Partnering to Address Health Inequities among Incarcerated Populations: Prisons, Jails, and COVID-19 Vaccination

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ABSTRACT

Background: Incarcerated people have been disproportionately affected by the COVID-19 pandemic and face significant challenges to COVID-19 vaccine confidence.

Objectives: 1) Describe our partnerships with community members directly impacted by incarceration, 2) discuss the partnership's process for co-developing and implementing project interventions to increase COVID-19 vaccine confidence, and 3) share lessons learned from this unique community-engaged partnership.

Methods: An advisory board of 14 formerly incarcerated community members participated in this project. Their wisdom and experience led to the development and implementation of interventions to increase confidence in COVID-19 vaccines among incarcerated people.

Lessons Learned: Valuable lessons learned were centering community, leaning into trusted sources of information, acknowledging historical and present harms, and investing in community-engaged work.

Conclusion: Centering lived experiences of those directly impacted by incarceration has been crucial to increasing vaccine confidence among this population. Doing so reinforced the importance of long-term investments in community-based collaborations with communities impacted by incarceration.

KEYWORDS: Community health partnerships, Health promotion, Public Health, Prisoners, Health disparities, Community-Based Participatory Research, COVID-19, Vaccination

BACKGROUND

Since the onset of the COVID-19 pandemic, prisons and jails have been the center of the majority of the largest, single-site COVID-19 outbreaks in the United States (U.S.).[1] To date, there have been over 600,000 COVID-19 cases among people incarcerated in U.S. correctional and detention facilities; in Minnesota (MN) alone, there have been nearly 11,000 COVID-19 cases among incarcerated individuals.[2] The physical environments of carceral facilities—including overcrowding, an inability to social distance, poor ventilation, and unsanitary environments—increase the risk of contracting COVID-19 for incarcerated people by creating conditions for rampant COVID-19 transmission.[3–5] New admissions to prisons and jails, as well as staff members who come and go each day for work, have carried COVID-19 into facilities from their communities, posing a great threat to the health of people who are incarcerated and to communities where mass incarceration is concentrated.[4,6] When infected, incarcerated people are at increased risk for severe COVID-19 disease and death, due in part to high rates of chronic conditions among this population, along with the reduced capacity for healthcare service provision in carceral facilities.[7,8] People who are incarcerated have been shown to have a 5.5 times higher risk of contracting COVID-19 and a 3 times higher risk of dying from COVID-19, adjusting for age, sex, and race/ethnicity.[9]

Given the disproportionate burden of COVID-19 in prisons and jails, along with the racial disparities in incarceration rates, it is evident that addressing COVID-19 infection and transmission in carceral facilities is an issue of health equity. Because of systemic racism in the criminal legal system, people of color are disproportionately represented in prisons and jails. For example, in the U.S., Black people make up about 38% of the incarcerated population, while only representing 13% of U.S. residents.[10] In MN, these disparities are even more pronounced.

While Black people represent about 6% of the state's population, they represent 34% of the state's incarcerated population.[11] Similarly, American Indian populations represent only 1% of Minnesotans, but 10% of those who are incarcerated.[11] Although MN has one of the lowest incarceration rates in the country, it has some of the worst racial disparities.[11] Additional demographic information for people in Minnesota prisons can be found in **Table 1**.

COVID-19 vaccines have been shown to be extremely effective at keeping people from getting seriously ill, being hospitalized, or dying from COVID-19 infections.[12–14] In congregate settings, such as prisons and jails, COVID-19 vaccination is an important tool for reducing the burden of COVID-19 morbidity and mortality. However, notable challenges exist when promoting COVID-19 vaccination among incarcerated populations, including distrust of medical, carceral, and government institutions; limited flow of information in carceral facilities; isolation from social supports and trusted sources of information; and little autonomy in healthcare decision-making.[15–17] One study examining vaccination status found that individuals with a history of incarceration exhibited higher levels of COVID-19 vaccine hesitancy than those without a history of incarceration.[17] Other studies have found that common reasons for refusal of COVID-19 vaccination among incarcerated adults include distrust, as well as concerns about efficacy and side effects of the vaccine.[15,16]

