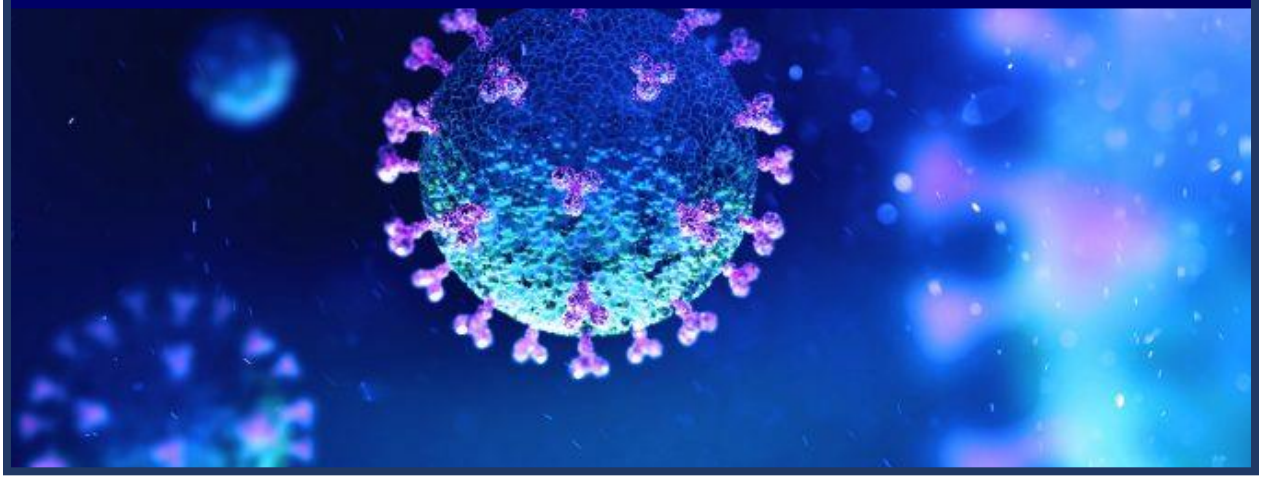
FINAL REPORT OF THE COMMUNITY HEALTH WORKER COVID-19 IMPACT SURVEY: OKLAHOMA RESULTS

A workforce study conducted by the Oklahoma Public Health Training Center at the Hudson College of Public Health at Oklahoma University Health Sciences Center.

This study is a replication of the 2020 COVID-19 Impact Survey conducted as collaboration between the Maternal and Child Health (MCH) Training Program at University of Texas, Houston Health School of Public Health and the Community Health Worker Core Consensus Project (C3 Project) at the El Paso Texas Tech University.

Oklahoma City, Oklahoma

June 21, 2021



Executive Summary

The new coronavirus SARS-CoV-2 that emerged in 2019 rapidly began to spread around the globe and reached the U.S. in early 2020. The sheer number of patients quickly exhausted the health care system, and overburdening doctors and nurses. Public discussions did not focus much on how the pandemic impacted the community-based workforce, in particular Community Health Workers (CHWs).

The Oklahoma Public Health Training Center (OPHTC) is committed to supporting the CHW workforce by identifying timely training topics, and developing and implementing trainings for CHWs. In August 2020, the OPHTC was invited to replicate the *CHW COVID-19 Impact Survey* that was originally conducted in Texas. Since the survey sought insight into the extent to which the COVID-19 pandemic had affected CHWs in the U.S., and also explored related training needs, replicating the survey was of interest to the OPHTC.

This report shares the results of 34 self-identified CHWs, of whom 24 (70.6%) fully completed the *CHW COVID-19 Impact Survey*. Documenting how the 2020 COVID-19 pandemic impacted CHWs both professionally and personally, the report divides findings in 6 sections: (1) respondent demographics; (2) personal impact of COVID-19 on CHWs; (3) impact of COVID-19 on CHW employment, job, and community; (4) impact of COVID-19 on CHW roles and skills; (5) community concerns as observed by CHWs; and (6) trainings needed. The report concludes with recommendations for next steps.

Closely connected to the communities they serve, CHWs are in a unique and strategic position to support COVID-19 response efforts. Throughout the pandemic they served their clients in both familiar and new roles, while putting themselves into harm's way. Their insights deserve to be built into current and future public health strategies to maximize equitable COVID-19 and future emergency response efforts.

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Introduction

COVID-19 Pandemic

The new coronavirus SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) that emerged in 2019 rapidly began to spread around the globe. The World Health Organization (WHO) confirmed the COVID-19 outbreak to be a pandemic in March 2020. The virus mostly spreads among people through respiratory droplets of infected persons who cough, sneeze, or talk. While some people may not have any symptoms, others experience mild to severe symptoms. People 65 years or older, and those with underlying medical conditions, are at higher risk for severe illness (CDC, COVID-19, 2021; Mayo Clinic, 2021).

As the pandemic reached the U.S. in early 2020, suffering and death followed. The sheer number of patients quickly exhausted the health care system, and overburdening doctors and nurses. Public discussions did not focus much, if at all, on how the pandemic impacted the community-based workforce; in particular Community Health Workers (CHWs), who would have been in a unique and strategic position to support the COVID-19 response efforts.

CHW Definition, and C3 CHW Core Consensus Project

"Community Health Workers" (CHWs) is an umbrella term – and used in this report as such – for a diverse public health workforce with many titles, including CHWs, Community Health Representatives (CHR), Promotoras/es de Salud, Outreach Workers, and Patient Navigators. CHWs have one nationally recognized definition and share core roles and competencies. The American Public Health Association's CHW Section offers a definition:

> A community health worker (CHW) is a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the CHW to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery. A CHW also builds individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support and advocacy. (APHA, 2020)

As indicated by this definition, CHWs perform multiple roles, practice many skills, and have a special connection to the communities they serve. The Community Health Worker Core Consensus (C3) Project, a multi-year collaboration among researchers, CHWs, and public health professionals, led to a nationwide consensus on CHW core roles and competencies to be used for CHW education, practices, and policies. The C3 Project lists 10 CHWs core roles (Rosenthal, Menking, & and St. John, 2018):

1. Cultural mediation among individuals, communities, and health and social service systems
2. Providing culturally appropriate health education and information
3. Care coordination, case management, and system navigation
4. Providing coaching and social support
5. Advocating for individuals and communities
6. Building individual and community capacity
7. Providing direct service
8. Implementing individual and community assessments
9. Conducting outreach
10. Participating in evaluation and research

By performing these roles, CHWs have demonstrated positive impacts on disease prevention and management, on social and environmental conditions, and in addressing underlying social determinants of health disparities. CHWs have also been successful in helping address infectious diseases in the past (Boyce & Katz, 2019). When the COVID-19 pandemic began to spread through the U.S., CHWs continued to serve their clients as best as they could by continuing needed services and addressing the new health threat posed by COVID-19. While potentially putting themselves into harm's way, little was known about how the pandemic impacted the CHW roles, and their work and life experiences.

Oklahoma Public Health Training Center

The Oklahoma Public Health Training Center (OPHTC) at the Hudson College of Public Health at Oklahoma University Health Sciences Center is one of several partners of the Region 6 South Central Public Health Training Center (R6SCPHTC). The R6SCPHTC is one of 10 regional public health training centers funded by the Health Resources & Services Administration (HRSA), and is housed at the Tulane University School of Public Health and Tropical Medicine (OPHTC, 2021). In alignment with the mission of the R6SCPHTC, which is *to strengthen the technical, managerial, and leadership competence of the current public health workforce and to advance the knowledge and skills of the future public health workforce* (R6SCPHTC, 2021), the OPHTC strives to *Strengthen Oklahoma's Public Health Workforce* (OPHTC, 2021). Within this context, the OPHTC is committed to supporting the CHW workforce by identifying timely training topics, and developing and implementing trainings for CHWs.

In August 2020, the OPHTC was invited to replicate the ***CHW COVID-19 Impact Survey*** that was originally conducted in collaboration between the Maternal and Child Health (MCH) Training Program at the University of Texas, Houston Health School of Public Health, and the Community Health Worker Core Consensus Project (C3 Project) at the El Paso Texas Tech (St. John et al. 2021). Since the survey sought insight into the extent to which the COVID-19 pandemic had affected CHWs in the U.S., and explored related training needs, replicating the survey was of interest to the OPHTC. The 67-item mixed quantitative and qualitative survey examined CHW experiences and perceptions during the pandemic with a focus on changes to their workforce and training needs, and priority needs of CHWs and the communities they served. After receiving OUHSC IRB approval to implement the survey in Oklahoma, the English version was distributed through Redcap via CHW networks and associations from January 11 to February 1, 2021.

This report shares the results of 34 self-identified CHWs, of whom 24 (70.6%) fully completed the ***CHW COVID-19 Impact Survey***. Both continuous and categorical variables are represented using descriptive statistics. Documenting how the 2020 COVID-19 pandemic impacted CHWs both professionally and personally, the report divides findings in 6 sections: (1) respondent demographics; (2) personal impact of COVID-19 on CHWs; (3) impact of COVID-19 on CHW employment, job, and community; (4) impact of COVID-19 on CHW roles and skills; (5) community concerns as observed by CHWs; and (6) trainings needed. The report's conclusion is followed by recommendations for next steps.

While the small number of survey respondents does not allow for the CHW experiences, perceptions, and needs reported to be generalized to CHWs across Oklahoma, the findings offer valuable insights that may be applicable to other CHWs in the state. The survey allowed CHWs to describe their experiences of working at organizations and with communities before and during the COVID-19 pandemic. Hopefully, the information shared in this report will help prepare the current and future CHW workforce with trainings and sustained support during public health emergency responses.

Demographics

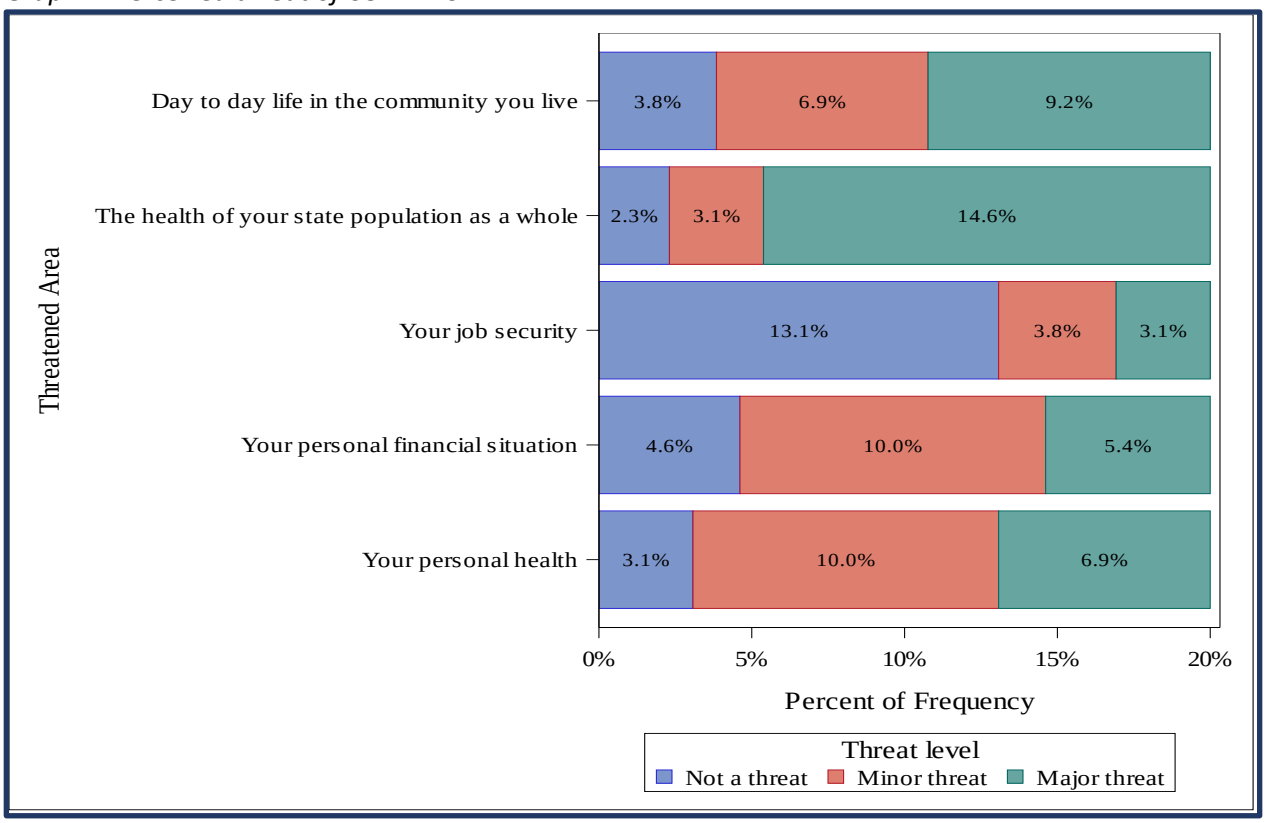
Key demographics reported by survey respondents included the following:

- The age of the participants (27/34) ranged from 22 to 74 years of age. The median age was 41 and the mean age was 43.6.
- The majority of respondents (30/34; 83.3%) were female.
- Respondents (29/34) reported race as: 41.38% American Indian or Alaska Native, 24.14% White, 20.69% Black or African American, 10.34% More than one race, and 3.45% Other.
- A third of respondents (30/34; 33.3%) were Hispanic, Latino or Spanish origin.
- Participants (30/34) reported residence as follows: 30% lived in a large city, 26.7% lived in a suburb near a large city, 26.7% lived in a small town, and 16.7 lived in a rural area.
- Based on 29 respondents, 38% (11/29) were certified as CHW, among whom 7 respondents reported their job title as “Community Health Workers,” 3 respondents as “Community Health Representative,” and 1 respondent as “Other.”
- About a third of respondents (30/34; 30%) had children under the age of 12 living in their household.
- Of the 30% who responded that they did have children living in their household, 66.7% found it very difficult for them to handle childcare responsibilities during the COVID-19 pandemic response, 22.2% found it somewhat difficult, and 11% found it somewhat easy.
- The years of experience working as a CHW among participants who responded (28/34) ranged from 1 to 30 years. The median years of experience was 6 years and the mean was 8.5 years.

