CSH

Research Report

Improving Vaccine and Healthcare Access Among Residents of Supportive Housing:

Lessons Learned From COVID-19

1. Background

The COVID-19 pandemic has had an outsized impact on people experiencing homelessness, residents of supportive housing, patients of health centers, and people living with chronic conditions and disabilities. With the advent of the vaccine, numerous studies have sought to understand the calculus of people to take or refrain from taking the vaccine.

This product compiled many of those studies, provides highlights, connection to focus groups of residents and providers of supportive housing and their experiences, and some recommendations for housing providers and health centers to support and inform people to have agency in their own health and medical decisions.

This publication is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $625,000 with 0 percentage financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by, HRSA, HHS, or the U.S. Government. For more information, please visit HRSA.gov.

CSH

CSH, the Corporation for Supportive Housing, is the national leader in supportive housing, focusing it on person-centered growth, recovery, and success that contributes to the health and wellbeing of the entire community. Our greatest asset is our team. From our Board of Directors to staff, we work every day to build healthier people and communities. Through our consulting, training, policy, and lending, we advance innovation and help create quality supportive housing. Our hub offices drive initiatives in 48 states and more than 300 communities, where CSH investments create thousands of homes and generate billions of dollars in economic activity.

For more information, visit csh.org.

2. Qualitative and Quantitative Methodology

Three primary methods were used to develop these findings and recommendations:

1

A STATE OF THE LITERATURE on the COVID-19 vaccines, their uptake in special and vulnerable populations, and housing provider and medical practitioner perspectives.

The **STATE OF THE LITERATURE** is drawn from studies and research since the beginning of the COVID-19 pandemic. It is organized as a literature review and summarizes the main points of each item. Additionally, insights from the survey and focus groups are woven throughout to connect the research to this project group's observations.

2

Nationwide VOLUNTARY SURVEY of residents and providers of supportive housing asking questions about their experience and decision making around vaccination and the supports provided to facilitate that decision.

A **SURVEY** was developed in collaboration with people with lived experience to better understand vaccine information, services, and availability in supportive housing among both residents and providers. A full list of the questions asked is included in the appendix.

The survey was conducted in the summer of 2022. Requirements for participation consisted of being a resident or provider of supportive housing in the U.S., each group receiving a different set of questions. Completion of the survey was not compensated for and voluntary. The marketing of the survey was primarily through professional networks of supportive housing providers, consultants with lived experience working with CSH, and HRSA newsletter emails.

3

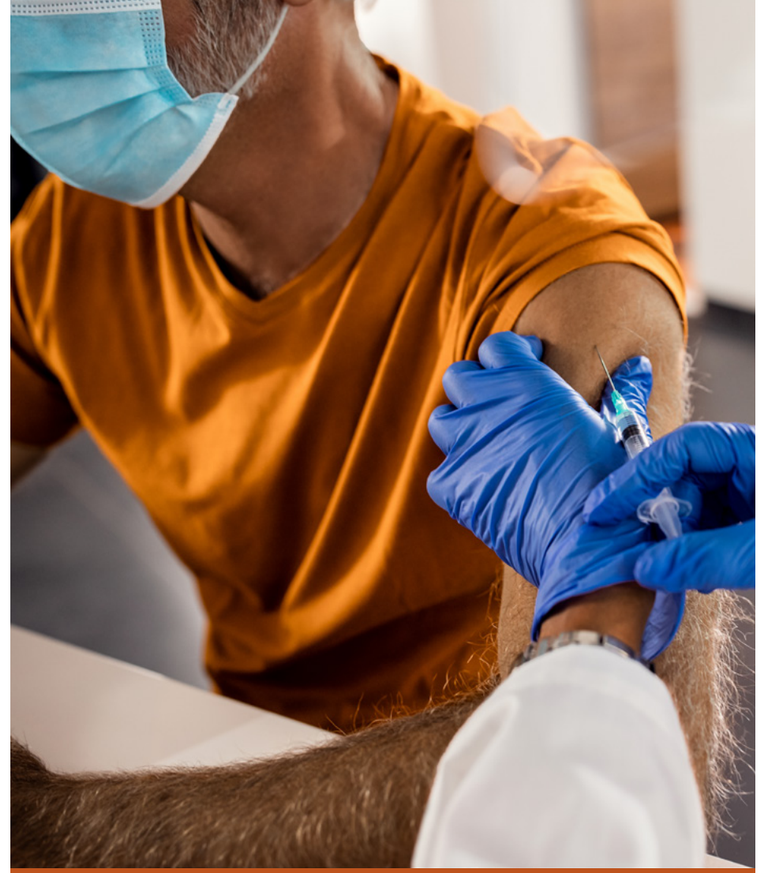
FOCUS GROUPS conducted on the same topic as the survey, with additional details and follow-up questions.

From September to October 2022, CSH and a lived experience consultant facilitated a series of **FOCUS GROUPS** to narrow in on detailed questions and observations from the survey results. Participants of the focus group applied through a web form asking general questions about demographics and location. Focus groups were scheduled according to participant availability, as well as geographic, demographic, and experiential diversity. Focus group questions were open-ended to allow for dialog and informal conversation among the group and facilitators. Participants A detailed discussion guide for the sessions is provided in the appendix. Results from these focus groups form the basis of findings and recommendations for this report.

