Putting Equity First in COVID-19 Vaccination

The first coronavirus disease 2019 (COVID-19) vaccines were approved for use in the United States under emergency use authorizations in December 2020. Just over a year later, more than two-thirds of eligible Americans had received at least two vaccination doses—an impressive achievement that gave these people far more protection against severe COVID-19. However, vaccination rates were significantly lower in communities of those who identify as Black, Indigenous, and people of color (BIPOC), contributing to stark inequities in COVID-19 impacts. Compared with the White population, these groups were about three times more likely to be hospitalized from COVID-19 and twice as likely to die from the virus after adjusting for age (Figure 1).

Particularly early in the vaccination rollout, BIPOC communities faced multiple barriers to accessing the vaccine. Information about where, when, and how to get vaccinated was often not disseminated through channels that communities use or in the languages they speak. These communities were frequent targets of disinformation about COVID-19 vaccination. The health care and public health systems may not seem trustworthy to these communities, which experience ongoing racism and xenophobia. In addition, vaccination sites were often in inconvenient locations. Sites lacked accommodations for people with disabilities or were not open during hours that met community needs. Vaccine

FIGURE 1
Age-adjusted risk of COVID-19 infection, hospitalization, and death by race/ethnicity in the United States

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>American Indian or Alaska Native</th>
<th>Asian</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases</td>
<td>1.0</td>
<td>1.5</td>
<td>1.5</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>2.5</td>
<td>2.4</td>
<td>3.2</td>
<td>0.8</td>
<td>1.0</td>
</tr>
<tr>
<td>Deaths</td>
<td>1.7</td>
<td>1.9</td>
<td>2.2</td>
<td>0.8</td>
<td>1.0</td>
</tr>
</tbody>
</table>

NOTE: Persons of Hispanic origin may be of any race but are categorized as Hispanic; other groups are non-Hispanic; data for Native Hawaiian or Other Pacific Islander people are not reported.
access often depended on consistent internet access and digital literacy to make an appointment or schedule a ride to a vaccination site. And although vaccinations were free, people might incur transportation costs or lose income from missing work.

The Rockefeller Foundation formulated an initiative to address these inequities. The U.S. Equity-First Vaccination Initiative (EVI) was a community-led, place-based, demonstrate-and-scale model focused on hyper-local (i.e., neighborhood-level) efforts, shared learning in real time, and data-driven decisions. The approximate goal of this $21 million, one-year investment (April 2021 to April 2022) was to reduce racial disparities in COVID-19 vaccination rates in the United States. The foundation also aimed to provide a proof of principle for longer-term efforts to strengthen the nation’s public health system to achieve more-equitable health outcomes.

The EVI’s place-based collective impact model

The Rockefeller Foundation funded organizations in five demonstration sites where they had strong existing relationships—Baltimore, Maryland; Chicago, Illinois; Houston, Texas; Newark, New Jersey; and Oakland, California—to plan and implement hyper-local, place-based models to increase vaccine confidence and access for BIPOC communities.

The structure of the initiative was complex, reflecting its collective impact approach (Figure 2).

FIGURE 2
The EVI partners

The EVI partners

- Community-based organizations (CBOs) were the engine of the EVI. Nearly 100 CBOs were working on the ground, implementing strategies to increase equitable access to information and vaccinations. The initiative was designed and other partners were chosen to amplify and support CBO efforts.
- Anchor partners and other key partners were funded directly by the foundation. These partners made subgrants to selected CBOs, provided leadership, tracked progress, and worked to ensure that the CBOs had what they needed. With one exception, the foundation intentionally chose anchor and key partners that were not part of the traditional health care or public health sectors.
- Communication partners, collectively known as MegaComms, provided training, offered weekly tips, and collaborated with sites to develop assets such as videos, flyers, and social media content, tailoring messaging to local contexts.
- Learning partners collaborated with anchor partners and CBOs to share information about vaccination barriers that communities were facing and promising practices to overcome them. They also provided technical assistance with data collection and analysis. Pink Cornrows, one of the learning partners, served as an equity community manager, facilitating information-sharing across demonstration sites.
- Advocacy partners amplified the CBOs’ voices, advocating with state and federal policymakers to make near-term changes that addressed barriers to equitable COVID-19 vaccination and promoting systemic changes to promote long-term access to health and well-being for communities of color.
- Service providers, including Uber and Lyft, offered free or reduced-price rides to vaccination sites.
- The Rockefeller Foundation convened the Equitable Vaccination Advisory Council, a group of thought leaders in the field of health equity, whose members reflected diverse lived experiences and expertise.