OBJECTIVES

To address these COVID-19-related disparities among incarcerated people, a team from the University of Minnesota (UMN) Prevention Research Center (PRC) collaborated with an advisory board group of formerly incarcerated individuals to promote COVID-19 vaccine confidence among people in MN prisons and jails. Through funding from the Centers for Disease

Control and Prevention (CDC) Vaccine Confidence Network (VCN), the UMN PRC was able to form this partnership to better understand barriers and facilitators to COVID-19 vaccination and co-develop and implement interventions to promote COVID-19 vaccine confidence among people who are incarcerated. The objectives of this paper are to 1) describe our partnership with community members directly impacted by incarceration, 2) discuss the partnership's process for co-developing and implementing project interventions, and 3) share lessons learned from this unique community-engaged partnership.

METHODS

Funding opportunity

In early 2021, as the COVID-19 vaccine rollout began, the CDC established a Vaccine Confidence Network among 26 national PRCs. This network of academic, public health, and community partners was awarded funding to identify, develop, and implement community-engaged projects focused on COVID-19 vaccine confidence and uptake among communities disproportionately affected by the COVID-19 pandemic. The UMN PRC received funding in May 2021 to support a community-partnered project focused on COVID-19 vaccination among people in prisons and jails across the state of MN. The UMN team leading the project brought together professionals from several disciplines, all with a common goal of partnering with people directly impacted by incarceration.

Project Design and Approach

Centered in community-engaged frameworks and principles of community-based participatory research,[18–22] as well as a belief that the voices of those who are directly impacted should lead

the way, this project was designed to partner with community members to collect information for action and develop interventions to promote COVID-19 vaccine confidence among people who are incarcerated in Minnesota. The UMN Institutional Review Board (IRB) determined that the project constituted a surveillance project that provides timely situational awareness during a public health crisis and was therefore not research involving human subjects as defined by Department of Health and Human Services (DHHS) and Food and Drug Administration (FDA) regulations.[23]

Figure 1 summarizes key milestones of the COVID-19 pandemic that occurred over the course of this project period. During this time, visiting and programming restrictions were in place due to COVID-19 cases within facilities, and the pandemic continued to evolve as new variants emerged, vaccine recommendations shifted, and guidance for carceral facilities changed over time. As the COVID-19 pandemic continued to shift and evolve, so, too, did the pandemic's impact on incarcerated populations and their confidence in COVID-19 vaccination. Given this, our project team had to stay flexible in our approaches. We worked to engage in iterative, rapid-cycle feedback loops to inform efforts around data collection, analysis and interpretation, intervention development, and implementation (**Table 2**).