Data Summary

3. Access

4. Agency



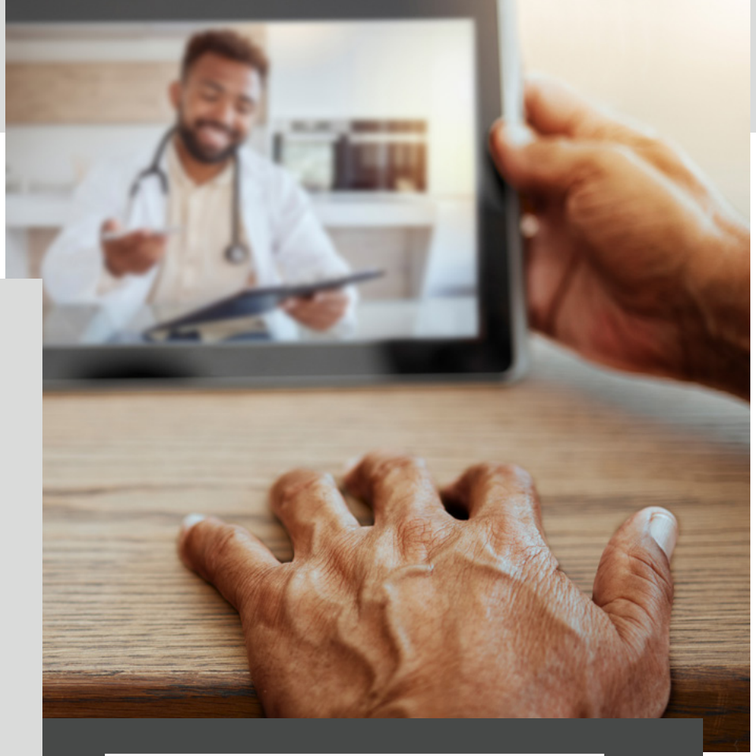
5. Racial and Health Equity

3. Access

HEALTHCARE ACCESS is defined as the degree of "fit" between the patient and the system of delivery.[1]

It is often stated that poor access to health services will lead to lower quality health outcomes. Indeed, research into treatment access for COVID-19 infection found that equitable receipt of outpatient treatments and prevention practices are essential to reducing existing racial and ethnic inequities in severe COVID-19-associated illness and death.[2] However, **ACCESS** is also highly dependent on the personal experiences and perceptions of patients as well as structural factors within the healthcare system.[3] In this section, we will highlight factors identified by tenants of Permanent Supportive Housing as having important influence on healthcare access during the COVID-19 pandemic and beyond.

"I took it upon myself because I have pre-existing conditions to get vaccinated for my own safety and wear a mask around others. Some people I know don't want to get vaccinated because its "poison". I GOT VACCINATED AT THE LOCAL CLINIC. I was able to get a same day appointment. I received a ride to my second dose and have two boosters...When I went to get my second booster they had no Moderna so they had to give my Pfizer. My first two and booster were Moderna. Would have been more comfortable sticking to Moderna across the board."



"IT WASN'T AN ACCESS ISSUE [to get vaccinated] ... I received J&J right before they stopped doing it. I tried to sign up for clinical research because they don't include enough Black individuals. A local church was offering it up. It was a one and done situation and that was what influenced my decision. I was also concerned about the side effects."

1 Penchansky R, Thomas JW. *The concept of access: definition and relationship to consumer satisfaction.* Med Care. 1981 Feb;19(2):127-40. doi: 10.1097/00005650-198102000-00001. PMID: 7206846.

2 Wiltz JL, Feehan AK, Molinari NM, Ladva CN, Truman BI, Hall J, Block JP, Rasmussen SA, Denson JL, Trick WE, Weiner MG, Koumans E, Gundlapalli A, Carton TW, Boehmer TK. *Racial and Ethnic Disparities in Receipt of Medications for Treatment of COVID-19 - United States*, March 2020-August 2021. MMWR Morb Mortal Wkly Rep. 2022 Jan 21;71(3):96-102. doi: 10.15585/mmwr.mm7103e1. Erratum in: MMWR Morb Mortal Wkly Rep. 2022 Feb 25;71(8):325. PMID: 35051133; PMCID: PMC8774154.

3 Thomas JW, Penchansky R. *Relating satisfaction with access to utilization of services.* Med Care. 1984 Jun;22(6):553-68. doi: 10.1097/00005650-198406000-00006. PMID: 6738145.

Our Findings

A

Importance of Peer Support

> “ **MY ONLY TRUST WOULD BE WITH A PEER SUPPORT MEDIATOR** in between my providers. I have a fear of what I have to share. With reasonable accommodation, they now have all my information, and they create more barriers. I mistrust them having this information. Without a client feedback loop, this can become a problem.”

A hallmark of the Permanent Supportive Housing model is wrap around services, including access to peer support. Peer support staff were identified by participants in this study as a solution to lack of trust and as a bridge to creating more positive relationships and experiences within healthcare. Community health workers and peer specialists, as frontline health representatives, are trusted members of the community able to leverage their health knowledge and understanding of the community to provide vital services and connections to health and community resources. Their diverse roles in outreach, screening, education, counseling, social supports, and advocacy contribute significantly to improving health outcomes in the community.

B

Mixed Accessibility for Services (in Person, Telehealth, Mobile Services)

> “ I have healthcare through the VA. Since the pandemic it's actually been easier! **HAVING APPOINTMENTS VIRTUALLY MAKES THINGS EASIER.**”

> “ Medically, I have not seen a doctor in a while. When I did have Medicaid I went to see a heart specialist. For my children, once they got computers, they were able to use tele-health. **I DIDN’T HAVE A PHONE OR COMPUTER FOR A WHILE DUE TO THE DIGITAL DIVIDE AND THUS GAPS IN CARE.**”

> “ **BEING ABLE TO DO THINGS VIRTUALLY, IMPROVED ACCESS FOR ME** to set up appointments and not have to travel. I’m not wasting an hour up and down or finding someone to drive me. I have access to the secure messaging platform so I can talk to any doctor I’m working with. I think the system has improved since COVID actually.”

> “ Us catching up with technology and **COMPLYING WITH HIPAA IS A BIG CHALLENGE FOR TELE-HEALTH**. At one point there was 5 people in my zoom call!”

