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Stronger Together: A Successful Model of Health System-Community Collective Action During the COVID-19 Pandemic

Yihui Yang, MS, Geisel School of Medicine, Dartmouth College, Hanover, NH

Christine M. Gunn, PhD, The Dartmouth Institute for Health Policy and Clinical Practice, Geisel School of Medicine, Dartmouth College, Lebanon, NH; and Dartmouth Cancer Center, Lebanon, NH;
ORCiD: 0000-0003-3340-2834

Barbara Farnsworth, MS, Dartmouth Hitchcock-Medical Center, Lebanon, NH

Gregory Norman, MS, Dartmouth Hitchcock-Medical Center, Lebanon, NH

Sally Kraft, MD, MPH, Dartmouth Hitchcock-Medical Center, Lebanon, NH;
ORCiD: 0000-0002-1351-0312

Corresponding Author:
Christine Gunn, PhD
1 Medical Center Drive
Williamson Translational Building, Room 527
Lebanon, NH 03756
Phone: 603-646-5430
Email: Christine.M.Gunn@dartmouth.edu

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ABSTRACT

Background: Discontinuity between health care delivery systems and community-based organizations is a significant barrier to improving population health.

Objective: To describe the facilitators and barriers experienced by a health system-community partnership 15 months after implementation.

Methods: Coalition members who led committees within the coalition or had active, sustained participation in coalition activities were invited to participate. Qualitative interviews used a semi-structured interview guide that elicited information on coalition functioning. A content analysis used inductive and deductive codes which were reviewed using a consensus process. Final themes centered on factors that facilitated or impeded the coalition's success in supporting community needs during the COVID-19 pandemic.

Lessons Learned: Coalition stakeholder perspectives identified several critical factors: defined governance, a culture of trust that accelerates learning, reliable resources, and a healthcare anchor organization committed to shared investment.

Conclusions: Lessons from this endeavor contribute to a deeper understanding of successful practices for health system-community partnerships.

KEYWORDS: Community health partnerships, Community-Based Participatory Research, Social Conditions, Evaluation Studies, Rural Health, Power sharing

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BACKGROUND

As health care delivery systems increasingly confront the impact of social determinants of health on outcomes, collaboration and integration with community-based organizations (CBOs) providing social care is urgently needed to improve population health and achieve health equity.[1,2] Partnerships between academic medical centers and CBOs are largely early-stage, and overwhelmingly describe collaborations that were initiated and designed by hospital systems.[3–6] Many partnerships involve hospitals directing select CBOs to provide services to community members to strengthen research relationships or improve clinical outcomes to the hospital's financial benefit.[3,4,6] These services and outcomes include care coordination, treatment adherence, and reducing utilization.[3,5,7,8]

Prior research on health system-community partnerships name a consistent set of facilitators to success. Structural facilitators include a shared mission, a well-resourced organization with strong community presence, a clearly defined partnership structure, reliable funding, and assessment of outcomes.[7,9–12] Cultural facilitators include a network of well-established, trusting relationships among CBOs and with the anchor organization, cultural humility, health system champions of the collaboration, willingness to take risks, and leading with community expertise.[4,7,9,11–14]

The COVID-19 pandemic has posed unprecedented challenges to our nation's health and underscored the interdependence between medical care and social determinants of health. In many locations, attempts at coordinated pandemic response built on medical institutions' historical community engagement work.[8] Upper Valley Strong (UVStrong) is one such coalition, composed of 39 CBOs and Dartmouth Health (DH) in the Upper Connecticut River Valley. UVStrong was founded by CBOs several years ago and re-activated in March 2020, with the

health system included as a key partner in developing a coordinated community response to the unprecedented health threat resulting from COVID-19.

The following qualitative evaluation explores factors that contributed and impeded the success of this health system-community partnership from the perspective of CBO leaders and medical center staff 15 months post-implementation. It was launched by the DH population health team, whose goal is to align clinical and community improvements to improve health outcomes. The evaluation was undertaken to document lessons learned from this experience to inform other systems who have a similar focus on total population health and contribute to a deeper understanding of successful practices for health system-community partnerships.

