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COVID-19

Strategies for States to Drive Equitable Vaccine Distribution and Administration

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Introduction

Since December 2020, the United States has administered more than 330 million COVID-19 vaccine doses, with 163 million people, or 49 percent of the population, completing a full vaccine series.[1] While these results show significant progress by the federal government, states, local governments, and their community partners to reduce COVID-19 transmission, hospitalizations, and deaths, efforts to date have not produced equitable outcomes.[2] Rates of COVID-19 vaccination vary widely within and across states, communities, and racial and ethnic groups, with those communities that are disproportionately experiencing the negative impacts of COVID-19 often having the lowest rates of vaccination. The disparities in vaccination rates among Black, Indigenous, and people of color (BIPOC) as compared with white Americans highlight the longstanding inequities and structural racism that underpin the United States health care delivery system and that contributed to disparities in health outcomes before and during the COVID-19 pandemic.[3]

While more than 20 states and the District of Columbia reached the Biden-Harris administration's goal of administering one or more COVID-19 vaccine doses to at least 70 percent of adults by early July, wide variation in vaccination rates persists across communities within these states and among the 30 states still working to reach this goal. The vaccination rate variation at the community level translates to disparities across racial and ethnic groups, as many states with relatively low vaccination rates overall have higher proportions of BIPOC, and most states continue to have disparities in vaccination rates between BIPOC and white populations. Federal, state, and local data shows that BIPOC have received smaller shares of COVID-19 vaccines compared with the shares received by the total population, despite experiencing disproportionately higher rates of COVID-19 cases, hospitalizations, and deaths.[4,5] Across 40 states with available data, the percentage of people who are white and have received at least one COVID-19 vaccine dose was roughly 1.4 times higher than the rate for people who are Black and 1.2 times higher than the rate for people who are Latino(a) as of early July.[6] These

gaps began to close in recent weeks, however, as BIPOC comprised a greater share of newly administered vaccinations.[7,8]

New strains of the COVID-19 virus that are more transmissible and potentially more likely to result in severe illness or death for people who are unvaccinated, such as the Delta variant, continue to grow as a percentage of new COVID-19 cases in the United States.[9] Full courses of available vaccines in the United States—the two-shot Moderna and Pfizer-BioNTech vaccines and the one-shot Johnson & Johnson vaccine—have been shown to be effective against the new COVID-19 strains seen to date, though data continues to be evaluated.[10,11] But these new variants threaten unvaccinated and partially vaccinated individuals and are driving new outbreaks in communities with low vaccination rates, which often have populations at higher risk of severe health outcomes from COVID-19 due to underlying health status.[12]

Early vaccine distribution efforts successfully reached those most eager and able to access the vaccines, but efforts going forward must address the wide range of reasons why people have not received a COVID-19 vaccine on a neighborhood or an individual basis. State and local government and community leaders have the opportunity to address these barriers at the community level by leveraging a range of policy, data, outreach, and financing levers to drive access and vaccine adoption among BIPOC.

Drawing on insights learned through discussions with state officials, informed by grassroots community organization input and a review of the literature, this issue brief outlines key barriers states face in their efforts to increase vaccination rates among BIPOC and highlights strategies states are pursuing in partnership with community-based organizations (CBOs) to address these challenges. This issue brief also considers future phases of the COVID-19 vaccine rollout and planning, including near-term efforts to vaccinate children and adolescents, as well as longer-term opportunities to build sustainable infrastructure and capacity to advance health equity related to the pandemic, emergency preparedness, and beyond within state and local public health and health care delivery systems.

A common thread across these state strategies, both near and long term, is meaningfully engaging, fostering, and funding close partnerships with CBOs and other community partners as a cornerstone for success. Community partners can help states understand barriers to vaccine uptake across communities and implement focused and tailored strategies that address concerns at the individual level, in the near term, while building the necessary structures to reimagine and rebuild a public health system that fosters trust, centers on the community, and addresses long-standing and underlying social drivers of health (SDOH) inequities.

