Michigan Community Health Worker Alliance

In coordination with the MiCHWA Evaluation Advisory Board

2018 Community Health Worker Common Indicators Survey
Final Report

July 2019

For questions about this report, please contact MiCHWA staff (dhurse@med.umich.edu)

About the Michigan Community Health Worker Alliance (MiCHWA)

MiCHWA's mission is to promote and sustain the integration of community health workers (CHWs) into health and human services organizations throughout Michigan, through coordinated changes in policy and workforce development. MiCHWA works with CHWs and their programs statewide to accomplish its mission. It is supported by a network of over 900 stakeholder individuals and organizations, MiCHWA staff, Board of Directors, CHW Network and work groups, and its Evaluation Advisory Board (EAB). With support from the Michigan Department of Health and Human Services and the Centers for Disease Control and Prevention, MiCHWA conducts biannual surveys of CHW-employing organizations to document and assess the state of the CHW workforce in Michigan. Additionally, MiCHWA conducted Common Indicators/CHW Program Evaluation surveys in both 2015 and 2018.

2018 COMMON INDICATORS SURVEY TEAM

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The EAPC is a collaboration of over 40 stakeholders including community health workers, state government, Medicaid health plans, health systems, and community based organizations. MiCHWA and Michigan Public Health Institute (MPHI) provide facilitation as part of a grant funded by the W.K. Kellogg Foundation (WKKF). These EAPC staff members contributed to the development and dissemination of the survey:

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2018 Community Health Worker Common Indicators Survey

Final Report

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EXECUTIVE SUMMARY

Background and Purpose of Survey

Increasing sustainable investments in CHW programs depends on a strong evidence base, including the specific contributions of CHWs to successful outcomes. While most CHW programs track certain processes and outcomes, the lack of a common core of standardized measures (or "common indicators") hampers efforts to aggregate data that would provide more robust evidence of CHW impact.

In 2015, with support from the University of Michigan School of Social Work Curtis Center, and direction from the Evaluation Advisory Board (EAB), MiCHWA launched an effort to gain a better understanding of how CHW programs in Michigan are evaluated, including which measures they use. This effort included a literature review, interviews with national CHW evaluation experts, focus groups with Michigan-based CHWs, and a survey of CHW programs. This work sparked a now ongoing national initiative, beginning with a summit meeting in Portland Oregon in 2016. Building on MiCHWA's project, a wide variety of stakeholders are continuing to work to identify a common set of process and outcome indicators for measuring the processes and outcomes of CHW programs, with an emphasis on the unique contributions of CHWs to successful outcomes. For more information, including the Summit report and next steps, please see http://www.michwa.org/common-indicators-project-2/#National

Recognizing an ongoing need in Michigan, in Fall 2018, MiCHWA and its EAB, with additional contributions from the Michigan Public Health Institute's Education Advocacy and Policy Collaborative (EAPC), undertook an updated CHW Common Indicators survey.

Survey Methods

This survey was developed by the MiCHWA EAB, along with EAPC staff. Survey items focused on whether and how CHW-employing organizations tracked processes and outcomes related to CHW services. Of particular interest were CHW activities that cut across health issues and populations; i.e.: addressing the social determinants of health and helping clients navigate health and social services in a fragmented system of care.

The survey was administered via Qualtrics© and distributed by email in Fall 2018 to CHW programs statewide with a request that it be completed by the staff member most familiar with the CHW program data. Descriptive statistics, including counts and percentages, were calculated using SPSS by IBM®. Qualitative responses were compiled and reviewed for themes.

Sample Characteristics

Fifty-two out of 79 organizations responded to the survey (response rate of 65.8%). Thirty-four surveys had at least some usable data; 26 (representing 43 CHW programs) had complete or nearly complete data, and were used for the majority of the report.

Of the 34 organizations represented in the report, about one-quarter each are Federally Qualified Health Centers (FHQCs) and local/county health departments, or community-based organizations.

Just over 10% are health plans. These organizations employed an average of 6 CHWs and most housed only one CHW program (range 1 to 7).

Selected Findings

Documenting CHW Activities:

Please note that the referral tracking by type of service section did include a not applicable section that organizations could select. However, CHW activities and roles did not include this option. Thus, less frequently tracked activities and roles may reflect lack of tracking but also could reflect that some activities are not applicable to all organizations (See limitations).

- Three-quarters of responding organizations documented the number of CHW visits/encounters and the number of participants enrolled.
- Half or more of organizations tracked the number of clients assessed/screened and referrals made and completed by CHWs, and educational offerings taught by CHWs. Among organizations that tracked CHW referrals to health promotion activities/services, health care services, or social/environmental services, generally between half and three-quarters also tracked whether clients completed these referrals. Around half or fewer of organizations, however, "closed the loop" by also tracking whether clients who completed these referrals successfully addressed the relevant health or social issue (i.e. reason for referral).
- The type of referral for which the completion was most often tracked (at 90%) was health insurance or disability applications.
- In terms of activities that are directly related to CHW "core" roles, the most often tracked were conducting outreach and care coordination/case management/system navigation, both of which were tracked by more than three-quarters of organizations. Community-based organizations were especially likely to track core-role related activities.

Client Characteristics/Social Determinants Data:

- Race, gender, and insurance status were the client/patient characteristics most often documented (more than 80% of organizations). One-third or fewer organizations documented sensitive characteristics such as sexual orientation, migrant and/or seasonal farm worker status, religion, and refugee status.
- Although half of organizations used some kind of standard tool to assess clients' social determinants of health, there was little commonality. The most frequently used (by 5 organizations) was the Pathways/HUB model tool.
- More than 60% of organizations used routine care management and coordination case notes to record social determinants of health. About the same proportion used electronic health records and paper-based intake/assessment questionnaires.

Measures tracked for program evaluation purposes:

- Most organizations tracked elements of program cost; most commonly: salaries/fringe benefits for CHWs and supervisors, as well as direct operational costs related to CHWs (all more than 80%).

- Almost half of the organizations measured client/patient satisfaction with CHWs; this was usually assessed using the organization's internal client satisfaction survey.
- About a third of organizations tracked ED visits, hospital admissions, and missed appointments. Only a few tracked other health care utilization indicators, such as pharmacy claims, urgent care visits, or hospital stays.
- Approximately one-third of organizations each measured patient activation/efficacy, medication adherence, and self-management behaviors.
- Other outcomes were specific to the health topic being addressed (e.g., asthma, infant safety, cervical cancer screening) and, therefore, were tracked by only a few organizations each.

Data collection/tracking systems used by organizations:

- Across all activities addressed in the survey, the primary methods that organizations used to collect and record data were electronic program databases (approximately 60% of organizations, across activities), electronic health records (40-50%), and more traditional, often paper-based, tracking systems, including encounter forms, self-report surveys, and referral forms (40-50%).
- Qualitative data or stories were also collected by 30-40% of organizations, though it was not specified how this data was collected or where it is recorded and stored.

Limitations

- The survey distribution did not reach all organizations with CHW programs in the state and not all organizations responded. Therefore, while the responses represent a diverse array of CHW programs from around Michigan, they do not represent all programs.
- The survey did not ask what services/activities that CHWs conduct and what roles CHWs play within their organizations. A "not applicable" option was provided for the extensive "Referrals to Health Care Activities and Services" question, but was not provided for other questions in the survey. Therefore, for results regarding tracking roles and some activities, we were unable to distinguish whether the CHWs at an organization don't perform a particular activity or role (e.g., client/patient education) or whether they do perform the activity but it is not tracked. This is especially important given the varying program focus and objectives among organizations employing CHWs, especially for non-health-care organizations. Future surveys will add "not applicable" and ask what roles and activities CHWs conduct in the organization.