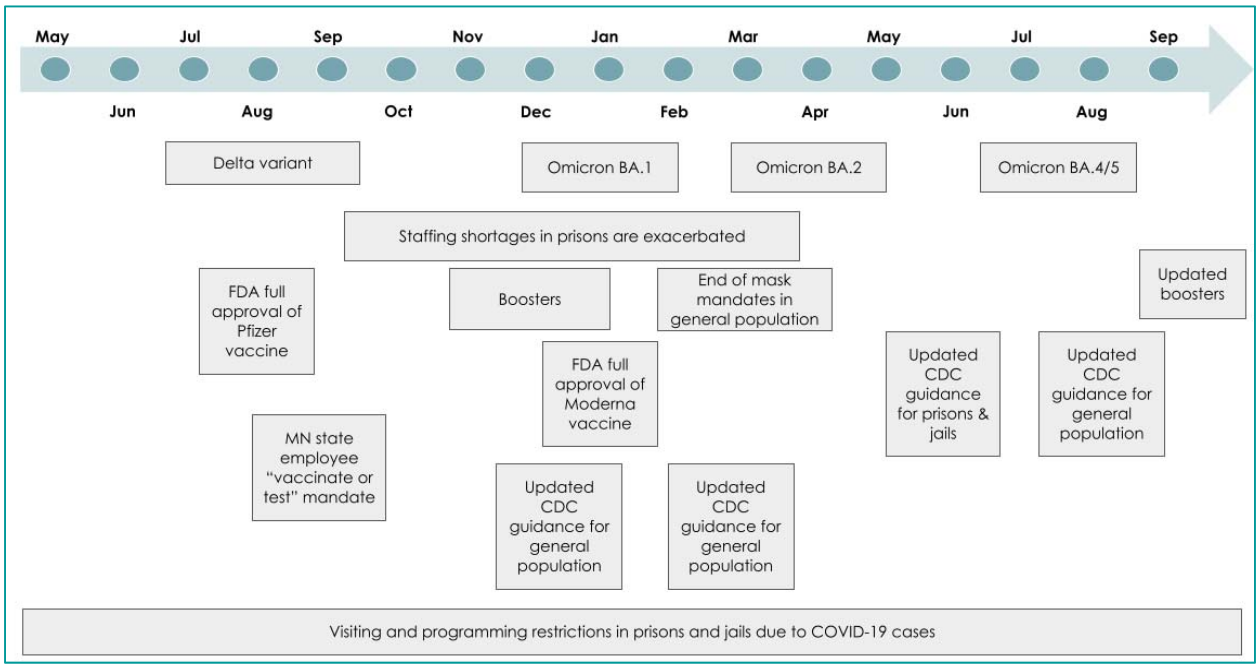

Figure 1. COVID-19 milestones between May 2021 and September 2022.

Partnership Development

To center this work in the community, the project began by convening a project advisory board composed of community members directly impacted by incarceration. The goal of creating this advisory board was to center the lived experiences of advisory board members and allow space for them to share their insight and expertise, so this work could best serve incarcerated individuals and make the biggest impact possible. Recruitment for the advisory board began in May 2021, and the first meeting with this group was held in July 2021. We recruited through outreach to personal and professional networks in the community and trusted community organizations serving those impacted by incarceration. Our team intentionally worked to recruit people who have been directly impacted by incarceration to be a part of this advisory board

group, working to incorporate a variety of identities and perspectives, including broad racial/ethnic representation, gender representation, different lengths of time spent incarcerated, and people who were incarcerated in different types of facilities (e.g., jails and prisons, state and Federal prisons). This helped ensure that many different perspectives were a part of finding solutions in this work.

In total, 14 formerly incarcerated community members were consistently engaged in this advisory board from July 2021 to July 2022. Not only did advisory board members have lived experiences of incarceration themselves, but many had family members, friends, and loved ones who were incarcerated during the project period, and many members were also a part of different community organizations advocating around issues impacting incarcerated individuals, although they were not formally representing these organizations as part of this advisory board.

Through monthly paid meetings (as well as additional optional meetings and touchpoints with the project director), advisory board members helped lead the formation of data collection materials, interpretation of results, development of interventions, implementation of interventions, and dissemination of findings. This was accomplished by working to build trust and foster relationships, utilizing a participatory meeting structure, and centering several different principles in this work: accountability, shared power, collaboration, equity, inclusiveness, capacity building, transparency, mutual benefit, and mutual respect.[18–22]

Data Collection and Interpretation

In this partnership, we prioritized collecting data from currently incarcerated individuals to inform the development of project interventions. From August 2021 to October 2021, advisory board members were invited to contribute to the development of a survey, with the goal of

understanding barriers and facilitators to COVID-19 vaccination among currently incarcerated individuals in order to inform the development of intervention strategies. Survey items were developed by advisory board members and the UMN project team, and questions were informed by members' lived experiences, as well as UMN team members' expertise in survey development and vaccination.

In November 2021, after co-developing data collection materials with project advisory board members, we administered a voluntary survey to currently incarcerated individuals in three MN state prisons (*N*=1,392). Response rates across the three facilities ranged from 51% to 89%. Closed-ended survey questions asked respondents to share information about their COVID-19 vaccination status, influences on their decision to get or not get vaccinated, potential motivators for vaccination, and trusted sources of information. Open-ended questions asked participants to share questions they have about COVID-19 vaccination, ideas for strategies to increase COVID-19 vaccine confidence among people in prison, and additional comments or concerns. Paper surveys were entered into a Qualtrics database and analyzed by UMN project team members using Stata 15.[24]

Findings from this survey revealed that prominent barriers to vaccination among currently incarcerated individuals in MN prisons included distrust of the healthcare and public health systems, inaccessible information about COVID-19 vaccination, and a lack of trusted sources of information about vaccination, while facilitators included monetary and programmatic incentives, having more information about COVID-19 vaccination, and speaking with trusted sources of information outside of carceral facilities. These findings highlight potential areas of intervention to increase COVID-19 vaccine confidence and address pandemic-related health

disparities among this population. Detailed survey findings have been summarized in a forthcoming paper from the project.[26]

Survey results were shared with the project advisory board and the group was able to collaboratively interpret the results and their implications. We spent multiple meetings discussing these results, key takeaways, how they aligned or didn't align with members' experiences. During these meetings, we also thought together about the implications of these results for intervention development. These surveys prompted collaborative discussions around intervention ideas and considerations for designing and implementing certain interventions.

