

COVID-19 Rural Vaccination Success Story: Perry County, KY



Percentage of population that have completed a primary COVID-19 vaccine series (November 2022)

63.5%

Population (U.S. Census Bureau)

28,473

Demographics (U.S. Census Bureau)

American Indian and Alaska Native
(non-Hispanic): 0.0%
Asian (non-Hispanic): 0.9%
Black (non-Hispanic): 1.9%
Hispanic/Latino: 1.0%
White (non-Hispanic): 95.2%

Health Department Governance

Decentralized

Key Vaccination Strategies



Background

Located in southeastern Kentucky, Perry County has a predominantly white (95.2 percent) population of 28,473. The county is mountainous, with a long history of coal mining as an economic driver.

Perry County's Appalachian Regional Healthcare Medical Center (ARH) serves as both the largest provider of care and the largest employer in the county. The substantial presence of health care workers in the community provided a network of trusted vaccine providers and messengers during the COVID-19 pandemic.

The Kentucky River District Health Department also contributed to community vaccination efforts, leveraging their longstanding leadership role for health efforts and their extensive partnerships with local, regional, and national organizations. As pandemic concerns grew within the region, the health department's long-established working relationships translated seamlessly to addressing COVID-19.

Methods

We conducted seven in-depth interviews with representatives from organizations involved in Perry County's COVID-19 vaccination efforts. They included the Kentucky River Health Department, ARH, Perry County Schools, Save the Children, Operation UNITE, the Kentucky River Area Development District, the Kentucky Community and Technical College System, the University of Kentucky Center of Excellence in Rural Health (UK CERH) at Hazard, and Kentucky River Community Care. We also interviewed 18 Perry County residents about their COVID-19 vaccination experiences.

Core Partners

The following partners worked together to vaccinate the greatest possible number of residents:

- Kentucky River District Health Department
- ARH
- UK CERH
- Primary Care Centers of Eastern Kentucky
- Perry County Schools
- Kentucky River Area Development District
- Local primary care providers
- Local media

Key Strategies



Working with Partners

Local Partners

The Kentucky River District Health Department leveraged their longstanding leadership role for health efforts and their extensive partnerships with local, regional, and national organizations.

As an anchor institution in Perry County, ARH developed policies and messaging critical to successful local vaccination efforts.

The Perry County School System worked with the Kentucky River District Health Department and Primary Care Centers of Eastern Kentucky to coordinate vaccine clinics for school employees. As the second-largest employer in the community—with some 700 employees—this was critical. When students became eligible for vaccination, the school system once again drew upon this partnership to schedule clinics for both students and parents, reducing the number of trips needed for vaccination, thereby increasing the chance of vaccine uptake.

KRADD staff also called clients to help them make vaccine appointments, encourage booster shots, and provide personalized appointment reminders. KRADD also coordinated in-home vaccination of homebound clients with the Kentucky River District Health Department.



Conducting Community Outreach & Engagement

The governor's office, Kentucky River District Health Department, and local government leaders made consistent public health updates on vaccine availability and safety via multiple communication channels, including local television and radio. To provide the latest information on COVID-19 infection rates, vaccine availability, and to correct misinformation, both county-level government leaders and local health care providers regularly appeared on local television.

ARH was an important source of COVID-19 information, publishing transparent daily vaccination updates and information on its website, including how many vaccine doses were administered and the

number of COVID-19 hospitalizations. To demonstrate the importance of getting vaccinated, ARH made it a point to highlight the number of unvaccinated people who were hospitalized.



Using Trusted Messengers

ARH also worked with local media to ensure that accurate information about vaccinations was being disseminated, and to dispel common COVID-19 misconceptions through interviews with local, trusted, long-tenured medical providers and public health leaders, and other efforts. ARH also effectively used social media to invite the public to share their COVID-19 concerns and questions with medical professionals, and to post videos of local, trusted government leaders and celebrities being vaccinated.

UK CERH used its existing community health worker (CHW) staff to educate new clients about COVID-19, and to act as trusted messengers about the virus and vaccines to those who had previously drawn upon the program's services. Because the center's CHW staff live in the rural communities they serve, they framed their COVID-19 messaging in a manner that was factual yet culturally appropriate for rural Appalachia.

For local parents, the Perry County School System's nursing staff served as the trusted primary point of contact; nursing staff answered questions in-person and over the phone, capitalizing on established relationships.

“We build that relationship; we know most of the people, and we were able to encourage them and, hopefully, they trusted us.”

