Social Weather: Addressing Key Gaps in Well-Being Research

June 2021

ACKNOWLEDGEMENTS

POPULATION HEALTH INITIATIVE
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EXECUTIVE SUMMARY

Through the Social Weather project, the University of Washington's Population Health Initiative is working on behalf of the Barnes Family Foundation to better understand and incorporate research from community partners to develop an academic- and community-driven approach to measuring and improving well-being. During Phase 1 of the Social Weather project, the research team found that existing well-being promotion research is hampered by a significant knowledge gap as to what is needed to truly improve community health and well-being. In Phase 2 of the project, the research team began to address this knowledge gap by conducting research to complement the well-being indicators identified using academic sources with the perspectives of community partners.

Phase 2 Goals

The primary goals of Phase 2 were to:

1. Better understand the most pressing needs of community organizations through input from potential end users of the Social Weather platform.
2. Test the conceptual well-being model developed during Phase 1, and then to use community feedback to improve the Phase 1 well-being model, list of indicators, and recommendations.

The key objectives for Phase 2 were to:

- Identify groups with which to conduct community-based participatory research where community health workers (CHWs) and members of key communities are asked which concepts are most important to their personal well-being and the well-being of their communities.
- Gather input from people who are potential end users of the Social Weather platform to better understand their data needs and what tools or features would be most useful on a community well-being promotion platform.
- Revise the Phase 1 model, indicators, and data sources database based on community input and refine our recommendations for how the revised approach can be operationalized to improve community well-being through a data-driven web-based platform.

Research Findings from Community Partners

The research team conducted interviews and a survey with potential end users of the Social Weather platform (i.e., government agencies, non-profit organizations, and advocacy groups). A total of 149 potential end users provided input on the project. Through research with potential end users, the team determined that local community organizations vary widely in how they use data to make decisions and how they believe their broader community uses data to make decisions. Most local organizations believe data is important to their work but need more resources and support to increase their capacity to use data to make evidence-based decisions. Furthermore, many potential end users criticized some leaders, particularly leaders in government, for not consulting data in their own decision making.

When asked what tools and resources would most help them leverage data in their work, the most common responses included:

- Technical resources (e.g., affordable software, more reliable internet, customer relationship management [CRM] software)
- Project management templates and tools
- A database that provides comprehensive access to data related to their work
- An online system for tracking data
- Tools to streamline data use and visualization
- Opportunities for organizations to partner and share data and information

Participants most often mentioned difficulties with data management (e.g., data in spreadsheets are unwieldy and difficult to use efficiently), not knowing what sources of data to use, concerns in their community that data cannot be trusted or may be manipulated, not having staff with the skill set to analyze data, outdated data, and a lack of data that is specific to their target population or that is not representative of their community. To address the diversity of challenges local organizations face, a multifaceted approach to developing a community well-being promotion platform will likely have a stronger impact than the development of a single tool or resource.

The team also conducted interviews with 24 community health workers (CHWs) in Washington state. CHW participants varied in their demographic background and geographic locations and the diversity among participants was reflected in their responses to what factors were most impactful and important to the communities in which they work. Based on input from CHWs, factors related to meeting basic needs (e.g., housing, transportation, employment, economic vitality, food security and/or nutrition environment, access to healthcare) may be most salient to assessing and measuring community well-being across diverse cultural groups and geographic areas. Many CHWs also identified equity and impacts of structural racism as being important indicators of community well-being.

In addition to research with potential end users and CHWs, the team conducted semi-structured interviews and one focus groups with 26 members of three key communities: Latinx, Indigenous, and older adults. The findings demonstrate that there are commonalities in what respondents from diverse communities believe most impact community well-being and what needs exist in their communities. For example, all respondents indicated that the COVID-19 pandemic revealed how vulnerable communities are to changes and how many people still do not have reliable access to basic resources. The most common themes related to important factors to well-being among members of key communities who participated in the study include:

- Access to basic resources (e.g., housing, food, utilities)
- Discrimination, racism, and growing division
- Social connection and community support

In addition to these common themes, there were also many differences among participants in how they conceptualized well-being and the best approaches to improving well-being. This variability in viewpoints suggests that the Social Weather platform should provide some flexibility in defining community well-being to support appropriate and successful interventions for improving well-being in diverse communities.

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Revisions to the Phase 1 Well-Being Model, Indicators, and Data Sources Database

Based on input from community partners in Phase 2, the research team was able to revise and strengthen the Phase 1 approach to conceptualizing and measuring well-being by incorporating factors communities think are most important to their well-being. To supplement the Phase 2 qualitative research, the research team also reviewed 22 community health needs assessments from 2017-2020 throughout the United States. The needs assessments were reviewed to gather additional insight into what communities in the United States prioritize and believe are most important to their well-being.

Based on community input and research, the Phase 1 conceptual model was validated as an approach to well-being measurement that is consistent with how participants from key communities and potential end users define well-being. The domains of well-being included in the Phase 1 model — resources, opportunity, and connection — placed within the broader context of structural inequality reflects the ways in which study participants described what is most impactful to their communities and the biggest challenges facing their communities.
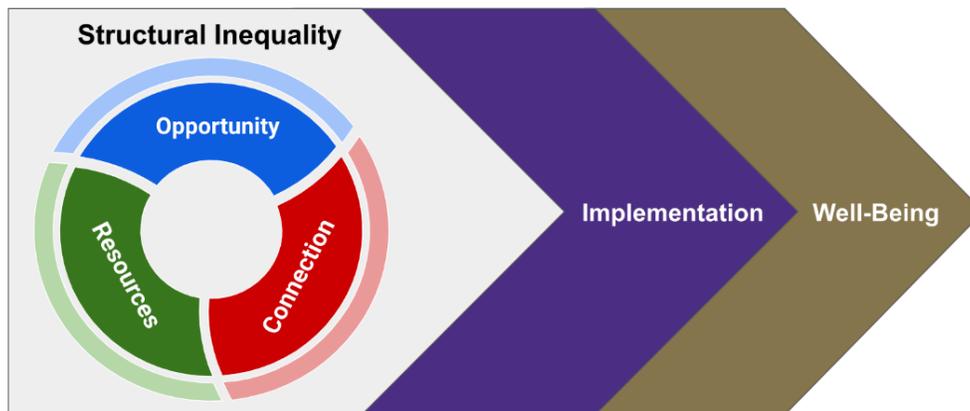
Phase 1 Conceptual Well-Being Model

In addition to validating the Phase 1 conceptual model, many of the factors raised by study participants in Phase 2 were already included in the domain, subdomain, and indicators identified in Phase 1. However, several additional indicators and new data sources were added based on community input that were not included in the original list of indicators. The following indicators were added to the Phase 1 indicator lists for each domain:

- **New resources indicators**: public health department accreditation status and emergency/disaster response plan status.
- **New connection indicators**: number of single person households, change in total population, sense of self-worth, feelings of safety and security, and generational trauma.
- **New structural inequality indicators**: eligibility requirements for assistance programs, worker-centered labor laws, white supremacist violence, and domestic extremism and terrorism.