Conclusions/Implications

The results of this survey suggest that while most of the surveyed organizations collect extensive information that could be useful for CHW program evaluation, the majority of the data relates to client/patient characteristics and some key activities in which CHWs in these program typically engage such as outreach and referrals. More than half do track which roles their CHWs conduct. There was little commonality in tools used. Fewer organizations reported tracking program outcomes, outcomes were very diverse, and there was little commonality in specific tools or measures used to measure outcomes.

- Almost all organizations collect CHW visit and encounters data, and record the number of clients. This data could be used to quantify the "dosage" of CHW services in Michigan.
- Although a social determinants of health assessment was commonly practiced by CHWs in responding organizations, there was little commonality in the tools used, limiting ability to quantify social needs and outcomes across programs. Efforts to review and consider approaches to selecting common tools, or key measures that could be gathered in common are recommended. The Pathways/HUB tool that is used by several programs in Michigan and the PREPARE tool that is typically used by FQHCs may be starting points for discussion.
- Overall, there appears to be a high rate of tracking activities that are central aspects of the CHW role in many CHW programs in Michigan, including client referrals, referral follow-up, outreach, and care coordination/navigation. Other unique aspects to the CHW role, such as cultural mediation and client/patient empowerment are less commonly tracked. Future surveys or interviews should be designed to assess whether this reflects less tracking of such roles, difficulty in measuring them, or limitations of the roles that CHWs play in organizations. Note: Future surveys need to add back the core role that was missing from this survey: "Building individual and community capacity".
- There were only a few common tools/instruments currently in use to track or measure processes and outcomes. Discussion of inclusion of measures commonly used across the country such as the Patient Activation Measure (PAM) and standardized assessments for certain evidence-based programs like PATH is recommended.
- Basic costs (salaries, operations, overhead) were tracked by most programs. Because these costs are important for conducting return-on-investment studies, discussion of common approaches to measuring these costs is recommended. While ED visits and hospitalizations are typically used in these studies because of ease of measurement and importance in terms of immediate costs, it is important to recognize that public health and primary care-focused organizations and programs focusing on maternal and child health or chronic disease outcomes may focus on outcomes where cost-savings in the short run are not likely but improved health is achievable. Therefore, it may be useful to identify a common set of outcomes typically used by clusters of organization types (e.g., hospitals, health plans, primary care providers, community social service providers) for use in such studies.
- For data tracking technology, we seem to be at a "transitional" phase. While over half of organizations used electronic program data bases and electronic medical records that would facilitate potential sharing of data for combining data, about 40% still keep records on paper or elsewhere. Efforts to help organizations, especially small CBOs, make better use of technology for data collection and management may be useful.
- Qualitative data to better understand facilitators and barriers related to tracking activities and outcomes may be useful to collect in the future.

BACKGROUND

The Common Indicators Survey

Increasing sustainable investments in CHW programs depends on a strong evidence base, including the specific contributions of CHWs to successful outcomes. While most CHW programs track certain processes and outcomes, the lack of a common core of standardized measures (or "common indicators") hampers efforts to aggregate data that would provide more robust evidence of CHW impact.

In 2015, with support from the University of Michigan School of Social Work's Curtis Center and direction from the Evaluation Advisory Board (EAB), MiCHWA launched an effort to gain a better understanding of how CHW programs in Michigan are evaluated, including which measures they use. This effort included a literature review, interviews with national CHW evaluation experts, focus groups with Michigan-based CHWs, and a survey of CHW programs. This work sparked a now ongoing national initiative, beginning with a summit meeting in Portland Oregon in 2016. Building on MiCHWA's project, a wide variety of stakeholders are continuing to work to identify a common set of process and outcome indicators for measuring the processes and outcomes of CHW programs, with an emphasis on the unique contributions of CHWs to successful outcomes. For more information, including the Summit report and next steps, please see http://www.michwa.org/common-indicators-project-2/#National

Recognizing an ongoing need in Michigan, in Fall 2018, MiCHWA and its EAB, with additional contributions from the Michigan Public Health Institute's Education Advocacy and Policy Collaborative (EAPC), undertook an updated CHW Common Indicators survey.

SECTION 1: METHODS

Survey Development

The CHW 2018 Common Indicators survey was designed, conducted, and analyzed by MiCHWA, in collaboration with EAPC Initiative staff. The goal of the survey was to answer the following questions:

- How do the CHW-employing organizations assess social determinants of health among clients? What tools do they use? How do they record the data? How do they use the data?
- How do the organizations track CHW referrals for services? What happens after referrals, i.e., Do organizations track whether the patient/client receives the services? Do organizations track whether the referred issue/service need was addressed?
- Which CHW role-related activities services and activities does the organization track and how are they tracked?
- What patient/client characteristics does the organization track?
- Which CHW program costs do organizations track?
- How do CHW employing organizations evaluate their programs, i.e.,
    - Which process measures outcomes do organizations use to evaluate their CHW programs?
    - Which health care utilization and cost indicators are tracked?

- Which outcome measures do organizations track, e.g., patient activation, treatment adherence, self-management behaviors, other health behaviors, those related to several chronic conditions, mental health measures, maternal and child health, oral health

Survey content was adapted from the 2015 survey mentioned above. Additions were recommended by the MiCHWA EAB and the staff of the Education, Advocacy, and Policy Collaborative (EAPC). The final 57-item survey with 30 sub-questions consisted of both open- and close-ended items. The survey was transferred to an electronic survey format using Qualtrics©, a web-based survey tool used by the University of Michigan. Feedback from Evaluation Advisory Board members and several CHW program managers about the content, flow, and usability of the electronic survey was incorporated before finalizing and disseminating the survey.

Survey Distribution

A survey email list was created, including 95 individual email addresses from 67 unique community health organizations. These individuals were identified as CHW program managers, supervisors, or other staff from organizations that may employ CHWs. A letter explaining the purpose of the survey and instructions for completion was distributed with the survey, by email. The EAPC staff disseminated the letter and link to the EAPC Steering Committee. In addition to the email distribution, the survey was promoted through MiCHWA's website and Facebook page. The letter and survey instructions specified that one person per employer organization should complete the survey. We requested that this person be the person most familiar with data related to CHW activities and evaluation in the organization. If an organization had multiple CHW programs, we requested that the respondent answer on behalf of the organization and include all CHW programs in a single response.

The survey was launched on October 30 and reminder emails were sent to MICHWA's mailing lists and the employer list on November 15 and November 20, 2018. The survey was initially scheduled to close November 14, 2018. Upon reviewing the number of responses, the MiCHWA Evaluation Advisory Board chose to extend the survey open period. All data in this report reflect surveys received on or before November 21, 2018.

Analysis

All survey data were exported from Qualtrics © into Excel. After the data were cleaned, descriptive statistics, including counts and percentages were used to describe the quantitative data using SPSS by IBM®. Qualitative responses were compiled and reviewed for themes.