Intervention Development

Based on these survey results, along with the lived experience of project advisory board members and conversations with currently incarcerated individuals, the group then moved on to co-develop interventions aimed at addressing barriers to COVID-19 vaccination. Through participatory meeting structures and group brainstorming, we collectively worked to generate a comprehensive list of potential interventions that could be shared with the Minnesota Department of Corrections (MnDOC) to assess feasibility. Building upon long-standing relationships with the MnDOC through previous work,[27-30] representatives from the MnDOC (including the Commissioner of Corrections, health services leadership, and education leadership) were invited to join a project advisory board meeting to discuss interventions and questions about the status of the MnDOC's COVID-19 response. After determining what was feasible within the current COVID-19 restrictions in MN prisons, advisory board members then engaged in consensus-building around which strategies to prioritize and pursue with available time and resources. Each member of the group had the opportunity to voice their opinions and

ideas about which interventions to pursue, and agreement was reached. All selected interventions (**Table 3**) were generated and agreed upon by project advisory board members.

Intervention Implementation

All selected interventions were developed and implemented in partnership with project advisory board members, and contributions of advisory board members throughout the implementation phase are outlined in **Table 3**. Intervention implementation is ongoing and will continue to be monitored.

Partnership Evaluation

As this partnership was wrapping up, the UMN team wanted to formally gather feedback about members' experiences as part of this advisory board group. A short, 11-question online survey (**Appendix A**) was developed by the UMN team in order to gather constructive feedback, reflect on the partnership's successes and challenges, and improve the structure of this advisory board group for any future collaborations. This survey was administered to each member, and members had the option of completing the survey anonymously, or including their name if they preferred. Results from this survey were shared internally and prompted discussions within the UMN team focused on accountability, improvement, and opportunities for future advisory board collaborations.

RESULTS AND LESSONS LEARNED

Reflections on Partnerships

These reflections on partnerships arose from continual group reflection throughout the project

(**Table 2**), something the team tried to incorporate both informally (during check-ins and advisory board meeting discussions) and formally (through partnership evaluation surveys and other feedback submission forms).

Successes. Over the course of the 14-month project period, there have been several notable successes from this partnership, as we have worked to promote COVID-19 vaccine confidence among incarcerated individuals. Consistent engagement from project advisory board members, as well as relationship- and trust-building with the group, have been some of the most notable successes in this work. From the start, we aimed for this to be a true partnership, and members were involved in all aspects of the project from survey development through dissemination, with several members included as co-authors and co-presenters on project materials.

From the partnership evaluation survey conducted with advisory board members, 100% of respondents "agreed" or "strongly agreed" that: 1) they felt like their voice and perspectives were centered and valued in this project, 2) they felt that equity was centered in this project, 3) they felt that they gained information from this collaboration that will help them in the future, and 4) they would enjoy collaborating with this UMN team on another project in the future. Many advisory board members described their experiences as part of the collaboration as "amazing, empowering, and positive," "engaging, welcoming, and honoring," and "fulfilling and hopeful." This helps demonstrate the power and value of community-centered collaborations that center on relationship- and trust-building with community partners.

Another success of this work has been conducting widespread data collection with currently incarcerated individuals in MN prisons, allowing their perspectives and experiences to

inform the work and the selection of project interventions. Lastly, co-creating a series of interventions, led by advisory board members, has been an incredibly important success for both our partnership and for currently incarcerated individuals who may benefit from these interventions.