Finally, the research team identified several key themes that will contribute to future phases of the Social

Weather project by offering insight regarding how to curate the indicators to develop a more concise approach to assessing community well-being. These key themes include:

- Many people in the United States do not have access basic needs like shelter and food, which many community partners believe is the paramount challenge facing their communities.
- Based on input from community partners, healthcare access may be a more relevant indicator of community well-being than health conditions and outcomes.
- The final indicators chosen for the well-being measure should balance immediate needs and conditions with longer-term factors that impact well-being, such as climate change and investment in infrastructure.
- The presence and impacts of racism, inequity, discrimination, and stigma should be weighed heavily in the final community well-being measure.

The revisions to the Phase 1 model, indicators, and data sources database based on Phase 2 findings provide a strong foundation for the next phase of the project.

Recommendations for Phase 3 of the Social Weather Project

The research team developed three recommendations for Phase 3 of the Social Weather project based on findings from the Phase 1 data sources landscape analysis, findings from the Phase 2 qualitative research with community partners, and input from the Barnes Family Foundation:

1. **Prototype a Social Weather Dashboard**: The research team will curate the revised list of well-being indicators and data sources to build a community well-being dashboard prototype. The dashboard protype will be developed with ongoing input from partners to address findings from Phase 2 that suggest Connection data availability, data use for decision making, and community well-being assessment are challenges for potential end users. Select partners who are engaged during Phase 3 will also be invited to form an expert panel that will provide ongoing input on Phase 3 and future phases of the Social Weather project.
2. **Conduct Policy Research in Support of the Social Weather Dashboard**: The research team will develop several policy case studies to understand how the Social Weather platform can be used to influence policy change and then translate the research into stories and guidance that can be used to promote data use and data quality improvements. The policy case studies will seek to better understand how data can be better leveraged in the policymaking process based on input from potential end users in Phase 2 that even when data is available, leaders do not always use data for decision making.
3. **Conduct a Landscape Analysis to Explore a Community-Based Technical Assistance and Training Pilot Program**: Finally, the research team will conduct a landscape analysis to explore how community-based programs and resources are currently addressing organizations' needs and make recommendations for interventions that could have broad impact and meet needs that current efforts are not yet addressing. The Phase 2 work with potential end users highlighted several areas of need among community organizations with the landscape analysis to explore resources and programs that could address these areas of need and support organizations with using data more in their own work.

The research team's findings from Phases 1 and 2 support the need for both structural changes to data quality and availability as well as community-based resources and interventions to build organizational capacity around data use and community engagement. In Phase 3, the development of a prototype dashboard will contribute to the identification of opportunities to improve the data landscape for measuring and assessing well-being, while also providing a starting point for the Social Weather community well-being platform. Policy research in Phase 3 will also support the platform by highlighting the importance of data-driven decision making and making the case for data to end users of the platform. Finally, the landscape analysis to explore a community-based technical assistance and training pilot program will further the goal of improving community organizations' capacities to collect and leverage data in their work.

PROJECT OVERVIEW

During the winter and spring of 2021, the research team at the University of Washington (UW) – led by the university's Population Health Initiative (PHI) – completed Phase 2 of the Social Weather project to better understand how communities in the United States conceptualize well-being and how the Social Weather project can create a platform to support communities in improving that well-being.

During Phase 1 of the project (*Defining and Measuring Community Well-Being to Improve Population Health*), the research team consulted academic research and experts to develop a comprehensive list of indicators and data sources that could be used to support a measure of community well-being. During Phase 1, the team found that existing well-being promotion research and projects are hampered by a significant knowledge gap as to what is needed to truly improve community health and well-being. Specifically, the team observed most assessments of well-being are designed in a vacuum with little input from communities, which is a critical gap that must be addressed to fully support the impact the Barnes Family Foundation hopes to achieve through the Social Weather project.

In Phase 2, the research team began to address this knowledge gap by conducting research to complement the indicators identified using academic sources with the perspectives of community partners. The goal of Phase 2 was to test the conceptual well-being model developed during Phase 1 and to then draw from community input to improve the model. That community input allows us to better understand the unique drivers and local contexts of community well-being that are not currently captured in academic research, which will be critical to the success of any subsequent development and piloting of a data-driven community well-being platform for Social Weather. The objectives for Phase 2 were to:

- Identify groups with which to conduct community-based participatory research where community health workers (CHWs) and members of key communities are asked which concepts are most important to their personal well-being and the well-being of their communities.
- Gather input from people who are potential end users of the Social Weather platform to better understand their data needs and what tools or features would be most useful on a community well-being promotion platform.
- Revise the Phase 1 model, indicators, and data sources database based on community input and refine our recommendations for how the revised approach can be operationalized to improve community well-being through a data-driven web-based platform.

The following report summarizes the UW PHI team's research findings from Phase 2 of the Social Weather project, the implications these findings have for the well-being model developed in Phase 1, and recommendations for furthering the goals of the Social Weather project.

This report is divided into three sections:

1   **Research Findings from Community Partners**

2   **Revisions to the Phase 1 Well-Being Model, Indicators, and Data Sources Database**

3   **Recommendations for Phase 3 of the Social Weather Project**

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RESEARCH FINDINGS FROM COMMUNITY PARTNERS

The purpose of the qualitative research in Phase 2 was to guide how the Phase 1 model and recommendations could best be refined and operationalized, which is critical to the success of subsequent development and piloting of a community well-being platform. Throughout Phase 2, the research team conducted surveys, interviews, and a focus group to collect input from both potential end users of the Social Weather platform and members of key communities to better understand the unique drivers and local contexts of community well-being not currently captured in academic research. Although statistical inference should not be drawn from the qualitative research conducted for this study, the input from potential end users and members of key communities provides excellent insight into the broad range of considerations that should be made in projects that seek to improve community well-being. All study materials and procedures were approved by the University of Washington Institutional Review Board.

1. Research with Potential End Users

The following section describes the methods and findings of the research team's qualitative work with potential end users of the Social Weather platform. The research sought to better understand how community organizations use data, resources that could enhance their work, and the challenges they and their communities are currently facing.

Methods

For the study, the research team defined potential end users as people who work for organizations and in positions that would suit them well to be potential users of the Social Weather platform. People who held leadership, decision making, or data analysis roles in any of the following organizations were defined as potential end users:

- Government agencies
- Non-profit organizations
- Advocacy groups

To further narrow the scope of the study, the team recruited participants from several target geographic areas in the United States. These target geographic areas were identified from a review of disparity data from the UW's Institute for Health Metrics and Evaluation, with the target areas having significantly lower life expectancy or higher mortality risk rates compared to other geographic areas in the United States. In addition to areas with below average health outcomes, the research team also selected target regions in the same states that had above average health outcomes.