Exclusions and Response Rate

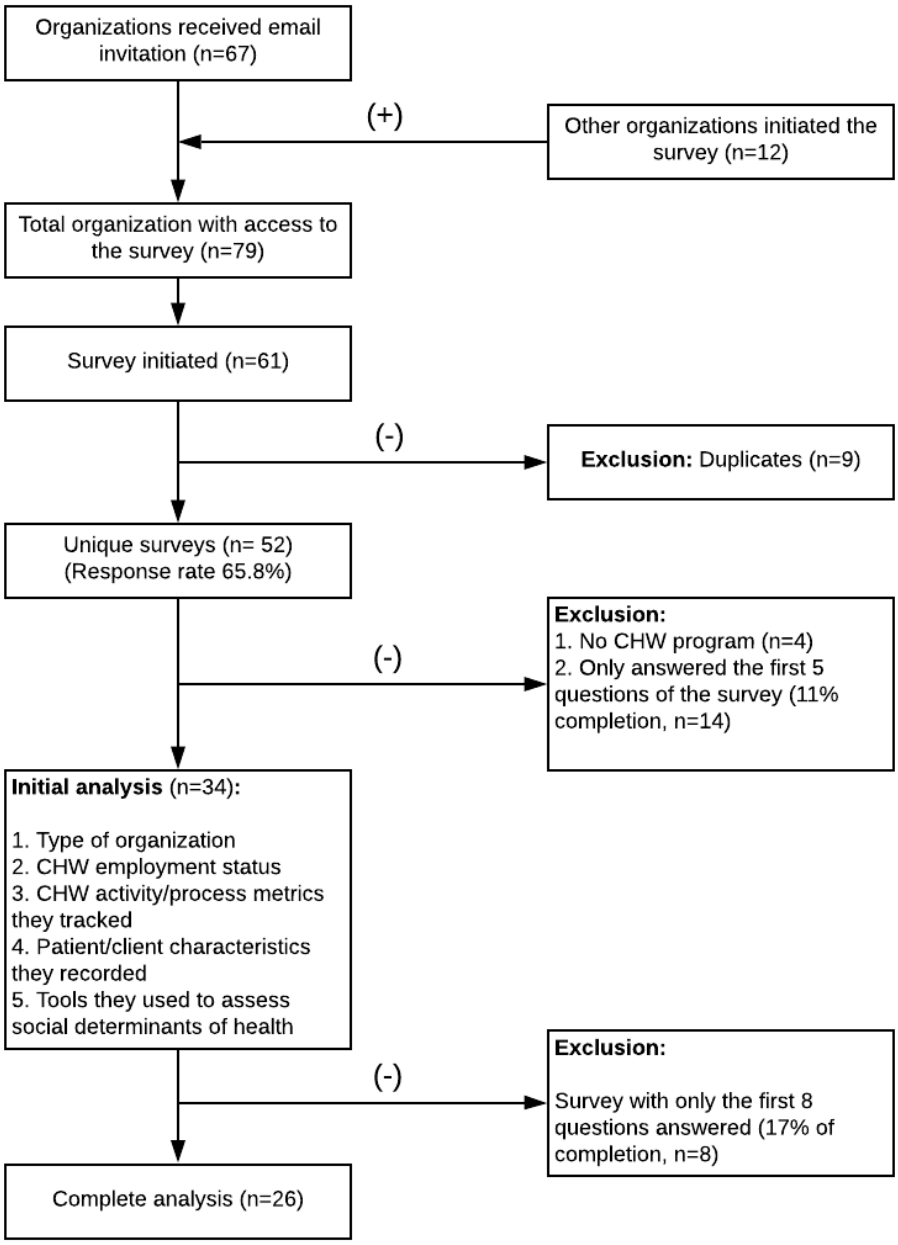
Figure 1 portrays how the final survey sample was derived. In addition to the 67 unique organizations on the email list, an additional 12 unique organizations accessed the survey. Of these 79 organizations, 61 surveys were initiated. From this number, we excluded 9 surveys from organizations from which we received more than one survey (after contacting the organization to identify which survey should be retained as the more accurate one). This left 52 surveys representing unique organizations, for an overall response rate of 65.8%.

We then excluded surveys from organizations that do not currently employ a CHW (n=4). Next, we excluded 14 surveys in which only the first five questions were completed (11% of the survey). This left 34 organizations/surveys containing information about organization type, tracking of CHW activity/process metrics and patient/client characteristics, and tools used to assess social determinants of health.

Lastly, we excluded from the remaining analysis 8 organizations that responded to only 8 survey questions (17% of the survey). The remaining analysis was conducted on 26 organizations/surveys, representing 43 CHW programs. Of these 26, one organization responded to 35% of the survey, one organization responded to 44% of the survey, and the remaining 24 organizations responded to all of the survey questions.

Sections A, B and C.1 of this report are based on the sample of 34. Beginning with section C.2, the sample of 26 is used. Sample size is noted in each section.

Figure 1. Response rate and Exclusions



SECTION 2: RESULTS

A. Participating Organization Information

A.1. Type of CHW Employers

The most common organization types represented in the sample were Local/county health department (29.4%) and Federally Qualified Health Center (FQHC, 26.5%), and community-based organization (23.5%).

What is your organization type? N=34	n	%
Local/county health department	10	29.4
Federally Qualified Health Center (FQHC)	9	26.5
Community-based organization	8	23.5
Health insurance plan	4	11.8
Community health center (Not FQHC)	1	2.9
Other[1]	2	5.9

[1] The data entered for "Other" is as follows: "Non-profit/WFD," and "Peer Support Agency."

A.2. Number of CHW Programs

Of the 34 respondents, more than half of the respondents have one CHW program (22, 64.7%). Some organizations have 2-3 CHW programs (14.7% and 5.9%). While the others have four, six, and seven programs (2.9% each).

A.3. CHWs Employment Status

The majority of organizations (91.2%) employed full-time CHWs, with an average of 6 CHWs per organization (range 1-33). About a quarter of organizations employed part-time CHWs (23.5%). One organization (2.9%) has CHWs working as part-time volunteers. Note: Employers may employ both full and part-time CHWs so the total exceeds 34.

What is the CHWs employment status in your organization? N=34	n	%
Full-time Paid (30-40 hours/week)	31	91.2
Part-time Paid (<30 hours/week)	8	23.5
Part-time Volunteer	1	2.9

B. Documentation of Types of CHW Activities and Types of Patient Characteristics

Please note that the referral tracking by type of service section did include a not applicable section that organizations could select. However, CHW activities and roles did not include this option. Thus, less frequently tracked activities and roles may reflect lack of tracking but also could reflect that some activities are not applicable to all organizations (See limitations).

B.1. Types of CHW Activities/Process Metrics Documented

Most organizations documented the number of visits/encounters by CHW and the number of participants enrolled (76.5% and 73.5%). More than half documented the number of patient/clients assessed or screened by CHWs and number of referrals made or completed by CHWs (58.8%, 58.8%, 52.9%).

However, only 35.3% documented the type of education material and only 20.6% documented the number of times the education material was given to clients by CHWs.

Because organization type could influence which activities CHWs engaged in, Appendix B provides cross-tabulated results for types of CHW activities and patient characteristics by organization type. Results were generally similar across organization type. However, community-based organizations more frequently reported tracking almost all metrics and had a much higher percentage reporting information about educational offerings and materials than the other organization types.