Figure 1. Snapshot of Strategies to Drive Equitable COVID-19 Vaccine Distribution and Administration
1.0 Strategies for Addressing Barriers to Vaccine Access
1.1: Stand up vaccination sites in trusted and convenient locations based on community input

Figure 1. Snapshot of Strategies to Drive Equitable COVID-19 Vaccine Distribution and Administration
1.2: Fund mobile or pop-up clinics in neighborhoods and communities disproportionately impacted by COVID-19 staffed by trusted entities with strong community connections, such as local municipalities and CBOs
1.3: Drive education and access through local clinics, independent pharmacies, and family physician and pediatrician offices
1.4: Partner with and fund community health workers and other community-based providers to offer home-based vaccinations
1.5: Encourage or incentivize employers to give paid time off (PTO) to employees to get vaccinated and recover from any side effects (and lead by state example)
1.6: Subsidize child care/elder care to help parents and other family caregivers get vaccinated
1.7: Provide or pay for transportation to and from vaccination sites
2.0 Strategies for Combating Misinformation and Building Vaccine Confidence
2.1: Engage, learn from, and fund trusted leaders and organizations to provide consistent messaging in local communities
2.2: Work with CBOs and community leaders to design messaging and modes of engagement tailored to specific communities of focus
2.3: Make communication materials and outreach efforts accessible to all
2.4: If pursuing incentives to encourage vaccine take-up, work with communities of focus to design incentives that resonate, are empowering, and are noncoercive
3.0 Strategies for Addressing Data and Operational Challenges
3.1: Track vaccination data in real time and at granular geographic and demographic levels
3.2: Engage local leaders through focus groups and listening sessions; include them in a meaningful way on state and local task forces, commissions, and COVID-19 response teams
3.3: Fund community leaders and CBOs to ensure their engagement in quantitative and qualitative data-gathering efforts

Key Barriers to Equitable Vaccine Distribution and Administration to Date

Currently, there is no dominant reason why individuals have stayed unvaccinated.[13] Rather, people who remain unvaccinated have diverse and multifaceted reasons for doing so, which vary across age, race and ethnicity, geography, and political ideology, among other factors.

The below table outlines common barriers that have inhibited vaccination uptake and equity, informed by discussions with state officials, insights from grassroots community organizations, and a review of the available literature.

Barrier Type	Key Challenges
Access	• **Need for more localized vaccine access points where people live, work, and engage**, with available supports to respond to questions and concerns from the community • **Structural barriers**, **including workplace flexibility, child care, transportation, and digital literacy**, which make it harder for those who want a vaccine to access it • **Need for continuous access and outreach strategies** that are effective for following-up and administering both doses of the two-dose vaccines
Misinformation and Vaccine Confidence	• **Misinformation**, which has spread pervasively and is often aimed specifically at communities of color, amplifies concerns around vaccine safety, efficacy, cost, and residency considerations[14] • **Distrust in the health care system** rooted in structural racism and the history of medical mistreatment and trauma • **"Wait and see" mindset** often tied to the need for more evidence-based information about the vaccines' safety and efficacy
Data and Operational Challenges	• **Limited availability of granular race and ethnicity data beyond federal Office of Management and Budget standards** inhibits identification and surveillance of health disparities to inform and course-correct culturally appropriate approaches • **Need for more continuous and integrated feedback loops** across states, counties, localities, and CBOs • **Complex state procurement processes** preventing states from distributing dollars quickly to CBOs and partners working on the ground in communities to promote vaccine education and take-up

Strategies to Drive Equitable COVID-19 Vaccine Distribution and Administration

States, in partnership with local governments and community partners, can pursue a range of strategies aimed at addressing barriers and improving equity in vaccination rates for BIPOC. Strategies will vary based on different individuals' and communities' reasons for not getting vaccinated. According to recent survey data, adults who are open to getting vaccinated but who have not yet received a dose, commonly cite access, structural barriers, or information gaps as their reasons for forgoing vaccination, while those who want to "wait and see" before getting vaccinated are often seeking more safety or efficacy data or feel they don't need a vaccine at this time.

Overall, Black and Latino(a) adults are both more likely to face access challenges, structural barriers, and information gaps, as well as more likely to say they want to wait and see before getting vaccinated compared with white adults.[15,16] While states used mass vaccination sites

and centralized vaccination efforts and resources to reach those most eager and able to receive the vaccines, reaching those who have less confidence in or access to the vaccines will be more challenging and require a new set of engagement, communication, and distribution strategies specific to the needs of the community. Effective strategies to reach these individuals focus on engaging, financing, and building partnerships with local leaders, businesses, and CBOs that have established trust in the community and a proven track record of addressing barriers.