Based on this process, the following target geographic areas were selected for the study:

- McDowell County, WV and Jefferson County, WV
- Baltimore City, MD and Montgomery County, MD
- Rural, southern SD and Rapid City, SD

The research team also chose King County, WA as an additional area of study given the UW's connection to the region and potential for piloting Social Weather interventions in King County.
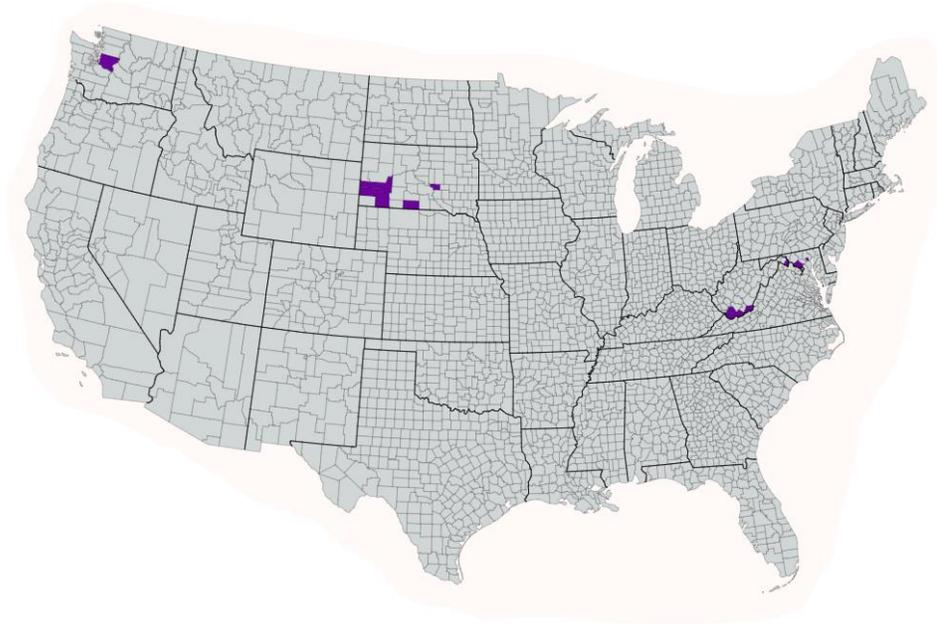

Figure 1 - Map of end user research target geographic areas

For each target geographic area, the research team used the organization type and role criteria to identify eligible organizations and staff. The team used a combination of internet searches, nonprofit databases, and snowball sampling (in which interviewees were asked to identify potential participants) to identify organizations that fit the end user criteria. Purposive sampling techniques were used to obtain a sample that included potential end users from each of the three organization types in each target geographic area. Eligible organizations and staff were contacted by email or telephone if an email address was not publicly available and invited to participate in either an online survey or interview. Respondents were further vetted by the research team to ensure they met the study criteria before being surveyed or interviewed.

To collect data from potential end users, the research team employed both an anonymous online survey and interviews (conducted over Zoom or by telephone). The online surveys asked respondents to answer a series of questions about their organization's use of data and volunteers, as well as their perspectives on community well-being and decision making in their communities. Interviews with potential end users covered similar questions but approached data collection using a semi-structured and more respondent-guided method (see **Appendix B Question Guide for Potential End Users**). All participants were offered a gift card to incentivize participation. From February to April of 2021, the research team completed 25 interviews and collected 124 surveys from potential end users.

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Findings from Research with Potential End Users

Findings from the end user interviews and surveys are described and summarized below based on four themes:

- Challenges Facing Local Organizations
- The Role of Data in Local Organizations
- Community Engagement and Volunteerism
- Local Well-Being Promotion

Challenges Facing Local Organizations

Interview and survey participants were asked what the most pressing needs were in their organizations. The most common response was that organizations are not able to serve everyone in their communities because needs far outweigh available resources. Many participants talked about regularly turning away people in need of their services because they did not have the capacity to help them. According to many participants, this challenge existed prior to the COVID-19 pandemic but has become worse as the pandemic created more need while also straining resources. Many participants also described additional challenges including a lack of funding to expand services or hire staff, disruption to programming caused by COVID-19, difficulty filling open staff positions and finding qualified candidates, difficulty engaging diverse community members and becoming a more inclusive organization, and combatting stigma and other deep-rooted problems in their communities.

Participants were also asked what types of tools and resources would be most helpful to their organizations. Tools and resources that were most often mentioned included technical resources (e.g., affordable software, more reliable internet, customer relationship management (CRM) software), project management templates and tools, a single database that provides comprehensive access to data related to their work, an online system for tracking data, tools to streamline data use and visualization, opportunities for organizations to partner and share information, and tools to track clients' progress to evaluate their work.

> *"An online platform in which all local organizations working on our core issue (immigration) could share information and collaborate. We rely mostly on interpersonal networks for that kind of coordination."*

> *"There are so many nonprofits that could do so much more with their resources and funding if they were aware of and would work with other nonprofits... We need something in this state that brings all of the entities together, lets them know what others are doing, how they can be involved, or what the gaps are so someone can fill them."*

> *"Rural communities don't have the same resources that we do in the city. I hear a lot from organizations in rural counties that say they can't find people to sit on their boards or even to fill paid staff positions."*

The Role of Data in Local Organizations

The potential end users who participated in the study reported many differences in the ways in which they currently use data in their work and the challenges they associate with data use. Survey and interview participants described using data for a variety of activities including identifying priorities, monitoring trends in data, evaluating their programs, meeting reporting requirements for funding, grant writing, and communicating problems and solutions to their communities and policymakers. Participants from government agencies and nonprofits reported using data more than respondents from advocacy groups.

"We use stories and art as a means to promote our community. We rarely use 'data' if that means statistics."

When asked what sources of data their organizations most often use, the most common sources participants listed were data from the Census Bureau (primarily demographic data from the American Community Survey), data from local community health needs assessments, and data from local hospital and school systems. Some participants also reported using data from the County Health Rankings, internal programmatic data, data from social media and community forums, and data from partner organizations in their communities.

Some participants also shared the many challenges they face with the data they use. Participants most often mentioned difficulties with data management (e.g., data in spreadsheets are unwieldy and difficult to use efficiently), not knowing what sources of data to use, concerns in their community that data cannot be trusted or may be manipulated, not having staff with the skill set to analyze data, outdated data, and a lack of data that is specific to their target population or that is not representative of their community.

"There are communities that are not represented in some of our data. Undocumented students and families in particular are not captured in many of our data sources."

"Often data is inconsistent, with different websites reporting different numbers."

"It is not readily available to us - we have to go through multiple partners to secure, it is not housed in one place. And the data is always tailored to someone else's needs. Because we don't have the capacity to secure this data in house, we have to rely on others for resources."

"For a lot of data, we don't get access to it until it's almost useless because it's so out of date."

"Not enough organizations collect data about race or include enough options to make meaningful assertions about how different groups are impacted. Not all communities are engaged in research equally either, so some groups are completely left out of data."

"Sometimes we know a problem exists because people in the community identify the problem, but we don't have data to back it up. One recent example is finding data related to sidewalk safety."

In addition to using external sources of data, most survey respondents (73%) reported their organizations also collect their own data. Common data that organizations collect include programmatic data, data from clients to monitor their progress or obtain feedback, and data to measure community-level variables (e.g., homeless census, community health needs assessments, and data on specific communities that may not otherwise be available). Common challenges to collecting data include getting clients to complete data forms and surveys, language and cultural barriers, knowing how to analyze data, and limited staff time for collecting and analyzing data. Several participants reported partnering with others to collect and share data in their communities (often called "data collaboratives"). Of the participants who said their organizations do not collect data, the most common reasons given were that the data they need is already being collected by other organizations and not having the staff or resources to collect their own data.