The EVI focused, explicitly and unapologetically, on BIPOC populations and decided to concentrate on closing the gap in vaccination rates between BIPOC populations and their White counterparts.
in Chicago from May 2021 to February 2022. The index is based on the concept that an equitable distribution of vaccinations accounts for differences in the burden of COVID-19 on different populations. That is, the index accounts for COVID-19’s burden in each group. A value of 1.0 for the equity index would reflect equity: The share of vaccinations received and the share of COVID-19 deaths for a particular racial/ethnic group would be the same. Index values of less than 1 indicate more deaths relative to vaccinations.

Both Black and Latinx individuals accounted for a smaller share of the fully vaccinated population than would be equitable based on the proportion of deaths they have experienced. Over the course of the EVI, the equity index value moved closer to 1.0 for Latinx residents, but there was little progress for Black residents.

This pattern, which emerged in all five sites, highlights the pervasive inequities present in each location. The pattern also confirmed the need for the EVI’s focus on BIPOC populations.

“The fact that they were so explicit about leaning in on . . . racial and ethnic equity without reservation, without a whole lot of preamble, sad to say, but that in and of itself is incredibly innovative. That’s not something that I think we’ve been really comfortable with doing in a lot of health care efforts and especially in crisis response.”

—An Advisory Council member

The local context in the five demonstration sites

Understanding the EVI’s implementation and impact requires understanding the local context in which the CBOs were working. The experience of Chicago highlights a pattern that emerged across all the sites. Figure 3 displays values of an equity index by race and ethnicity in Chicago from May 2021 to February 2022.
Who were the EVI CBOs?

The CBOs who participated in the EVI were a diverse group (Figure 4). All served BIPOC populations. However, many also focused on special populations, including individuals experiencing food and/or housing insecurity, people with disabilities, migrant populations, and populations that were economically and/or socially disadvantaged.

When the CBOs joined the EVI, only one in three explicitly mentioned “health” or “well-being” in their mission statement. Only about 15 percent would have been considered part of the traditional health care or public health sector. For example, an Oakland-based CBO was a legal services agency; a Newark CBO conducted outreach and case management focusing on housing; another provided early education and child care. These organizations had not been involved in health-related work before the pandemic; they certainly had not participated in any vaccination or public health emergency responses.

The anchor partners were the hubs in each demonstration site; the CBOs were the spokes. This hub-and-spoke model allowed the anchor partners to select CBO subgrantees that best knew their communities and to connect their CBO subgrantees through communities of practice that facilitated peer-to-peer support, resource-sharing, ongoing technical assistance, group problem-solving, and networking. In this way, the CBOs shared information and lessons learned rather than working in silos.

What did the CBOs accomplish?

The Rockefeller Foundation standardized how the demonstration sites tracked their progress, an important part of the collective impact model. From July 2021 to April 2022, CBOs reported monthly metrics, called key progress indicators (KPIs), to the anchor partner in their demonstration site. The anchor partners, in turn, reported these numbers to researchers at the RAND Corporation, one of the learning partners, who compiled and cleaned the data to make them as comparable as possible across sites. In their analyses, the RAND team used a mixed-methods approach, drawing on the KPI data as well as on information from document review and interviews with anchor partners, key partners, and CBOs.
What did the connections look like?
MegaComms helped CBOs build capacity for targeted, tailored, and universal messaging. CBOs connected with their community members and provided accurate COVID-19 related information through three modes.