What Community Health Worker (CHW) activities/process metrics (if any) does your organization track? N=34	n	%
Number of visits/encounters by CHW completed	26	76.5
Number of participants enrolled	25	73.5
Number of patient/clients assessed or screened by CHW	20	58.8
Number of referrals made by CHW	20	58.8
Number of referrals completed by CHW	18	52.9
Number of education offerings taught by CHW	17	50.0
Number of patient reminders sent by CHW (calls, texts, mailings, etc.)	13	38.2
Number of patient/clients completing education offerings taught by CHW	13	38.2
Type of education material disseminated by CHW	12	35.3
Number of case management sessions completed by CHW	10	29.4
Number of patient appointments attended by CHW (appointment with others)	10	29.4
Number of appointments scheduled	8	23.5
Number of times educational material disseminated by CHW	7	20.6
Other[1]	7	20.6
None	1	2.9

[1] The written-in data for "Other" is as follows: number of no-show appointments, number of touches including phone calls, outreach, and screening/follow-up.

B.2. Types of Patient/Client Characteristics Documented

Organizations were asked whether they tracked patient/client characteristics related to social determinants of health. More than two-thirds of organizations recorded race, gender, insurance status, and ethnicity. Less commonly recorded were migrant and/or seasonal farm worker status, health literacy level, religion, history of incarceration or criminal conviction, refugee status, and exposure to toxins.

What patient/client characteristics are recorded by your organization? N=34	n	%
Race	28	82.4
Gender	28	82.4
Insurance Status	27	79.4
Ethnicity	27	79.4
Language	25	73.5
Income/Income Level	24	70.6
Employment Status	22	64.7
Address or zip code (please specify)	20	58.8
Veteran Status	19	55.9
Educational Level	19	55.9
Disability Status	18	52.9
Sexual Orientation	11	32.4
Migrant and/or seasonal farm worker status	10	29.4
Health literacy level	9	26.5
Religion	8	23.5
History of incarceration or criminal conviction	7	20.6
Refugee status	6	17.6
Exposure to toxins (air & water quality, soil, plant, etc.)	6	17.6
Other[1]	1	2.9
None	1	2.9
Missing	1	2.9

[1] The data entered for "Other" is not pertinent to this question, and therefore, not reflected.

C. Tracking Social Determinants of Health

Respondents were asked how their organization measures social determinants of health including the tools and systems that they used to assess and record the data, and how they use the information.

C.1. Social Determinants of Health Assessment Tools

More than half respondents (21, 61.8%) used some type(s) of standardized assessment tool to assess social determinants of their clients. There was little commonality among organizations. The most commonly used was the Pathways HUB model tools[1] (23.8% of those that used a standardized tool).

Which "social determinants of health" assessment tools do you use? n=21	n	%
Pathways HUB model tools	5	23.8
In-house tools	3	14.3
Meaningful Use 2 or 3 (EHR)	2	9.5
Patient Centered Assessment Method (PCAM)	1	4.8
Other[1]	7	33.3
Missing	6	28.6

[1] Only 4 of the 6 respondents that selected "Other" specified with a write-in response. The data entered for "Other" is as follows: "Federal Healthy Start screening tools and Michigan's MIHP tools", "HRSA and MIHP", "Screening done by PCMH (not sure of the name)", and "SIM SDOH (modified version)".

**From this point forward, 8 organizations responded to no further questions and were dropped, the denominator for responding organizations hereafter is 26. Below is a table of the types of organizations that responded to all or the majority of the survey (24 of 26 responded to all questions.

Organization type, N=26	n	%
Community-based organization	7	26.9
Federally Qualified Health Center (FQHC)	7	26.9
Local/county health department	7	26.9
Health insurance plan	4	15.4
Community health center (Not FQHC)	1	3.8

C.2. Recording Social Determinants of Health Data

Most organizations record the social determinants of health by using routine care management and coordination case notes (65.4%). The second most common recording tool is electronic health records (57.7%) followed by paper format such as intake/assessment questionnaires (57.7%).

How are social determinants of health data recorded by your organization? N=26	n	%
Routine care management and coordination case notes	17	65.4

[1] The Pathways HUB model is designed to identify and address risk factors at individual level, which can also impact population health through data collected.

Electronic Health Records	15	57.7
Intake/assessment questionnaires (paper format)	15	57.7
Data spreadsheets (.csv files, Microsoft Excel©)	9	34.6
Electronic online surveys	3	11.5
Other[1]	2	7.7

[1] The data entered for "Other" is as follows: Electronic database and Population Health.

C.3. Social Determinants of Health Data Usage

Almost all organizations connected clients/patients to community supports and services (92.3%). Half of the organizations used the data to determine eligibility (50.0%) and to provide information to health care providers (50.0%). Forty-six percent used the data for quality improvement initiatives while only 34.6% used for project tracking/sustainability.

How does your organization use social determinants of health data? N=26	n	%
Connect enrollees to community supports and services	24	92.3
Eligibility determination	13	50.0
Provide information to health care providers	13	50.0
Quality Improvement initiatives	12	46.2
Project tracking/Sustainability	9	34.6
Population segmentation	1	3.8

D. Tracking CHW Referrals and Follow-ups

D.1. Referral and Follow-ups Tracking System

Most organizations used an electronic program database (61.5%) and their electronic health record (50%) to track referrals and follow-ups. Some used traditional systems such as CHW encounter forms (26.9%), client surveys (23.1%), and referral forms (19.2%).

How are CHW referrals and follow-up tracking recorded by your organization? N=26	n	%
Electronic program database	16	61.5
Electronic health record	13	50.0
CHW Encounter form	7	26.9
Client surveys	6	23.1
Referral forms	5	19.2
Other[1]	2	7.7

[1] The data entered for "Other" is as follows: manual (n=2).

D.2. Tracking Steps in the Referral Process

The respondents were asked to indicate the highest "level" of tracking that their organization did regarding CHW referrals and follow-up. They were told: For example, if your organization tracks referrals completed, it is presumed that you also track referrals made. If you track whether a risk factor was addressed, it is presumed that you also track referrals made and completed. Please see examples below for how to interpret these results.

Note: Because not all organizations address every issue/service, the denominator to calculate the percentage of organizations tracking each level was calculated by item. In the columns to the right of the solid line, the denominator is based on the total number of organizations that track each the issue/service after subtracting the number responding "Not Applicable" and "Missing".

Referrals to Health Promotion Activities and Services

In tracking health promotion, for example, 11 respondents reported that tracking nutrition/dietary advice was not applicable for their organization or they did not answer the question. The remaining 15 organizations reported some tracking referrals. Of these 15, 13 tracked whether the referrals are completed and eight tracked whether the issues/services related to nutrition/dietary had been addressed.

Tracking CHW Referrals (Health Promotion Activities) N=26[1]										
	Not Applicable		**Missing**		**Track Referrals Made**		**Track Referrals Completed** (i.e. initiation of services)		**Track Issues/Services Addressed** (i.e. social services received, enrolled in health plan, etc.)	
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Nutrition/dietary advice	8	30.8	3	11.5	15	100	13	86.7	8	53.3
Smoking cessation	5	19.2	1	3.8	20	100	12	60.0	7	35.0
Fitness activities	11	42.3	2	7.7	13	100	8	61.5	5	38.5
Structured self-management program (e.g. DPP, PATH, other)	8	30.8	3	11.5	15	100	11	73.3	4	26.7
Other healthy lifestyle programs/services[2]	10	38.5	8	30.8	8	100	5	62.5	3	37.5
Other[3]	11	42.3	11	42.3	4	100	3	75.0	2	50.0

[1]The denominator for the columns on the right of the solid line is based on organizations who tracked each issue (total N with "Not applicable" and "Missing" subtracted.