Given the Barnes Family Foundation's interest in social and emotional well-being, participants were also asked if this type of data would be useful to their organizations. Fifty-nine percent of survey respondents said data on their communities' social and emotional health would be useful, 30% said it would not be useful, and 11% said they were unsure. Many participants saw this data as being helpful to understanding the broader impact their work has on the community, whereas other participants thought the data would be primarily relevant to the mental and behavioral health sectors and would not necessarily relate to their organizations' missions.

"Especially through this pandemic, we know it is having a severe impact on mental health, but the local data is all over the place. Having a consolidated resource would help us determine future needs."

"We are really focused on providing educational choice and boosting high school graduation rates. We have a 98% rate now so although this data is very important for many, it really does not relate to our mission, focus or outcomes."

Community Engagement and Volunteerism
Seventy-eight percent of survey respondents reported using volunteers in their work. Some participants from advocacy groups (some of which were entirely volunteer run) and nonprofits reported relying on volunteers to do more than 50% of their organizations' work, whereas participants from government agencies were less likely to use volunteers and often only used unpaid interns for volunteer work. Among participants who reported that their organizations do not use volunteers, reasons included not having enough work for volunteers, working in a field that was highly sensitive or technical, and concerns around maintaining the confidentiality of clients.

"The work we do is very sensitive, so it is difficult to bring volunteers in but still maintain a safe and confidential space."

According to participants, organizations use volunteers to fill a variety of roles. Some of the most common roles that volunteers fill include helping with office duties, organizing and distributing materials, providing information and assistance to clients, helping during events, doing outreach to the community and policymakers, data entry, and holding leadership roles such as coalition leaders and board members. Primarily, volunteers fill low-skill work roles, but some participants reported that their organizations have volunteers fill more skill-based positions that require specific training or technical knowledge (e.g., data collection, teaching classes, home repair, legal services).

Most participants reported that volunteers are often older adults, high school and college students, or people who have a passion for and connection to their organizations' work. Many participants believed that more people in their communities would like to volunteer but do not have the time. Several participants reported that moving some of their activities online during the COVID-19 pandemic enabled them to reach more people who were able to attend virtual meetings and events. To recruit volunteers, many organizations partner with schools to match students to positions and use community volunteer matching services and databases to connect with community volunteers.

While some participants reported that they do not need more volunteers, among participants who said they use volunteers in their work, 82% said they could use more volunteers. When participants were asked what

types of challenges they face in engaging volunteers in their communities, the most common challenges reported were finding volunteers who are available during the hours they are needed, recent limitations to in-person volunteering due to COVID-19, finding volunteers who have specific skills (e.g., bi-lingual, data entry), limited staff time to train and manage volunteers, high turnover rates, and the cost of background checks. Several participants also said they wanted volunteers from more diverse backgrounds but engaging volunteers who can relate to or belong to the populations they serve was difficult.

"Many volunteers are short term, so training them is more time intensive than it's worth."

Finally, participants were asked what types of tools and resources could help their organizations to improve their volunteer programs and community engagement. Some participants listed tools and resources that would support them in recruiting volunteers, such as assistance with community outreach and marketing (especially marketing through social media), the ability to offer incentives or rewards for volunteering, and resources to cover volunteers' childcare and transportation costs. Participants also identified tools and resources that would improve how they manage and engage existing volunteers, such as guidance on how to maintain client confidentiality when working with volunteers; having staff availability to oversee volunteers; tools to simplify tracking, training, and managing volunteers including a volunteer training curriculum; developing a clear vision of what projects need volunteers throughout the year to assist with planning; and additional supplies for volunteers to use when they are working (e.g., computers, vehicles).

"The leadership of the organization has never received instruction on best practices for volunteer recruitment, accountability and retention. We have introduced simple community building activities in our meetings but could definitely develop our volunteer management."

"Marketing resources to accurately capture our volunteer opportunities and share them publicly. A volunteer database that matches volunteers with very specific needs."

Promotion of Local Well-Being
In addition to questions about their organizations, survey and interview participants were also asked several questions about their communities. For example, participants were asked if they had a good sense of their communities' overall well-being. Sixty-eight percent of survey respondents believed they had a good sense of their communities' well-being, while 21% did not, and 10% reported that they were unsure. When asked how they assessed their communities' well-being, participants listed data, partners, and community input as sources that provide them a sense of how their communities are doing.

Participants were also asked what factors they believed were most important to their communities' well-being. Participants provided a wide variety of answers, but the most common responses included access to basic needs (housing, utilities, medical care, and food), financial status (employment, income, financial stability), social support (family support, sense of community, isolation), education, and inequity (racism, stigma, discrimination, classism). Some participants used the term "safety net" to describe the importance of resources to support people when they face unexpected challenges such as job loss and medical problems. Many participants also pointed to "upstream" factors being of higher importance to community well-being. For example, several participants noted that poverty and racism are the root causes of many other problems in their community such as housing and health.

"My team responds to clients who have little resources and support to help them after disasters. We would have far less calls to respond to if people had more resources they could turn to when unexpected events happen, so I think that's very important."

"We are trying to make our community more resilient and sustainable and self-sufficient. Some changes we want to make are improving access to technology, improve access to basic needs, and to move towards local, sustainable food."

"We are trying to make our community more resilient and sustainable and self-sufficient. Some changes we want to make are improving access to technology, improve access to basic needs, and to move towards local, sustainable food."

Participants were asked what makes change happen in their communities. The most common drivers of change mentioned by participants were having the funding and resources available to support a change, political will, community support, and partnerships. Several participants also noted the importance of storytelling to achieve change in their communities, with one participant pointing out that local news was story-driven, not data-driven.

"We are seeing more and more small community groups and coalitions form to address problems in their community because the local government has done a poor job of making change happen."

"It's stories that get people interested in our work… and upset about something or rallied to the cause."

While almost all participants reported that data was important for decision making, many believe data is not being used as much as it should be to drive change in their communities. Many participants expressed frustration with leaders in their communities who do not use data to inform their work and decision making. Some participants believed that even though a lot of data is collected, leaders are not actually making changes to improve programs and policies based on data.

"I believe that data is very important, but you must utilize the data that you have and make the necessary changes which doesn't always happen in leadership."

"Data informs need, change happens from the heart. The data can prove why something should happen, but people need to act on it to affect real change."

"I know the government and organizations are collecting a lot of data, but I'm skeptical that this data is being put in good use to make decisions. I think going with the status quo is more common even if data points to improvements."

"We are committed to advocating for science-based policies. But the political will to take action is not always data driven."

"Data is important to the community. People are increasingly interested in knowing that decisions are being made based on facts and science."

2. Research with Community Health Workers

The following section describes the methods and findings from a study with community health workers (CHWs) in Washington state. Community health workers are members of communities who provide basic health and medical care to their community. The study was led by research team member Dr. Wendy Barrington through a partnership with the UW School of Nursing. The research sought to better understand the ways communities conceptualize and define well-being from the unique perspective of CHWs.