1.0: Strategies for Addressing Barriers to Vaccine Access

In this new phase of vaccine distribution, reaching those who face structural barriers to accessing the vaccines will require hyper-localized strategies tailored to individual needs. States are making strides to transition toward administering vaccines at more localized access points to reach these individuals, including by collaborating with the community to increase access where people work, live, and engage. Key strategies include the following:

- **Strategy 1.1: Stand up vaccination sites in trusted and convenient locations based on community input.** By launching vaccination sites where people work, live, and engage, states are reaching individuals who may not otherwise actively seek a vaccine. States have launched vaccination clinics in collaboration with CBOs at employment sites, places of worship, libraries, festivals, and community events, among others. In California, the governor's office formed new partnerships in April 2021 with nearly 200 faith-based organizations to expand vaccine outreach and equity efforts, recognizing faith-based leaders serve as trusted information sources and may be able to help address questions or concerns about the COVID-19 vaccines. Working with local businesses to establish vaccination sites at places of employment can support workers who may have concerns about missing work to receive a vaccine, and as noted below, pairing this strategy with PTO to receive or recover from the vaccine can be particularly effective. To advance this strategy, New Jersey launched an agricultural vaccine program in March 2021 that paired farms with federally qualified health centers (FQHCs) to help vaccinate farm workers at their sites of employment. Because many agricultural workers in the state migrate across the country for work frequently, the program used the one-shot Johnson & Johnson vaccine to avoid challenges scheduling and tracking second doses.[17]

- **Strategy 1.2: Fund mobile or pop-up clinics in neighborhoods and communities disproportionately impacted by COVID-19 staffed by trusted entities with strong community connections, such as local municipalities and CBOs.** A broad range of states have established mobile and pop-up clinics and continue to scale these efforts, anecdotally reporting that community members feel comfortable talking to mobile staff on their own terms. States are particularly focusing on communities that have disproportionately experienced negative health outcomes from COVID-19 or that have low vaccination rates, high vaccine disparities, or high social vulnerability based on the Centers for Disease Control and Prevention and Agency for Toxic Substances and Disease Registry indicator. Pop-up and mobile vaccination clinics are most successful when they are visible, widely publicized, staffed by community members, and include ample opportunities for the public to engage with staff in their primary language to learn more about the vaccines and address their

concerns. Connecticut is organizing mobile clinics across the state in areas with greatest need using highly visible yellow vans from the Department of Public Health in collaboration with CBOs.[18] CBOs, in partnership with state and local governments, send outreach workers to build awareness in the community about upcoming events hosted by the mobile clinics. Alabama activated the state's National Guard to set up mobile vaccination sites in rural and other underserved areas in the state.[19]

- **Strategy 1.3: Drive education and access through local clinics, independent pharmacies, and family physician and pediatrician offices.** For most adults, physicians and nurses are their most trusted sources of information on COVID-19 and other medical information. Survey data from the Kaiser Family Foundation in January found that almost 80 percent of adults planned to consult with a medical professional when deciding whether to get a COVID-19 vaccine.[20] But due to the logistical challenges with distributing vaccines to individual clinics, independent pharmacies, and provider offices early on in the pandemic, local providers are only recently gaining access to a consistent supply of vaccines. Leveraging health care professionals' expertise and leadership can help build trust within communities and expand access to vaccines for people who are in the wait-and-see camp. In particular, collaborating with FQHCs and community health centers on vaccine efforts may help states further close the vaccination gap between BIPOC and white individuals, as FQHCs and community health centers are often the primary source of care for BIPOC. Notably, as of May 2021, BIPOC comprised nearly 67 percent of first doses of the two-dose vaccines administered at community health centers and 61 percent of second doses.[21] Similarly, pediatrician offices can be an important access point and source of trusted information about the vaccines, not only for young children and adolescents, as further outlined below, but also for older siblings, parents, and guardians.

- **Strategy 1.4: Partner with and fund community health workers and other community-based providers to offer home-based vaccinations.** Home-based vaccinations can support access, not only for individuals who are homebound for physical or mental health reasons, but also for those who face access barriers such as lack of transportation, lack of child care, or other constraints. States are partnering with local pharmacies, emergency medical services providers, and local health providers to offer home-based vaccinations, and as part of these efforts, collaborating with CBOs and faith-based groups to build trust in the community and identify people best served by a home-based vaccination. As an example, local outreach drives in Louisiana partnered with community health center-employed nurses to go door-to-door in neighborhoods with the lowest COVID-19 vaccination rates and offer home-based vaccinations.