[2]The data entered for "Other healthy lifestyle programs/service" is as follows: "Assorted as needed," "Child development services," and "MTM connection with Pharmacist."

[3] The data entered for "Other" is as follows: "Health coaching," "Informal counseling," "Parenting classes," and "Safer sex/risk reduction."

Referrals to Health Care Activities and Services

The majority of organizations who tracked referrals to health care services such as health insurance/disability applications or mental health care also tracked whether these referrals were completed by the client (i.e. the service was initiated). Fewer tracked whether these services successfully addressed the client need (e.g., enrolling in a health plan).

Tracking CHW Referrals (Health Care) N=26[1]										
	Not Applicable		**Missing**		**Track Referrals Made**		**Track Referrals Completed** (i.e. initiation of services)		**Track Issues/Services Addressed** (i.e. social services received, enrolled in health plan, etc.)	
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Health insurance/disability applications (e.g. referral, getting and filling forms)	4	15.4	1	3.8	21	100	19	90.5	13	61.9
Primary care (includes immunizations)	4	15.4	1	3.8	21	100	16	76.2	11	52.4
Mental health care	3	11.5	1	3.8	22	100	15	68.2	11	50.0
Substance use treatment and support	4	15.4	1	3.8	21	100	15	71.4	11	52.4
Specialty care	3	11.5	1	3.8	22	100	14	63.6	10	45.5
Dental care	3	11.5	1	3.8	22	100	14	63.6	10	45.5
Medicine/prescriptions	6	23.1	1	3.8	19	100	14	73.7	10	52.6
STI/STD/JOV/AODS services	7	26.9	1	3.8	18	100	13	72.2	10	55.6
Well child care	7	26.9	1	3.8	18	100	14	77	8	44.4
OB/GYN care (including preconception, pregnancy, and postpartum)	4	15.4	1	3.8	21	100	15	71.4	9	42.9
Family planning (reproductive life plan, type use, duration)	8	30.8	1	3.8	17	100	12	70.6	8	47.1
Medical equipment (adults or children)	7	26.9	2	7.7	17	100	12	70.6	8	47.1
Other[2]	6	23.1	19	73.0	1	100	1	100	1	100

[1]The denominator for the columns on the right of the solid line is based on organizations who tracked each issue (total N with "Not applicable" and "Missing" subtracted

[2] The data entered for "Other" is as follows: "Advance care planning."

Referrals to Social/Environmental Services

Similar to health care services, the majority of organizations who tracked social/environmental referrals also tracked whether these referrals were completed, but generally fewer than half also tracked whether the reason for referral was ultimately addressed.

Tracking CHW Referrals and Issues/Services Addressed (Social/Environmental) N=26[1]	Not Applicable		Missing		Track Referrals Made		Track Referrals Completed (services initiated)		Track Issues/Services Addressed (e.g., social services received; issue addressed)	
	n	%	n	%	n	%	n	%	n	%
Shelter/housing assistance	4	15.4	1	3.8	21	100	16	76.2	11	52.4
Food/food assistance (including WIC, SNAP, pantries)	4	15.4	1	3.8	21	100	14	66.7	10	47.6
Income assistance (e.g. SSI, TANF)	5	19.2	1	3.8	20	100	15	75.0	10	50.0
Utilities (e.g. water, electricity, heat)	4	15.4	1	3.8	21	100	14	66.7	9	42.9
Transportation services	3	11.5	1	3.8	22	100	17	77.3	8	38.1
Child care/elder care services	8	30.8	1	3.8	17	100	14	82.4	8	47.1
Michigan Dept. of Health and Human Services	6	23.1	3	11.5	17	100	11	64.7	8	47.1
Personal relationships/family and social support	6	23.1	3	11.5	17	100	13	76.5	8	47.1
Employment assistance	9	34.6	1	3.8	16	100	13	81.3	7	43.8
Education, training, literacy services	7	26.9	1	3.8	18	100	14	77.8	6	33.3
Clothing	7	26.9	1	3.8	18	100	13	72.2	6	33.3
Child or adult protective services	8	30.8	3	11.5	15	100	8	53.3	6	40.0
Environmental remediation (e.g., lead, chemicals, pests)	11	42.3	3	11.5	12	100	7	58.3	6	50.0
Telephone service	7	26.9	2	7.7	17	100	12	70.6	5	29.4
Intimate partner violence	11	42.3	2	7.7	13	100	8	61.5	5	38.5
Legal Aid/legal assistance	8	30.8	3	11.5	15	100	8	53.3	5	33.3
Prison/jail community re-entry services	14	53.8	3	11.5	9	100	5	55.6	3	33.3
Other human services/social services[2]	7	26.9	16	61.5	3	100	2	66.7	1	33.3

[1]The denominator for the columns on the right of the solid line is based on organizations who tracked each issue (total N with "Not applicable" and "Missing" subtracted.

[1] The data entered for "Other human services/social services" is as follows: "As needed," "Behavioral Health Counseling," and "Resource navigation – connection to services/support."

E. Tracking CHW Role-Related Activities

E.1. CHW Role-Related Activities Tracked by Organization

Using a standard list of CHW roles, we assessed the extent to which organizations tracked activities related to these roles. (Click here to see role descriptions. Note that one core role, "Building individual and community capacity" was erroneously left off the survey.)

At least half of organizations reported tracking most of the core roles. The most commonly tracked role was conducting outreach activities of their CHWs (84.6 %) followed by care coordination, case management, and system navigation (73.1%). Only five organizations (19.2%) record cultural mediation by their CHWs. Again, because we did not have a "not applicable" option for this question, we were not able to distinguish those organizations whose CHWs don't conduct specific activities vs. those that don't track activities that they do conduct (see limitations and recommendations).

To gain some insight into whether tracking varied by organization type (which would influence which roles a CHW performed) Appendix C provides cross-tabulations of tracked CHW role-related activities by type of organization. Overall, community-based organizations had the highest frequencies of tracking almost all roles.

Which CHW role-related activities does your organization track? N=26	n	%
Conducting outreach	22	84.6
Care coordination, case management, system navigation	19	73.1
Providing coaching and social support	18	69.2
Advocating for individuals and community capacity	14	53.8
Implementing individual and community assessments	14	53.8
Culturally appropriate health education and information	13	50.0
Providing direct service	10	38.5
Participating in research and/or evaluation	6	23.1
Cultural mediation	5	19.2

E.2. How CHW Role-Related Activities Are Tracked

Electronic program databases were the most common method that organizations used to record the CHW role-related activities (61.5%), 42.3% used electronic health records and 34.6% used client surveys. Very few used a CHW encounter form to track CHW activities. Almost half of organizations used qualitative approaches, (e.g., focus groups, stories) to record CHW role-related activities.

How are CHW role-related activities tracked by your organization? N=26	n	%
Electronic program database	16	61.5
Qualitative data (stories, focus groups)	12	46.2
Electronic health record	11	42.3
Client surveys	9	34.6
CHW encounter form	5	19.2

Other[1]	2	7.7

[1] The data entered for "Other" is as follows: manual and spreadsheet kept by CHW.

F. Program Evaluation Measures

Note: The results in this section are influenced by organization type and the program areas they focus on. Some CHW programs are broad-based; others focus on specific populations or health behaviors or conditions. Appendix D provides cross-tabulations of CHW program outcomes in broad program areas by type of organization. As in previous results, community-based organizations had the highest frequencies of the majority of measures across organization types.