Challenges. While there have been many successes, we have also encountered challenges. Accountability has been a challenge when balancing delicate relationships with state agency partners. While the concerns of our advisory board and incarcerated individuals are our priority in the work, we have had to continually get buy-in and support from individuals at state agencies that assist with access and implementation. For example, when creating a series of project videos (**Table 2**), we wanted to ensure the messages in the videos were authentic and honest, especially when discussing the rightful distrust many incarcerated people feel toward the carceral system. At the same time, we had to convey a message that would be accepted and played by the MnDOC. While this was a delicate balance, we were able to center accountability to those with lived experience first and foremost, produce a product that felt aligned with our values, and get buy-in and support from the MnDOC in the process. This buy-in and support was built upon years of collaboration and relationship-building with the MnDOC.

COVID-19 fatigue has also been a notable challenge within this group, as well as the people who are incarcerated and staff that we have worked with. It has been incredibly important to recognize that all members of the team were living through a traumatic experience during the pandemic, and to enter conversations with empathy for one another and flexibility to shift based on how people are feeling on any given day. Pandemic fatigue - combined with the short, 14-month project grant period, has presented challenges in relationship-building and the

sustainability of the work. Ideally, there would be more time allotted to build trust and form relationships before diving into project efforts; intentionally building this into work plans from the beginning is essential. Lastly, a challenge was that the community was brought onto the project after funding was procured, due to the rapid timeline for grant submittals. Ideally, community members would have been engaged as the grant proposal was being written and the focus of grant activities was being decided. It is incredibly important to involve community members in this process from the very beginning, to ensure that the scope and goals of the work are reflective of the experiences and priorities of community members.

Lessons Learned

Over the course of this 14-month community-partnered project, we learned many valuable lessons around centering community, engaging with incarcerated individuals, leaning into trusted sources of information, acknowledging historical and present harms, and investing in community-engaged work.

1. *Importance of uplifting and centering communities.* A lesson that was reinforced through this work is the importance of uplifting and centering communities who are directly impacted by the issues at hand, and authentically working to involve them at every step of the process. People who have been impacted by these systems have the knowledge, wisdom, and expertise needed to address issues within the community, and lasting change can only occur when those who are impacted are involved in an authentic way. When working with communities around issues impacting incarcerated populations, in particular, breaking down barriers to participation for those who are currently

incarcerated and uplifting their voices is vital to engaging in this work.

2. *Importance of sharing information with currently incarcerated individuals.* This work has really highlighted and reinforced the need to increase access to timely, transparent, tailored, and trusted information about COVID-19 vaccination, and other health topics, with people experiencing incarceration. With the restricted flow of information to and from carceral facilities, along with the lack of communication between staff and incarcerated people, it becomes clear that increasing access to timely, evidence-based information from trusted sources is incredibly important for health equity and access.

3. *Importance of engaging community members as trusted sources of information*. We need to continue engaging community members, family members, and community-based healthcare providers as trusted sources of health information through and beyond the COVID-19 pandemic. Building upon these relationships when sharing information is critical, especially considering the rightful mistrust many have towards public health, medical, and carceral institutions.

4. *Importance of acknowledging past and present harms.* An incredibly important lesson that was reinforced through this work is that individuals and institutions cannot honestly engage in work with communities impacted by incarceration without recognizing and acknowledging centuries of harm perpetrated by public health, medical, and carceral institutions. It's imperative that we examine our positionality in this work, the history that we bring as part of various institutions, and acknowledge harm that has, and continues to,

be caused. Acknowledging this is a small step in the process of validating lived experiences and rebuilding trust, but imperative to authentically engage in this work in partnership with directly impacted communities.

5. *Importance of long-term investments in community-engaged work.* And lastly, long-term investments in community-engaged work are needed on both an institutional and national scale. Many funding mechanisms for community-engaged projects, especially in response to public health crises, are short-term; this type of short-term, sporadic engagement may unintentionally harm community members in the process. It is incredibly important to understand that long-term issues necessitate long-term investments in community.

CONCLUSION

In this article, we outline our process of developing a community partnership with communities directly impacted by incarceration and share successes, challenges, and lessons learned from partnership efforts. Centering the lived experiences of those directly impacted by incarceration, and the abundance of wisdom and strengths they bring, has been crucial to increasing vaccine confidence among incarcerated individuals and has reinforced the importance of sustained partnerships and long-term investments in community-based collaborations. Through these partnerships, we have been able to design and implement timely, tailored, and trusted interventions to promote COVID-19 vaccine confidence among incarcerated individuals in Minnesota, helping promote health equity among those most impacted by the pandemic. This partnership structure, and the lessons learned from this partnership, will continue to be leveraged in future work, including on a new NIH-funded project focused on addressing health disparities

among pregnant and postpartum people in US prisons.[31] Recognizing the importance of long-term investments in health equity for incarcerated people, and translating the lessons learned from this grant, efforts have been made to convene a Community Research Council with a sustained funding structure to partner on a variety of different projects moving forward.