In addition to increasing access points, states can address structural barriers individuals might face when seeking COVID-19 vaccinations. As seen even prior to the pandemic, SDOH—or conditions under which people are born, grow, live, work, and age—have significant impact on access to health care services and health outcomes.[22] Addressing SDOH-related barriers, including employment flexibility, child care, transportation, and health literacy, can help improve vaccine uptake.[23,24]

- **Strategy 1.5: Encourage or incentivize employers to PTO to employees to get vaccinated and recover from any side effects (and lead by state example).** Lack of PTO remains a significant barrier to vaccination, with only half of workers overall reporting that their employer provides PTO to receive or recover from a COVID-19 vaccine, according to recent polling from the Kaiser Family Foundation. Lack of PTO has a disparate impact on BIPOC, low-income individuals, and those who lack health insurance coverage: only 38 percent of workers who are Black, 41 percent of workers who earn less than $40,000 per year, and 33 percent of workers without health insurance report having an employer that provides PTO to receive or recover from a COVID-19 vaccine.[25] According to polling, 21 percent of adults who are employed and not vaccinated say they would be more likely to get vaccinated if their employer gave them PTO.[26] State leaders can use their "bully pulpit" to encourage or incentivize employers to provide PTO for vaccination appointments and to recover from COVID-19 vaccine symptoms, and can lead by example by instituting this policy for state employees. As an example, in March 2021, New York Governor Andrew Cuomo signed legislation granting public and private employees paid leave to get a vaccine.

- **Strategy 1.6: Subsidize childcare/elder care to help parents and other family caregivers get vaccinated.** Similar to lack of PTO, lack of family caretaking support (for children, elderly, or disabled family members) can be a barrier to vaccination, as parents and caretakers worry about how they will care for their children or others who depend on them while they are receiving a vaccine or recovering from its side effects. According to recent Kaiser Family Foundation polling, approximately 13 percent of unvaccinated parents would consider getting vaccinated if they had access to free childcare options. To support parents and caretakers in their efforts to get vaccinated, states can establish free caregiving programs or subsidize caregiver costs for those in need, including by partnering with private caregiving companies to provide these services. New Jersey was able to leverage an existing state policy that subsidizes childcare to support parents and guardians who are receiving or recovering from the vaccine.

- **Strategy 1.7: Provide or pay for transportation to and from vaccination sites.** While a number of states are offering subsidized transportation to support vaccinations by partnering with local public transportation agencies or ride-share companies, transportation barriers still exist, particularly in rural areas that do not have public transportation and are out of service areas for ride-share companies.[27] States seeking to increase access in rural areas can partner with and fund local CBOs that may be able to leverage existing transportation resources or with providers offering non-emergency transportation in rural areas.

2.0: Strategies for Combating Misinformation and Building Vaccine Confidence

To achieve herd immunity, the country must overcome a long history of structural racism in the health care system and public hesitancy toward vaccines that has increased over the past decade.[28,29] According to recent polling, unvaccinated adults report a variety of reasons for having low vaccine confidence, including distrust about the safety of the vaccines (23 percent),

a belief they would not get seriously ill from a COVID-19 infection (20 percent), concern about the timeline for developing the vaccines (16 percent), mistrust of vaccines generally (16 percent), and concerns about allergic reactions (10 percent), among others.[30] Confidence in the COVID-19 vaccines, however, has improved over time as millions of Americans have received their first doses.[31,32] While the proportion of Americans saying they will wait and see about getting a vaccine has decreased from 39 percent in December 2020 to 12 percent in May 2021, the percentage of Americans who report they will get vaccinated "only if required" or will "definitely not" get vaccinated has remained largely stable at 7 percent and 13 percent, respectively, over the same time period.[33]

To address concerns about the vaccines, help people understand the benefits of vaccination, and counter misinformation, states can fund CBOs as essential partners in building trust and conducting outreach. Given that individuals' reasons for forgoing the vaccine vary across age, race and ethnicity, geography, and political ideology, state strategies should be developed and implemented in consultation with key communities of focus. Key strategies include:

- **Strategy 2.1: Engage, learn from, and fund trusted leaders and organizations to provide consistent messaging in local communities.** Partnering with local leaders and organizations and listening to concerns among community members can help states improve vaccine confidence and vaccination rates. Across states, funding CBOs that are trusted in the community is essential to outreach efforts. North Carolina partnered with the NC Counts Coalition, a public-private partnership that originally conducted outreach for the statewide census, to do vaccine canvassing. Through the NC Counts Coalition, North Carolina has established regional outreach campaigns, conducted face-to-face canvassing, and provided paid staff and grants to community organizations, with the goal of increasing vaccinations among communities of color.[34] Creating platforms for community members to share information and stories about getting vaccinated can also support efforts to increase vaccine confidence. In Nebraska, the Department of Health and Human Services introduced a new platform called Share Your Shot, an interactive map where Nebraskans throughout the state can share their experiences about receiving a COVID-19 vaccine, allowing those seeking more information about the vaccines to review pictures and stories from friends, families, and neighbors in order to learn about their safe vaccination experiences.[35]