Care coordination is a critical component of providing supportive services to tenants in supportive housing. Technology solutions can allow service providers to provide supportive services and access to care when in-person options are not available. Service delivery is most effective when there is a mixed-methods approach. Although many prefer telehealth and the convenience it can bring, there are barriers for those lacking the technology, literacy or simply prefer an in-person approach to their healthcare. For those tenants not already connected to a community health center or primary care provider, supportive housing case managers can work with their local health centers to set up visits with health care providers. Case managers can work with both the tenant and health center to determine best mode of communication. Research has demonstrated that veterans in supportive housing are more likely to be vaccinated than those not enrolled in such programs (Balut, 2021). Wray, et al. (2022) found that provision of devices such as tablets to veterans in a supportive housing program facilitated better engagement in health care services.

Our Findings

Cross-System Collaboration to Improve Health Access

> I don't think my housing provider is really connected to my healthcare provider … **THERE SHOULD BE MORE WHEN THE SERVICES ARE ALL TOGETHER.** People get the best outcomes when it is all connected."

> There should be more when the services are all together. People get the best outcomes when it is all connected. One time I was so sick and having surgery the next day and the housing coordinator was like yeah you need to move this stuff over, etc. The apartment was not up to standard, but I was able to say I'm having surgery and she was really good about it. **IF EVERYTHING AS MORE CONNECTED, IT WOULD HAVE GONE BETTER."**

Health and supportive housing partnerships are collaborations between providers of primary, mental health, substance use services and providers of housing and supportive services for formerly homeless tenants. These relationships can be referral based, structured partnerships with integrated operations, or larger community initiatives and coalitions involving multiple partners. Many organizations readily see the benefits of partnership and want to partner but are not quite sure where to begin. Most supportive housing providers already partner with other service providers, yet partnerships with health centers have been less frequent and can be more complex. There is no one-size-fits-all approach or partnership model across communities, as successful partnerships are developed to meet needs specific to a community. Thus, it is essential to define the purpose, scope and approach of a potential collaboration that will fit the needs of your community and target population. Additional, detailed resources for building and sustaining health and housing partnerships are available in the recommendations table.

4. Agency

The concept of **PATIENT AGENCY** intersects with the goals and concept of health literacy; that is, patient knowledge and ability to understand and apply health information to decision-making and behavior change.

It is understood that a patient with deeper knowledge and sense of control over their health, who feels accepted and in equal communication with their healthcare provider is more likely to enact healthy behaviors and have better health outcomes.[4] **HEALTH LITERACY** therefore drives the sense of agency, allowing patients to be active participants in the management of their own health. In this section we will highlight factors identified by tenants either supporting or demeaning the sense of agency in health management during the pandemic.

“ It feels very much that if I wanted to get a vaccine I could absolutely get it anywhere. HOWEVER, IT DOESN’T FEEL LIKE THERE ARE A LOT OF OPPORTUNITIES TO ASK QUESTIONS ABOUT THE VACCINE.”

“ I’ve attended events where people were encouraged to get vaccinated in exchange for food. It was testing in exchange for food and as a Community Health Worker (CHW) I had already been tested and felt that was unethical. TYING VACCINATIONS AND TESTING TO FOOD IS NOT OK especially when people are experiencing food insecurity.”

4 Wallston, Kenneth. (1991). *The importance of placing measures of health locus of control in a theoretical context*. Health Education Research, Theory and Practice. 6. 10.1093/her/6.2.251.

4. Agency

Our Findings

A

Creating a Trauma-informed Culture of Care

> “ I was blessed and had good doctors. It was hard to keep appointments, the stress really crashed my body. After I moved from my first place with my old landlord…I still have a lot of health issues. It was also hard for me to go to regular therapy because I didn’t know where I was going to live. If those primary needs are not met, it’s hard to address other issues. **TRAUMA-INFORMED CARE IS SO IMPORTANT.** There are some doctors that don’t understand or write off serious health issues such as anxiety and depression”

Health center patients may walk in the front door with experiences of trauma that may be visible and invisible. Organizational policies and procedures, staff onboarding and training, and patient orientation should all be intentionally developed to recognize patient trauma and prevent re-traumatization when accessing health center staff and resources.

Trauma-informed care should begin at the front door and be a core value of the organization for all staff, no matter their level of interaction with patients. While this includes training staff in what it means to be trauma-informed, policies and procedures of the health center must support staff and reinforce what the trainings instruct. Additionally, staff should consider how trauma-informed care concepts can be deployed in their own role, even and especially if their roles are not patient facing. Patients may inadvertently connect to finance staff when calling the health center and selecting extensions, and in these cases, it is doubly important that staff know how to properly direct patients.

Our Findings

B

Building Trust at Point of Care = Better Data Quality and System Decision Making

“ **MY PCP WAS AWESOME EVEN WHEN I DIDN’T GET VACCINATED**, he still supported me. He tested me regularly. I told my PCP that I didn’t want the vaccine because I was in nursing before and with my asthma and I didn’t want it to get worse. Just because something presents something to me doesn’t mean I will react the same. Each person is different, I feel like I had a great team through COVID and my team never looked at me any different they were still helping me.”

“ The pandemic was making people depressed, and my doctor wanted to make sure I wasn’t depressed … I can’t say I had a bad experience. If I had anything small, they would follow up with me. My primary care provider is still with me. Even when my insurance lapsed he took care of me. They did tele-health when the pandemic was bad and made sure you were tested before you went in person, etc. **I WASN’T MAD AT IT BECAUSE I KNEW WHAT WAS GOING ON.”**

One of the most common challenges health centers face when collecting data is patient and practitioner fatigue filling out paperwork and the sheer amount of data collection and repeated questions. Unfortunately, these challenges may lead to a breakdown in trust between patient and service provider, and between staff and the organization. In order to build trust at the point of care as well as in data collection and quality, it is important to show patients and staff alike how data are collected and used. This should be down in a multi-modal way through frank conversations as well as paperwork (such as releases of information forms) in clear, plain language – outlining the data elements, when they will be collected, what they will be used for (and not used for), and who they may be shared with. Patients should then be given the option to limit collection and sharing as they think appropriate.