F.1. Types of CHW Program Costs Being Tracked

Most programs tracked at least parts of the program cost. The top three costs that organizations tracked were personal salaries/fringe benefits (88.5 %), operational costs related to CHWs (57.7%), and overhead (indirect rate agreement) related to CHWs (53.8%).

What CHW program costs do you track? N=26	n	%
Personal Salaries/fringe benefits	**23**	**88.5**
CHWs	22	95.7
CHW Supervisory Staff	18	78.3
Administrative support (human resources payroll, technology support, etc.) related to CHWs	13	56.5
Operational costs related to CHWs	**15**	**57.7**
Direct program cost	13	86.7
Training/professional development	13	100
Travel/employee mileage	11	84.6
Print materials	8	61.5
Rent/workspace	6	46.2
Office equipment/supplies	6	46.2
Incentives	6	46.2
Start-up cost	2	13.3
Telephones	1	50.0
Computer equipment	1	50.0
Other: training cost	1	50.0
Overhead (Indirect rate agreement) related to CHWs	**14**	**53.8**
Medical spending/health care utilization	**6**	**23.1**
Other[1]	**1**	**3.8**
None	**2**	**7.7**

[1] The data entered for "Other" is not pertinent to this question, and therefore, not reflected.

F.2. Measures Used to Evaluate CHW Programs

Almost half of the organizations reported measuring client/patient satisfaction with the CHW (46.2%). Most of these used their own internally developed survey instead of a standardized scale. There was also no common instrument used to evaluate the level of integration of CHWs with client/patient care team.

What process measures does your organization use to evaluate its CHW program(s)? N=26	n	%
Client/patient satisfaction with relationship with CHW (written in)	**12**	**46.2**
Internal Client Satisfaction Survey	8	66.7
Health Care Climate Questionnaire and qualitative questions in survey	1	1.6
Peer Support Survey adapted from: Lee Dennis C. Postpartum depression peer support: Maternal perceptions from a randomized controlled trial. International Journal of Nursing Studies 47 (2010) 560-568	1	1.6
Level of integration of CHWs with client/patient care team (These measures of level of integration were written in)	**5**	**19.2**
Attends case management meeting at service orgs we contract with for referral	1	20.0
Assessment of Chronic Illness Care	1	20.0
Uses the electronic referral system	1	20.0
Other	**3**	**11.5**
Outcomes data	1	33.3
Qualitative survey with individual team members	1	33.3
None	**8**	**30.8**

F.3. Health Care Utilization and Cost Indicators

About two-fifths of the organizations reported tracking ED visits (38.5%) but only two organizations track appropriate number of primary care visits (7.7%). Ten organizations tracked hospital admissions or missed appointments (34.6% each)

What health care utilization and cost indicators do you to track?[1] N=26	n	%
ED visits	10	38.5
Hospital admissions	9	34.6
Missed appointments (no-shows)	9	34.6
Total paid medical claims	4	15.4
Urgent care visits	3	11.5
Days spent in hospital	3	11.5
Pharmacy claims	2	7.7
Appropriate # primary care visits	2	7.7

[1]Many organizations are not health care organizations and therefore do not tract these indicators. Only twelve organizations reported tracking health care utilization and cost indicators.

F.4. CHW Program Outcomes Measured

Note: Percentages were calculated within bolded font outcome category. More than one-third of the organizations used patient activation, efficacy, empowerment, and autonomy outcomes in their CHW program evaluations (38.5%). All of the community-based organizations tracked this outcome indicator (see Appendix D). The Patient Activation Measure (PAM) was the only common tool (used by 3 of the organizations) to track this outcome indicator. While a third of the organizations used general health and level of medication/treatment adherence (30.8% each), there was no common instrument used. About 25% of the organizations measure self-management behaviors and tobacco use while only 15.4% measure diabetes, mental health measures, or physical activity. Of the four organizations measure mental health outcomes, 75% of them used the PHQ-9 to assess depressive symptoms and suicide risk. About 11.5% of the organizations measure maternal/child health outcomes. Less than 10% measure asthma, health literacy, body size, infant safety, heart disease, cancers, oral health, HIV/AIDS or nutrition outcomes.

What outcomes does your organization use to evaluate its CHW program(s)? N=26	**n**	**%**
Patient Activation, Efficacy, Empowerment, Autonomy	**10**	**38.5**
Patient Activation Measure (PAM)	3	30.0
Other (written in):	6	60.0
CHWs reporting in records and independent evaluator	*1*	*16.7*
Client survey	*1*	*16.7*
Feedback	*1*	*16.7*
Self-management confidence scale	*1*	*16.7*
Self-mastery scale	*1*	*16.7*
Self-report on evaluation survey	*1*	*16.7*
General Health	**8**	**30.8**
Other (written in):	4	50.0
Health checklist	*1*	*25.0*
Self-report on evaluation survey	*1*	*25.0*
Level of Medication/Treatment Adherence	**8**	**30.8**
Morisky Medication Adherence Scale (MMAS)	2	22.0
Chart review and prescription refill history	1	11.1
Medication pathway	1	11.1
Qualitative survey	1	11.1
Contact providers to facilitate services & patient self-report	1	11.1
Self-management Behaviors	**7**	**26.9**
Physical activity (written in):	4	50.0
Healthy Changes Plan (Pathway)	*2*	*50.0*
Pre-post assessment from PATH evaluation & participant self-report	*1*	*25.0*
Qualitative survey question	*1*	*25.0*
Self-management (global measure) (written in):	3	3.75
Pre/post assessment from PATH evaluation	*1*	*33.3*
Self-management confidence scale	*1*	*33.3*
Healthful Eating Plan (written in):	3	3.75

Healthy Changes Plan (Pathway)	*2*	*66.7*
Pre-post assessment from PATH evaluation	*1*	*33.3*
Sleep Hygiene (written in):	2	25.0
Healthy Changes Plan (Pathway)	*2*	*100*
Tobacco use	**7**	**26.9**
Smoking	6	75.0
Cessation	5	62.5
Environmental smoke	2	25.0
Diabetes	**4**	**15.4**
HbA1c	4	100
BMI	2	50.0
Mental Health Measures	**4**	**15.4**
Depression	3	75.0
PHQ-9	*2*	*66.7*
Edinburgh Scale	*1*	*33.3*
Suicide risk[1]	3	75.0
Drug and/or alcohol use/misuse	2	50.0
CAGE AID (5 item)	*2*	*100*
AUDIT-C (3 item)	*1*	*50.0*
4 Ps	*1*	*50.0*
Stress	1	25.0
Cohen Perceived Stress	*1*	*100*
Anxiety	1	25.0
GAD-7	*1*	*100*
Trauma	1	25.0
PTSD-4	*1*	*100*
Physical Activity	**4**	**15.4**
Recreational (moderate to vigorous) activity	3	75.0
Maternal/Child Health	**3**	**11.5**
Breastfeeding initiation	2	66.7
Breastfeeding duration	2	66.7
% fully immunized at 12 months	2	66.7
Infant/child development (ASQ/SE)	2	66.7
Substance-exposed infant (parent, at birth, environment)	2	66.7
Birth weight appropriate for gestational age	2	66.7
Pre-term birth	2	66.7
Low birth weight	2	66.7
Infant mortality	2	66.7
Other infant feeding and nutrition	1	33.3
Child nutrition	1	33.3
Other (written in):	1	33.3
Child spacing; avoidance of rapid repeat pregnancy	1	100
Asthma	**2**	**7.7**
Days with activity limitation/2weeks	2	100