- **Strategy 2.2: Work with CBOs and community leaders to design messaging and modes of engagement tailored to specific communities of focus.** Given the diverse range of concerns and questions about the vaccines across demographic groups, strategies should be tailored to the individual needs of the community. For example, across states, younger adults are less likely to be vaccinated than older populations, so states, such as Michigan and California, have developed social media campaigns on Instagram and TikTok and conducted outreach through trusted community voices who resonate with young adults, including professional athletes and faith-based leaders.[36,37,38,39] To support community leaders in combating misinformation, the Connecticut Department of Public Health partnered with local hospitals to launch a Trusted Messenger Program to train and provide trusted

community leaders with messaging toolkits and methods to combat myths and misinformation regarding the COVID-19 vaccines.[40]

- **Strategy 2.3: Make communication materials and outreach efforts accessible to all.** This includes people who do not speak or read English as their primary language; who lack access to and familiarity with technology; and who have differing visual, learning, and physical abilities. To ensure consistent messaging efforts across communities, multiple states created COVID-19 vaccine communication toolkits that include best practices and can be tailored to local contexts. In addition, to support populations who speak primary languages other than English, states are collaborating with community-based partners to develop a wide range of culturally competent materials and outreach approaches. Arizona state officials are pursuing a range of strategies to support culturally competent outreach for Latino(a) populations, including establishing a call center with Spanish-language services, conducting local town halls with community members in English and Spanish, and working with local community health centers to deploy *promotores* (i.e., community health workers) to conduct outreach and help county officials understand the gaps in and barriers to vaccination. As part of these efforts, leveraging trusted language translation services when developing the broad range of materials related to vaccination education and appointments is vital, as some communities have reported readability and accuracy challenges when communication materials have relied on free, online services alone. States can similarly collaborate with the disability community, advocacy groups, and CBOs to ensure vaccine access points are accessible for individuals with different needs through focused outreach and trainings for vaccinators. As part of all health literacy and communication efforts, states can also work to combat common misconceptions about the cost or residency considerations related to the vaccines by ensuring all communication materials clearly state in a variety of accessible formats that the vaccines are free of charge and individuals do not need to provide any information about their residency status.[41]

- **Strategy 2.4: If pursuing incentives to encourage vaccine take-up, work with communities of focus to design incentives that resonate, are empowering, and are noncoercive.** As vaccination rates have slowed, a growing number of states, companies, and organizations are establishing incentives to encourage vaccine uptake.[42] These strategies may be effective if states deploy incentives that resonate with the community and are both empowering and noncoercive (such as transportation vouchers; paid leave; free state university, community college, or trade school credits) to both increase uptake in the short term and build trust in and access to the health system. That said, states should proceed with caution when considering vaccine incentives. While several states have implemented lotteries with large cash prizes to incentive vaccine uptake, there is limited data about whether these strategies are effective and concern that such approaches could backfire and potentially diminish trust in the overall public health system.[43] Survey findings indicate that certain financial incentives may motivate small shares (between 10 percent and 15 percent) of the unvaccinated to get vaccinated, with larger effects for Black or Latino(a) adults and those with annual incomes below $40,000.[44,45] Recent research out of the University of California, Los Angeles, also indicates that offering incentives could boost vaccination rates. About a

third of the study's sample of 70,000 people said they would be more likely to get vaccinated if they received a cash reward, and the percentage who expressed willingness increased with the amount of money offered.[46] Overall, incentives are most effective at getting shots into the arms of people of color when coupled with efforts to facilitate greater access to the COVID-19 vaccines, including PTO to obtain and recover from the vaccine, free transportation to vaccination sites, and free caretaker services while getting vaccinated.

3.0: Strategies for Addressing Data and Operational Challenges

Given the varying barriers to vaccination and reasons why people are not getting vaccinated that exist across communities, understanding and analyzing data at the local level in real time is critical to helping identify the most effective strategies to increase vaccine uptake. However, states have faced challenges collecting and reporting race and ethnicity data throughout the pandemic, from monitoring testing and hospitalizations to the vaccine distribution effort. As a result, in many states, high shares of vaccination data may be missing race/ethnicity information or have data classified as "other," limiting states' ability to interpret results.[47,48] At the start of the vaccination effort, not all states' vaccine management and reporting systems had the capability to report all demographic breakdowns of interest, such as race and ethnicity.[49] Further, some states did not require providers to gather data at this level before the COVID-19 pandemic. Specific data gaps stemming from the separate reporting system for vaccinations administered through the Indian Health Service can limit states' ability to analyze vaccination rates among American Indian, Alaska Native, Native Hawaiian, and Other Pacific Islander people.[50]