Personal Impact of COVID-19 on CHWs

Asked to assess the **level of threat**, respondents considered COVID-19 a major threat to the health of the state population as a whole (14.6%), and to the day to day life in the communities they lived (9.2%). They thought COVID-19 to be a minor threat to their personal health (10.0%) and personal financial situation (10.0%), and no threat to their job security (13.1%) (Graph 1).

Graph 1: Perceived threat of COVID-19



Twenty-four participants explained how the threats of the COVID-19 pandemic they listed for the previous question affected their family life. These qualitative responses focused on the physical and mental health impact on COVID-19, and the need for and/or lack of prevention and social distancing. A more detailed description of the participants' experiences and perceptions is provided below.

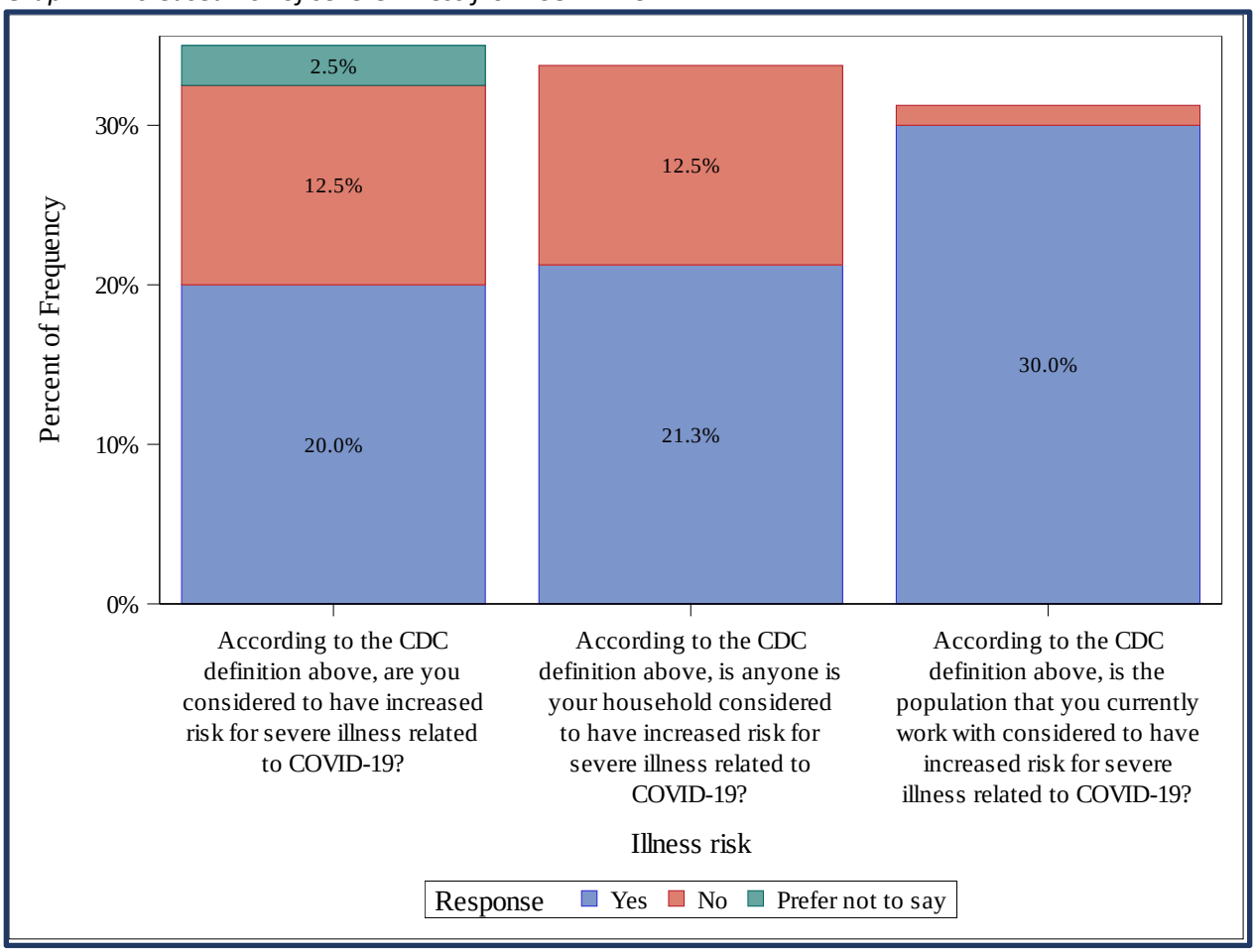
The threats of COVID-19 affected family life by impacting the physical and mental health of both family members and CHWs, and had a potential financial impact. Specifically, CHW stated that family members were at risk, got sick or were lost from COVID-19, and that their mental health was impacted (*cranky since not able to return to college, and not sleeping well and thinking about losing job*). CHWs considered their work as a risk to their family, and felt an impact on their mental health (*afraid to lose job & financial impact, afraid to be exposed to COVID-19, afraid to get family sick, worry about relative's symptoms, afraid to lose relative*).

The threat of COVID-19 also affected families by the intertwined need for and lack of prevention and social life. Prevention meant taking precautions and being aware about others around, but also meant loss of

social life (*no family gatherings; not able to visit with friends; less time in church, distance community members, not interactive, no social life*). One CHW mentioned the impact of prevention on work, i.e. not being able to connect with peers and providing resources to those in need. CHWs also mentioned the lack of prevention among the younger generation, families, co-workers, and people in public / in the community (*community not following CDC guidelines*).

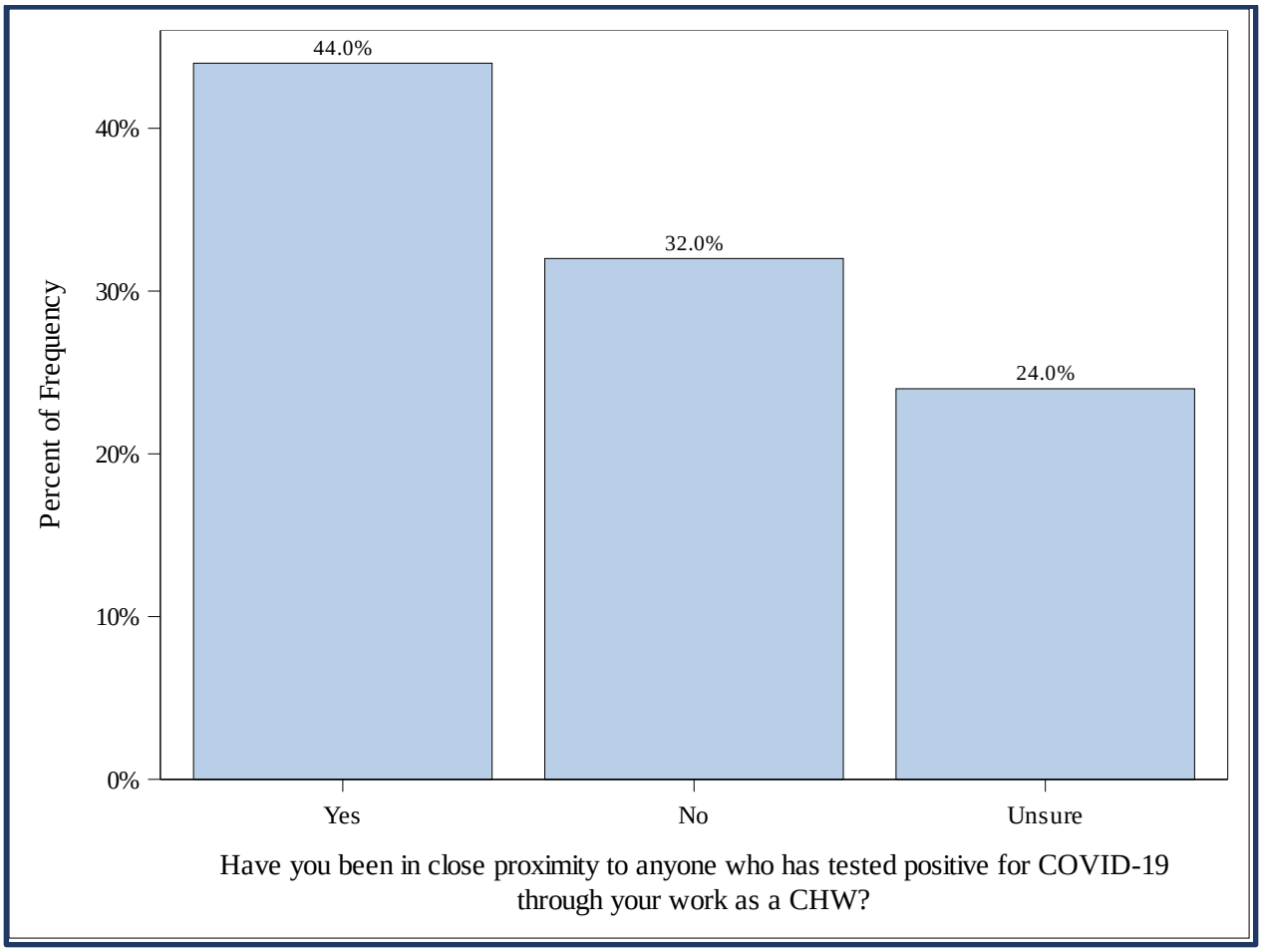
Survey participants shared their assessments of **increased risk of severe illness from COVID-19**. According to the CDC, older adults and those with underlying chronic health conditions are among those who are at increased risk of severe illness from COVID-19 (CDC, People at Increased Risk, 2021). Using this definition, participants were asked if they, anyone they lived with, or the population that they currently worked with, were at increased risk of severe illness from COVID-19. CHWs/CHRs seemed to consider themselves (20.0%) and those they lived with (21.3%) at lower risk of severe illness from COVID-19 than the populations they worked with (30.0%) (Graph 2).

Graph 2: Increased risk of severe illness from COVID-19



Through their work, 44.0% of CHWs were in close **proximity to someone who had tested positive for COVID-19**, 32.9% reported that they had not been near someone who was positive, and 24.0% were not sure (Graph 3).

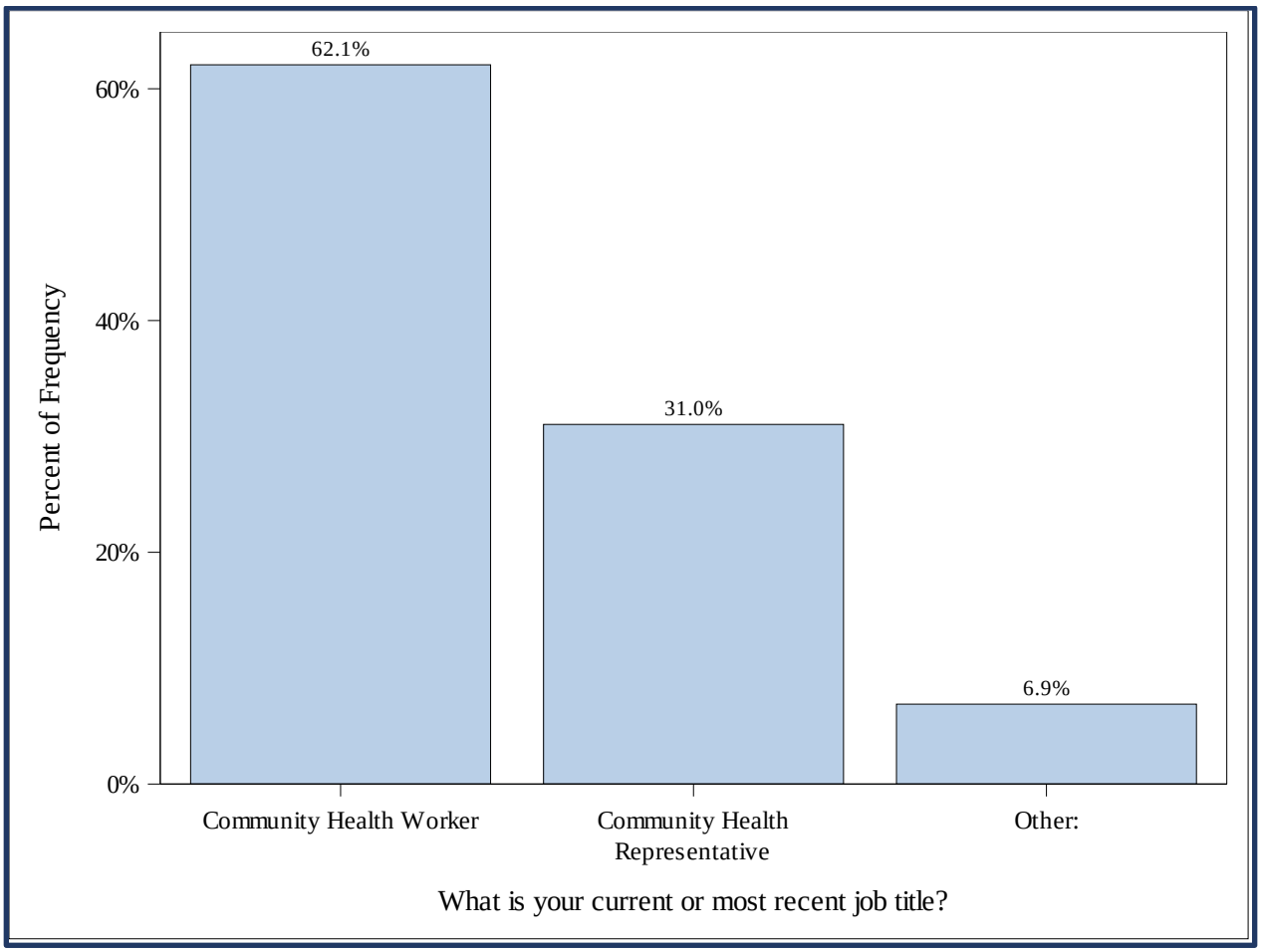
Graph 3: Proximity to anyone who tested positive for COVID-19