At a organizational and systems level, a review should be conducted of the forms and data collection processes the health center uses. Consider mapping how and when forms are collected and what is done with those data. Look for opportunities to reduce the number of repeated questions or forms. Create an inventory of questions and trace them back to funding requirements or organizational requirements, as well as how they are used to analyze and improve patient outcomes.

5. Racial and Health Equity

HEALTH EQUITY describes the ability of all people to access care and achieve good health without regard to race, income, neighborhood or community, housing status, or other characteristics.

The COVID-19 pandemic has magnified longstanding health and social inequities, resulting in disproportionately high COVID-19-associated illness and death among BIPOC communities. According to the *Centers for Disease Control and Prevention*, to address this issue and achieve health equity requires a commitment to systems change addressing structures and policies that give rise to persistent racial health disparities.[5] Housing is consistently found to be a powerful determinant of health, but it is a resource routinely denied to Black, Indigenous and People of Color (BIPOC) due to structural and systemic racism. It is why Black, Latinx and Indigenous people are dramatically overrepresented among those experiencing homelessness[5] and are thus a target population for Supportive Housing and Federally Qualified Health Centers, both of which are responsible for providing culturally competent care.

"I see over representation of black men in the homeless system. We need to improve the diversion program. From prisons or people seeking mental health care. Those two systems should talk to each other … a system is automatically racist unless they take active steps. Are health centers taking steps? Are there any folks that look like them serving them? I made sure I had a black woman therapist for my daughters. [HEALTH CENTERS] NEED BIPOC FOLKS SERVING PATIENTS that are not janitors or administrative services."

"I have scary health issues that could kill me. I get treated poorly by physicians once I start talking to them … I FACE A LOT OF RACIAL DISCRIMINATION DUE TO THE COLOR OF MY SKIN."

5 What is Health Equity? | Health Equity | CDC

Our Findings

A

Using Data to Build Durable, Equitable Processes and Systems

Many health centers use data and performance monitoring to improve systems of care, track patient outcomes, and inform administrative processes. The collection, analysis, interpretation, and uses of data must include an equity lens and serve the ultimate goal of improving patients' lives. At a minimum, when collecting and analyzing patient data, demographics such as race and ethnicity, gender, and age should be disaggregated to better understand disparities and disproportionality in patient access to health center resources and outcomes.

Health centers should seek to establish an analytical framework grounded in equity. The Continuous Quality Improvement (CQI) is an "off the shelf" approach that can be adapted to incorporate patient voice into the analysis and interpretation of data as well as use targeted universalism as a primary driver for improvement. In brief, targeted universalism is a theory of change that sets a universal goal and, through data and experiences, offers tailored approaches by different population to get there.

B

Avoiding Health Equity "Tourism"

"Health equity tourism" is a title proffered for individuals and/or institutions previously uninterested or newly discovering the issues of racial inequity "parachuting" into communities without adequate understanding or genuine commitment and recognition of previous work in the field, namely by BiPOC researchers and leaders.[6] While this term originates from a larger discussion within academic research, it is applicable to efforts within the healthcare sector to address and reduce disparities. Avoiding "Health Equity Tourism" should be key to any strategy development to address racial and health inequality. Achieving this requires genuine partnership between a diverse representation of patients, administration, and staff, creating feedback loops to assess strategies and decision-making. To avoid duplication, are there existing efforts within the community to address health inequities that can be supported or strengthened by your efforts? Are these efforts led by individuals representative of the communities experiencing disparities? Answering these questions is essential to authenticity and avoid "Tourism" into health equity.

6 Lett E, Adekunle D, McMurray P, et al. *Health Equity Tourism: Ravaging the Justice Landscape. Journal of Medical Systems*. 2022 Feb;46(3):17. DOI: 10.1007/s10916-022-01803-5. PMID: 35150324; PMCID: PMC8853313.

6. Recommendations

In response to the quantitative and qualitative data sources for this project and in partnership with individuals with lived expertise, CSH has developed a series of recommendations for health centers with accompanying resources aimed to improve access and service delivery for patients in supportive housing. These recommendations will assist health centers in developing culturally competent, person-centered care, improve health literacy for patients and increase engagement with providers among special and vulnerable populations.

" Through my experience, being through COVID and coming from homelessness ... MY CASE MANAGER DOESN'T THINK OF ME AS JUST A CASELOAD AND I APPRECIATE THAT! I had someone who took the time for me. Everybody has to have somebody in their life that cares about them."

RECOMMENDATIONS	CONSIDERATIONS	CONNECTION TO THE LITERATURE	ADDITIONAL RESOURCES AND/OR TOOLS FOR IMPLEMENTATION
Create a variety of compensated roles and opportunities for patients with lived expertise.[7] The roles can include Community Health Workers, consulting collaboration with staff in program design, service delivery and key decision making, engaging in a patient advisory group or opportunities within Board leadership.	☑ Does your board composition have **patient representation with lived expertise** relative to the patients served? ☑ Do you **utilize community health workers**? What support do they receive? Are opportunities created for meaningful input and feedback on improving service delivery?	Patients in our survey and focus group reported not feeling in charge of their own health care decisions and not feeling fully informed by their providers. By providing opportunities to include patients individually in the operations and administration of an organization it can increase transparency and change processes and organizational culture that fosters trust between providers and patients.	+ Community Health Worker/Peer Workforce: Recruiting and Hiring for Social Determinants of Health Screening + Strengthening the CHW and Peer Specialist Workforce + Advancing Health Equity Through Health and Housing Partnerships + Multi-System Coordination Building & Maintaining a Coordinated Provider Community + HUD Guidance: Engaging Individuals With Lived Expertise + Beyond Mere Principle: Strategies for Truly Partnering with People Who Have the Lived Experience in Our Work

7 Lived experience reflective of the populations whom you serve, creating a diversity of perspective including demographics, conditions, and experiences.