METHODS

Setting

UVStrong is a group of non-profit community agencies, churches, schools, municipal governing agencies, public health and healthcare delivery partners that has worked together to respond to health and welfare threats in the Upper Connecticut River Valley. The Upper Valley consists of 69 independent, rural municipalities in Vermont and New Hampshire that straddle the Connecticut River. The population of the area is 170,000, the majority of whom live in small towns with populations of less than 5,000. Dartmouth Hitchcock Medical Center (DHMC) is the academic medical center of the Dartmouth Health (DH) system. It is the only academic health system in New Hampshire and the largest health care provider in the Upper Connecticut River Valley.

Precedent for the UVStrong COVID-19 response dates back to 2011 when community partners worked together in response to Tropical Storm Irene. At that time, the coalition

organized to facilitate disaster recovery by sharing information, assessing needs, and distributing resources.[15] The coalition met quarterly after recovery efforts concluded in 2014, and was briefly re-activated in 2017 in response to local flooding.

In March 2020, the UVStrong coalition was formally re-activated by community and health sector leaders in response to COVID-19 and activities and funding continued until the end of 2022. In contrast to earlier iterations, the 2020 convening was heavily resourced by DHMC. The steering committee was co-chaired by one leader from the community and one from DHMC, working as partners to create agendas, facilitate meetings, and define accountability and timelines for action. DHMC provided staff support drawing from its Population/Community Health team to work with community leaders, staff coalition committees, and assist in core functions such as meeting scheduling and communications. Health system philanthropy and development resources leveraged the DHMC charitable giving network to rapidly raise funds that were re-invested in CBOs. The Vermont Department of Health's White River Junction District Office joined the coalition, rounding out the full complement of necessary expertise required to respond to an unprecedented infectious disease threat.

Sampling and Recruitment

A purposive sample of leaders and key members in UVStrong were invited via email by the lead author, a medical student who was not part of UVStrong and trained in qualitative interviewing, to share their experiences 15 months after the coalition re-convened in 2020. Members were selected for recruitment based on leading one or more committees within the coalition or having sustained participation in activities. We intentionally included representation from a diverse range of roles and affiliations in the health sector and community. Seventeen interview requests were sent, and all those contacted agreed to participate. Approximately half of

interviewees were associated with the academic hospital system and half with community-based organizations.

Data Collection

A semi-structured interview guide (Appendix A) with open-ended questions was developed to elicit information on the functioning of the coalition from the participants' perspective. The interview guide covered: 1) the coalition member's role in their home organization and the coalition; 2) experiences working with other stakeholders in the coalition; 3) value found in UVStrong participation; 4) facilitators and barriers to coalition operations; and 5) thoughts about the future of collaborative efforts to meet community health needs.

Once a participant agreed, one-on-one interviews were held over secure Zoom teleconferencing by the lead author and recorded. Participants were advised at the beginning of the interview of the project's goals, confidentiality of responses, and optional participation. All participants verbally agreed to recording. The majority of interviews were 60 minutes in length, with a range of 30 minutes to 75 minutes. Because this assessment was intended as a program evaluation for quality improvement, the local IRB determined that it met the criteria for non-human subjects research.

Analysis

A content analysis employing both inductive and deductive approaches was used to elucidate common themes across interviews.[16] Transcripts were uploaded, managed, and coded using Dedoose, a qualitative analysis software.[17] A codebook was generated after an initial reading of all interview transcripts. Parent codes represented topics from the interview guide. Inductive codes represented the nature of content contained in each parent code. Codes and their application were reviewed in a consensus process with the second author, an experienced

qualitative health services researcher. We have organized themes according to factors identified by Alderwick et al. that influence collaboration between health system and community groups.[9] These themes are summarized in Table 1.

RESULTS

Below we present themes centering around four facilitators related to the UVStrong Coalition functioning: 1) UVStrong had a clear focus and motivation in partnering to keeping people safe; 2) UVStrong established a structure with shared leadership and decision-making; 3) UVStrong leveraged the DH development, scientific, and administrative infrastructure to support its goals and functioning; 4) UVStrong maintained a culture of learning and trust founded on historical relationships. The nature of each is described below, with quotes supporting each theme.