Impact of COVID-19 on Employment, Job, and Community

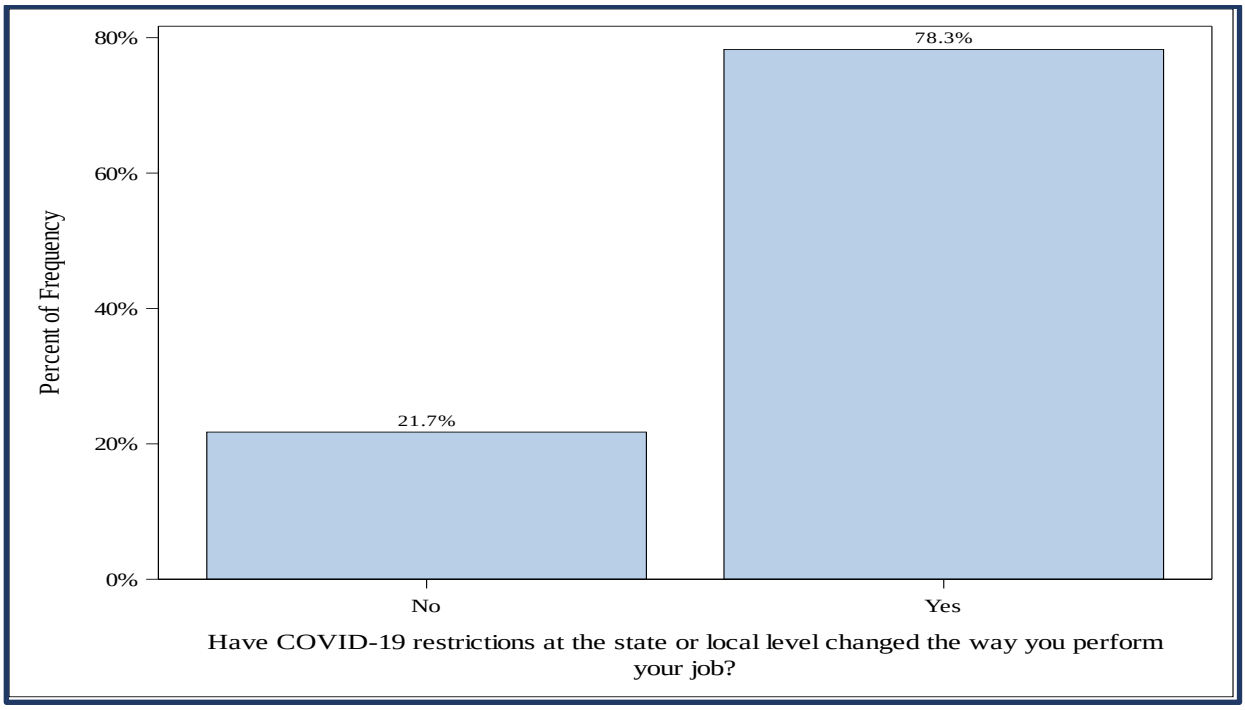
Out of the 29 survey participants, 18 (62%) stated that their current or most **recent job title** was *Community Health Worker*, 9 (31%) stated that their title was or is *Community Health Representative*, and 2 (7%) stated that their job title was *Other* (Graph 4).

Graph 4: Current or most recent job title



Twenty-three out of 34 participants responded to the question **"Have COVID-19 restrictions at the state or local level changed the way you perform your job?"** Among these respondents, 5 (21.7%) stated "no," and 18 (78.3%) stated "yes" (Graph 5).

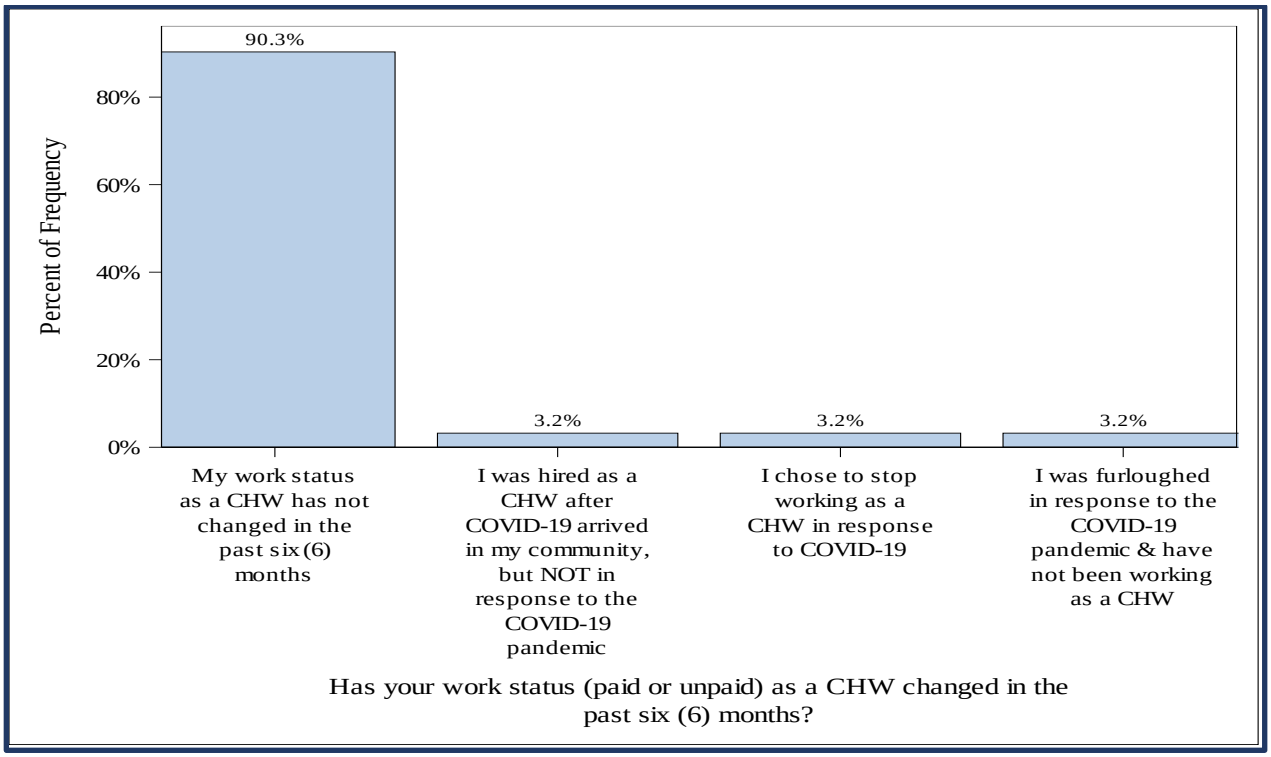
Graph 5: COVID-19 restrictions changed how CHWs perform their job



Eighteen CHWs offered details for their affirmative responses. COVID-19 restrictions required that CHWs adjusted their work to an office setting. CHWs shared that they were working more from the office and interacting with their clients on the phone or virtually (*make appointments and call to make sure they are doing ok; help with office duties*). Respondents reported the loss of direct interactions (*no home visits, no face-to-face, less clinic time*), and the loss of transportation services (*can no longer transport patients to hospitals*). Due to the pandemic, they only made emergency home visits, or dropped off food or medicine curbside. One CHW stated that they saw and felt the isolation and disconnect to the clients. Another CHW reported that the COVID-19 restrictions had led to an increase in job duties for CHWs.

Thirty-one out of 34 participants responded to the question: **"Has your work status (paid or unpaid) as a CHW changed in the past six (6) months?"** The majority of respondents (28/31; 90.32%) reported that their *work status as a CHW has not changed in the past six months*. One (1/31; 3.23%) participant responded that they were *hired as a CHW after COVID-19 arrived in my community, but NOT in response to the COVID-19 pandemic*. One (1/31; 3.23%) participant responded that they *chose to stop working as a CHW in response to COVID-19*." One (1/31; 3.23%) responded that they were *furloughed in response to COVID-19 and have not been working as a CHW* (Graph 6).

Graph 6: Work status changed in past 6 months



Asked about **where CHWs worked before and since the pandemic**, with multiple responses possible, CHW responses showed a variety of changes. There was an obvious increase in working in an *office setting* with a jump from 8.42% of CHWs before to 14.7% of CHWs (n=22) since the pandemic. While none of the CHWs worked from home before the pandemic, 3 (3.2%) CHWs *working remotely from home* since the pandemic began.

Several noticeable changes of CHWs **working less in specific work settings** happened since the pandemic:

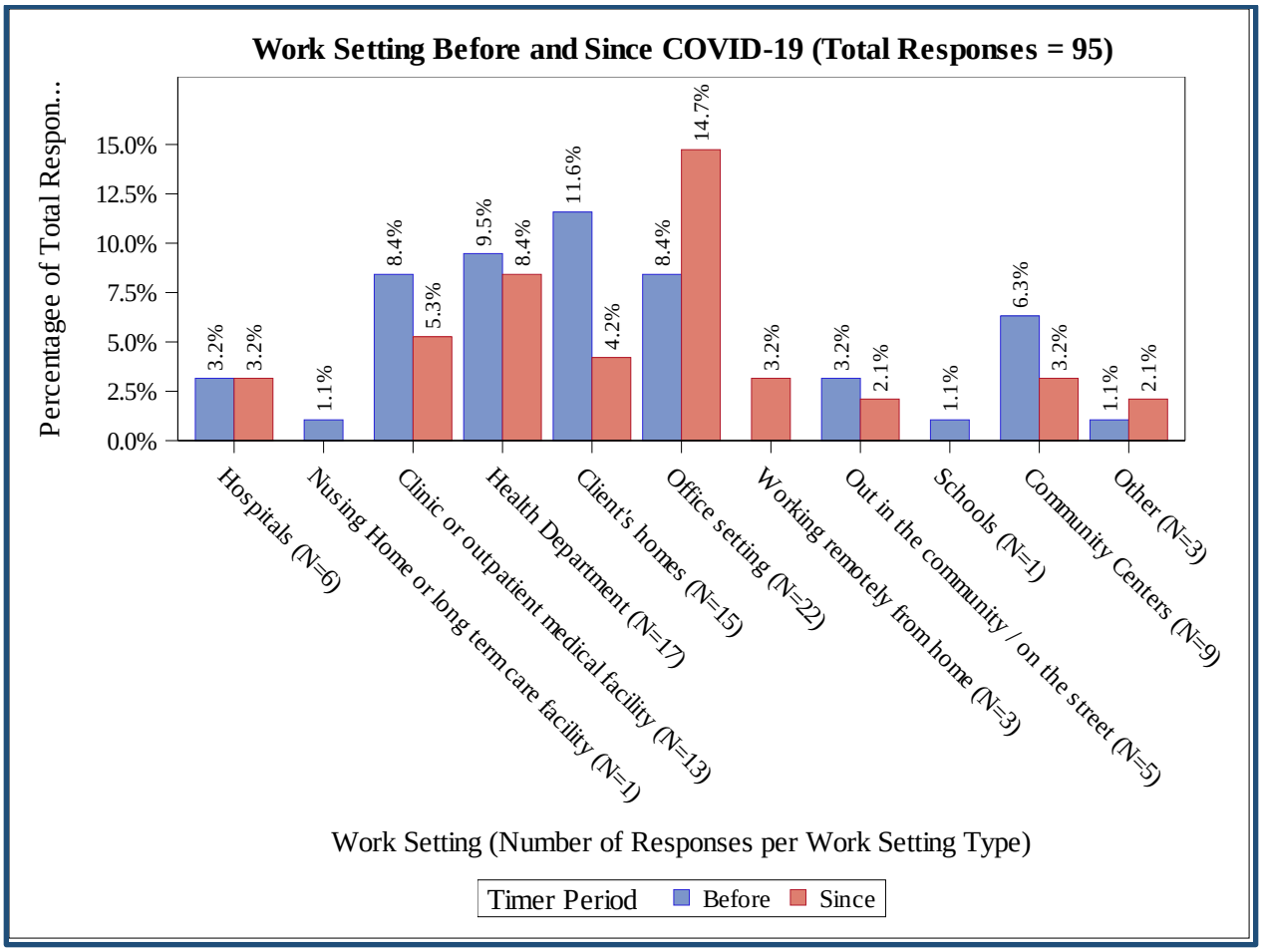
- 11.6% of CHWs (n=15) worked in *clients' homes* before, and 4.2% since the pandemic,
- 8.4% of CHWs (n=13) worked at *clinics or outpatient medical facilities* before, and 5.3% since the pandemic,
- 6.3% of CHWs (n=9) worked for *community centers* before, and 3.2% since the pandemic.

CHWs also reported working less in the following settings:

- 9.5% of CHWs (n=17) worked for a *health department* before, and 8.4% since the pandemic,
- 3.2% of CHWs (n=5) worked *out in the community/on the streets* before, and 2.1% since the pandemic,
- 1.1% of CHWs (n=1) worked at *nursing homes or long-term care facilities* before, but not since the pandemic,
- 1.1% of CHWs (n=1) worked at *schools* before, but not since the pandemic.