Methods

Community health workers were recruited from among Public Health Seattle-King County employees and the Washington CHW Association (WACHWA) network. Information about the study was shared via distribution of flyers via email and presentations at organizational meetings. CHWs were invited to participate in a 60-minute interview about the CHW role, barriers to community health, and definitions of community well-being within the COVID-19 pandemic environment. Interviews were conducted using a semi-structured interview guide. Informed consent and permission to audio-record the session was then obtained from each participant. A total of 24 interviews were conducted with CHWs across Washington state and participants were diverse in terms of racial/ethnic background as well as geographic location.

Findings from Research with Community Health Workers

Among both CHWs of color and White CHWs, having basic needs met including housing and food security was integral to community well-being (15.8% and 17.4%, respectively). However, the importance of essential elements to community well-being differed for CHWs of color compared to white CHWs. For CHWs of color, having basic needs met and the absence of sickness were both endorsed as important components of community well-being whereas community connectedness was endorsed as the most important component among white CHWs followed by having basic needs met. CHWs of color also reported more themes related to community well-being. Themes reported by CHWs of color that were not reported by white CHWs included: the ability to work, cultural or spiritual ties, economic stability, and a "sense of ease and safety." The only theme reported by white CHWs that was not reported by CHWs of color was access to power.

"...how I would describe well-being is just a general sense of ease and safety—the ability to take care of yourself and your family without environmental interference or interruptions that are traumatic...in my culture, there is a word called 'aafia' and that's how we define health—a general sense of ease that you feel."

More CHWs from urban areas endorsed that community connectedness was the most important component of community well-being (20.0% of respondents). The most important components endorsed by CHWs from rural and suburban areas were having basic needs met (16.1% of respondents) and absence of sickness or trauma (12.9% of respondents). Interestingly, these components of well-being were endorsed at comparable frequencies among urban CHWs.

"Having social isolation and being fragmented is the opposite of community well-being. So, I think, just that cohesiveness and the ability to access resources would be a big piece of it."

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3. Research with Members of Key Communities

The following section describes the methods and findings from the research team's qualitative work with members of three key communities. The research sought to better understand the ways individuals from different communities conceptualize and define well-being.

Methods

To collect data from members of key communities, the research team conducted semi-structured interviews and one focus group where participants were asked questions about how they define well-being for themselves and their communities, what factors they think are most important to well-being, and their communities' biggest strengths and challenges (see **Appendix A Question Guide for Members of Key Communities**). Key communities were chosen based on several factors, including identifying groups who have historically been excluded from well-being research and groups with which members of the research team identified.

The team used two primary methods of recruitment. The first recruitment method was to conduct outreach to organizations that are run by and represent the key communities of interest and the second method was a snowball sampling approach whereby participants were asked to refer contacts to our research team who are members of key communities. All participants were offered a gift card to incentivize participation. From April to May of 2021, the research team completed 25 interviews and one focus group with members of three key communities (see **Table 1 Summary of Key Community Participants**). All participants were interviewed remotely using either Zoom or telephone and interviews were recorded to analyze highlights and themes.

Key Community	Research Participants
Latinx	One focus group of four participants and 10 interviews; all participants were based in Washington and California
Indigenous	Three interviews, including two key informant interviews; all participants were based in Washington
Older Adults	Nine interviews; all participants were based in Washington

Table 1 - Summary of Key Community Participants

Research with Members of Latinx Communities

Latinx individuals make up a diverse and vast population in the United States, representing 18.4% of the total population.[1] The 61 million Latinx individuals in the U.S. have origins in Spanish-, Indigenous language-, and Portuguese-speaking countries in Latin America, with a range of different cultural and racial identities. Latinx in the U.S. most commonly have roots in Mexico, Puerto Rico, El Salvador, and Cuba.[2] Additionally, 33% of the Latinx population in the U.S. are immigrants, representing the largest ethnic group among all immigrants. Latinxs face many health disparities and the COVID-19 pandemic has disproportionately impacted Latinx communities. Latinx are 1.7 times more likely than their white counterparts to contract COVID-19, 2.8 times more likely to die as a result, and vaccination rates among Latinx in the United States are 1.4 times lower than those of their white counterparts.[3]

Of the 14 Latinx participants in the study, most defined their communities by shared aspects of their lives, including shared values, identities, culture, and experiences (particularly difficult experiences like oppression and trauma). Nearly all participants shared that challenges facing their communities were not new and that the COVID-19 pandemic only exacerbated issues. Access to resources was the primary concern by participants, with specific concerns related to access to information, language barriers, technological access and literacy, and exclusive policies. Younger participants (<30) expressed more concern with systemic issues in their communities, such as capitalism, racism, and white supremacy, while older participants focused more on individual and local concerns, like funding and social connection.

"This business-as-usual mentality... the system doesn't work for everybody, and it's not meant to, but we still have to participate in it."

When asked about what most impacts their personal well-being, participants mentioned factors such as mental health, physical health, spirituality, social connections, and basic needs like nourishment, sleep, and hydration. Many participants also mentioned stability, particularly related to finances and routines. Factors that influence community well-being were more varied among participants. Many shared reflexivity and growth as relating to community well-being. Sharing food was among the top responses to factors that impact community well-being. Many participants also shared that access to resources (i.e., money, food, safe and affordable shelter) and ability to fulfill needs and pursue interests were important to community well-being, along with general safety. Three participants shared the importance of serving community (e.g., mutual aid), especially among individuals who are more highly educated or wealthy. Safety and fear of deportation was reported by most participants as a major factor impacting community's well-being, with several participants mentioning the need for safe spaces to gather and obtain resources.

"You have to be exceptional to excel, to get into college...working on processing how that still really affects me. It takes a toll on mental health."

Participants widely viewed access to resources and information as changes that could be made to improve their community's well-being. Resources mentioned included money, food, water, shelter, COVID-19 vaccines, health care (mental and physical healthcare), healthy eating options, and funding for community programs (e.g., education). Participants also mentioned the desire to balance positions of power among racial and ethnic demographics and uplifting voices of community members. Additional changes that would improve well-being included increasing workforce ability to serve Latinx communities, improving outreach and distribution of assistance programs (especially to rural communities), increasing technological literacy, and eliminating stigma around immigration and Latinxs communities.

"We have to run that same mile with fewer resources."

Research with Members of Indigenous Communities

Indigenous communities make up a diverse and continuously changing demographic within the United States. In Washington state alone, there are 29 federally recognized tribes,[4] with geographies ranging from rural to urban, from coastal to landlocked, and with populations numbering 138,462 people.[5] Tribes vary greatly in size, population, access to resources, political power, and capital.

Several themes around community and well-being emerged during conversations with representatives from Indigenous communities. All participants spoke of the importance of cultural identity and history within their communities. Participants viewed the collaborative aspect of their communities as a great strength, as well as one respondent noting resource conservation and a respect for the land as being unique strengths of her community. The participants also noted the importance of access to housing, financial resources, a supportive school system, and connection to heritage and culture as being important for community well-being. One of the participants identified that she feels her community is thriving when she sees people participating in community-driven events such as softball or a fundraiser for a good cause. This tells her that people are working to build the community rather than just focusing on their own needs. Participants also noted access to physical, mental, and spiritual health services as being important for the overall well-being of their communities.