- **Universal** communication and messaging was intended for everyone. An example would be a social media post about a vaccination event.
- **Targeted** communication and messaging was meant for a specific audience. An example would be an informational campaign or radio announcement aimed at youth.
- **Tailored** communication and messaging was delivered through one-on-one interactions. An example would be discussing COVID-19 vaccination through phone banking, on door-to-door visits, or at a health fair.

The number of connections made through targeted and tailored communication was far smaller than the number of connections made through social media and other universal modes of communication. However, CBO staff felt that these conversations, which were more time-consuming and resource-intensive, were critically important to addressing community members’ questions about COVID-19 vaccines.

What kinds of events did CBOs hold?
After a ramp-up period in June and July 2021, EVI CBOs held 400–600 events where vaccination was available every month from August 2021 to April 2022. This is equivalent to about 15 EVI events, every day, across the five cities. The most common events were vaccination clinics, community outreach (e.g., community barbecues, listening sessions, tenant association meetings), and events involving food distribution.

What did assistance look like?
Each month, CBOs helped several thousand individuals with services that directly influenced access to vaccination, such as referrals to vaccination sites and registration, transportation assistance, or interpreters. Sites also offered other types of assistance that indirectly promoted vaccination by addressing health-related social needs that may have been barriers to prioritizing the vaccine, including food, mental health support, and general health information through hotlines, flyers, and health fairs.

Numbers alone cannot convey the extraordinary effort embodied in the KPIs. CBO staff described the hard, incremental work of trust-building, noting that trust was built one social media post, conversation, or ride to a vaccination site at a time. It was the trust-building through these hyper-local, community-led activities that made shots in arms possible.

Overall, the CBOs administered more than 64,000 vaccinations.
The voices behind these statistics provide a glimpse of the reality on the ground.

**Riding the bicycle as we were building it:**

“The libraries asked us to do outreach at their sites. . . . We canvas the area before the event. We use social media. We use flyers, email blasts, walking the streets, handing out palm card[s] to people, and then the day of the event, we’ll have music, food, and balloons. We had gift cards. We used incentives to a large degree. United Way and other friends realized that it was important. That allowed the flexibility to . . . switch gears and say, ‘We need $20 [to] give cards to give everybody to convince them, because that’s what works in our community. We need to have a DJ, to make some noise and attract attention. We need to have a food truck.’ All of these things that we learn through trial and errors . . . by riding the bicycle as we were building it.”

—Staff member at La Casa de Don Pedro, Newark, New Jersey

**A holistic approach to assistance:**

“What I’m most proud of is that we were able to respond the way we did, because our response wasn’t necessarily just providing access to testing and vaccinations, although that was huge . . . but the ripple effect for our community [of COVID-19] was a high level of unemployment. People lost their jobs. They had to choose between, ‘If I have to stay at home with my child, I’m not going to be able to go to work.’ We were able to provide food weekly. The idea that you legitimately could have saved lives is the thing that I’m most proud [of].”

—Staff member at Allen Temple Baptist Church, Oakland, California
Patience pays off:

“I try to go to as many of those sites as possible. And there were people who would listen and say, ‘I’m still antivax, but [I appreciate] the fact that you respected us, and you didn’t treat us like we were evil or something.’ They still didn’t believe [the vaccine would] work, but they got the shot because they knew they needed to get it for their job. So that constant, patient persistence, that always being ‘on message’ to bring it back to them, even the second or third time around. . . . Whether it’s new congregants or they bring somebody to church with them that Sunday, 100 people show up ready to get shots.”

—Staff member at La Casa de Don Pedro, Newark, New Jersey

What did the EVI accomplish?