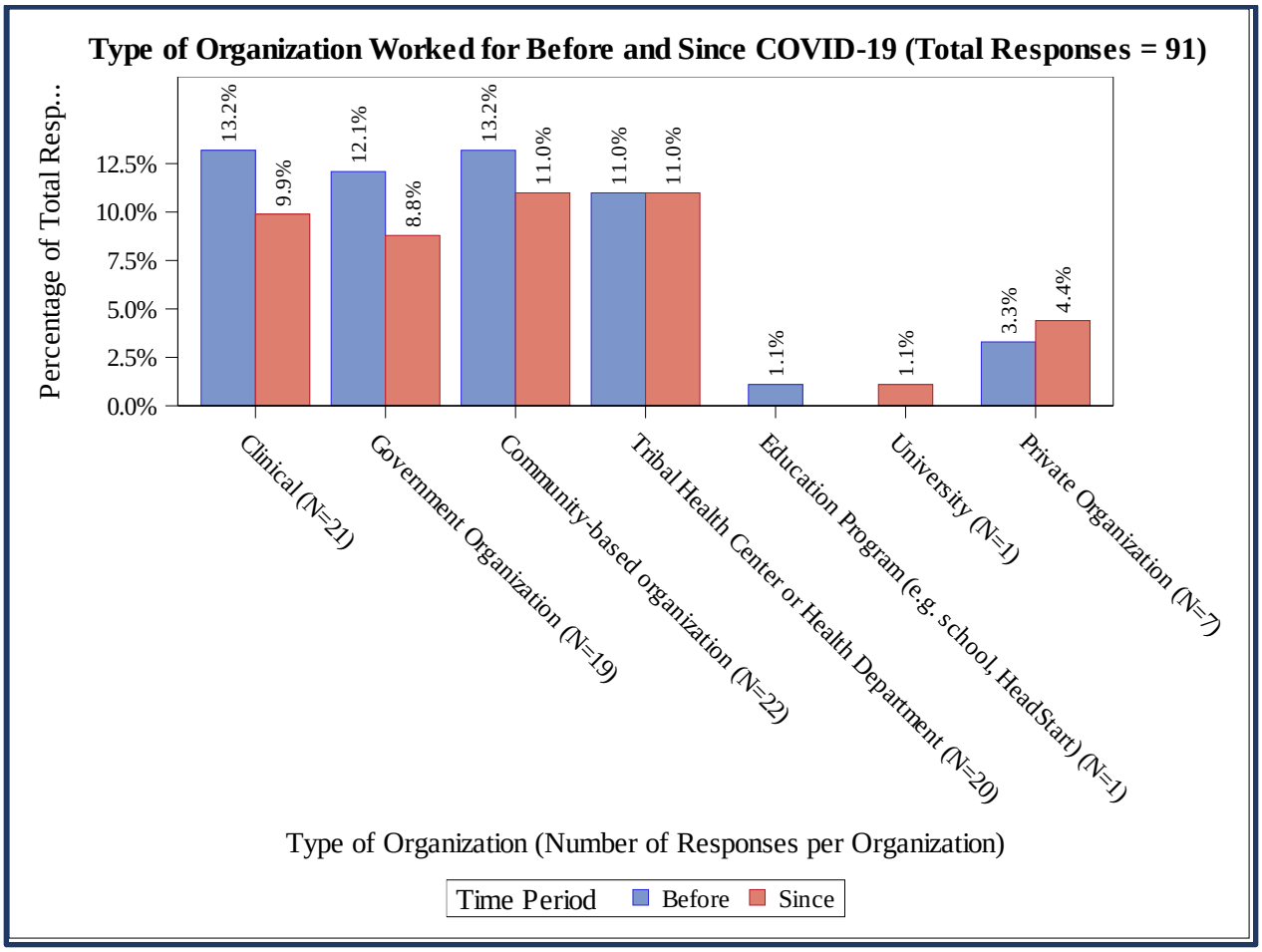
With 3.2% of CHWs (n=6) responding both before and since the pandemic, there was no change in the number of CHW responses for working in *hospitals* (Graph 7).

Graph 7: Work setting before and since COVID-19 pandemic



Some **small changes occurred in the organizations that CHWs worked** for since the COVID-19 pandemic began. Providing multiple responses to this question, CHWs indicated that the organizations they worked at most before the pandemic were *Clinical Organizations* (12, 13.2% responses), *Community-based Organizations* (12, 13.2% responses), *Government Organizations* (11, 12.1% responses), and *Tribal Health Centers or Health Departments* (10, 11% responses). The responses since the outbreak began decreased to 9 (9.9%), 10 (11%), 8 (8.8%), and remained 10 (11%), respectively. There was only 1 response for *Education Programs* before COVID-19 with none since, and no response before for *University*, but 1 response since. The few responses for *Private Organization* increased from only 3 (3.3%) before to 4 (4.4%) since the pandemic. (Graph 8).

Graph 8: Type of organization worked for before and since



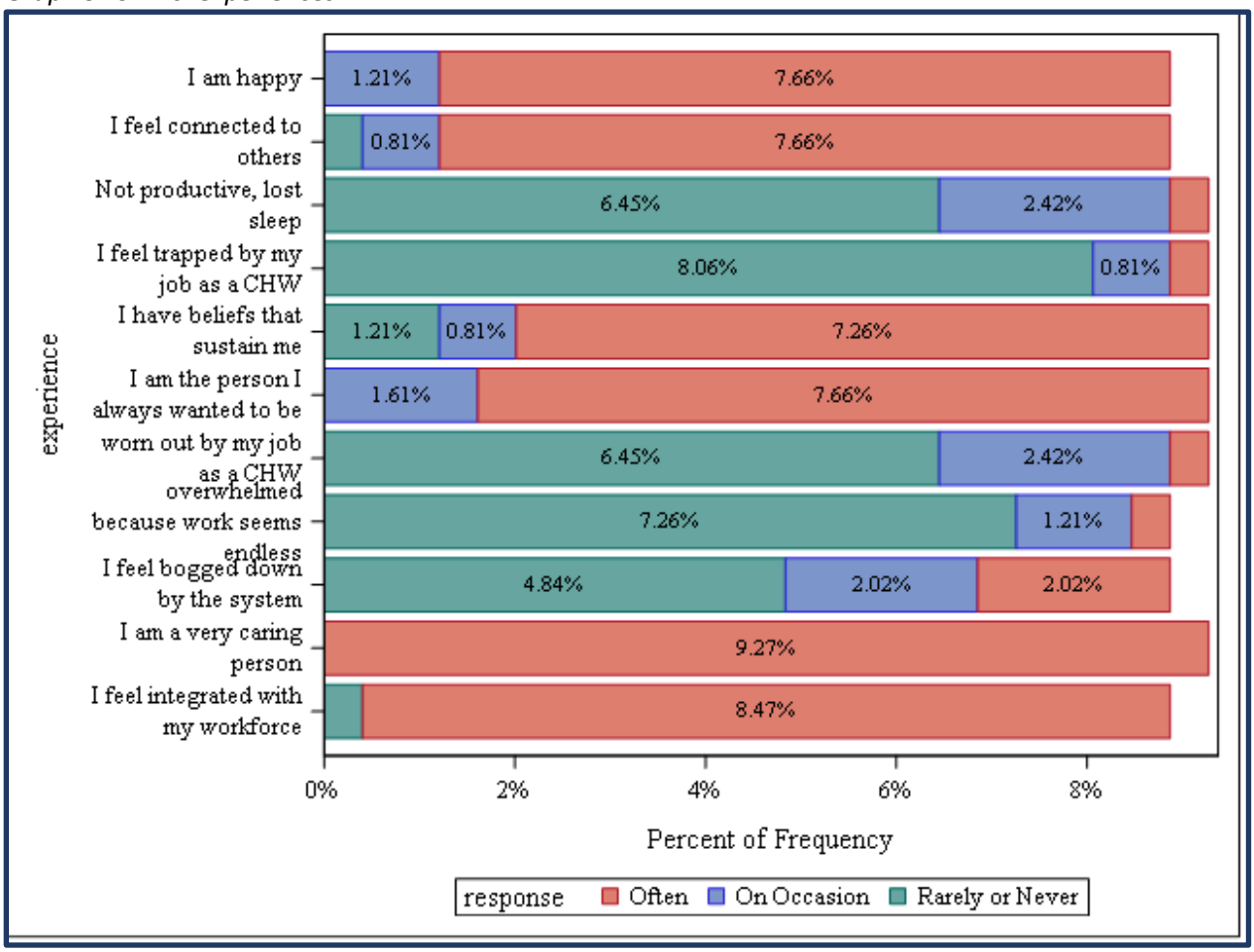
The **average hours worked**, both paid and unpaid, before and since COVID-19, varied little. The average paid hours worked before and since were 40, with a range from 0 to 84 before, and 2 to 80 after. Unpaid hours before were 5, as opposed to 4 since (range of 0-10 on both). The hours of paid work related to COVID-19 since were 28 (range of 5-80) and 4 unpaid hours (range of 0-12). (Table 1)

Table 1: Paid and unpaid hours worked as CHW

Average Paid and unpaid hours worked as CHW before and since COVID-19, mean (Range of hours)		
	Before	Since
Paid hours worked as CHW / week	40 (0-84)	40 (2-80)
Unpaid hours worked as CHW / week	5 (0-10)	4 (0-10)
Paid hours worked related to COVID-19		28 (5-80)
Unpaid hours worked related to COVID-19		4 (0-12)

Depending on the specific question, 22-23 CHWs reported having mostly positive **experiences related to their work as CHW**. Seeing themselves as *very caring persons* (9.27% reported *often/very often*), CHWs *felt integrated with their workforce* (8.47%, *often/very often*) and connected to others (7.66%, *often/very often*), considered themselves *happy* (7.66%, *often/very often*) and *the person that they always wanted to be* (7.66%, *often/very often*), and held *beliefs that sustained* them (7.26%, *often/very often*). The majority of the 22-23 CHWs who responded reported having job related negative experiences *never or rarely*. The three negative experiences recognized most as occurring *on occasion* included *not as productive at work because of losing sleep over traumatic experiences of a co-worker* (2.42%), *feeling worn out because of the CHW job* (2.42%), and *feeling "bogged down" by the system* (2.02%) (Graph 9).

Graph 9: CHWs' experiences



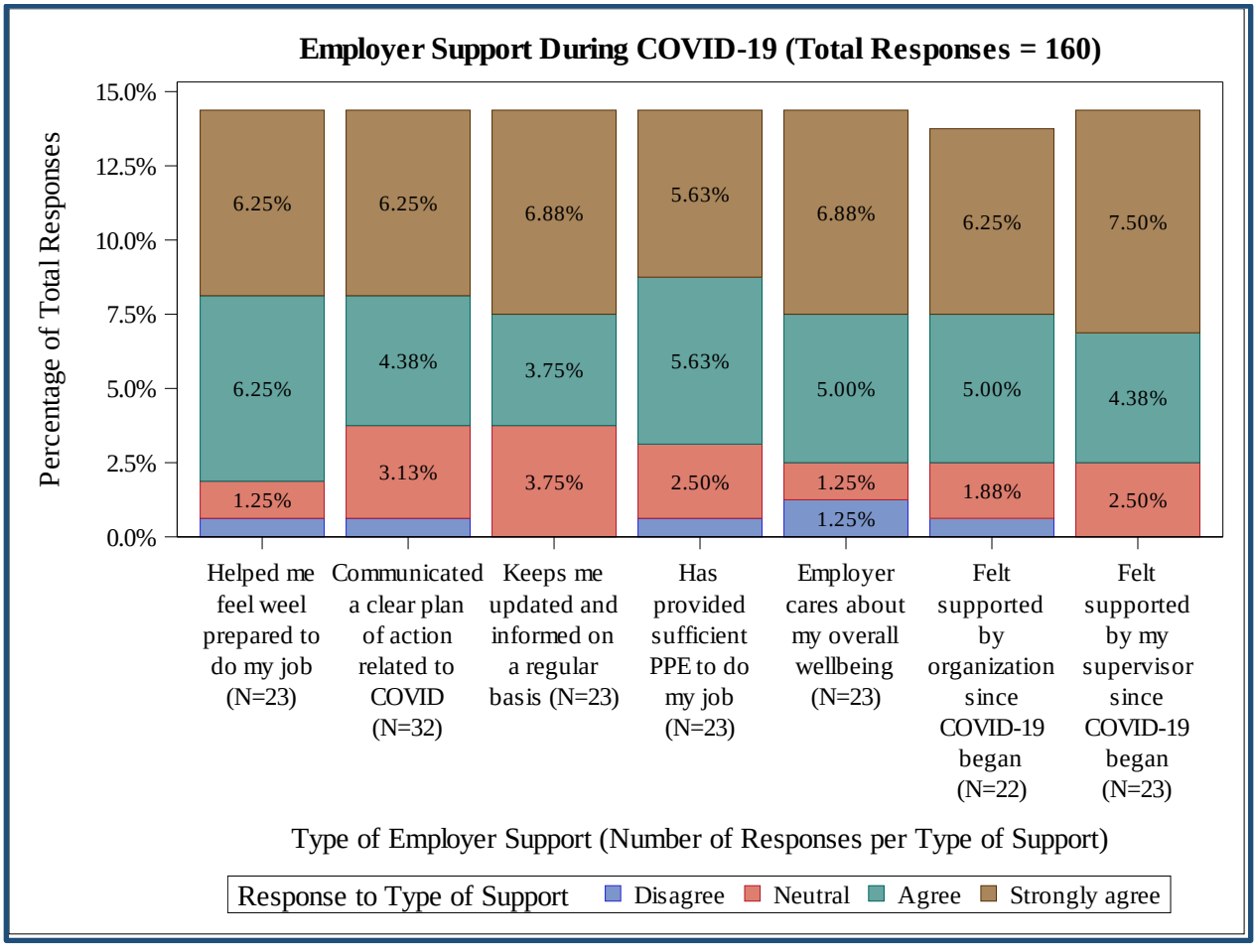
All 27 out of 34 CHWs that responded to the question on **insurance status** reported that they were insured. Out of these, 25 (92.6%) had insurance provided to them by their employer, 1 (4%) had Medicare, and 1 (4%) had purchased their own (Table 2).

Table 2: Type of insurance

Insurance Type		
	Number	Percent
My health insurance is provided by my employer	25	92.59
I have Medicare	1	3.7
I purchase my own health insurance (e.g. healthcare.gov or private insurance company)	1	3.7

When asked how they felt about their **employer's support** during COVID-19, the CHWs could answer with multiple responses, and reported with a mix of *Agree* and *Strongly Agree* thus reporting positive employer support. Support included *preparation for the job*, *communicating a plan of action related to COVID-19*, *regularly keeping CHWs updated and informed*, and *providing sufficient PPE for the job* (Graph 10).