"There is an aspect of community that translates to safety."

Some of the biggest challenges mentioned by participants included drug use, crime, and unequal access to resources such as clean water, housing, healthy food, and land resources. The participants also mentioned that balancing political ideologies creates a challenge, especially as many Indigenous communities reside within or bordering other rural communities which may be ideologically opposed to the needs of the Indigenous communities. One participant reported that educational resources are not designed to address the needs of Indigenous children or their histories. Another challenge noted was generational trauma which deeply impacts many Indigenous communities.

"Since COVID the reservation community has become more isolated because there is no good internet access so they can't go online like everyone else has."

Tribes have historically experienced harm at the hands of research organizations, governments, and social service providers, which makes it crucial to work with Indigenous populations in a culturally competent manner. The participants from Indigenous communities believed that data could be used to positively benefit the well-being of tribes, so long as those tribes are in control of how that data is collected, organized, and disseminated. Finally, the participants felt that the greatest challenges impacting their communities related to disparities often faced by Indigenous communities in allocation of resources, access to basic material needs, and a sense of community purpose and connection.

Research with Members of Older Adult Communities

The final key community the research team consulted was older adults. For the purposes of this study, older adults were defined as any person that is 65 years of age or older. In the United States, there are more than 46 million older adults and by 2030, older adults are projected to account for one in five Americans.[6] During interviews with older adults, several consistent themes emerged when discussing well-being in their communities. These common themes include the importance of access to healthcare services, community participation and cooperation, feelings of safety, access to opportunities for personal fulfillment, and political division during the COVID-19 pandemic.

Older adult participants from rural and urban communities described their communities differently. Rural and suburban participants spoke of their communities as collaborative and friendly, but also spoke of political divisiveness and growing hostility and resentment in the face of many rural residents choosing not

to abide by COVID-19 mask and social distancing precautions. Although participants from rural communities described their communities as collaborative and friendly, they also noted a strong desire for independence. Many rural participants described isolation as a positive characteristic of their communities and noted a lack of crime as a desirable outcome. Conversely, older adult participants from urban communities used words like smart, well-educated, diverse, and political to describe their communities. Participants from urban communities more frequently described the services available to them, the importance of community ties, and the ways that they stay connected with their communities during the pandemic.

Older adult participants defined well-being as having sufficient access to medical care, opportunities to participate in activities they enjoy, and opportunities for social interaction. Many participants also reported that the opportunity to engage in civic activity also improved their own well-being. Most participants spoke of dignity, safety, security, and access to basic resources such as food and housing as being instrumental to community well-being. Only one participant reported feeling that access to good jobs and adequate education was important for community well-being, although this may be because many older adults do not interface with these resources regularly. One participant also reported that spirituality was important to community well-being.

"If you love something then you take care of it. When I see things aren't being taken care of, it makes me think the community is struggling."

Older adults mentioned a variety of challenges to their communities, and the most common challenge was growing division during the COVID-19 pandemic. Participants reported that access to resources was also a significant challenge, although there was variation in what those resources included: rural participants were more likely to speak of challenges such as social isolation, loneliness, lack of infrastructure, insufficient access to medical care, and aversion to change whereas participants living in urban communities were more likely to speak about issues such as violence, inequities, homelessness, and competition over resources. Several rural and suburban participants also mentioned concerns about balancing community development projects with preservation of natural resources.

Summary of Research Findings

The research conducted with potential end users, community health workers, and members of key communities confirms that there are commonalities in what people believe most impacts community well-being and what needs exist in their communities. For example, many participants noted that the COVID-19 pandemic has revealed how vulnerable their communities are to changes and how many people in their communities do not have reliable access to basic resources. However, the differences among how people view well-being and the best approaches to improving well-being also need to be considered to develop successful well-being improvement interventions.

Through interviews and survey responses from potential end users, the research team determined that local community organizations, including non-profits, government agencies, and advocacy groups, vary widely in how they use data to make decisions and how they believe their community uses data to make decisions. Most potential end users believed data is important to their work, but many reported that their organizations need more resources and support to increase their capacity to use data to make decisions. Furthermore, many potential end users criticized some leaders, particularly leaders in government, for not

consulting data in their own decision making. To address the diversity of challenges local organizations face, a multifaceted approach to developing a community well-being promotion platform will likely have a stronger impact than the development of a single tool or resource.

Finally, many potential end users, community health workers, and members of key communities emphasized the importance of outside influences on community well-being. Outside influences include factors such as structural racism and federal and state policies that impact access to healthcare and financial security. Local communities may often not have the power to solve problems that are caused by larger systems. While communities can make change happen by addressing local factors, there are larger structures that impact them that will have effects they cannot change. Many potential end user participants noted that data is important to improving well-being, but data alone will not solve many challenges facing communities.

REVISIONS TO THE PHASE 1 WELL-BEING MODEL, INDICATORS, AND DATA SOURCES DATABASE

The research team's conceptual model and operationalized domains, subdomains, and indicators provided a strong foundation for measuring and assessing well-being during Phase 1 of the Social Weather project (see **Appendix C: Phase 1 Domains, Subdomains, and Indicators**). Based on input from community partners in Phase 2, the research team revised and strengthened the Phase 1 model, indicators, and data sources database by incorporating factors community partners think are most important to community well-being. To supplement the input from community partners, the research team also reviewed 22 community health needs assessments (CHNA's) from 2017-2020 throughout the United States (see **Appendix D: Community Health Needs Assessments Consulted**). The needs assessments were reviewed to gather additional insight into what communities in the United States prioritize and believe are most important to their well-being.

Based on community input and a review of CHNA's, the Phase 1 conceptual model was validated as an approach to measuring and assessing well-being that is consistent with how potential end users, community health workers, and members of key communities define well-being. The domains of well-being included in the Phase 1 model — resources, opportunity, and connection — placed within the broader context of structural inequality reflects the variety of factors people associate with well-being and the challenges facing their communities.
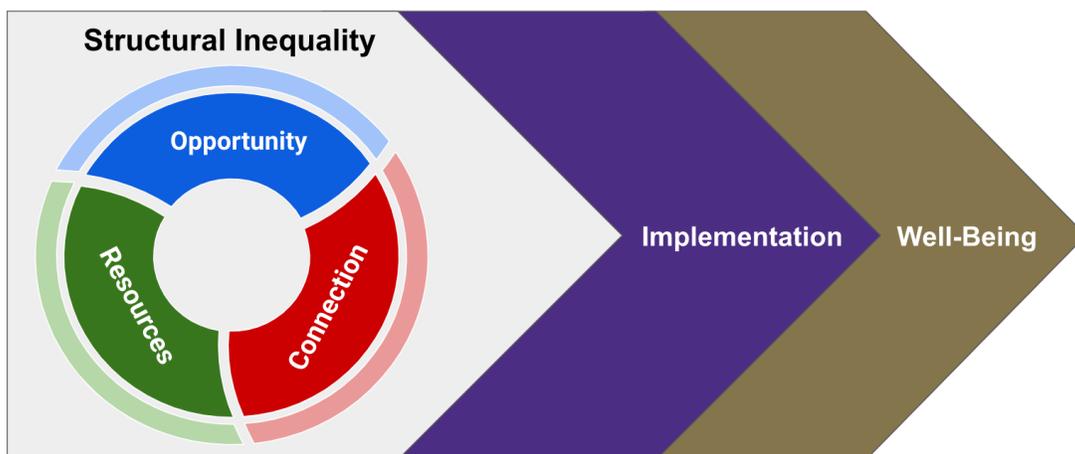
Figure 2 - Phase 1 conceptual model for understanding and improving community well-being