Missed school in past 2 weeks	2	100
Urgent health services use/2months	1	50.0
Health Literacy	**2**	**7.7**
Body Size	**2**	**7.7**
Weight	2	50.0
BMI	2	50.0
Infant Safety	**2**	**7.7**
Safe sleep	2	100
Car seat use	2	100
Lead in the home	2	100
Baby proofing	1	50.0
Heart Disease	**2**	**7.7**
Blood pressure	1	50.0
Baseline and follow-up BP (systolic/diastolic)	1	100
Hypertension	1	50.0
Cancers	**1**	**3.8**
Cervical cancer	1	100
Ever completed Papanicolaou test (pap smear)	1	100
Oral Health	**1**	**3.8**
HIV/AIDS	**1**	**3.8**
Number of eligible cases within a defined period	1	100
Nutrition	**1**	**3.8**

[1]The three organizations used PHQ9 for depression which also assess suicide risk

Respondents were also asked to provide other program outcome(s) their organizations use to evaluate its CHW program(s). Specific responses were grouped based on the themes and can be found in Appendix E.

F.5. Source of Outcome Data

Almost half of the organizations used self-report surveys to collect outcome data (46.2%). Another commonly used source is the electronic health record (42.3%).

Regarding the outcome data that you collect, what is your source of data? N=26	**n**	**%**
Self-report survey	12	46.2
Electronic health records	11	42.3
Qualitative data (stories, focus groups)	8	30.8
Medicaid/Medicare use	6	23.1
Medical program records	4	15.4
Chart reviews	4	15.4
Hospital discharge data	4	15.4
Birth and death files	1	3.8
Other[1]	2	7.7

[1] The data entered for "Other" is as follows: "Predictive Model Tools."

F.6. Suggestions for Documenting CHW Contributions

The respondents were asked to identify any methods or measures that they would suggest for documenting CHWs contribution. Out of the six respondents, the most frequent suggestion was patient satisfaction with the CHW. Other suggestions were data collection on the program model, CHW integration, intervention tools, and financial gain. The complete responses were grouped by theme and can be found in Appendix F.

Limitations

- The survey distribution did not reach all organizations with CHW programs in the state and not all organizations responded. Therefore, while the responses represent a diverse array of CHW programs from around Michigan, they do not represent all programs.
- The survey did not ask what services/activities that CHWs conduct and what roles CHWs play within their organizations. A "not applicable" option was provided for the set of questions about "Referrals to Health Care Activities and Services", but was not provided for other questions in the survey. Therefore, in some cases where activities were reported as not tracked, we were unable to distinguish whether this was because the CHWs at an organization don't perform a particular activity or role (e.g., client/patient education) or whether they do perform the activity but it is not tracked. This is especially important given the varying program focus and objectives among organizations employing CHWs, especially for non-health-care organizations. Missing data may have resulted from this ambiguity. Future surveys will add "not applicable" and ask what roles and activities CHWs conduct in the organization.
- Also related to this was that in most cases we were unable to distinguish between NA and missing, as some respondents may have left items blank as a way of indicating that it was NA.
- Certain questions were ambiguous, making results hard to interpret; for example, for items about tracking costs, which were in the "Program Evaluation" section, not all organizations reported tracking CHW salaries, presumably because they were not including this cost in an evaluation, but this data may still be available.

Conclusions/Implications

The results of this survey suggest that while most of the surveyed organizations collect extensive information that could be useful for CHW program evaluation, much of the data relates to client/patient characteristics and some key activities in which CHWs in these program typically engage such as outreach and referrals. More than half do track which roles their CHWs conduct. There was little commonality in tools used. Fewer organizations reported tracking program outcomes, outcomes that were tracked were very diverse, and there was little commonality in specific tools or measures used to measure outcomes. Key conclusions are below:

- Almost all organizations collect CHW visit and encounters data, and record the number of clients. This data could be used to quantify the "dosage" of CHW services in Michigan.
- Although a social determinants of health assessment was commonly practiced by CHWs in responding organizations, there was little commonality in the tools used, limiting ability to quantify social needs and outcomes across programs. Efforts to review and consider approaches to selecting common tools, or key measures that could be gathered in common are recommended. The Pathways/HUB tool that is

used by several programs in Michigan and the PREPARE tool that is typically used by FQHCs may be starting points for discussion.

- Overall, tracking activities that are central aspects of the CHW role in many CHW programs in Michigan, including client referrals, referral follow-up, outreach, and care coordination/navigation was very common. Other unique aspects to the CHW role, such as cultural mediation and client/patient empowerment are less commonly tracked. Future surveys or interviews should be designed to assess whether this reflects less tracking of such roles compared to others, difficulty in measuring them, or limitations of the roles that CHWs play in organizations. Note: Future surveys need to add back the core role that was missing from this survey: "Building individual and community capacity".
- There were only a few common tools/instruments currently in use to track or measure processes and outcomes. A potential barrier to standardization is that some programs and organizations have specific standardized indicator and measurement packages and tools, e.g., evidence-based programs like PATH; the PRAPARE instrument and a growing number of others for assessing social determinants of health. Nonetheless, discussion of inclusion of measures commonly used across the country such as the Patient Activation Measure (PAM) and indicators and measures that may be commonly included across standardized tools from PATH, PRAPARE, Pathways/HUB and others is recommended.
- Basic costs (salaries, operations, overhead) were tracked by most programs. Because these costs are important for conducting return-on-investment studies, discussion of common approaches to measuring these costs is recommended. While ED visits and hospitalizations are typically used in these studies because of ease of measurement and importance in terms of immediate costs, it is important to recognize that public health and primary care-focused organizations and programs focusing on maternal and child health or chronic disease outcomes may focus on outcomes where cost-savings in the short run are not likely but improved health is achievable. Therefore, it may be useful to identify common sets of outcomes indicators and measures typically used for specific health conditions/issues and by clusters of organization types (e.g., hospitals, health plans, primary care providers, community social service providers) for use in such studies.
- For data tracking technology, we seem to be at a transitional phase. While over half of organizations used electronic program data bases and electronic medical records that would facilitate potential sharing of data for combining data, about 40% still keep records on paper or elsewhere. Efforts to help organizations, especially small CBOs, make better use of technology for data collection and management may be useful.
- Qualitative data to better understand facilitators and barriers related to tracking activities and outcomes may be useful to collect in the future.

Next Steps

- External review and discussion by CHW-related organizations and other stakeholder s of this report to inform or develop common indicators recommendations for Michigan CHW programs
- Review of survey instrument and lessons learned by MiCHWA's EAB and the EAPC data committee to inform development and analysis of future CHW Common Indicators and CHW Employer Surveys

SECTION 3: Appendix

Appendix A. Letter from MiCHWA

Thank you for your interest in the Michigan Community Health Worker Alliance's (MiCHWA) Common Indicators Program Survey for Michigan CHW employers. This survey, developed by the MiCHWA evaluation board, in collaboration with the Michigan Public Health Institute, is a follow-up to a similar survey conducted by MiCHWA in September 2015. Since then, both the number of organizations employing CHWs—and the call for identifying and effectively using commonly collected data for CHW program evaluation—have grown substantially, in Michigan and nationally. Common CHW program indicators may be used to make a more powerful case for sustainable financing and other support for CHW services and programs.

This follow-up survey is designed to identify CHW process and outcome metrics and data sources to answer the following question:

What data do Michigan's CHW programs (or organizations employing CHWs) record, how is it recorded, and how is it used?