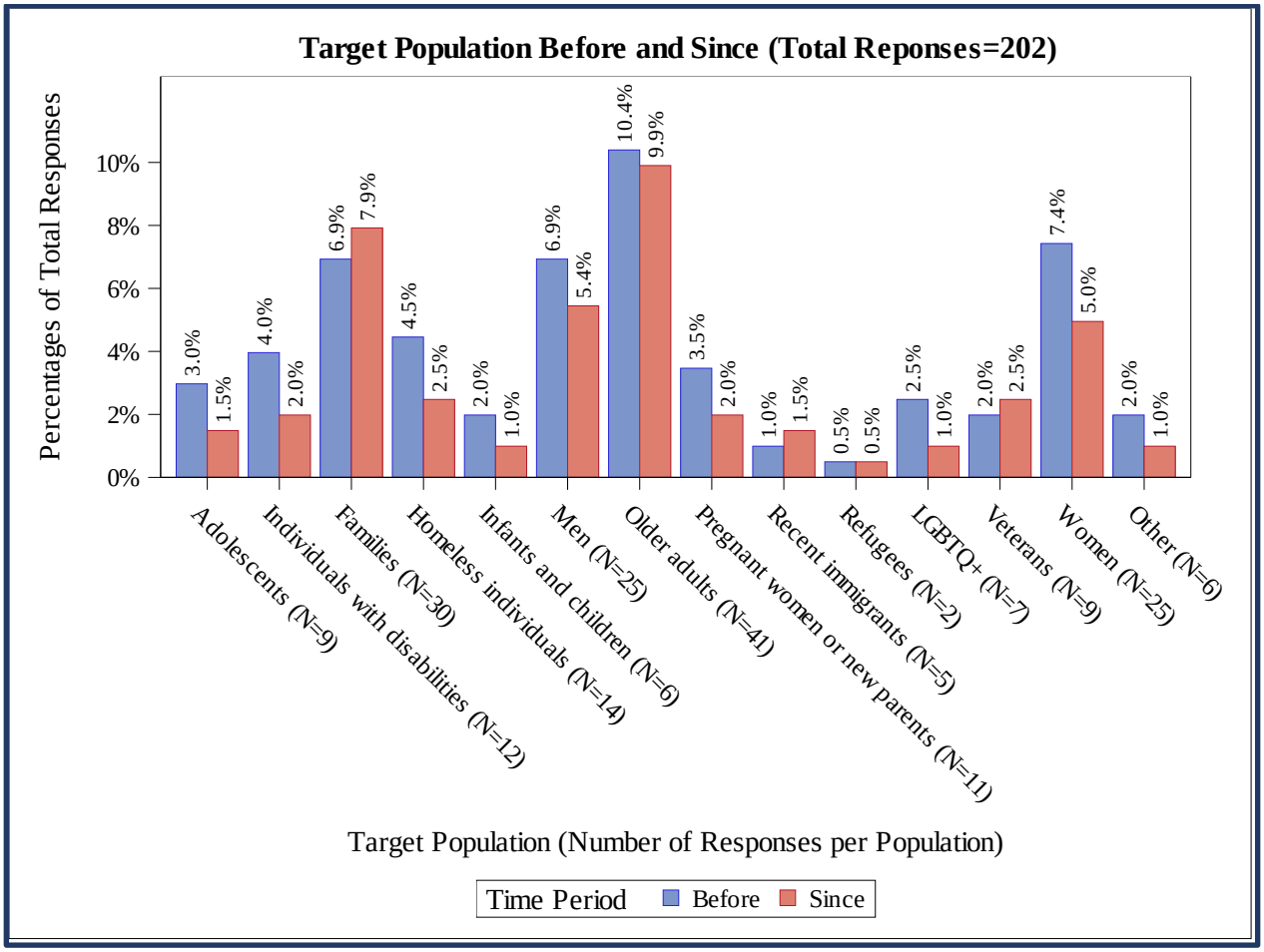
Graph 10: Employer support



With multiple responses possible, CHWs reported that the **population served before and since COVID-19** remained relatively the same. CHWs increased services for *families*, *recent immigrants*, and *veterans* since the pandemic, but decreased services for other groups, in particular *adolescents*, *infants and children*,

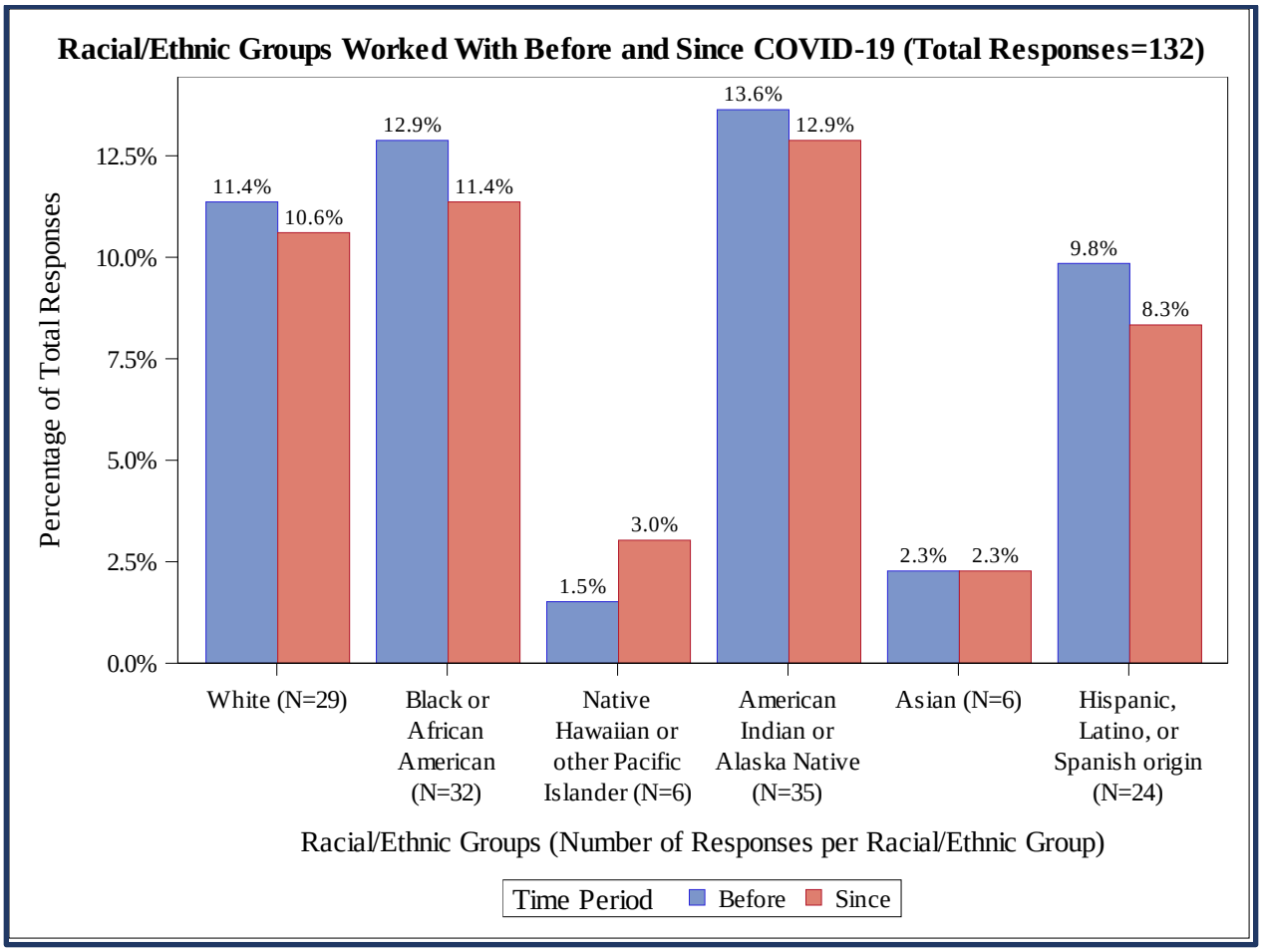
individuals with disabilities, *homeless individuals*, LGBTQ+, and *pregnant women or new parents*. The largest group served, older adults, only seemed to have a minimal decrease in CHW services (Graph 11).

Graph 11: Population served



The **racial and ethnicity populations that the CHW's served** remained relatively unchanged (with multiple responses possible to this question), however, all of the races/ethnicities served since were less than or equal to before, except for Native Hawaiian or other Pacific Islander, which were being served more since COVID-19 began. Most CHWs reported working with *American Indian or Alaska Native*, *Black or African American*, *White*, and *Hispanic, Latino, or Spanish origin* populations both before and since the pandemic, while fewer CHWs reported working with *Asian*, and *Native Hawaiian or other Pacific Islanders* (Graph 12).

Graph 12: Race and ethnicity worked with before and since COVID-19



When asked to rate the **well-being of the community** they served before and since COVID-19, CHWs rated 69% of their community as well before, and 31% since COVID-19. Conversely, 39% rated their community as unwell before, and 61% since COVID-19. Thus, there was a negative 55% change in the percentage of CHWs who rated their community as well, and a positive 56% change in the percentage of CHWs who rated their community as unwell. (Table 3)

Table 3: Well-being of community

How would you rate the well-being of the community that you serve before and since COVID-19?			
	Before	Since	Percent Change
% CHW who rate community as well	69%	31%	-55%
% CHW who rate community as unwell	39%	61%	56%

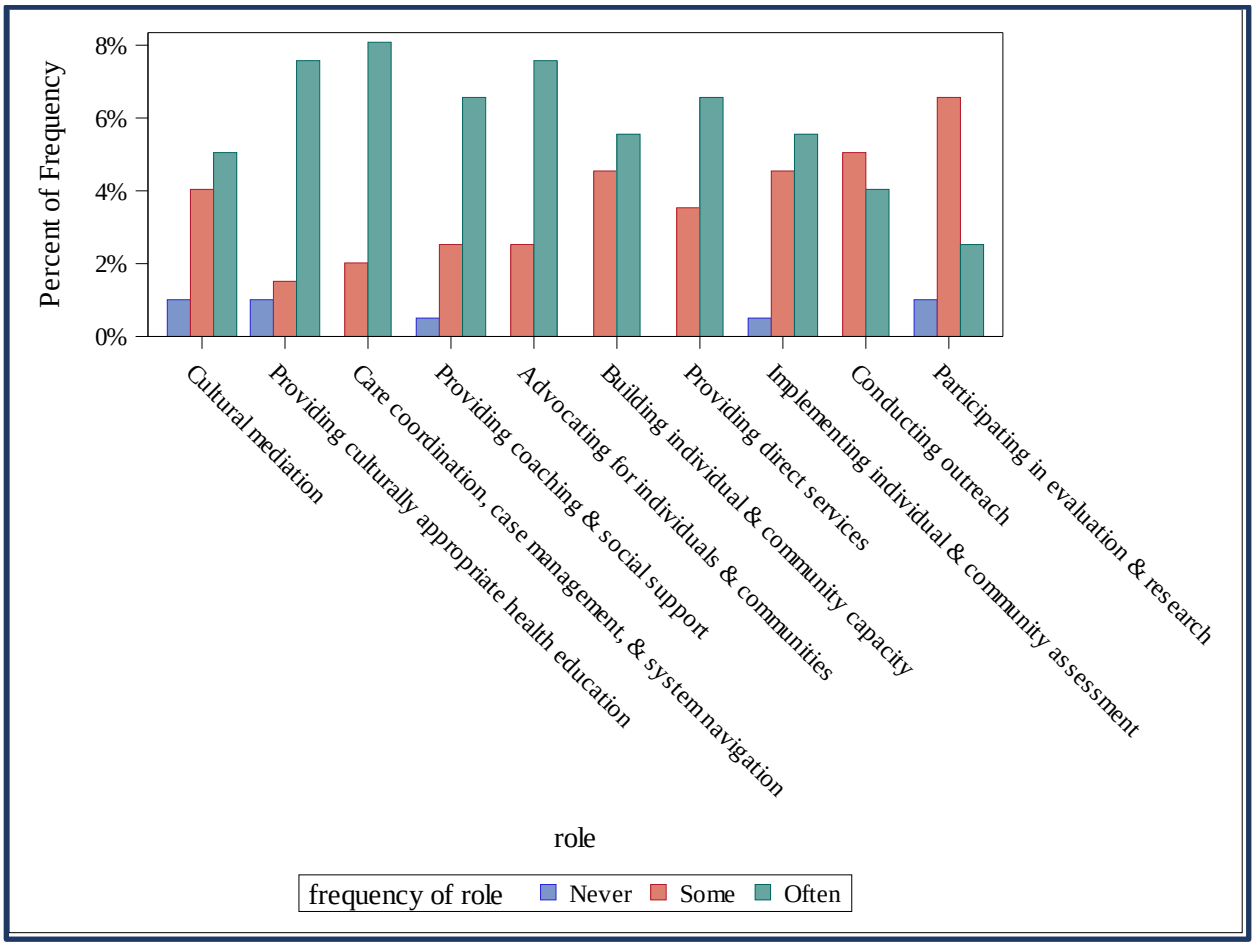
Impact of COVID-19 on CHW Roles and Skills

Roles

Questions in this section focused on **how CHW roles had changed during the pandemic**, and **what new roles and skills** they might have performed since the pandemic began.

The five **C3 core CHW roles** (Rosenthal, Menking, & and St. John, 2018) that the CHWs were performing "Often" before COVID-19 primarily consisted of *Care Coordination, Case Management & System Navigation*; *Providing Culturally Appropriate Health Education*; *Advocating for Individuals & Community Capacity*; *Providing Coaching & Social Support*, and *Providing Direct Services* (Graph 13). These roles with the most "Often" responses had a range of 18-20 responses.