6. Recommendations

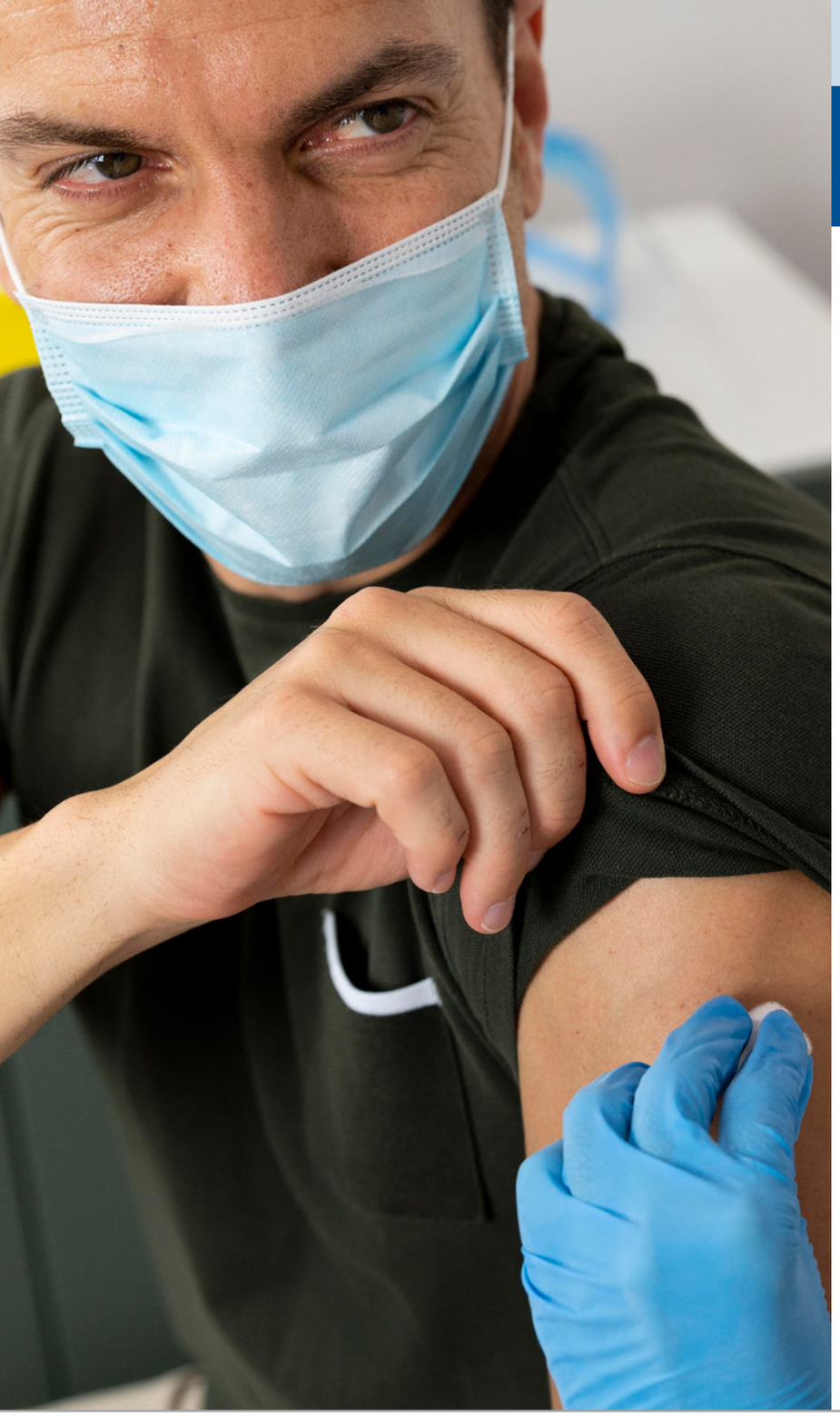
RECOMMENDATIONS	CONSIDERATIONS	CONNECTION TO THE LITERATURE	ADDITIONAL RESOURCES AND/OR TOOLS FOR IMPLEMENTATION
Enmesh trauma-informed care practices and ways to evaluate their efficacy into organizational policies, procedures, and performance metrics.	☑ Does your organization **have a shared definition** of what it means to be trauma-informed? ☑ Are **all staff trained to demonstrate trauma-informed care** and anti-implicit bias no matter their area of work or expertise? ☑ **Develop, adopt, and assess** existing and new policies and procedures to ensure fidelity to trauma-informed care best practices. Training should reinforce and support them.	Trauma-informed care best practices must be woven into the fabric of organizations at all levels and not exclusive to direct service. Front desk staff, as well as financial and administrative staff may interact with patients and should have training to appropriately direct patient services. Moreover, training in trauma-informed care should be the built from solid policies, process, and informed by the patient experience.	+ Trauma-Informed Organizations Change Package - National Health Care for the Homeless Council (nhchc.org)
Engage in cross-sector collaboration or partnerships with the housing sector with strategic data sharing and analysis. Potential partners in this space include the Local Public Housing Authority, Community Action Agencies, any non-profit or administering agency of housing resources, housing developers and/or the regional Housing Finance Authority.	☑ **Determine any existing connections** to your target organization type (health centers, behavioral health or supportive housing providers). These can be connections through staff, Board members, community meetings, or other affiliations. ☑ **Use internal data** to determine where patients are referred to or where they seek housing resources or additional services. Where have your clients had positive experiences? Reach out to the umbrella networks in your community to learn about potential partners.	Benfer et.al (2021) find that Disproportionate rates of both COVID-19 and eviction in communities of color compound negative health effects make eviction prevention a critical intervention to address racial health inequity. Cross-sector collaborations can provide avenues for eviction prevention or homeless diversion resources to patients via a Continuum of Care or other agencies.	+ Health and Housing Partnerships: Strategic Guidance for Health Centers and Supportive Housing Providers + Health Outcomes & Data Measures: A Quick Guide for Health Center & Housing Partnerships + Data Sharing between Health Centers and Housing Providers: Using Data to Target, Refer, and Coordinate Care for Frequent User Patients + The How, What, and Why of Housing Data Collection