In recognition of the importance of accurate, comprehensive data to inform the ongoing vaccination effort, states are working to overcome logistical hurdles that prevented the collection of race data, such as software limitations. Forty-seven states are reporting doses administered by age and 43 states are reporting by gender. Almost all states (47), with the exception of Montana, New Hampshire, Oklahoma, and Wyoming, are now reporting vaccine doses administered by race and 44 states are reporting doses administered by ethnicity. Thirty states report information about how the administration of vaccine doses by race and ethnicity compares with the state's underlying population distribution. The completeness of race/ethnicity data has also improved in most states since March 1, and most states have shown declines in the percentage of vaccination data for which race is unknown or missing.[51] In response to data gaps highlighted by COVID-19, Connecticut was able to pass legislation to implement statewide granular race, ethnicity, and language data collection for all agency and provider entities participating in the state's health information exchange.

Given the limitations in available quantitative data, states can supplement quantitative data with qualitative data from ongoing county, local, and community-based efforts. Collection of qualitative data gathered through direct community outreach and engagement can increase states' understanding of challenges and opportunities at the community level and improve their ability to assess the success of on-the-ground efforts. Ultimately, quantitative and qualitative data, when used together, can help states build, improve, and scale vaccine distribution and equity efforts.

Key strategies for states to improve quantitative and qualitative data collection include:

- **Strategy 3.1: Track vaccination data in real time and at granular geographic and demographic levels.** Strong data at the local level supports efforts to identify opportunities to improve vaccination rates and evaluate the effectiveness of ongoing policies and programs. In particular, all states should require reporting and disaggregation of data for key demographic variables (such as gender, race, and ethnicity) and geography (such as at the ZIP code level.) In addition, states should monitor data in a timely manner to inform vaccine distribution strategy and community investment. California, for example, provides granular-level vaccination data by age, county, race, and ethnicity for all Californians as well as Medicaid recipients.

- **Strategy 3.2: Engage local leaders through focus groups and listening sessions; include them in a meaningful way on state and local task forces, commissions, and COVID-19 response teams.** To administer and distribute COVID-19 vaccines, states have employed strategies in collaboration with governments and organizations at the federal, state, county, local, and community levels. Given the wide range of governmental and nongovernmental entities involved, close coordination and collaboration across organizations can help states understand the successes or challenges of current outreach and distribution efforts, and learn how to best evaluate and scale current strategies. To date, a number of states have developed information feedback loops through partnerships with health care providers, churches, CBOs, local officials, and others to learn from the community about barriers to vaccination and rates of success for current strategies. Some states are also convening regular focus groups with CBOs and conducting local canvassing across communities to support these efforts. Continuing and expanding these community engagement strategies to collect qualitative data can help states understand the on-the-ground needs of the community.

- **Strategy 3.3: Fund community leaders and CBOs to ensure their engagement in quantitative and qualitative data-gathering efforts.** States have faced operational challenges in their efforts to disseminate dollars to CBOs, in part due to complex state procurement processes. As a result of these existing and long-standing procurement processes, states have been hindered in their ability to distribute dollars quickly to CBOs and partners working on the ground in communities. To address these challenges, states leveraged existing vendors to subcontract with CBOs to the extent possible and expedited or streamlined portions of state procurement requirements, as feasible based on underlying authorities.

The Next Phase of the COVID-19 Vaccine Rollout and Long-Term Strategies to Advance Health Equity

Beyond deploying these emerging strategies and best practices, and understanding remaining barriers to improving equitable vaccine distribution and administration for adults, states can look ahead to establish strategies to vaccinate children and adolescents and build sustainable infrastructure and capacity to advance health equity within state and local public health and health care delivery systems.

State Challenges and Strategies to Roll Out the Vaccine to Children and Youth

With Emergency Use Authorizations (EUAs) already in place to administer COVID-19 vaccines to teens and adolescents age 12 and older and EUAs expected for children as young as age 5 early this fall, a current and near-term focus for states will be developing robust vaccine distribution efforts for children and adolescents that advance health equity and do not perpetuate the access and uptake disparities seen among adults who are BIPOC.[52] There are unique considerations for vaccinating children and adolescents that will require states to adapt and change the approaches they used for adults.