Theme 1: UVStrong had a clear focus in partnering to keeping people safe

The key motivation of UVStrong was to keep communities safe and deliver much-needed services. This was noted as a convening factor – all groups coming to the table were concerned about safety, and UVStrong responded to that interest:

> "They would start off [meetings] with a someone from the Vermont health department and someone from the New Hampshire side from DH giving updates from a high level pandemic health related updates, that is of interest to everyone." (CBO participant)

This focus on keeping people safe was apparent as participants described UVStrong's approach to convening stakeholders and implementing programs:

> "I don't think there's ever been an Upper Valley Strong call that [other public health expert] or I wasn't asked a follow up…so then another partner organization could either act on it or help us communicate." (CBO Participant)

> "Many of [people served by the CBO] don't have transportation, so my staff was challenged to figure out ways to get them registered [for the COVID-19 vaccine] and then arrange for transportation. This was before any of my staff was vaccinated. So we had to do it, you know in ways that were safe for the staff and safe for the client." (CBO Participant)

As part of keeping staff and communities safe, one goal was to streamline service delivery, especially in a time when CBOs were working with limited staff providing in-person services and amid staffing disruptions. UVStrong allowed collaborative work that eased some of these tensions to provide more robust service coverage:

> "And then there's the intangible of like, non-duplicating efforts. It's hard to quantify the value… if you don't coordinate with others, then you end up having a bunch of organizations all doing one thing and then nobody doing another thing. (CBO Participant)

Participants admit that attending many meetings was time intensive, but "ultimately beneficial to be part of all these conversations" (CBO Participant).

One challenge facing the coalition related to its focus on safety during the extended period of this pandemic arose from this historical orientation toward emergency response. Past emergencies had a clear "end point" when UVStrong would become dormant again. However, with the COVID-19 pandemic, it was unclear when that time would come. As one participant

stated, "…with a lot of things that are unknown, of how [COVID] is going to impact the community…when it would be over wasn't quite clear." (CBO Participant)

Theme 2: UVStrong established a structure with shared leadership and decision-making

The UVStrong coalition's success was perceived to be facilitated by a clear governance structure with a steering committee and nine sub-committees (Figure 1). Weekly steering committee meetings included representatives from each sub-committee and health experts from the medical center and public health department. Subcommittees were composed of employees and leaders at human service organizations across the region that worked in a particular sector (e.g. housing, food security). They held regular virtual meetings to discuss community needs relevant to each sector and coordinate service actions and bring information back to the steering committee. This structure reflected the health system's commitment to sharing leadership and responsibility with CBOs:

> "There was a community partner at all levels of leadership. So starting with co-chairs of the leadership team then…replicating that within the committees…showed that this was a shared venture and that we were equal partners." (Health System Participant)

> "There's this decentralized aspect to it, have a bunch of peer organizations coming together when there's a need helping make decisions…I mean there's certainly leaders within it, which is great, but they're taking this facilitator role as much as anything." (CBO Participant)

"It's like neighbor helping neighbor. And there's something special about that to me because a lot of the things we do in medicine or public health are very corporate…Upper Valley Strong feels more grassroots…like it was of and from the Community." (CBO Participant)