In addition to validating the Phase 1 conceptual model, many of the factors of well-being identified by community partners in Phase 2 were already included in the subdomains and indicators identified in Phase 1. However, several additional indicators and new data sources were added based on community input that were not included in Phase 1. The following indicators have been added to the indicator lists for each domain:

- **New resources indicators**: public health department accreditation status and emergency/disaster response planning.
- **New connection indicators**: number of single person households, change in total population, sense of self-worth, feelings of safety and security, generational trauma, and opportunities for social connection.
- **New structural inequality indicators**: eligibility requirements for assistance programs, worker-centered labor laws, white supremacist violence, and domestic extremism and terrorism.

The research team also added several new data sources identified by potential end users that were not previously entered into the data sources database (https://bffsw.csde.washington.edu/) and the team conducted additional data discovery to add new data sources related to the new indicators identified above. The following data sources were added to the data sources database developed in Phase 1:

- United for ALICE data
- National Survey of Health Attitudes
- 211
- Kids Count data
- Intergovernmental Panel on Climate Change Climate Reports
- Urban Indian Health Institute data
- Homeless Management Information System data
- The Trevor Project data

Finally, the research team identified several key themes that will contribute to future phases of the Social Weather project by providing insights on how to curate the indicators to develop a streamlined measure for assessing community well-being. These key themes include:

- Many communities in the United States do not have reliable access basic needs like shelter and food, which many community partners list as a paramount challenge facing their communities.
- Based on input from community partners, healthcare access may be a more relevant indicator of community well-being than health conditions and outcomes.
- The selection of indicators chosen for the Social Weather community well-being dashboard should balance immediate needs and community conditions with longer-term factors that influence well-being, such as climate change and investment in infrastructure.
- The presence and impacts of racism, discrimination, and stigma should be weighed heavily in the final community well-being measure as these factors were commonly discussed in both research with community partners and in community health needs assessments.

Following this Phase 2 qualitative research with community partners, the research team now has a more comprehensive list of indicators and validation of the approach to assessing and measuring community well-being developed in Phase 1. Moving forward, the Phase 2 findings will inform which indicators may be most important to address through the Social Weather platform.

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RECOMMENDATIONS FOR PHASE 3 OF THE SOCIAL WEATHER PROJECT

The research team developed three recommendations to pursue in Phase 3 of the Social Weather project based on findings from the Phase 1 data sources landscape analysis, findings from the Phase 2 research with community partners, and input from the Barnes Family Foundation.

Recommendation #1: Prototype a Social Weather Dashboard

In Phase 3, the research team will develop a data dashboard protype for several test counties in the United States. The purpose of the dashboard will be to test the concept of a full-fledged well-being dashboard and share it with partners for feedback on how a data dashboard could be used in their work and what features and changes would be needed. Emphasis will be placed on investigating whether a Social Weather dashboard could address three Phase 2 findings: (1) 31% of potential end user survey respondents either did not believe they had a good sense of their communities' well-being or were unsure, (2) many potential end user respondents believe social and emotional factors are important to well-being, and (3) most potential end user respondents reported challenges in their community to using data for decision making.

Prior to developing the dashboard, the research team will use the revised list of well-being indicators and data sources to choose data the team believes is most important to a well-being measure. This step will draw guidance from the research findings from Phase 2 and ongoing input from academic and community partners. Input collected from community partners in Phase 2 will strongly influence the final list of curated indicators. Select partners who are engaged during Phase 3 will also be invited to form an expert panel that will provide ongoing input on Phase 3 and future phases of the Social Weather project.

Once indicators are chosen, the team will identify the best sources of data for the curated list of indicators and that data will be used to build a dashboard prototype. The prototype will include a mapping feature to show comparisons among test counties for the chosen well-being indicators. At the conclusion of Phase 3, the research team will develop a roadmap for future revisions to the dashboard that would best support adoption by policymakers, community groups, and other stakeholders.

Recommendation #2: Conduct Policy Research in Support of the Social Weather Dashboard

To complement the dashboard prototype, the research team will develop case studies to spotlight the importance of data-driven policy and decision making in the field of community well-being improvement. The goal of the case studies will be to construct analyses of how data has been used successfully (or unsuccessfully) to achieve policy change across different sectors (e.g., health, housing) and to then use those case studies to demonstrate how a Social Weather dashboard could play a role in policy change in the future.

The recommendation to conduct additional policy research responds directly to input from potential end users that suggests many local policymakers are not using data to drive their decision making. The research

team will translate the case studies and research into stories and guidance that can be used to promote data use and data quality improvements in future interventions.

Recommendation #3: Conduct a Landscape Analysis to Explore a Community-Based Technical Assistance and Training Pilot Program

The final Phase 3 recommendation is based on findings from the Phase 2 work with potential end users that highlight opportunities for sustainable capacity-building projects to increase organizations' abilities to leverage data, community engagement, and partnerships to improve well-being. To build upon these findings, the research team will conduct a landscape analysis to explore how community-based programs and resources are currently addressing organizations' needs related to the following areas:

- Data Infrastructure Improvements
- Data-Driven Program Implementation
- Volunteer Program Development, Community Engagement, and Partnership Building

The landscape analysis will identify ways in which interventions could best fill gaps, offer innovative solutions, and scale-up current efforts to improve community well-being by building organizational capacity. In addition to identifying and summarizing the work that is already being done to address the areas of need identified above, the research team will also engage potential end users for input on gaps that still need to be addressed.

At the conclusion of Phase 3, the research team will develop a summary report and recommendations for interventions and future phases based on research, input from project partners, and ongoing feedback from the Barnes Family Foundation.

CONCLUSION

Phase 2 has positioned the research team closer to a working measure of community well-being that is informed by both academic and community partners. Input from potential end users, community health workers, and members of key communities has underscored limitations and opportunities for data tools and resources to improve community well-being. While not all communities have the power to change their circumstances, there are a number of avenues by which the Social Weather project could both support community-based interventions to improve local conditions and also address larger structural changes.

The next steps in the project will be to operationalize a community well-being dashboard prototype and continue to work with potential end users to define how the Social Weather project will pursue interventions to improve community well-being with data-driven solutions. In Phase 3, the research team will continue to engage and partner with key communities and organizations to work towards developing resources and piloting interventions that will achieve effective, impactful outcomes for everyone.

APPENDIX A: Question Guide for Members of Key Communities

Research team members used the following questions and prompts to guide community interviews and focus groups.

Introductory Question
1. Please tell me a bit about yourself.