Overall, experts anticipate lower vaccine uptake among children and adolescents given their relatively low risk of severe disease or mortality from COVID-19 and fear from parents and guardians of potential adverse outcomes from the vaccines for their children.[53] Polling shows that 41 percent of parents of adolescents and teens ages 12 to 17 say their child has already received at least one vaccine dose (24 percent) or that they will get them vaccinated right away (18 percent). About 20 percent of these parents and guardians say they will "wait a while to see how it is working" before getting their child vaccinated, while 14 percent say they will get their child vaccinated only if their school requires it. The remaining 20 percent say they will "definitely not" get their adolescent or teen vaccinated.[54] Parents and guardians of younger children are expected to be even more hesitant, given the relatively lower risks from COVID-19 for young children. Community partners will once again be critical to states' efforts to conduct outreach to parents through trusted partners, as parents and guardians will play a critical role in the success of these vaccination efforts.

Leveraging trusted resources in communities will be vital to help parents and guardians understand the benefits of the vaccines for children and adolescents. Pediatric health care providers in particular will play a vital role in helping parents and guardians understand the importance of the COVID-19 vaccines for children, weigh potential risks, and address lingering questions or concerns.[55] States can support pediatric providers in these efforts by distributing adequate supplies of the COVID-19 vaccines approved for children and adolescents to local pediatric provider offices and FQHCs, with special focus on providers that predominantly serve children who are BIPOC; creating communications toolkits to help pediatric providers personalize COVID-19 vaccine messaging based on parents' language, cultural beliefs, vaccine

concerns, and literacy levels; and lifting up pediatric providers as community leaders and trusted voices on the COVID-19 vaccines through collaboration with CBOs and other grassroots efforts.[56]

Schools are another critical partner in vaccination efforts for children and adolescents, including advancing equitable vaccine distribution and administration. Given the role they play in the lives of children and adolescents, schools are in a unique position to reach and educate parents and guardians and administer the vaccines. With this in mind, many states are aligning vaccination campaigns for children with "back to school" activities, including by creating partnerships between the departments of public health and education to bring nurses and other providers to school sites to administer vaccines and leveraging school district communication networks to conduct surveys of parents to understand their underlying questions and concerns about the vaccines.[57] Given that most states (41) require parental consent for vaccination of minors below the age of 18, states and school districts will need to navigate these restrictions and build in new processes for consent when launching any COVID-19 vaccination campaigns for children and adolescents.[58] States can also consider making COVID-19 vaccinations mandatory for school enrollment and attendance, particularly in recognition that private schools are implementing these requirements without the need for state authority, potentially exacerbating equity concerns. Conversely, vaccine mandates themselves could exacerbate equity concerns, as individuals who face barriers to, or challenges, in accessing the vaccines could experience school restrictions unfairly. As states explore the possibility of establishing school mandates, they should be mindful of the equity impacts, in addition to political feasibility and other factors.

When developing and implementing strategies to vaccinate children and adolescents, states should pay special attention to developing an equitable and accessible approach to vaccinating children and adolescents who reside in congregate or group settings, such as residential treatment facilities or homeless shelters. These populations of focus are at greater risk of exposure to COVID-19 and are more likely to have underlying health complications that make them particularly vulnerable to adverse outcomes from COVID-19. To best support children residing in congregate settings, states can distribute adequate supplies of the COVID-19 vaccines approved for children and adolescents to congregate settings and ensure they have sufficient staff to administer the vaccines; solicit feedback from parents and trusted partners in these settings to understand the unique considerations for these populations; and develop tailored messaging and outreach materials, building on ongoing advocacy and grassroots efforts.

Long-Term Organizational, Policy, or Other Structural Opportunities to Address Health Equity

Since the start of the pandemic, COVID-19 response efforts, including vaccine distribution, have demonstrated the importance of strong public health infrastructure for addressing new and existing threats to the health of our communities and reducing long-standing health disparities. The fragility of and structural racism in these current structures and systems have also been laid bare by the pandemic. Public health infrastructure and systems today are fragmented in terms of their organization and financing, with a patchwork of programs, services, and funding spread

across state, county, and local public health departments and other agencies.[59] The current financing approach also contributes to disparities in health outcomes, due to historical underinvestment in public health and other necessary infrastructure in rural, low-income, and BIPOC communities.[60,61] As a result of this disjointed approach, public health spending per capita and associated programming vary widely across communities in the United States.[62] Without investments to build public health infrastructure more robustly and evenly across states and communities, with an explicit focus on advancing health equity, we risk further deepening the long-standing health disparities in the United States that have been exposed during the pandemic response and vaccination efforts.