Although the EVI is called the U.S. Equity-First Vaccination Initiative, it was always about much more than simply putting shots in arms. Both qualitative and quantitative data describe the impacts of the EVI at the individual, community, organizational, and society levels.

Impacts on individuals and communities: The numbers of events held, times that people were assisted, vaccinations given, and other key markers do not fully represent the initiative’s individual-level impacts. Each event at which vaccination was offered, each time someone received help to get vaccinated, and each connection made between CBO staff and community members may have had benefits beyond getting the vaccine. In many cases, the EVI provided critical social and economic supports, including food and housing assistance. Connections also offered an opportunity to provide accurate information about COVID-19 vaccination and “inoculate” people against mis- and disinformation.

The EVI was small relative to the size of the cities in which it was working. At the city level, as illustrated by the equity index values in Figure 3, COVID-19 vaccination inequities were entrenched and slow to change over time. However, there is evidence that the EVI played an effective role in improving vaccination access and built momentum in the five demonstration sites. For example, from June 2021 to January 2022, vaccinations given per month declined nationally, but vaccinations provided through the EVI trended steadily upward (Figure 5).

FIGURE 5
Vaccination doses given, nationally (left panel) and in EVI cities (right panel), by month from June 2021 to February 2022
In addition, the EVI successfully reached its priority populations. Over the course of the EVI, the vast majority of vaccinations were given to Black or Hispanic/Latino individuals (Figure 6).

**FIGURE 6**
Recipients of EVI vaccinations of known race or ethnicity

- **Black or African American**: 48%
- **Hispanic or Latino**: 37%
- **Asian**: 10%
- **White**: 4%
- **Other/two or more**: 4%

**Impacts on EVI partners**: The EVI's primary impact on anchor partners and CBOs was the capacity that they built and augmented over time. In addition, EVI partners that had not focused on health before the pandemic reported that the initiative was an opportunity for them to demonstrate their value in addressing community health issues.

> “[The organizations doing this work] are tiny, and yet their grasp of the issues, their understanding of how to do it, the sophistication of how they’re thinking about it and recognition of what they can do as players in this space... I think it’s [a] huge success.”
> 
> —Staff member at the Chicago Community Trust

Several anchor partners described using EVI funding to support work they had already been doing since the vaccination rollout began, but with few resources. The EVI provided the boost needed to scale up their efforts and achieve more.

Through the EVI, anchor partners and CBOs had access to health communications training, resources, and technical assistance. MegaComms provided a resource center with a library of images, videos, and message templates. They also provided site-specific technical assistance. With this support, the CBOs expanded their capacity to develop and disseminate effective messages. The knowledge, skills, hands-on experience, and infrastructure that the EVI fostered among the CBOs remain applicable to other health priorities.

For example, through their participation in the EVI, the Roots Community Health Center in Oakland formed a new health communications advisory council that helped ensure that both messages and messengers were responsive to what was being heard and said in the community. The advisory council delivered messages on the radio and in the newspaper and wrote letters to the Board of Supervisors, the Public Health Officer, and school boards and superintendents. Roots is now using the health communication platform that it built as part of the EVI to develop and amplify messages around mental health and other high-priority areas.

As another example, Mathematica, one of the learning partners, built CBO capacity to field a community survey. Through this survey, CBO staff gathered information on a recurring basis about vaccination-related beliefs, concerns, barriers, and motivators that could shape their strategies to enhance vaccine confidence.

CBOs described how participating in the EVI connected them with other organizations or institutions in ways that might not have been possible otherwise. The anchor partners believed that some partnerships, such as between CBOs and local health departments or academic institutions, would have been more difficult to form without the EVI.
“The funding from Rockefeller helped us cement that role [as a bridge between service providers and trusted messengers] and make those connections, and all of our communities of focus met their threshold vaccination rates of 50 percent; many are now at 60 percent, nearing 70 percent.”