Community Background Questions
2. We are going to be talking about community well-being today. To get started, I would like to hear from you how you define community and who you consider to be part of your community.
3. How would you describe your community? What words or characteristics define your community?
4. What are some strengths of your community?
5. What are some challenges your community is facing?
   a. Prompt: Before the COVID pandemic?
   b. Prompt: Since the COVID pandemic?

Well-Being Conceptualization Questions
6. Let's talk about well-being. There are lots of different ways to think about and define well-being. When you think about your own well-being what are some words and ideas that you think of?
7. When you think about your community's well-being what are some words and ideas that you think of?
8. What factors do you think have the biggest on your well-being?
   a. Prompt: If needed, provide examples of well-being factors (e.g., physical and mental health, access to resources, social connections)
9. What factors do you think have the biggest impact on your community's well-being?
   a. Prompt: If needed, provide examples of well-being factors (e.g., physical and mental health, access to resources, social connections)
10. What types of changes could be made now to improve your community's well-being in the future?
11. What are some barriers or challenges to making those changes happen?

Final Question
12. Is there any other information you would like to share with us or topics you would like to bring up about your community or community well-being that we haven't discussed yet?

APPENDIX B: Question Guide for Potential End Users

The following survey questions were used to collect data from potential end users. For interviews, the survey questions were modified for a more conversational, open-ended format.

Background Questions
1. Please briefly describe your organization's mission in your community:
2. Please briefly describe your role in your organization:

Organization Data Use and Resources
3. Please describe how your organization uses information and data to improve your community.
4. What types and sources of information and data does your organization most use?
5. What are some of the challenges or limitations with the data you currently use?
6. What are the biggest challenges to your organization when thinking about and using data?
   - Not able to find the data you need or would like
   - Limited time or staff to analyze the data
   - Lack of interest in data from stakeholders
   - Difficulty translating data to programming decisions
   - Other
      - If "Other", please briefly describe.
7. Does your organization collect its own data?
   - Yes
      - If "Yes", please briefly describe the data you collect.
      - Please describe any challenges your organization faces in collecting data.
   - No
      - Why does your organization not collect data?
         - The data we need is already collected by another organization
         - We do not use data in our work
         - We do not have staff available to collect data
         - We do not have resources available to collect data
         - Other
            - If "Other", please briefly describe.
   - Unsure
8. What factors most influence your organization's priorities and programming decisions?
9. What are some tools or resources that would help your organization better serve your community?
10. Would data on your community's social and emotional well-being (e.g., data on loneliness, social connection, and happiness) be useful to your organization?
    - Yes
       - How or why would this data be useful?
    - No
       - Why would this data not be useful?
    - Unsure

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Volunteer Programs and Opportunities

11. Does your organization use volunteers as part of your work?
    o Yes
        ▪ What role(s) do volunteers fill in your organization?
        ▪ Could your organization use more volunteers?
        ▪ What are some challenges to your volunteer program?
        ▪ What tools or resources would help your organization improve its volunteer program?
    o No
        ▪ Why doesn't your organization use volunteers?
        ▪ What, if any, tools or resources would help your organization leverage volunteers in your work?
    o Unsure

The Well-Being of Your Community

12. What factors or conditions do you think most influence the well-being of your community?
13. Do you think you have a good sense or measure of your community's overall well-being?
14. When thinking about changes to policies and programs in your community, what makes those changes happen?
15. How important is data in policy change or programing decisions in your community?

Additional Comments

16. Is there any other information you would like to share with us about your community's well-being or tools and resources that might benefit your organization and its work within your community?

APPENDIX C: Phase 1 Domains, Subdomains, and Indicators

Domain 1: Community Resources: the tangible assets within and characteristics of a community	
Subdomain	**Indicators**
Physical and Mental Healthcare	Primary health care provider availability, mental and behavioral health care provider availability, dental provider availability, healthcare infrastructure
Housing and Banking	Availability and quality of utilities, availability and quality of public housing, home value, banking availability
Education and Extracurriculars	School quality, early childhood education availability, summer and extracurricular programming availability
Built Environment and Transportation	Walkability, public parks, recreation, and green space, public transportation availability and accessibility, traffic, infrastructure and business
Food and Nutrition	Food environment, food access and security, access to culturally appropriate foods
Environment	Water quality, air quality, climate change, vulnerability to disasters, coal production, pesticide exposure

Domain 2: Opportunity: individual or household capacity to achieve goals	
Subdomain	**Indicators**
Access to Healthcare	Access to medical, preventative, mental, and dental care (i.e., insurance rates and coverage), sick time availability
Economic Opportunity	Banking, credit, and debt, income and employment, cost burden of housing, transportation, and childcare
Leisure and Recreation	Leisure time, work hours, commute duration

Domain 3: Connection: characteristics of social and civic connections in a community	
Subdomain	**Indicators**
Social Connection	Number and quality of social connections, trust in neighbors, participation in social groups, feelings of loneliness and isolation
Civic Engagement and Trust in Institutions	Volunteerism, voter turnout and registration, political engagement, trust in government, trust in local police and the judicial system, trust in media, transparency and data access
Sense of Belonging	Discrimination, youth disconnection, deaths of despair, violent crime, knowledge transfer, cultural humility and competence, feelings of dignity, shame, and acceptance

Domain 4: Structural Inequality: the extent to which a community's systems and institutions are inequitable
Indicators
Income inequality, incarceration rates, diversity in local government, racial residential segregation, laws and policies

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APPENDIX D: Community Health Needs Assessments Consulted

Assessment Name	Year	Location
Cuyahoga County Community Health Assessment	2019	Cleveland, OH
Miami Health System Community Health Needs Assessment	2019	Miami, Fl
Phoenix Children's Hospital Community Health Needs Assessment	2019	Phoenix, AZ
Leonard J. Chabert Medical Center Community Health Needs Assessment	2020	Southern Louisiana
Arkansas Children's Hospital Community Health Needs Assessment	2019	Arkansas
The Johns Hopkins Hospital & Johns Hopkins Bayview Medical Center Community Health Needs Assessment	2018	Baltimore, MD
Houston Health Department Community Health Improvement Plan	2018	Houston, TX
Community Health Needs Assessment	2019	San Diego, CA
Community Health Needs Assessment and Implementation Strategy	2020	Rural Texas
Community Health Needs Assessment Report	2020	Yellowstone County, MT
Tri-County Community Health Needs Assessment	2019	Charleston, SC
Community Health Needs Assessment	2019	Cambria and Somerset counties, PA
Central New Hampshire Health Partnership Community Health Needs Assessment	2020	Central New Hampshire
Community Health Needs Assessment	2019	Sandoval County, NM
Milwaukee County Community Health Needs Assessment	2018	Milwaukee County, WI
Detroit Community Health Assessment	2018	Detroit, MI
Salinas Valley Memorial Healthcare System Community Health Needs Assessment	2020	Salinas Valley, CA
Healthy Columbia Willamette Collaborative Community Health Needs Assessment	2019	Clark, Clackamas, Multnomah, and Washington counties Oregon
King County Community Health Needs Assessment	2018	King County, WA
The Philadelphia Community Health Assessment	2017	Philadelphia, PA
Indiana University Health Community Health Needs Assessment	2018	Marion County, IN
Metro Region Community Health Assessment	2019	Douglas County, NE

ENDNOTES

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