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Table 1. Demographics of incarcerated individuals in Minnesota, as of January 1, 2023*

	n (%)
Sex	
Males	7, 598 (93%)
Females	554 (7%)
Race	
White	4,160 (51%)
Black	3,004 (37%)
American Indian	768 (9%)
Asian	200 (2.5%)
Unknown/Other	20 (< 1%)
Ethnicity	
Hispanic	411 (5%)
Non-Hispanic	7,741 (95%)
Average Age	39.5 years

*Data is from the Minnesota Department of Corrections Adult Prison Population Summary as of 01/01/2023.[25]

Table 2. Project timeline.

Month	May '21	Jun '21	Jul '21	Aug '21	Sept '21	Oct '21	Nov '21	Dec '21	Jan '22	Feb '22	Mar '22	Apr '22	May '22	Jun '22	Jul '22
Advisory board recruitment	•	•													
Advisory board formation		•	•												
Monthly advisory board meetings			•	•	•	•	•	•	•	•	•	•	•	•	•
Advisory board feedback and reflections on partnerships			•	•	•	•	•	•	•	•	•	•	•	•	•
Development of data collection materials				•	•	•									
Data collection to inform intervention development							•	•							
Data analysis and interpretation								•	•	•					
Intervention development							•	•	•	•	•	•			
Intervention implementation (interventions listed in **Table 3**)											•	•	•	•	•
Partnership evaluation														•	•

Table 3. Project interventions and advisory board contributions to implementation.

Intervention	Description	Advisory Board Contributions to Implementation
COVID-19 Vaccination Video Series	A series of five videos were created where advisory board members share their personal COVID-19 vaccination stories with people who are currently incarcerated.	Six advisory board members are highlighted in this video series. Advisory board members helped outline goals of the videos and content to be covered, filmed their videos, and provided feedback and edits to video drafts.
COVID-19 Vaccination Print Materials	FAQ postcards were created to go along with each project video, in addition to other project infographics about COVID-19 boosters and project survey results.	Several advisory board members helped draft and review text for FAQ postcards, and two advisory board members used their graphic design skills to create COVID-19 booster and project survey result infographics.
COVID-19 Booster Incentives	$10 incentives were offered to all incarcerated individuals in the Minnesota Department of Corrections who received a COVID-19 booster by August 31, 2022.	Advisory board members helped review budget materials and decide on the incentive amount to be distributed.
COVID-19 Peer Ambassador Program	A COVID-19 Peer Ambassador Program was created for incarcerated individuals in the Minnesota Department of Corrections. Peer Ambassadors are hired, trained, and work to build confidence and knowledge in COVID-19 vaccines among fellow incarcerated peers.	Advisory board members helped create position descriptions and guidelines for this program, decided what content should be included in Peer Ambassador trainings, and helped create training modules for Peer Ambassadors.

Appendix A: Partnership Evaluation Survey for Community Advisory Board Members

1. Name (optional)

2. How would you describe your experience as part of this advisory board?

3. Please write your level of agreement with the following statements. (Strongly disagree to Strongly agree)
   a. I felt like my voice and perspectives were centered and valued in this project.
   b. I felt that equity was centered in this project.
   c. I feel that I gained information from this collaboration that will help me in the future.
   d. I would enjoy collaborating with this University team on another project in the future.

4. What things have you liked/enjoyed in this role?

5. What things do you think could be changed/improved for the future?

6. How would you like to see these collaborations continue in the future?

7. How could this team continue to center anti-racism, equity, and liberation in this work?

8. What are you most proud of accomplishing as a group together?

9. Have you been a part of other community advisory board groups in the past?
   a. Yes
   b. No
   c. Unsure

10. How does this experience compare to your past advisory board group experiences?

11. Do you have any other comments or general feedback to share?