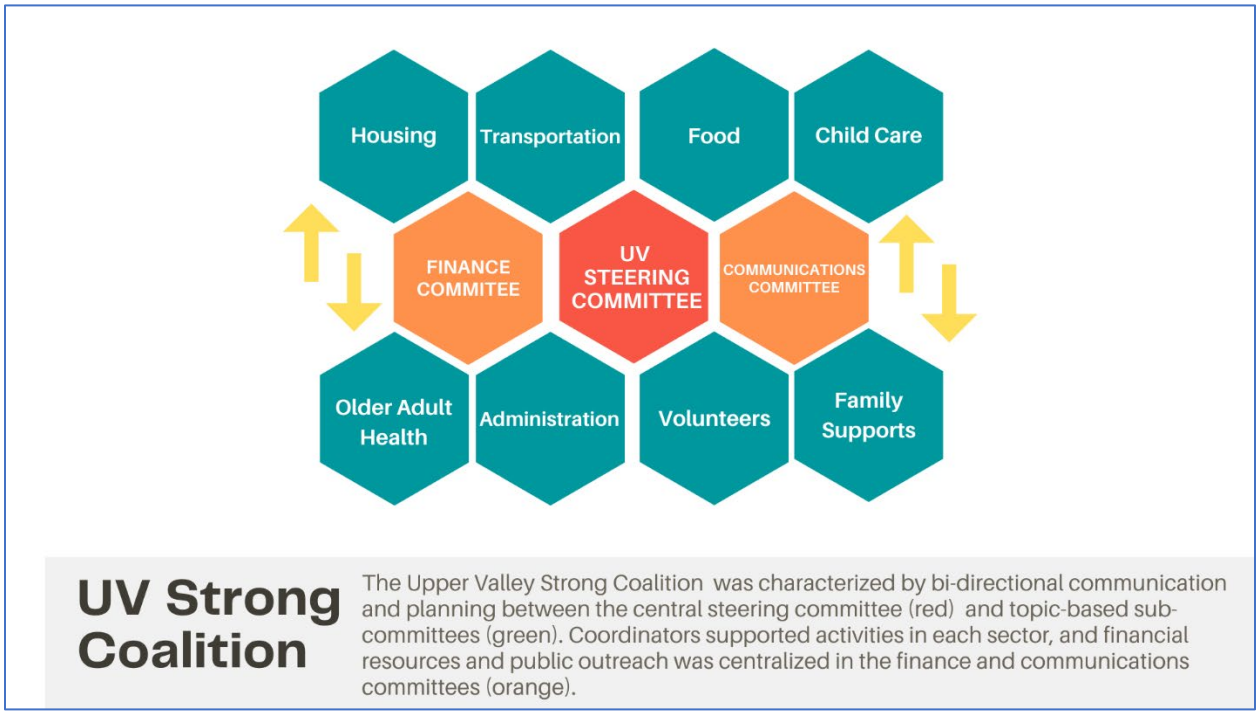

Figure 1. Upper Valley Strong Coalition

Ideas and potential solutions from CBOs were prioritized, and they decided how and what services would be deployed. A key example was coalition efforts to communicate about vaccination for those first eligible (> age 75) and the role CBOs played in influencing communication channels:

"75% of the people that [CBO] does projects for are over 65. And those are the people doing most of the dying prior to the vaccine…we're trying to figure out what communication strategies can we do to get the word out to go get vaccinated. We organized the phone tree…Bear in mind, most of them don't have access to the Internet,

> they don't all have cell phones…my staff was challenged to figure out ways to get them registered and then arrange for transportation… I kept saying to [health system], 'Look, the people who are most vulnerable right now are not hearing the message, because they're not going on Facebook or to our website'. We had to think of different ways to communicate with people [about vaccination]…" (CBO Participant)

The coalition served as a forum that allowed CBOs decision-making input into strategies that normally would have been kept within the health system (e.g. vaccination communication). CBOs in particular felt that centering their perspectives was a key contributor to UVStrong's success.

Theme 3: UVStrong leveraged the DH development, scientific, and administrative infrastructure to support its goals and functioning

Three specific areas were identified by participants related to resources and capabilities that directly facilitated UVStrong's success: The contribution of DH fundraising infrastructure, scientific expertise, and administrative supports. First, the ability of the hospital to raise funds that could quickly be mobilized via grants to community partners before public disaster relief funds were available was mentioned frequently as a critical facilitator:

> "In the very first one to two weeks, no one…could just write a check and say oh, I need to buy food here, I need to put someone up in a motel there, I need to get someone a cell phone over here." (Health System Participant)

The hospital committed approximately $80,000 within the first 90 days of shelter-in-place. Most organizational requests to UV Strong were received, vetted and paid within 10 days. This quick turnaround time allowed CBOs to scale up the volume of their operations to meet the sudden

surge in demand. Partners were empowered to ask for what they need, a new and welcome experience for some CBOs, while being respectful of the shared resource pool.