Graph 13: Roles performed most before the pandemic



With the number of responses ranging between 19 and 21, **the change in frequency of roles performed since the pandemic** varied (Graph 14 & Table 4). The vast majority of response were "No change" to various roles. Respondents reported to following roles performed "A lot more:" *Providing Culturally Appropriate Health Education*; and *Advocating for Individuals and Communities;* followed by *Care*

Coordination, Case Management, & System Navigation; *Providing Coaching & Social Support*; and *Conducting Outreach*. Respondents reported to following roles performed "A lot less:" *Conducting Outreach*; and *Cultural Mediation*; followed by *Care Coordination, Case Management, & System Navigation*; *Providing Direct Services*; *Implementing Individual & Community Assessment*; and *Participating in Evaluation & Research*.

Graph 14: Change in role frequency since the COVID-19 outbreak

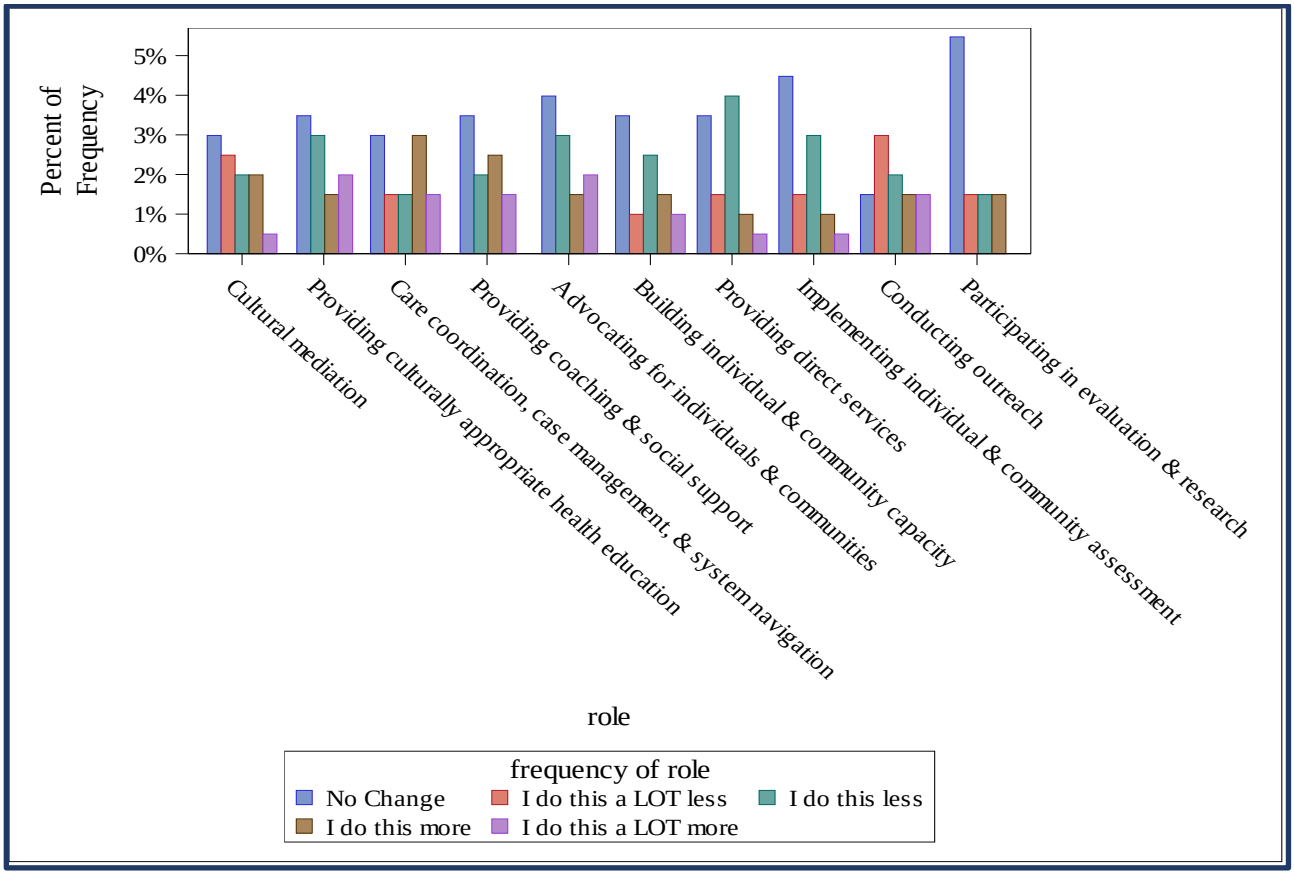
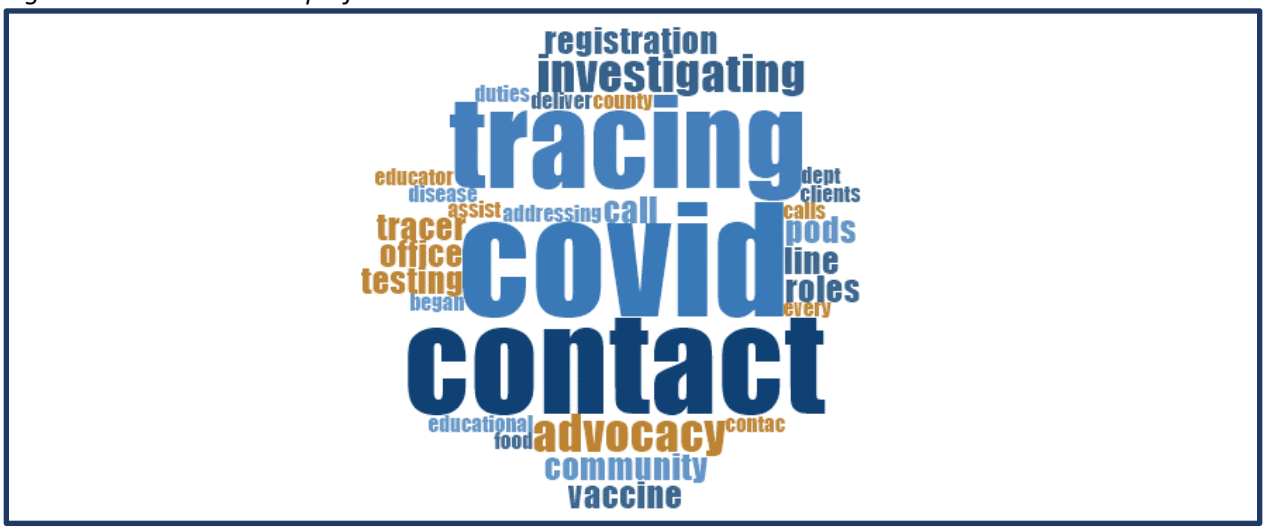


Table 4: Frequency of roles

	No Change	I do this a LOT less	I do this less	I do this more	I do this a LOT more	Total (Percent)
Cultural mediation	6	5	4	4	1	20 (9.95%)
Providing culturally appropriate health education	7	0	6	3	4	20 (9.95%)
Care coordination, case management, & system navigation	6	3	3	6	3	21 (10.45%)
Providing coaching & social support	7	0	4	5	3	19 (9.45%)
Advocating for individuals & communities	8	0	6	3	4	21 (10.24%)
Building individual & community capacity	7	2	5	3	2	19 (9.45%)
Providing direct services	7	3	8	2	1	21 (10.45%)
Implementing individual & community assessment	9	3	6	2	1	21 (10.45%)
Conducting outreach	3	6	4	3	3	19 (9.45%)
Participating in evaluation & research	11	3	3	3	0	20 (9.95%)

New roles performed by CHWs since the COVID-19 pandemic began, were identified by 33 survey responses. Not surprising, the **new roles reported were related to COVID-19**, including contact tracing, case investigation, and helping with vaccination (*registration; PODs*) and testing (*registration*). Some CHWs stated that the **focus on the disease** was new, and that **being in the office** was a new role. For some CHWs, advocacy (*for patient, community, and with medical teams*) was new, and one CHW stated that providing COVID-19 education was a new role. The word cloud below (Figure 1) shows the 30 most frequently occurring words with at least 4 letters mentioned by CHWs in response to the question on new roles.

Figure 1: New CHW roles performed since COVID-19



Skills

Skills performed before pandemic. The C3 Project led to 11 agreed upon CHW core skills (Rosenthal, Menking, & and St. John, 2018). Before the pandemic, the four skills that CHWs reported as performing most included *Communication Skills*; *Interpersonal & Relationship-building Skills*; *Service Navigation Skills*, and *Professional Skills and Conduct* (Graph 15 & Table 5). These skills with the most "Often" responses had a range of 16-19 responses.

Graph 15: Skills performed before the pandemic

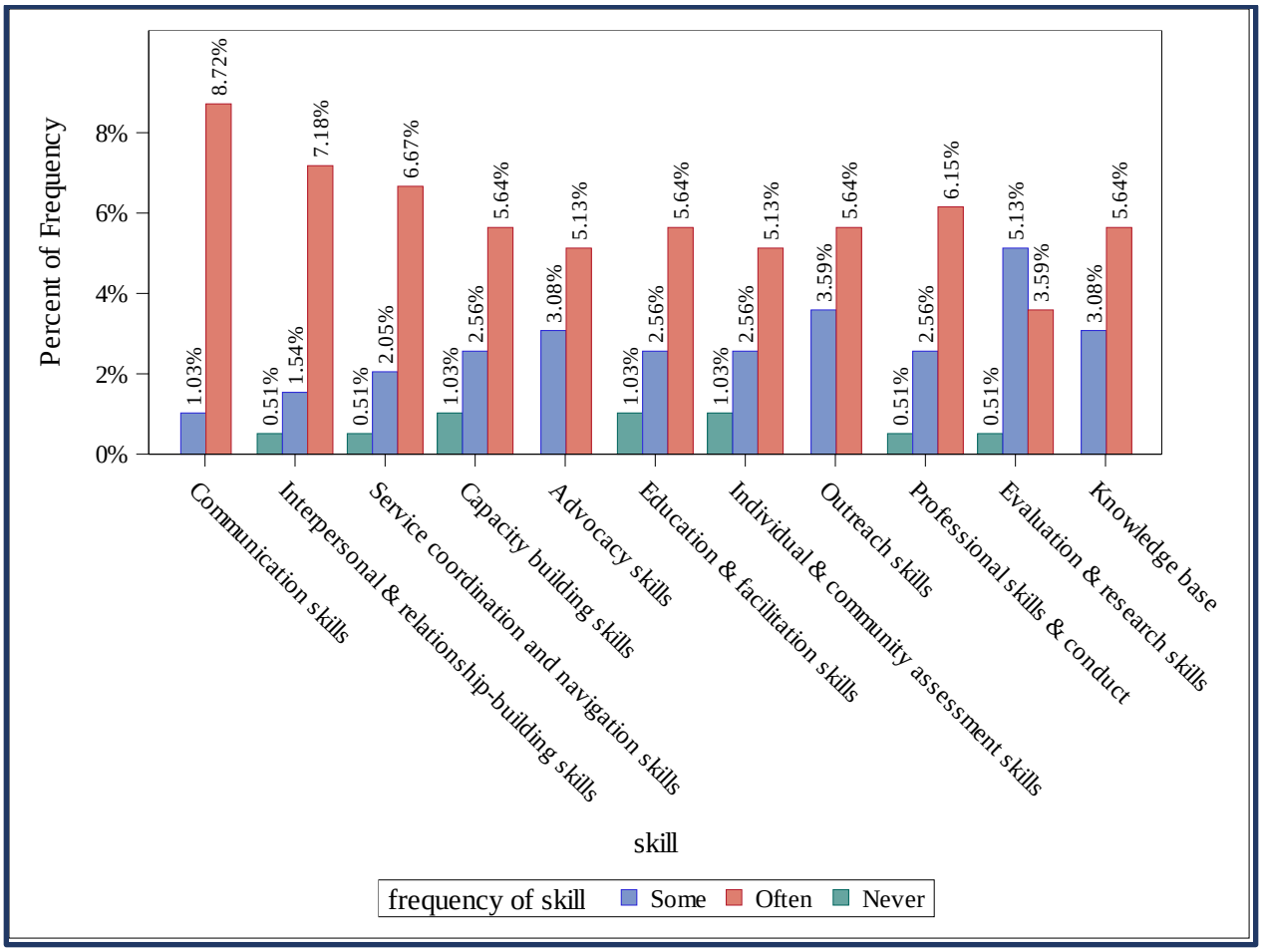
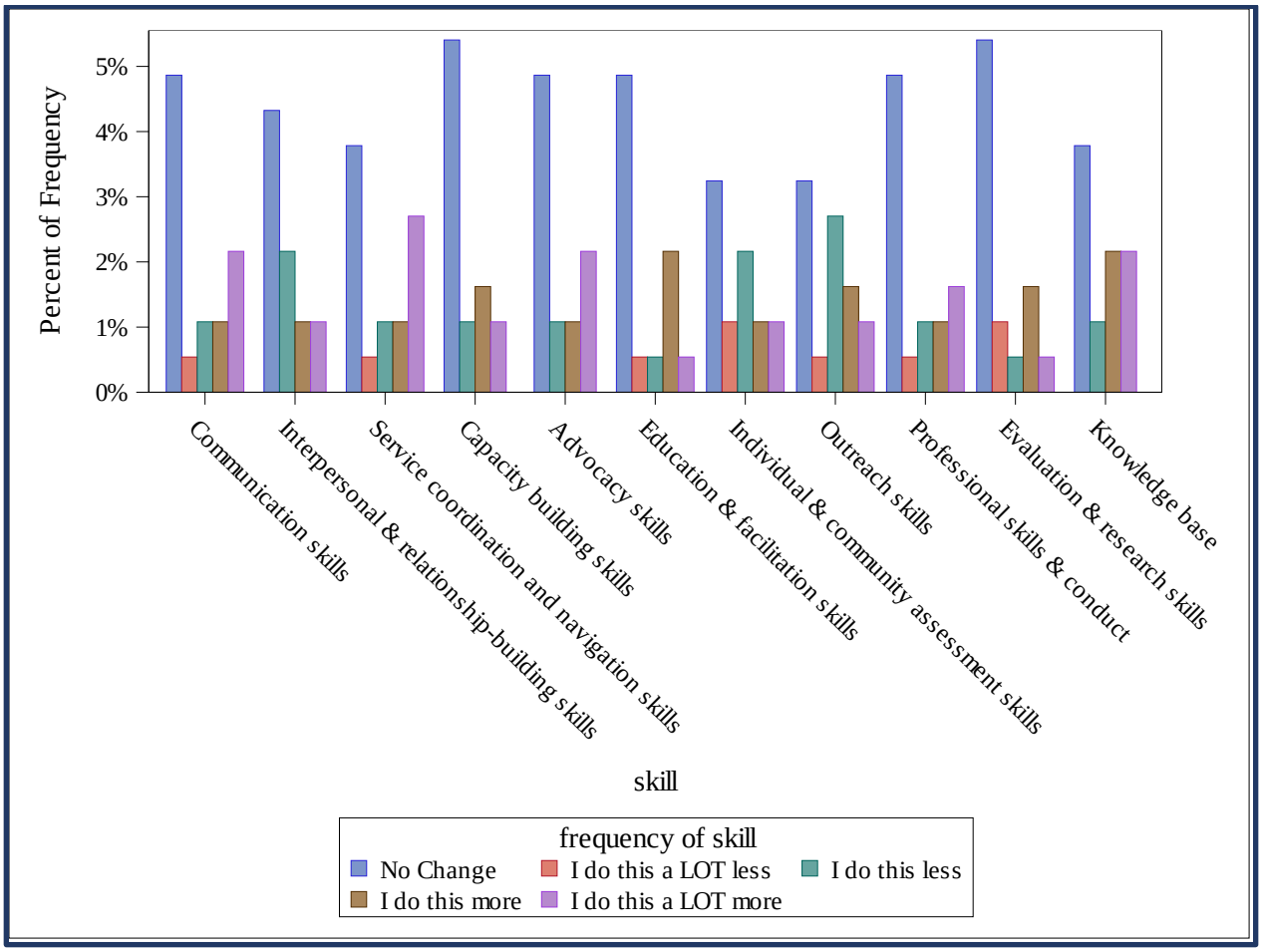