6. Recommendations

RECOMMENDATIONS	CONSIDERATIONS	CONNECTION TO THE LITERATURE	ADDITIONAL RESOURCES AND/OR TOOLS FOR IMPLEMENTATION
Initiate or strengthen your connection to the local homeless response system (aka Continuum of Care).	☑ What is the health center's **capacity for managing the assessment and referral process** for coordinated entry? ☑ What **approach to assessment and referral** does your local Continuum of Care (CoC) take (No wrong door, centralized intake, other approach)? ☑ Is there **representation of healthcare** in CoC meetings and vice versa?	Providing patients in-house assessment and referral to the CoC coordinated entry waiting list is an efficient tool for building trust and ensuring patients do not "fall through cracks" in the referral process. This approach also builds trust, an essential ingredient to reaching vaccine-hesitant populations. Research has also demonstrated that individuals in permanent supportive housing are more likely to be vaccinated than those in shelter or on the street.	+ Connections to Housing: Everything You Need to Know on HMIS and Becoming a Coordinated Entry Access Point + Health Center Role in Housing Innovations: Coordinated Entry + Guide to Attracting Funding Resources to Address Social Determinants of Health Needs + Data Integration Best Practices for Health Centers & Homeless Services + Grantee Contact Information - HUD Exchange
Tele-health and on-site services should work together to support patients and their needs, organizations must consider that tele-health is not a one size fits all approach. Patient/Tenant choice should remain a primary driver of how services are delivered.	☑ Effectively **connecting Supportive Housing tenants to health care services** is a critical component of maintaining tenancy and housing stability. **Additional Considerations:** ☑ What technology does the tenant have already? ☑ Does the tenant have WIFI Access? ☑ What is their data plan? ☑ What makes the most sense, given their budget, needs and the agency's ability to support? ☑ How does the tenant use the technology they have?		+ Telehealth Basics for Supportive Housing Providers and their Health Center Partners - CSH + Telehealth: What Is It, How to Prepare, Is It Covered? | National Institute on Aging (nih.gov)

6. Recommendations

RECOMMENDATIONS	CONSIDERATIONS	CONNECTION TO THE LITERATURE	ADDITIONAL RESOURCES AND/OR TOOLS FOR IMPLEMENTATION
Using data to build durable, equitable processes and systems.	☑ How are **data used to improve patient outcomes and organizational efficiency**? ☑ Who **analyzes and interprets data**?	Data collection can be a source of frustration for patients and staff alike. Health centers should be take stock of all data elements from intake forms, releases of information and trace their source, either as a funding requirement or performance monitoring element. In this review, health centers may find duplicative data elements or collection points that can be eliminated.	+ Data Integration Best Practices for Health Centers & Homeless Services - CSH + Health Outcomes & Data Measures: A Quick Guide for Health Center & Housing Partnerships - CSH



Conclusion—A Question of Trust

Vaccine hesitancy, issues of access, racial inequity, and agency stem from a lack of trust for healthcare providers. Health centers must do more to foster relationships between administration, practitioners, and patients to see real progress on these issues. Building community trust is a long-term exercise that can easily come undone with a single negative or de-humanizing experience. Building trust demands an organizational culture that respects the dignity of individuals, their lived experience and right to active participation in their own care. This goal can often be at odds with traditional approaches to clinical care and patient relationships.

Lessons learned from a response to the pandemic and efforts to bring the vaccine to vulnerable and special populations, as well as residents in supportive housing requires a multi-sector approach and close collaboration among health and housing providers to inform and support patients who do not feel they have agency or choice in their own health care decision making.

Appendix A: Literature Review Sources

	TITLE	CITATION	LINK	
Access	**Concentrating Vaccines in Neighborhoods with High Covid-19 Burden**	Stern, Rachel J., et al. "Concentrating vaccines in neighborhoods with high covid-19 burden." NEJM catalyst innovations in care delivery 2.2 (2021).	https://catalyst.nejm.org/doi/pdf/10.1056/CAT.21.0056	Successful interventions to vaccinate diverse people have included communication through text, telephone, and mass media, and the establishment of drop-in vaccine sites. To address nationwide disparities, the authors urge vaccinating entities to reduce reliance on Web-based scheduling in favor of drop-in sites and other low-barrier approaches.
Access	**Crossing the digital divide: a veteran affairs program to distribute video-enabled devices to patients in a supportive housing program**	Wray, Charlie M., et al. "Crossing the digital divide: a veteran affairs program to distribute video-enabled devices to patients in a supportive housing program." JAMIA Open 5.2 (2022): ooac027.	https://scholar.google.com/scholar?output=instlink&q=info:Ic5MDqw9diIJ:scholar.google.com/&hl=en&as_sdt=0,22&scillfp=6934988876970571013&oi=lle	Providing video-enabled devices to Veterans in a supportive housing program may facilitate engagement in health care.
Access	**Surveying tenants of permanent supportive housing in skid row about COVID-19**	Henwood, Benjamin F., Brian Redline, and Jack Lahey. "Surveying tenants of permanent supportive housing in skid row about COVID-19." Journal of Health Care for the Poor and Underserved 31.4 (2020): 1587-1594.	https://www.medrxiv.org/content/10.1101/2020.04.17.20070052.full.pdf	Results show that nearly all tenants were aware of COVID-19, and 65% considered it to be a very serious health threat. The latter characteristic was a strong predictor of taking protective measures (i.e., handwashing and social distancing). Tenants in units with shared bathroom facilities had lower odds of social distancing than those in studio apartments. Tenants with mental health diagnoses had lower odds of consistent handwashing. Lack of access to food, hygiene items, and medication delivery were commonly reported barriers to sheltering in place.
Equity	**Associations of Incomplete SARS-CoV-2 Vaccination among Patients with Unstable Housing in Houston**	Gebert JT, Shegog E, Xiao E, Fan J, McEvoy M, Lopez A, Clark D. Associations of Incomplete SARS-CoV-2 Vaccination among Patients with Unstable Housing in Houston. J Health Care Poor Underserved.	https://pubmed.ncbi.nlm.nih.gov/36245152/	Our key finding was that 30% of those with unstable housing missed their second dose, a proportion far higher than the national average. Those with permanent supportive housing and those who had a Harris County Gold Card (financial assistance for health care costs) were more likely to return for dose two, while those who were younger, living on the streets, or staying in a temporary homeless shelter were more likely to miss the second dose.