- Kentucky River Area Development District

“We were able to be a voice of reason. I think it helped, too, coming from rural people. We sound like them; we look like them.”

- University of Kentucky Center of Excellence in Rural Health



Offering Mobile, Off-Site & Drive-Through Clinics

Multiple partners provided off-site clinics for COVID-19 vaccination. Primary Care Centers of Eastern Kentucky established one of the state's first drive-through vaccination and testing centers. To reach the county's rural residents, UK CERH coordinated large-scale drive-through health fairs in remote areas. These events covered a wide variety of health issues, including COVID-19 vaccination. Because transportation is a challenge in the region, UK CERH selected non-traditional, convenient, and familiar locations, including churches, health care clinics, University of Kentucky Extension offices, and family resource centers.

Easy access is one reason why Perry County Schools hosted on-site vaccination clinics for staff, students, and parents. By holding clinics at school locations, the school system created a convenient one-stop vaccination option for parents who routinely dropped children off at school, preventing the need for additional travel to other vaccination sites. The Kentucky Community and Technical College System followed a similar strategy, offering on-site vaccination opportunities to students and staff.



Using Employer Incentives & Mandates

ARH required vaccination for its approximately 7,000 employees. To spur uptake, ARH leaders met weekly to ensure that their messaging was consistently science-focused and resonated with the target audiences. They encouraged staff to talk to people in their close social circles about their own vaccination status, and experiences as front-line workers during a pandemic, and to use the simple, factual messages that leaders had developed. One of the ARH leadership's key messages to employees was "You Are the Example".

Perry County Schools implemented financial incentives, offered by the Kentucky Department of Education, to encourage remaining employees to get vaccinated once numbers fell. This swayed a number who had been on the fence about vaccination.

Community Member Vaccination Experiences

We conducted in-depth interviews with 18 residents. Multiple interviewees identified their health care provider as their trusted source of COVID-19 information. Several reported a strong relationship with their primary care provider—ARH—and Primary Care Clinics of Eastern Kentucky, both of which are highly regarded in the community. In addition, most respondents were either related to or had friendships with a physician, nurse, or other medical professional. These connections increased the level of trust in vaccine information. Interviewees also reported a strong feeling of personal responsibility to protect family members by getting vaccinated.

Interviewees said the following factors helped convince them to get vaccinated:



Talking to medical professionals, family, and friends about vaccination



Hearing positive and consistent encouragement to get vaccinated from trusted community sources



The speed, efficacy, and ease of getting vaccinated at on-site clinics at work, in schools, at government departments, at local businesses, and in other trusted locations

Takeaways for Other Rural Communities

1. Use existing partnerships to maximize vaccination coverage.

Existing partnerships between health care providers, community-based organizations, and the local health department created a ready-made framework that could be adapted by both public and private entities, to quickly develop and launch COVID-19 education and vaccination efforts.

2. Coordinate messaging across trusted community entities.

As part of a coordinated effort to ensure the delivery of accurate and consistent information to the public, core partners used social media platforms coupled with more traditional mediums like local television, to regularly distribute COVID-19 information. Many community members reported watching the governor's routine television updates on COVID-19. Community organizations attributed the success of local messaging efforts to the Kentucky River District Health Department's director. Consistency in messaging reduced room for misinterpretation.

3. Encourage primary care providers to personalize health messages and build a rapport with patients.

Many community members reported that their primary care provider played a pivotal role in convincing them to get vaccinated; they had long-term, trusted relationships with their providers before the pandemic, and thereby trusted them as a source of COVID-19 vaccine information. This trust allowed primary care providers to successfully promote vaccination.

Methodology

On behalf of the Centers for Disease Control and Prevention (CDC), NORC at the University of Chicago (NORC) and East Tennessee State University (ETSU) conducted a qualitative study to better understand vaccine confidence and demand in rural communities. The study explored the following topics related to COVID-19 vaccination in rural communities: factors influencing COVID-19 vaccine confidence; strategies implemented to address vaccine demand and access barriers to increase COVID-19 vaccination rates; individual-level perspectives on COVID-19 vaccination in rural areas; and lessons learned related to COVID-19 vaccination efforts for rural communities. The qualitative study included case studies in six rural communities. Between April and July 2022, NORC/ETSU interviewed organizations involved in COVID-19 vaccination efforts and community members who had received the COVID-19 vaccine. Organizations and community members were recruited from the following study sites: Leflore and Jefferson Counties, MS; Marshall County, IA; North Country Region (Carroll, Coos, and Grafton Counties), NH; Perry County, KY; Rio Arriba County, NM; and Starr County, TX.