Second, participants, and especially CBO-based participants, valued the direct connection with healthcare experts in learning about COVID-related safety. Early in the pandemic when COVID-19 science was nascent and safe practices were uncertain, the steering committee meetings convened experts with access to the latest information. This helped CBOs design evidence-based practices that could evolve as science shifted. "It was really, really valuable…to constantly be in conversation [about]…how can we be staying safe, what is the latest science…" (CBO Participant).

A third facilitator was the administrative support provided by DH for each meeting and committee. This resource was perceived to be critical to the coalition's functioning and improved efficiencies:

> "We had someone assigned to our committee as our administrative support…taking minutes…making the connections behind the scenes…which for all of us who were…so overwhelmed running our own agencies that having someone who could do that legwork…was so amazing." (CBO Participant)

Theme 4: UVStrong maintained a culture of learning and trust founded on historical relationships

The functioning of the shared structure was notably generated through its historical origins and familiarity between CBOs and the hospital that pre-dated the COVID-19 pandemic. This meant there was a blueprint for coalition "activation," including veteran community leaders who preserved institutional memory: "Upper Valley Strong capitalized on [existing strengths and

systems] and what you get then…is the ability to react quickly, rather than trying to take enough time to create something new." (CBO Participant). member reflected on the ways in which prior trusted relationships facilitated the group determining roles for this iteration of the coalition:

> "Our smaller geography and our rural status…[meant] that everyone knew each other or knew of each other if they hadn't directly worked [together]. These groups were largely self-forming…[coalition leaders] identified key committees, but…[CBOs] working in those subject areas got together, and I think that there was just this organic movement to say collectively…what's the problem in front of us and how do we solve this." (Health System Participant)

Pre-existing working relationships existed among CBO leaders but also between them and staff at the hospital, owing to the community-embedded work that these staff did on food security, housing, early childhood initiatives, substance use, and other topics, even prior to the pandemic:

> "Our community and population health team had intersected with I think everyone…[we] had cultivated these relationships over 10, 20, 30 years, so that when we convene around a crisis we're not building relationships from scratch…collaboration is a muscle and if you've been using it your muscles are well set to do the job. (Health System Participant)

Within the steering committee, stakeholders whose work belonged to select issue areas were able to share and appreciate the full scope of community need and efforts to meet them. Weekly report-outs built a shared culture that valued adaptability and a culture of continuous learning:

> "Every meeting I made sure that every organization that came to the table…had [the] ability to speak up. Every time we've met has had some version of 'what are the gaps?',

> so we can all say what we think, what are we hearing, seeing and through that process we talk[ed] about what we wanted to work on…the need out there drove the work." (Health System Participant)

> "It was the freedom to fail…with no repercussions which is fairly unusual…There was a mandate to be clear and honest and learn from a strategy that didn't pan out..." (CBO Participant)

Committee meetings were supplemented by weekly bulletins composed by the communication committee and e-mailed to all UVStrong members. This bulletin served "as a vehicle for moving information further, beyond just the immediate group of people who are meeting". At a time when information and guidance about accessing state and federal funding as well as vaccines was changing so quickly, the newsletter was a vital source of communication to keep all organizations connected to UV Strong well informed. Importantly, these communications also generated action, as this participant acknowledged: "Sustained coalition[s] have to have trust…they have to constantly be talking about solutions and actions, not just reporting out information." (CBO Participant).

DISCUSSION

Our qualitative research identified features of the Upper Valley Strong coalition that resonate with the literature describing successful collaboratives. The motivation to create the Upper Valley Strong coalition in 2020 was urgent and focused; this group came together to keep communities safe from COVID-19. The threat from COVID-19 brought each member of the coalition to UVStrong with singular purpose, eliminating any need to define or debate the

purpose of the group. Our research illustrated the importance of governance, shared leadership, shared values and importance of learning together, and the investment of financial and non-financial resources. [4,7,9–14] Much has been written about the importance of trust in collaborative work and UVStrong benefited from years of health system-community work and pre-existing relationships.