Appendix A: Literature Review Sources

	TITLE	CITATION	LINK	
Equity	**Predictors of COVID-19 vaccination among veterans experiencing homelessness**	Balut, Michelle D., et al. "Predictors of COVID-19 vaccination among veterans experiencing homelessness." Vaccines 9.11 (2021): 1268.	https://pubmed.ncbi.nlm.nih.gov/34835200/	Veterans who participated in a VA housing or supportive service program were more likely to get vaccinated than those who were not enrolled in a program: HUD-VASH (51.5% vs. 40.5%), HCHV (53.2% vs. 43.3%), GPD (60.7% vs. 44.3%).
Equity	**Eviction, Health Inequity, and the Spread of COVID-19: Housing Policy as a Primary Pandemic Mitigation Strategy**	Benfer, Emily A., et al. "Eviction, health inequity, and the spread of COVID-19: housing policy as a primary pandemic mitigation strategy." Journal of Urban Health 98.1 (2021): 1-12. Feb 17. PMID: 35603321; PMCID: PMC9115248.	https://link.springer.com/article/10.1007/s11524-020-00502-1	In light of the undisputed connection between eviction and health outcomes, eviction prevention, through moratoria and other supportive measures, is a key component of pandemic control strategies to mitigate COVID-19 spread and death. Eviction may also lead to lower access to COVID-19 testing [40] and medical attention by driving families to poorer, under resourced neighborhoods, and medically underserved geographic areas with fewer medical facilities and providers, in addition to decreased care affordability.
Equity and Access	**Differential impacts of COVID-19 and associated responses on the health, social well-being and food security of users of supportive social and health programs during the COVID-19 pandemic: A qualitative study**	Mejia-Lancheros, Cilia, et al. "Differential impacts of COVID-19 and associated responses on the health, social well-being and food security of users of supportive social and health programs during the COVID-19 pandemic: A qualitative study." Health & Social Care in the Community (2022).	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9347945/	The pandemic contributed to disparities in accessing and receiving healthcare services and treatment continuity for non-COVID-19 health issues for the negatively impacted participants.
Equity and Access	**Racial differences in the psychosocial response to the COVID-19 pandemic in veterans with psychosis or recent homelessness.**	Novacek, D. M., Wynn, J. K., McCleery, A., Reavis, E. A., Senturk, D., Sugar, C. A., Tsai, J., & Green, M. F. (2022). Racial differences in the psychosocial response to the COVID-19 pandemic in veterans with psychosis or recent homelessness. American Journal of Orthopsychiatry, 92(5), 590–598.	https://psycnet.apa.org/record/2022-75230-001	There were few significant differences between Black and White veterans in initial psychosocial response to the pandemic. The lack of racial disparities might reflect the presence of VA's wrap-around services. The findings also highlight the robust nature of social support in Black veterans, even in the context of a global pandemic.

Appendix A: Literature Review Sources

	TITLE	CITATION	LINK	
Equity and Access	**Severe Acute Respiratory Syndrome Coronavirus 2 Reinfection Associates With Unstable Housing and Occurs in the Presence of Antibodies**	Bean, David J., et al. "Severe Acute Respiratory Syndrome Coronavirus 2 Reinfection Associates With Unstable Housing and Occurs in the Presence of Antibodies." Clinical Infectious Diseases 75.1 (2022): e208-e215.	https://pubmed.ncbi.nlm.nih.gov/34755830/	Unstable housing was associated with more than 2-fold greater chance of reinfection.
Agency	**Perceived access, fear, and preventative behavior: Key relationships for positive outcomes during the COVID-19 health crisis**	Vann RJ, Tanner EC, Kizilova E. Perceived access, fear, and preventative behavior: Key relationships for positive outcomes during the COVID-19 health crisis. J Consum Aff. 2022 Spring;56(1):141-157. doi: 10.1111/joca.12439. Epub 2022	https://pubmed.ncbi.nlm.nih.gov/35603321/	The Coronavirus (COVID-19) pandemic reduced real and perceived access to healthcare services, exacerbating pandemic fear, and thus influencing consumers' adoption of preventative health behaviors.
Agency	**COVID-19 Vaccine Acceptability Among People Experiencing Homelessness in Central Florida and Southern Nevada, March-June 2021**	Meehan, Ashley A., et al. "COVID-19 Vaccine Acceptability Among People Experiencing Homelessness in Central Florida and Southern Nevada, March-June 2021." Journal of Public Health Management and Practice 28.6 (2022): 693-701.	https://www.ingentaconnect.com/content/wk/phh/2022/00000028/00000006/art00015	Among 864 participants, 465 (53.8%) were classified as “vaccine accepting,” and 399 were classified “vaccine hesitant or undecided.” The primary motivator to be vaccinated was to protect their health (212, 45.6%). Hesitant or undecided participants reported that vaccines were too new (269, 67.4%) or they needed more information (223, 55.9%) and were more likely to receive information from social media than accepting participants (80.0% vs 58.3%, P < .001). Logistical barriers to vaccination included distance to vaccination locations (85, 21.3%), lack of transportation (79, 19.8%), and limited time (64, 16%).