Table 5: Frequency of skills

	Never	Some	Often	Total (Percent)
Communication skills	0	2	17	19 (9.74%)
Interpersonal & relationship-building skills	1	3	14	18 (9.23%)
Service coordination and navigation skills	1	4	13	18 (9.23%)
Capacity building skills	2	5	11	18 (9.23%)
Advocacy skills	0	6	10	16 (8.21%)
Education & facilitation skills	2	5	11	18 (9.23%)
Individual & community assessment skills	2	5	10	17 (8.72%)
Outreach skills	0	7	11	18 (9.23%)
Professional skills & conduct	1	5	12	18 (9.23%)
Evaluation & research skills	1	10	7	18 (9.23%)
Knowledge base	0	6	11	17 (8.72%)

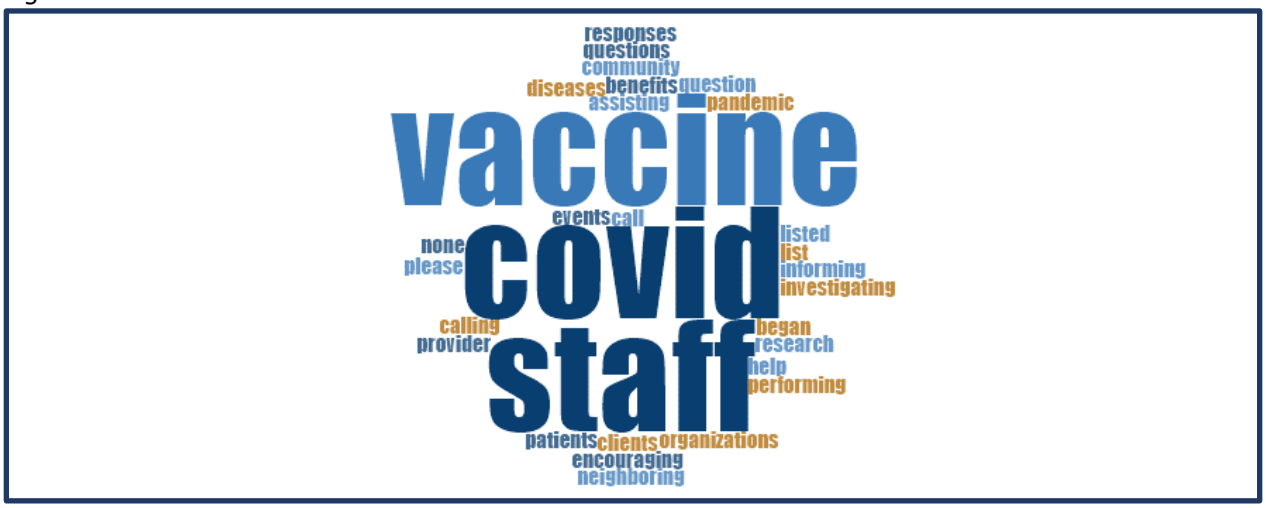
With the number of responses ranging between 16 and 18, **the change in frequency of skills used since the pandemic** varied (Graph 16). Overall, CHWs reported that there was no change in the skills performed since the pandemic. Respondents reported the following four skills used "A lot more:" *Service Coordination & Navigation Skills*; *Communication Skills*; *Advocacy Skills*; and *Knowledge Base Skills*. Respondents reported the following two skills used "A lot less:" *Evaluation & Research Skills*; and *Individual & Community Assessment Skills*. The three skills reported as used "Less" included: *Outreach Skills*; *Interpersonal & Relationship-building Skills*; and *Individual & Community Assessment Skills*.

Graph 16: Change in performance of skills since COVID-19 began



Only few (n=8) responses indicated what new skills CHWs began to perform since the start of the COVID-19 pandemic. These **skills were related to addressing COVID-19**, in particular, helping with investigating, tracing, vaccine events, researching the disease, advocating for the vaccine, and **working more from the office** (calling clients to help). One response referred to **collaboration** among neighboring tribal organizations. The word cloud below (Figure 2) shows the 30 most frequently mentioned words with at least 4 letters mentioned by CHWs in response to the question on new skills.

Figure 2: New CHW skills used since COVID-19



Qualities

CHWs were asked to **rank 10 of the C3 CHW core qualities** (Rosenthal, Menking, & and St. John, 2018) before and after the COVID-10 pandemic. On a scale of 1-10, with 1 being the most important, the qualities that CHWs ranked as the five most important both before and after were *Honest* (1, before and after), *Dependable* (2, before and after), *Outgoing* (3, before) and *Empathetic* (3, after), *Connected to the Community* (4, before) and *Self-Directed* (4, after), *Open-Minded* (5, before) and *Connected to the Community* (5, after) (Table 6). In order to account for the lack of responses that resulted in ties between the qualities, each rank was assigned a weight based on its importance.

Table 6: Ranking of CHW qualities

Ranking of Quality Before COVID-19	Rank	Ranking of Quality After COVID-19
Honest	1	Honest
Dependable	2	Dependable
Empathetic	3	Outgoing
Self-Directed	4	Connected to the Community
Connected to the Community	5	Open-Minded
Resourceful	6	Self-Directed
Eager to Learn	7	Empathetic
Outgoing	8	Courageous
Courageous	9	Eager to Learn
Open-Minded	10	Resourceful

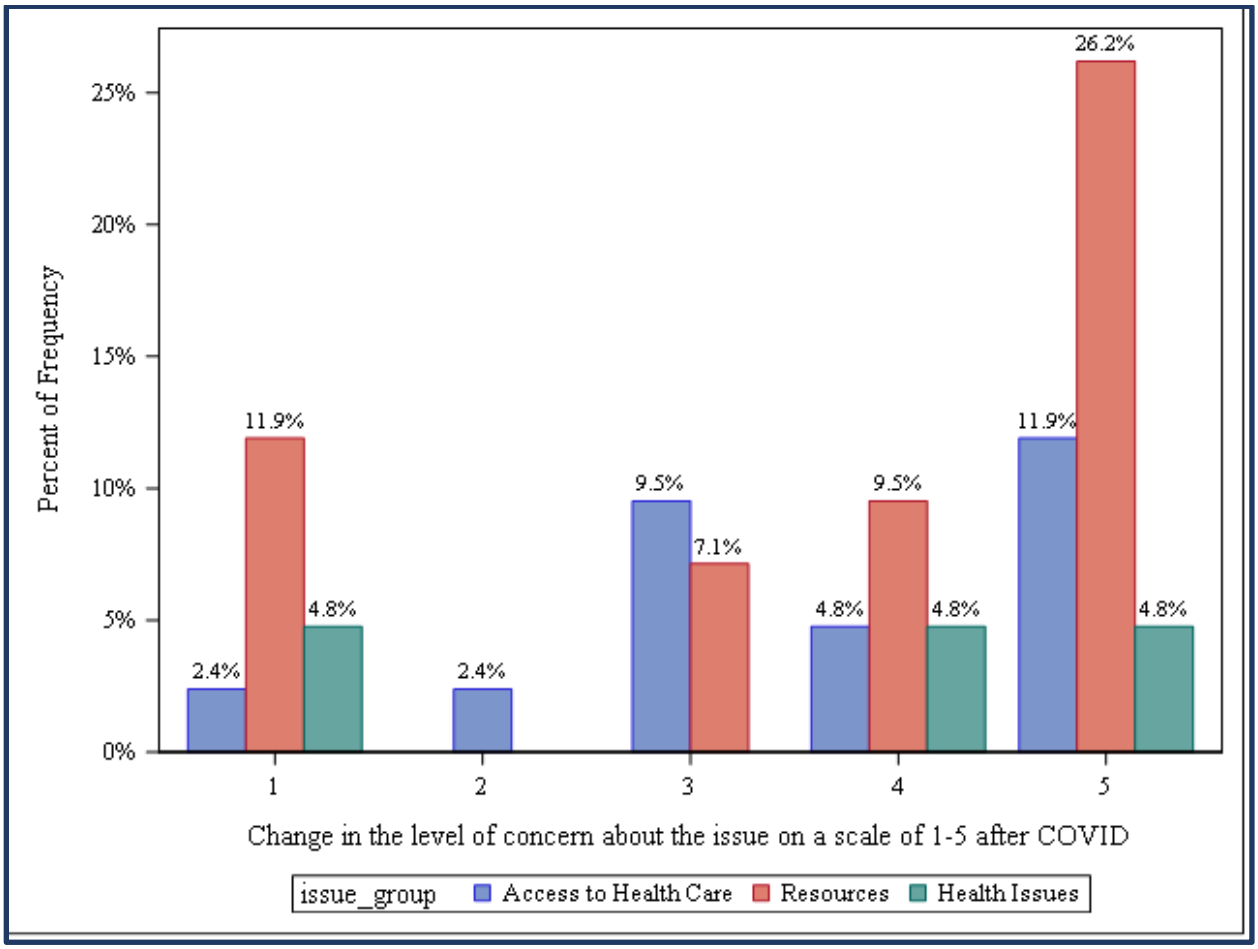
Community Concerns

The CHWs were asked to list the **3 most concerning issues faced by the community members they served**. CHWs provided 42 responses to this open-ended question. Using the *Social Determinants of Health* framework (Artiga & Hinton, 2018; USDHHS, 2021), the responses were grouped into 3 themes: *Access to Health Care*, *Resources*, and *Health Issues*. Each of these themes included multiple responses. *Access to Health Care* responses included "Getting medication on time", "Clinics stay open late", "Appointments, Dental not open", "Better equip for covid", and "language barriers". *Resources* included responses such as "food", "food insecurity", "transportation", "housing" "income", and "lack of community resources". *Health Issues* included responses such as "Health", "Wellness", "Chronic health issues", and "Accident". The word cloud below (Figure 3) shows the 30 most frequently mentioned words with at least 4 letters mentioned by CHWs in response to the question on most concerning issues.

Figure 3: Most concerning issues faced by the community members

A follow-up question asked CHWs to rate the change in the level of concern in the community about the issues they just identified on a scale from 1-5, with 5 being the most change. (Graph 17). The themes *Resources,* followed by *Access to Health Care,* captured the two most concerning issues with the largest change in level of concern.

Graph 17: Rating of community issues



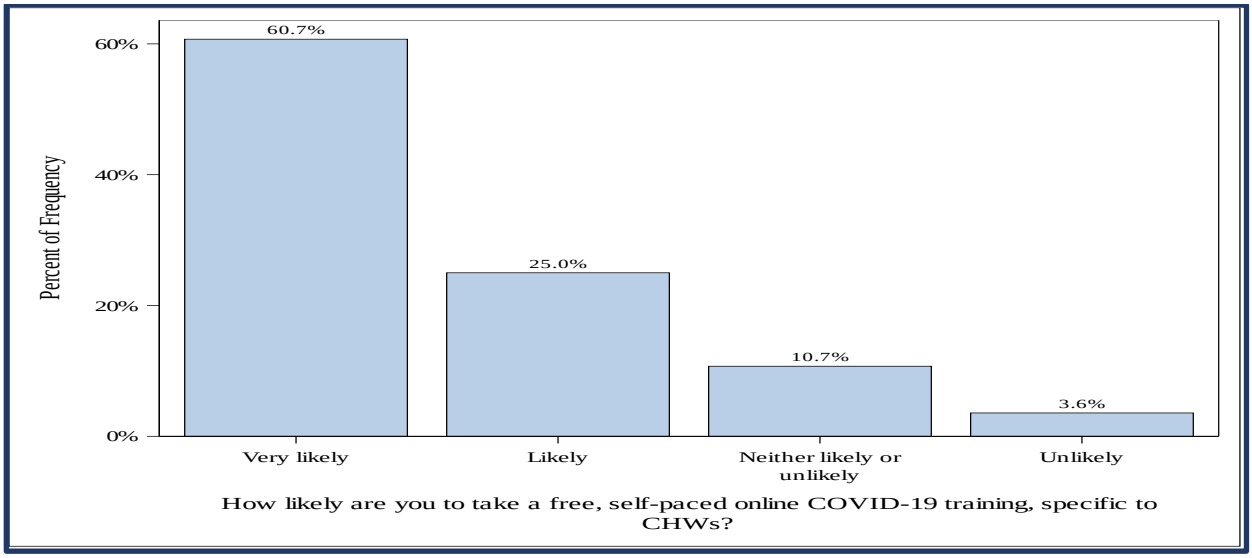
Nineteen responses from the CHWs described the **resources, other than money, that would be most helpful to community members BEFORE the pandemic**. Most of these resources addressed **social determinants of health**, including food, transportation, and paying for utilities. **Medical resources**, including free health care and having clinics/hospitals better prepared for epidemics. Community resources were mentioned once. The word cloud (Figure 4) provides a visual impression of responses to helpful resources mentioned.