—Staff member at Houston in Action

CBOs observed that many of the networks and communities of practice they built as part of the EVI were ongoing and can be leveraged in the future. Several anchor partners highlighted how much they valued the opportunity to learn from organizations in the other EVI demonstration sites. The EVI community provided a support network and a way to share learnings quickly in a rapidly evolving crisis.

“Being able to be in a space with leaders in other parts of the country . . . to share learning from each place, because each partner had a different expertise, it added to the collective wisdom or knowledge base, which helped inform our service delivery.”

—Staff member at Roots Community Health Center

“…we pick a partner and not just grant them funds but also set up a community of practice . . . connect them with experts.”

—Staff member at United Way of Greater Newark

Impacts on society: The EVI achieved even wider impact through the work of the policy and advocacy partners, who amplified the on-the-ground efforts of the CBOs and the evidence gathered by the learning partners. The policy and advocacy partners held regular briefings with the White House to advise federal leaders on best practices for equitable vaccination uptake, communicated regularly with state public health leaders, and successfully advocated for a policy that substantially increased domestic workers’ access to vaccines.

Key takeaways

Over the course of the yearlong initiative, the partners encountered and successfully addressed multiple challenges from multiple sources. Some stemmed from the desire to move quickly—for example, the challenge of formulating a complex initiative in real time and ensuring that each partner’s work informed the other moving pieces. Other challenges had their source in implementing an equity-first approach to the initiative as a whole. For example, navigating power dynamics and establishing trust among partners required a great deal of care.

The EVI demonstrated that to truly center communities and put equity first, there needs to be more asking “What do you need?” and less telling “Here is what we can offer.”

The supporting partners and the foundation had to adjust the intensity of their engagement and modify their touchpoints and deliverables to accommodate the burden on the CBOs. The ever-changing nature of the pandemic...
required the CBOs to continually recreate themselves. The CBOs met this challenge, demonstrating resilience and agility. But they also acknowledged that the constant pressure was exhausting and took a toll on their staff members’ mental health and well-being.

Another key takeaway is that the contribution of the EVI partners, most of whom were not part of the traditional health or public health sectors before the pandemic, was indispensable. The EVI reinforced that holistically addressing the challenge of equitable access not just to vaccinations but also to health care and wellness for communities of color required a diverse range of partners. And the EVI CBOs had a lot to offer.

“[Our CBO partners have the] ability to successfully recreate themselves over and over and over again. Every time they would get one communication out and done, the messaging would change, and they would have to change it on TikTok and other social media and on their websites. . . . What a burden, but a real testament to who they were, and the evolving nature of COVID in the fact that they managed, really powerfully, to recreate and adapt messages.”

—Staff member at the Chicago Community Trust

Promising practices for hyper-local public health interventions

The EVI surfaced and reinforced promising practices for hyper-local and community-led approaches to COVID-19 vaccination and other public health interventions. The first set of practices outlined in Table 1 (“Approaches for promoting equitable vaccination”) are specific to COVID-19 vaccination; however, the other two (“Approaches for building relationships” and “Approaches for working with CBOs”) can serve as guiding principles for those involved in designing, implementing, supporting, or participating in any equity-first public health initiative.

What’s needed to strengthen the public health system in the United States?

The EVI demonstrated that it is possible to reduce racial inequities in COVID-19 vaccination rates by building a community-centered public health system that works at the hyper-local level.

The EVI CBOs showed that to ensure equitable outcomes, public health interventions have to consider the intersections of housing, education, immigration status, access to food, and safety. These intersections require rethinking who makes up the public health workforce.

The EVI also demonstrated that CBOs deeply rooted in their communities—CBOs that before the pandemic focused on issues such as voter registration, census participation, and youth empowerment—could quickly and effectively pivot to addressing barriers to COVID-19 vaccination. Working in partnership with health departments and health systems, these CBOs demonstrated how critical they are to creating and delivering truly hyper-local public health interventions that are designed by their communities, are tailored to community needs, and redress inequities that extend beyond health care access.

