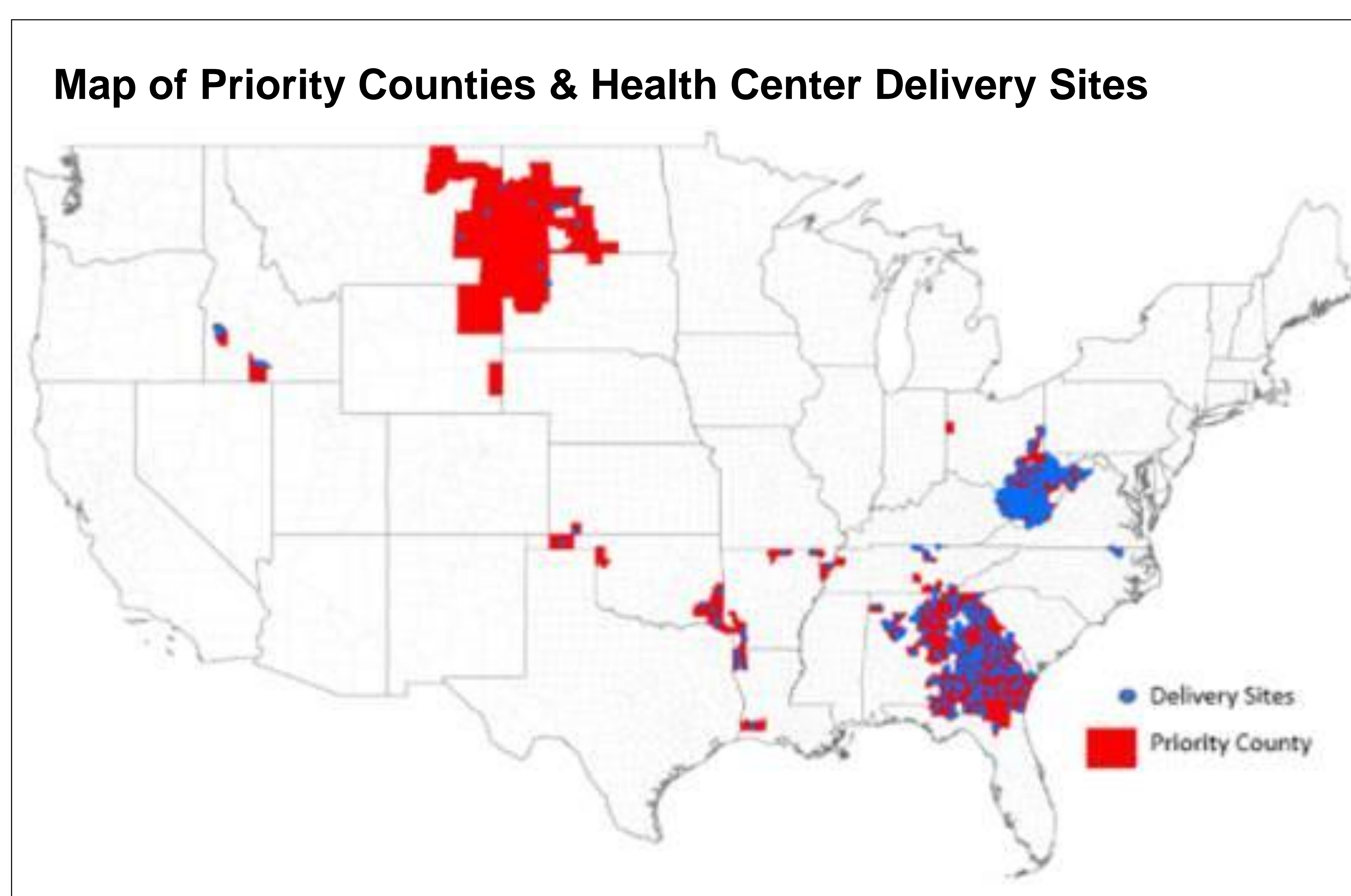
METHODS

Analysis consisted of the following steps:

- Utilized bivariate Local Moran's I to identify clusters of counties with high rates of COVID-19 vaccine hesitancy that are surrounded by counties with high rates of unvaccinated or incomplete vaccinations, resulting in a list of priority counties
 - This includes people who have received one dose but are not fully vaccinated
- Utilized geographic information systems (GIS) to overlay health center service delivery sites with priority counties
 - Identified Health Center Program awardees that had at least one service delivery site within a priority county
- Utilized bivariate Local Moran's I to identify clusters of counties with low vaccine hesitancy surrounded by counties with high complete vaccination rates
 - Compared their characteristics to priority counties

Counties in the Dakotas, West Virginia, and the southeastern U.S., particularly Alabama and Georgia, have lower vaccine confidence and high rates of unvaccinated individuals or incomplete vaccination for COVID-19.

This research finds that the Health Center Program has a strong presence in these counties, including 102 awardees serving almost 2 million patients across 800 delivery sites, and is well-positioned to support vaccination rates.



RESULTS

- We identified 277 priority counties that are part of clusters of high rates of vaccine hesitancy and high rates of unvaccinated or incomplete vaccination
- Compared to counties with low vaccine hesitancy surrounded by counties with high complete COVID-19 vaccination rates, priority counties have higher rates of poverty, larger percentages of racial and ethnic minorities (particularly Black populations), and are located in the Southeast (Alabama, Georgia), West Virginia, and the Dakotas
- One hundred and two Health Center Program awardees, serving almost 2 million patients across 800 health center delivery sites, are located within priority counties
- Counties with low vaccine hesitancy and high complete vaccination rates are located primarily in the upper Midwest (Wisconsin, Minnesota), New England, and the Pacific Northwest

Characteristics of Priority Counties & Comparison Counties

	Priority Counties	Low Hesitancy / High Complete Vaccination Rate Counties	All
# of Counties	277	425	2,825
% Complete COVID-19 Vaccination Rate (as of 9/9/2021)	22.8	54.6	39.2
% COVID-19 Vaccine Hesitancy (as of 5/7/2021)	24.3	16.0	19.8
% Black	18.5	5.1	9.1
% Minority	24.3	15.1	16.5
% Hispanic	5.1	10.4	9.2
% Poverty	19.1	11.9	15.5
% Uninsured	12.2	6.6	9.9
% Unemployed	6.1	4.8	5.3
% HS Educated	37.3	29.4	34.1
% Age 65+	17.9	18.1	18.3

DISCUSSION

- This research identified parts of the southeastern U.S., particularly Georgia and Alabama, the Dakotas, and West Virginia, as having clusters of counties with high rates of COVID-19 vaccine hesitancy and high rates of unvaccinated or incomplete COVID-19 vaccinations
 - More than 100 Health Center Program awardees serve nearly 2 million patients in these areas
- Nationally as of September 2021, more than one-half of U.S. adults are vaccinated, but younger adults, racial and ethnic minorities, and populations in several states have much lower vaccination rates¹
- Lower COVID-19 vaccination rates are associated with limited vaccine access and increased hesitancy,⁶ and research indicates the need to focus outreach on racial and ethnic minorities and other vulnerable populations⁷
- Targeting health centers in areas with low rates of vaccine confidence and low vaccination rates supports strategic planning, optimizes finite resources, and better assists health centers in creating culturally competent outreach addressing vaccine confidence

REFERENCES

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Links to Data Sources

UDS



Vaccination Rates



Vaccine Hesitancy