A robust body of evidence shows that investments in public health infrastructure have strong return on investment. Studies show that higher levels of public health investment are associated with reduced Medicare utilization, with particular improvements in communities with higher poverty levels, as well as reduced morbidity and mortality from a variety of causes.[63,64,65] Despite these demonstrated benefits, public health funding has declined in recent years at both the state and federal levels.[66] These ongoing disinvestments inhibit states' abilities to surveil ongoing and potential threats, prevent and treat infectious and chronic diseases, and promote good health across communities.

In response to the COVID-19 pandemic, the federal government created time-limited funding opportunities to infuse dollars into public health infrastructure, including the investments outlined in the American Rescue Plan Act (ARPA) and the COVID-19 stimulus bills. These investments provide an opportunity for states to begin to rebuild more resilient public health workforces, infrastructure, systems, and processes, though ongoing work and additional investments will be needed to ensure the long-term sustainability of new programming.

As states enhance their public health infrastructure as part of ARPA or other efforts, it will be critical to build on the successes and lessons learned from their vaccine distribution and outreach efforts, with an explicit focus on advancing health equity. The clear and compelling lesson learned during the COVID-19 response, including vaccine rollout, is that states' efforts to authentically engage in, foster, and fund close partnerships with CBOs and other community partners are essential to:

- Reconstruct a public health infrastructure that is centered on the experiences and needs of community members, especially in communities that have been historically excluded and underserved.
- Build trust among community members in government and public health and health care systems, programs, and providers that participated in the COVID-19 vaccine rollout.
- Reimagine a health care system that addresses the multitude of factors that influence health and wellness, including SDOH, which significantly impact access to the health care system, beyond just access to the COVID-19 vaccines.
- Focus investment in areas where community members identify the greatest needs in order to avoid perpetuating systems rooted in structural racism.

To support and build on these vital community partnerships going forward, and create a foundation for long-standing structural changes, states can leverage new and existing funding to grow relationships with CBOs and other community partners. In particular, states can:

- Sustain and build on funding for canvassing, focus groups, and outreach strategies to communities beyond just COVID-19 efforts, with a particular focus on the areas of need identified by the community.
- Use new federal stimulus dollars to build a broader public health workforce with strong ties to the community, including funding trainings and new positions for community health workers, peer supports, and outreach teams, including those with a wide range of lived experiences.
- Continue to maintain and fund robust quantitative and qualitative public health data infrastructure in order to better scale and evaluate new efforts.
- Ensure equitable access to current and future dollars in order to streamline and address any bias in procurement processes, and consider conducting trainings with CBOs to prepare them for future, rapid state procurement processes.

By recognizing that the ongoing effort to improve not only COVID-19 vaccination rates but also the broader pandemic response is both a sprint and a marathon, states can work on addressing gaps and disparities in vaccination uptake among BIPOC in the near term while supporting policies and implementation efforts that advance a reimagined and equitable public health system going forward.

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State Health and Value Strategies (SHVS) assists states in their efforts to transform health and health care by providing targeted technical assistance to state officials and agencies. The program is a grantee of the Robert Wood Johnson Foundation, led by staff at Princeton University's School of Public and International Affairs. The program connects states with experts and peers to undertake health care transformation initiatives. By engaging state officials, the program provides lessons learned, highlights successful strategies and brings together states with experts in the field. Learn more at www.shvs.org.

ABOUT MANATT HEALTH

This issue brief was prepared by Patricia Boozang, Nina Punukollu, and Michelle Savuto. Manatt Health integrates legal and consulting expertise to better serve the complex needs of clients across the health care system. Our diverse team of more than 160 attorneys and consultants from Manatt, Phelps & Phillips, LLP and its consulting subsidiary, Manatt Health Strategies, LLC, is passionate about helping our clients advance their business interests, fulfill their missions, and lead health care into the future. For more information, visit https://www.manatt.com/Health.

Appendix

Methodology

Manatt Health developed this issue brief in partnership with Families USA and Health Equity Solutions. The issue brief involved a review of the relevant literature to understand the current landscape of COVID-19 vaccination efforts across states. The review surveyed sources primarily published in the United States between 2019 and 2021 from news outlets, academic journals, foundations, state websites, and others. In addition, the project team conducted interviews with state officials in Alabama, Arizona, Connecticut, and New Jersey.

Manatt and Health Equity Solutions also conducted a roundtable with state officials from seven states through the Robert Wood Johnson Foundation's State and Health and Value Strategies platform to facilitate a discussion about opportunities, best practices, and remaining barriers in order to support equitable vaccine distribution and longer-term strategies to address structural barriers within states' public health infrastructure and delivery systems.

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