Many CBOs voiced uncertainty about their potential engagement in future vaccination campaigns, whether for COVID-19, influenza, or other vaccine-preventable diseases. They did, however, express newfound confidence that they could pivot to address public health crises affecting their communities. Several anchor partners and CBOs mentioned the mental health crisis as their next likely priority.

Hyper-local public health interventions are time- and labor-intensive, requiring repeated touchpoints with community members and consistent engagement rather than one-off messaging campaigns or one-size-fits-all strategies to improve access. CBOs should not be seen as stopgaps used to plug holes in an emergency. Rather, they need to be incorporated into the public health system. They need resources and supports, and they should be recognized as experts and empowered to guide policymaking processes that affect their communities. Policymakers and public health officials at all levels of government, health care organizations, philanthropy, and the private sector each play a vital role in providing the resources, leadership, and implementation supports that enable organizations such as the EVI anchor partners and CBOs to do their work successfully.
TABLE 1
Promising practices for hyper-local public health interventions

<table>
<thead>
<tr>
<th>Approaches for promoting equitable vaccination</th>
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<tr>
<td>Dig deeper to understand <strong>barriers and hidden costs</strong>; availability does not mean accessibility</td>
</tr>
<tr>
<td><strong>Reframe the narrative around barriers and vaccine confidence</strong> rather than blaming individuals who are not vaccinated</td>
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<tr>
<td><strong>Approach vaccination holistically</strong>, recognizing the importance of multiple sectors, including food, housing, and employment</td>
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<tr>
<td>Apply a <strong>harm-reduction approach</strong>: Share information about how people can protect themselves and others from COVID-19</td>
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<tr>
<th>Approaches for building relationships</th>
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<tbody>
<tr>
<td>Form <strong>authentic relationships</strong> built on trust</td>
</tr>
<tr>
<td><strong>Build bridges across sectors</strong>—housing, education, employment, food insecurity, and infrastructure, among others</td>
</tr>
<tr>
<td>Partner with <strong>trusted messengers</strong> in a community</td>
</tr>
<tr>
<td>Harness the power of <strong>communities of practice</strong> for emotional support, technical assistance, and shared problem-solving</td>
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<tr>
<th>Approaches for working with CBOs</th>
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<tbody>
<tr>
<td><strong>Empower CBOs</strong> instead of directing them</td>
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<tr>
<td>Focus on <strong>building capacity</strong> within CBOs</td>
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<tr>
<td><strong>Co-create messaging</strong>: co-design strategies</td>
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<tr>
<td>Develop <strong>tools, support, and resources</strong> that reflect what the partners actually need</td>
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<tr>
<td><strong>Allocate resources</strong> based on burden</td>
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<tr>
<td>Demonstrate <strong>flexibility and adaptability</strong> to meet the needs of the partners</td>
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The bottom line: To build an equitable and community-centered public health system of the future, the definition of the public health workforce should be expanded, and nontraditional partners should be provided with

- adequate, consistent, and flexible funding to meet the needs of communities as the pandemic evolves and as other crises emerge
- resources that are allocated equitably, according to disease burden
- access to high-quality, race-disaggregated, hyper-local, and timely data to inform their work
- resources, technical assistance, workforce capacity-building, and infrastructure to focus on public health communication and to facilitate disseminating evidence-based messaging to the public and policymakers.

As policymakers and public health officials in the United States and globally grapple with emerging COVID-19 variants and subvariants, they are striving to vaccinate as many people as possible, as quickly as possible. If tailored to individual contexts and populations and appropriately scaled up, the lessons learned from this hyper-local, community-led demonstration could strengthen equitable responses to COVID-19 and future public health emergencies, as well as to ongoing health challenges.

The promising practices and recommendations that emerged from the EVI offer a starting point for lasting change.