Appendix A: Literature Review Sources

	TITLE	CITATION	LINK	
Agency	**Factors affecting COVID-19 vaccination among people experiencing homelessness and precarious housing in Canada: a behavioural analysis**	Presseau, Justin. "Factors affecting COVID-19 vaccination among people experiencing homelessness and precarious housing in Canada: a behavioural analysis (September 10, 2021."	https://www.researchgate.net/profile/Jacob-Crawshaw/publication/354968872_Vaccine_confidence_among_homeless_and_housing_precarious_-_Sep_17_2021/links/61561c3b4a82eb7cb5d7f8a3/Vaccine-confidence-among-homeless-and-housing-precarious-Sep-17-2021.pdf	Knowledge: people experiencing homelessness may have specific knowledge needs (e.g., vaccine interactions with methadone). Environmental context and resources: lack of access to internet and phone lines creates barriers to booking vaccine appointments; not having a secure place to recover from vaccine side effects may prevent some from getting vaccinated; standardized vaccine protocols may prohibit some people facing housing precarity from accessing vaccines. Social influences: mistrust in healthcare systems that stems from past experiences with stigma and discrimination by healthcare providers may deter some from getting vaccinated. Two barriers that are unique to this population: many face competing demands between meeting basic needs and accessing vaccines (Goals) and some may experience difficulties processing information due to mental health and substance-use challenges.
PROVIDER-FOCUSED RESEARCH				
	Early experience with COVID-19 vaccine in a Federally-Qualified Healthcare Center for the homeless	Goode JR, Cook P, Cuttino S, Gatewood SBS. "Early experience with COVID-19 vaccine in a Federally-Qualified Healthcare Center for the homeless."Vaccine. 2021 Dec 3;39(49):7131-7134. doi: 10.1016/j.vaccine.2021.10.055. Epub 2021 Nov 6. PMID: 34774359; PMCID: PMC8570936.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8570936/	A team approach with early education and conversations empowers community health centers to reach the most vulnerable populations for COVID-19 vaccine. Identified problem was ensuring completion of the series. DPHS conducted telephone outreach to individuals who did not show for second doses increasing the number. Comments from individuals not receiving the second dose include “you are trying to manipulate me” and “afraid of side effects.”

Appendix A: Literature Review Sources

	TITLE	CITATION	LINK	
	Gains and losses within the homeless service, supportive housing, and harm reduction sectors during the COVID-19 pandemic: A qualitative study of what matters to the workforce	Goodwin, Jordan M., et al. "Gains and losses within the homeless service, supportive housing, and harm reduction sectors during the COVID-19 pandemic: A qualitative study of what matters to the workforce." Health & Social Care in the Community (2022).	https://onlinelibrary.wiley.com/doi/full/10.1111/hsc.14008	The findings underscored how many of the occupational changes during the pandemic did not align with service providers' occupational values for collaboration, control, effective and safe service provision, and the importance of human relationships, among other values. As pre-existing sectoral problems were exacerbated by the pandemic, recovery efforts need to address these long-standing issues in ways that are aligned with service providers' values.
	“Systems trauma”: A qualitative study of work-related distress among service providers to people experiencing homelessness in Canada	Kerman, Nick, et al. "“Systems trauma”: A qualitative study of work-related distress among service providers to people experiencing homelessness in Canada." SSM-Mental Health 2 (2022): 100163.	https://www.sciencedirect.com/science/article/pii/S2666560322001037	There is a growing body of evidence on the mental health and wellness of service providers who work with people experiencing homelessness. Research prior to the COVID-19 pandemic has shown that this workforce experiences higher rates of post-traumatic stress and common mental health problems than the general population (Lemieux-Cumberlege and Taylor, 2019; Waegemakers Schiff and Lane, 2019). Studies conducted during the pandemic replicated these findings, while also suggesting that the pandemic and worsening overdose crisis may be exacerbating distress levels.

Appendix B: Focus Group Discussion Guide

- ☐ **1 Confirm everyone filled out the general survey.**
- ☐ **2 Introductions including purpose of interview/focus group.**
- ☐ **3 Tell us your experience in supportive housing? (pre- and post-pandemic)**
  - **A.** How long have you lived in Permanent Supportive Housing (PSH)?
  - **B.** Do you receive a subsidy or voucher?
  - **C.** What sort of supports have you been offered/taken? (pre- and post-pandemic)
- ☐ **4 How was your experience receiving any healthcare services during the pandemic? How did this differ (if at all) from your experience pre-pandemic?**
  - **A.** Where do you primarily receive your healthcare? (Federally Qualified Health Center [FQHC], primary care provider, etc.?)
  - **B.** Did you receive support around vaccination? How was that experience?
  - **C.** If vaccinated or not vaccinated, what was the decision-making process?
- ☐ **5 Were you able to manage your health as well as you would like?**
  - **A.** Did you receive support around vaccination? How was that experience?
  - **B.** Did you engage a provider via tele-health? How was that experience?
  - **C.** Do you feel that your healthcare provider is meeting your overall needs? If not, what would?
- ☐ **6 Supportive housing has a strong connection between one's housing and one's health … We would like to know your thoughts and views about the interactions or challenges between your healthcare provider and housing provider. We are particularly interested in your recommendations on what your housing or health provider could do to make your experience better.**
  - **A.** What could your housing providers know about your health care that would improve your living arrangement (e.g., scheduling appointments, coordination of care, transportation)
  - **B.** How, or does, your housing support/property management provider communicate with your health provider? Do you think that would be helpful?
  - **C.** How would a health center best engage with you/your housing provider about housing supports and needs? What role would you want them to take in coordinating your care, if they could?
  - **D.** Housing and services co-located (living and receiving supportive services in the same location, building or campus) …