Figure 4: Helpful resources other than money.

Training Resources

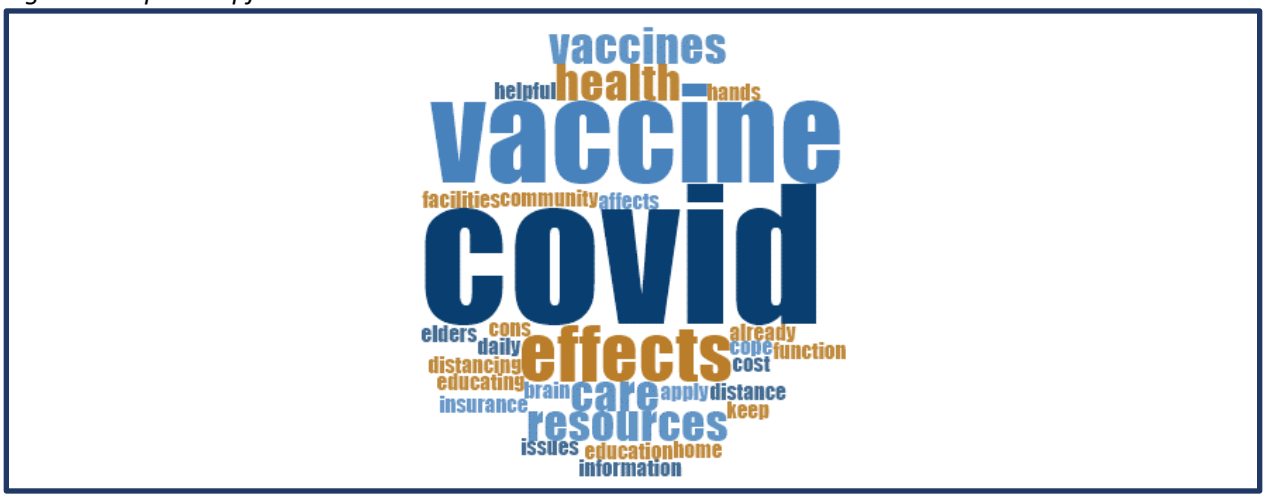
When asked **how likely CHWs would be to take a free, self-paced online COVID-19 training that was specific to CHWs**, a majority of the CHWs responded "Very likely" and "likely" (28/34; 60.7%, and 25.0%, respectively) (Graph 18).

Graph 18: Likelihood to take self-paced online COVID-19 training



Asked about **what topics would be most helpful for** CHWs if they were presented in a free, self-paced online COVID-19 training, 21 respondents specified topics of interest. **The two most frequently mentioned topics** focused on **(1) information about COVID-19 vaccine**, including pro and cons, where to get it, and after vaccine care, and **(2) facts about COVID-19**, including prevention, symptoms, and impact on body, mental health, and health issues. **Other topics** mentioned less frequently were **(1) educating the community about COVID-19** and **preventive measures** (mask, distance, wash hands, stay home), and **(2) resources** in general, and access to Medicaid/Medicare insurance and low cost medical care in particular. The word cloud (Figure 5) provides a visual impression of responses to topics helpful to CHWs.

Figure 5: Topics helpful to CHWs



Conclusion

As the COVID-19 pandemic arrived in Oklahoma, infection and mortality rates increased, and the health care system became overburdened, public and academic attention focused on epidemiological and medical professions. Little attention was granted to how COVID-19 impacted communities and the community-based workforce, including Community Health Workers (CHWs), although the disproportionate COVID-19 burdens of non-white, socioeconomically disadvantaged, and non–English-speaking populations across the U.S. had become clear. Closely connected to the communities they serve, CHWs were in a unique and strategic position to contextualize these COVID-19 disparities, including with a focus on persisting social determinants of health needs, and to support equitable COVID-19 response efforts (Chowkwanyun & Reed 2020; Van Beusekom 2020; Wood 2020).

As CHWs continued to serve their clients in both familiar and new roles, they put themselves into harm's way. CHW organizations as well as CHW allies began to investigate how CHWs were impacted by COVID-19 and provided resources for CHWs. At the national level, the National Association of Community Health Workers (NACHWs) advocated for the CHW workforce and offered resources (NACHW, 2021), as did the CDC (CDC, Resources for CHWs, 2020). In some states, CHW allies and CHWs partnered to learn about the impact of the pandemic and appropriate responses. The ***CHW COVID-19 Impact Survey*** that was first developed and distributed in Texas in August 2020, aimed to assess the impact of the pandemic on the CHW workforce, identify training needs and opportunities to prepare CHWs for the ongoing and future public health emergencies, and understand urgent needs of CHWs and the communities they served. In January 2021, the Oklahoma Public Health Training Center (OPHTC) replicated this study to document the experiences and perceptions of Oklahoma's CHWs on how the COVID-19 pandemic impacted their work at organizations and with communities, as well as perceived CHW and community needs. The OPTHC shares the survey findings in this report with the goal to help prepare the current and future CHW workforce through trainings and sustained support during public health emergency responses.

The key findings described in this report are summarized below and serve as foundation for our recommendations for next steps.

Documenting CHWs' Work during the Pandemic

The CHWs who responded to this survey had a large range of work experience and were diverse in terms of age and race/ethnicity. The large majority was female, and the majority lived in a large city or suburb near a large city. Less than half of the respondents reported holding a certificate. About a third of CHWs had children under 12 years of age living in their household, and of these, the large majority found it very difficult or difficult to handle childcare responsibilities during the COVID-19 pandemic response.

Based on this study, the pandemic affected the CHW workforce at both personal and professional levels. Rating the well-being of the community they served as about half as well and twice as unwell since the pandemic, CHWs considered COVID-19 a major threat, particularly to the health of Oklahoma's population as a whole and the day-to-day life in communities. COVID-19 also affected the CHWs and their families in terms of physical and mental health, and potential financial impacts, and through the need for but lack of prevention and social distancing. While CHWs saw themselves and those they lived with at risk of severe illness from COVID-19, they saw the populations they worked with as having a higher risk. Part of their

own risk came from their work, as nearly half of the CHWs reported having been in close proximity to someone who had tested positive for COVID-19.

While their work status as CHWs generally had not changed, while they continued to be employed by the same organizations, and while they served the same populations overall, the pandemic led to changes in where and how CHWs performed their work. COVID-19 clearly increased CHWs' work from the office and remotely from home, and decreased their working in clients' homes, clinics and community centers. COVID-19 restrictions also changed how CHWs performed their jobs. They adjusted their work to an office setting, communicated via phone or virtually, and no longer provided transportation services. CHWs felt the loss of direct interaction with their clients.

CHWs did not increase their paid weekly hours, but dedicated almost two-thirds of these hours to work focused on COVID-19. CHWs mostly had positive experiences related to their work, seeing themselves as very caring, integrated into their workforce, and connected to others. Almost all had health insurance and felt supported by their employers to address the pandemic while being protected by PPE.

Overall, CHW roles did not change, however, they had some minor changes. CHWs increased their engagement in *Care Coordination, Case Management, & System Navigation; Providing Coaching & Social Support; Providing Culturally Appropriate Health Education*; and *Advocating for Individuals and Communities.* They decreased their engagement in *Providing Direct Services; Conducting Outreach*; *Cultural Mediation; and* I*mplementing Individual & Community Assessment*. CHWs named new roles related to COVID-19, including contact tracing, case investigation, and vaccination and testing support.

In general, CHW skills used since the pandemic did not change, however, some skills were used more while others were used less. Four skills that CHWs used "A lot more" included *Service Coordination & Navigation Skills*; *Communication Skills*; *Advocacy Skills*; and *Knowledge Base Skills*. Two skills that CHWs used "A lot less" were *Evaluation & Research Skills*; and *Individual & Community Assessment Skills*, and three skills they used "Less" included *Outreach Skills*; *Interpersonal & Relationship-building Skills*; and *Individual & Community Assessment Skills*. A few CHWs reported new skills that were related to their new COVID-19 related roles in surveillance and vaccination efforts, and working from the office.

Out of ten C3 CHW core qualities presented in the survey, the qualities that CHWs ranked as the two most important both before and since the pandemic were *Honest* and *Dependable*. *Connected to the Community* – the quality highlighted as the most important by the C3 project (Rosenthal, Menking, & and St. John, 2018) – was only rated as 4th and 5th most important quality before and since the pandemic, respectively.

Informing Future Training Opportunities and Preparing CHWs for Future Public Health Emergencies

CHWs expressed interest in taking a free, self-paced online COVID-19 training specific to CHWs. They were most interested in information about the COVID-19 vaccine and facts about COVID-19. Some CHWs also expressed interest in topics related to community education about COVID-19 and preventive measures, as well as information on access to resources addressing SDOH needs. The CHWs' training interests reflected their involvement in the COVID-19 response in Oklahoma, and their knowledge of their communities' needs. Over the past few months, CHW specific online-trainings with a focus on COVID-19 have been made available in the U.S. (MCD, 2021; MHP Salud, 2021).

CHW Perspectives on Priority Issues in the Communities They Serve

CHWs thought that the most concerning issues faced by community members that they had observed centered on social determinants of health, in particular *Resources*, *Access to Health Care*, and *Health Issues*. CHWs were predominantly concerned about their communities' need for resources, and they saw the highest need for resources related to food, transportation, and paying for utilities. Access to health care included a need for clinics to be open, appointments to be made, and medications received on time. Some CHWs mentioned the need for health care systems to be better prepared for epidemics. Health issues observed seemed to reflect a continuity of issues that preceded the pandemic, for example chronic issues and accidents.

Recommendations for Next Steps

The findings of our study are foundational to several recommendations for next steps in the COVID-19 response and future potential pandemics. These recommendations are intended for multiple stakeholders in Oklahoma, including CHWs, CHRs, *Promotoras/es de Salud*, CHW allies, researchers, administrators, supervisors, managers, funders, and policy makers.

COLLABORATION

● We encourage organizations in Oklahoma to reach out to the Oklahoma Public Health Association's Community Health Worker Section to facilitate coordination and collaboration across the state. CHW Section leadership also can connect individuals or organizations with CHW trainings, allies, organizations, and other relevant resources. Working together will allow for a more holistic approach to addressing COVID-19 and future public health crises by including the community-based workforce expertise of CHWs.

ADVOCACY FOR THE CHW WORKFORCE

● CHWs and employers can advocate for CHWs by asking about their personal and professional experiences with the goal to support and protect their personal and families' wellbeing and health.
● Advocacy in Oklahoma should include a focus on more, accessible resources that CHWs need to navigate for social determinants of health (SDOH) needs. As the COVID-19 experience has shown, needs will be related to new, pandemic-induced needs, but also to continued, pre-pandemic needs.
● This pandemic demonstrated the importance of training CHWs on the broad spectrum of their roles and skills in preparation for flexible responses to emerging public health needs.
● Stakeholders and CHWs can advocate for organizations to tap into all of the CHW skills, and to offer timely trainings for CHWs to gain new knowledge and skills specific to emerging public health needs.
● It is important for CHWs as a workforce to receive the credit that they deserve. Organizations and other CHW stakeholders should increase the visibility of CHWs who courageously helped address COVID-19.

RESEARCH AND EVALUATION FOCUSED ON CHW PANDEMIC RESPONSE

● Researchers and evaluators can document CHW observations, successes, and concerns during the pandemic, and can provide support for this workforce through their findings and recommendations.
● Organizations are encouraged to ask CHWs about their observations during a pandemic, and ask what is important to them as a workforce and for their communities when responding to public health challenges.
● CHW organizations can support CHWs by evaluating and sharing their impact on the pandemic response.

CHW EDUCATION / TRAINING

● Over the next few years, all stakeholders need to work together to assure that CHWs/CHRs have access to a certification process in Oklahoma that will be based on the C3 CHW core roles, skills, and qualities (Rosenthal, Menking, & and St. John, 2018). A standard foundational training will help CHWs adjust to emerging public health needs, and will offer them recognition as valuable workforce.

● CHW employers and other stakeholders should be educated about the broad spectrum of CHW roles and skills, so that they can make informed decisions about CHW engagement in pandemic responses.

● During pandemics such as COVID-19, CHWs need to have access to appropriate technology to continue their work, and they need to be trained to effectively work with potentially new technology.

● CHW trainings specific to the COVID-19 response have been made available (MCD, 2021; MHP Salud, 2021), and more general response trainings are available as well (TLMS 2021). As the pandemic evolves – and hopefully dissolves – it is advisable to revisit and revise trainings.

SUSTAINING CHW ENGAGEMENT IN EMERGENCY RESPONSE

● Preparing for future pandemics, organizations and CHWs need to develop strategies that will allow CHWs to address both their clients continued and emerging needs.

● Oklahoma's organizations can tap into existing resources, such as the COVID-19 playbook (NCBWA, 2020), to utilize CHW roles most efficiently in addressing new public health challenges such as COVID-19.

● Health care system preparations for future pandemics should invite CHW input.

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