The course of the COVID-19 pandemic has highlighted the complex relationship between chronic comorbidities, social risk factors, and disparities in COVID-19 burden, demonstrating an urgent need for healthcare systems to partner with community to reach marginalized people.[8,18] Such initiatives lie along a continuum of participation and control by the community, with increasing degrees of community empowerment associated with improved outcomes.[19–22] The CBO and need-driven philosophy described in this report can inform future partnerships aiming to improve community health through intentional alignment of clinical transformation and investments in socio-economic drivers of health. Clarifying the value of working together is a critical first step. In our example, the threat from COVID-19 was life-threatening and created an urgency that spurred rapid action that quickly demonstrated the value of collaborating. Leaders creating a coalition must engage potential partners to create a shared understanding of the value of collaboration.

UV Strong was rooted in a disaster response-based activation-deactivation model that provided a historical context for coalition activities and focused purpose and increased confidence in the value of collective work. Understanding the context for the work will inform coalition development. Leveraging prior positive relationships and acknowledging shared values and culture can accelerate implementation. Similarly, negative experiences from the past may need to be addressed before future progress can be made. Health systems and leaders would will

benefit from understanding prior community organized activities and historical networks, which may include reaching out to those who have left organizations.[23]

When incentives are understood and aligned, governance should be developed to meet the needs of the coalition. Governance should be developed by engaging all partners, developing clear decision-making processes, and creating accountability for actions. UVStrong modeled shared leadership between health system and community from the co-chairs down to each workgroup. Shared leadership throughout the governance structure promoted exchange of knowledge between community and health system and contributed to building trust at all levels of governance. In our case, bi-directional flow of information was crucial to understanding and addressing community needs in the first weeks of the pandemic. Coalitions should take immediate steps to ensure timely, understandable, transparent, and accessible communications as this is a critical function for collaborative work and trust.[25]

Our rural setting is tied to a spirit of "neighbor helping neighbor" which is reflective of the well-established relationships between CBO leaders and the health system. Rural health systems, often the major employer in small communities, illustrate the inextricable link between community prosperity, health care delivery systems, and population health.[23] While our study focused on activities in a rural region, health systems in all settings will benefit from building community partnerships to prepare for threats to the public's health from clinical disease or the chronic failure to improve the local conditions.[5,23,24] Further research is needed to identify implementation features that are unique to establishing coalitions in rural vs. urban settings.

This study does not present data on the coalition's effectiveness due to resource constraints that precluded real time evaluation. Continuous improvement occurred as the coalition acted, with efforts driven by information exchanged between coalition participants

working in the absence of an established data collection infrastructure. As a result, all data is observational, and retrospective, subject to recall bias. In general, community empowerment is difficult to compare as it is complex, dynamic, comprehensive, however it is recognized to be an outcome in and of itself, and this study provides qualitative evidence of these benefits.[22]

Two years after first convening, several UVStrong coalition functions continue to be supported to improve health equity in our region. DH continues to partner with CBOs to support those efforts, providing staff and financing. Informed by UVStrong, DH has worked with researchers, educators, and community members to create the Center for Advancing Rural Health Equity (CARHE), dedicated to eliminating unjust health outcomes in rural Northern New England. The establishment of the culture and principles of the coalition in the past two years have formed the foundation of the CARHE. Our model may serve as a framework for establishing inclusive health-system community structures that seek to improve long-term population health outcomes and center community voices in partnerships.

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Table 1: Summary of Factors Associated with Successful Health System and Community Partnerships and Representation in UVStrong Themes

Factors Identified by Alderwick et al.[9]	Related UVStrong Themes
Motivation • Vision and aims • Commitment • Perceived benefits	Theme 1: UVStrong had a clear focus in partnering to keeping people safe
Governance and Leadership • Decision-making and accountability • Engagement and involvement • Leadership support	Theme 2: UVStrong established a structure with shared leadership and decision-making
Resources and capabilities • Resources and resource sharing • Processes and infrastructure • Implementation and monitoring • Staff skills and capabilities	Theme 3: UVStrong leveraged the DH development, scientific, and administrative infrastructure to support its goals and functioning
Relationships and culture • Trust and relationships • Communication • Culture and Values • Roles and responsibilities	Theme 4: UVStrong maintained a culture of learning and trust founded on historical relationships.
External factors	Rural environment