Survey fields include social and environmental determinants of health, health care service use, CHW referrals made and completed, health and social outcomes, and CHW program costs useful for return-on-investment (ROI) reports.

Your organization's contribution to this updated survey is very important to providing an accurate picture of the evaluation of CHW programs in Michigan. Ultimately, such data will support efforts to sustain the work of CHWs and their programs.

Participation in this survey is voluntary. However, complete responses will increase the validity and value of the survey data. We estimate that the survey will take approximately 10-15 minutes to complete.

Please provide this survey to the person most familiar with the data related to CHW activities and evaluation in your organization. If your organization has multiple CHW programs, one unique survey can be completed for each program if the responses are likely to be different.

IMPORTANT NOTE: Our online survey (Qualtrics) does not allow saving and returning to the survey. Therefore, we have emailed you a copy of the survey and strongly recommend you print it out and gather the survey responses in advance of electronic completion as you will likely need to refer to your administrative staff or organization records to retrieve the necessary information. This should also speed up survey completion.

Specific agency names and contact information will be removed from results and will not be associated with summarized data. All participants will be notified when the report of summarized results is available. Please contact MiCHWA Program Manager Priscilla Hohmann at phohmann@umich.edu or call 734-998-6042, if you have questions or need more information.

Appendix B. Survey instrument

SECTION 0: Screening

This survey is to be completed by one person from your organization who is most knowledgeable about CHW programs in your organization.

1. Does your organization currently employ at least one CHW?
    - □ Yes (please take to the rest of the survey)
    - □ No (Your organization is not eligible to complete the survey. If your organization only If your organization only contracts for CHW services, please forward the link to the person most knowledgeable about CHWs in each of the organizations with whom you contract. (Include updated link to survey here.)

SECTION 1: Organization Information

2. What is the name of your **organization**?
    [TEXT BOX]

3. What is your organization type? (Choose the one type that most applies)
    - □ Academia/Research
    - □ Advocacy group
    - □ Community-based organization
    - □ Federally qualified health center (FQHC)
    - □ Community health center (Not FQHC)
    - □ Medical practice
    - □ Hospital/Medical clinic (Not FQHC)
    - □ Health insurance plan
    - □ Local health department
    - □ Government organization (not local health department)
    - □ IHS/Tribal organization
    - □ Other (Please specify)

4. How many CHWs does your organization employ for each of the following? *Please write in the number of CHWs for each type of employment.* (Check all that apply)
    - □ Full-time Paid (30-40 hours a week): _____
    - □ Full-time Volunteer: _____
    - □ Part-time Paid (less than 30 hours a week)_____
    - □ Part-time Volunteer: _____

5. How many different CHW programs does your organization have?

SECTION 2: CHW Programs & Evaluation

6. What Community Health Worker (CHW) activities/process metrics (if any) does your organization track? (check all that apply)
   - □ Number of appointments scheduled
   - □ Number of visits/encounters by CHW completed
   - □ Number of participants enrolled
   - □ Number of patient/clients assessed or screened by CHW
   - □ Number of referrals made by CHW
   - □ Number of referrals completed by CHW
   - □ Number of education offerings taught by CHW
   - □ Number of patient/clients completing education offerings taught by CHW
   - □ Type of education material disseminated by CHW
   - □ Number of times educational material disseminated by CHW
   - □ Number of case management sessions completed by CHW
   - □ Number of patient appointments attended by CHW (appointments with others)
   - □ Number of patient reminders sent by CHW (calls, texts, mailings etc.)
   - □ None

7. Below is a list of patient/client characteristics commonly used to measure social determinants of health; Which items are recorded by your organization? (check all that apply)
   - □ Race
   - □ Ethnicity
   - □ Language
   - □ Gender
   - □ Sexual orientation
   - □ Educational level
   - □ Income/Income level
   - □ Employment status
   - □ Insurance status
   - □ Disability status
   - □ Veteran status
   - □ Migrant and/or seasonal farm worker status
   - □ Refugee status
   - □ Religion
   - □ Health literacy level
   - □ History of incarceration or criminal conviction
     Address or zip code-only (please specify which one) _____
   - □ Exposure to toxins (air & water quality, soil, paint, etc.)
     Other (please specify) _____
   - □ None

8. Do you use a "social determinants of health" assessment tool?
    - □ Yes

      Select which "social determinant of health" assessments tools you use. (Please check all that apply) – Display Logic, if Yes to #8
        - □ Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE)
        - □ Patient Centered Assessment Method (PCAM)
        - □ Pathways
        - □ Meaningful Use 2 or 3 (EHR)
        - □ Other (please specify) _____
    - □ No

9. How are social determinants of health data recorded by your organization? (check all that apply)
    - □ Electronic Health Records
    - □ Intake/assessment questionnaires (paper format)
    - □ Routine care management and coordination case notes
    - □ Data spreadsheets (.csv files, Microsoft Excel©)
    - □ Electronic online surveys
    - □ Other (please specify) _____
    - □ Not applicable (organization does not record social determinants of health data)

10. How does your organization use social determinants of health data? (Check all that apply)
    - □ Eligibility determination
    - □ Connect enrollees to community supports and services
    - □ Provide information to health care providers
    - □ Project tracking/Sustainability
    - □ Quality Improvement initiatives
    - □ Population segmentation
    - □ Not applicable (Organization does not record social determinants of health data)

11. Please indicate with a checkmark the **highest** level of tracking your organization does regarding CHW **referrals and referral follow-up activities**. For example, if your organization tracks referrals completed, it is presumed that you also track referrals made. Likewise, if you track whether a risk factor was addressed, it is presumed that you are also tracking referrals made and completed.

SOCIAL/ENVIRONMENTAL	**Not Applicable** (Organization does not track or type of referral is not relevant)	**Track Referrals Made**	**Track Referrals Completed** (i.e. initiation of services)	**Track Risk Factors Addressed** (i.e. social services received, enrolled in health plan, medication reconciliation, etc.)
Shelter/housing assistance				
Utilities (e.g., water, electricity, heat)				
Telephone service				
Clothing				
Food/food assistance benefits (including, WIC, SNAP, pantries)				
Environmental remediation (e.g., lead, chemicals, asthma-related, pests)				
Personal relationships/family and social support/peer support groups				
Education, training, literacy services				
Employment assistance				
Income assistance (e.g., SSI, TANF)				
Transportation services				
Intimate partner violence services				
Legal Aid/legal assistance				
Prison/jail community reentry services				
Child or adult protective services				
Child care/elder care				
MI Dept of Health and Human Services				
Other human services/social services (specify) _____				
HEALTH CARE	**Not Applicable** (Organization does not track or type of referral is not relevant)	**Track Referrals Made**	**Track Referrals Completed** (i.e. initiation of services)	**Track Risk Factors Addressed** (i.e. social services received, enrolled in health plan, medication reconciliation, etc.)
Family planning (reproductive life plan, type use, duration)				
STI/STD/HIV/AIDS services				
Primary care (includes immunizations)				
Well child care				
OB/GYN care (including preconception, pregnancy and postpartum)				
Specialty care				
Dental care				
Mental health care				
Substance use treatment and support				

Medicine/prescriptions				
Health insurance/disability applications (e.g., referral, getting and filling forms)				
Medical equipment (adults or children)				
Other (please specify) _____				
HEALTH PROMOTION	**Not Applicable** (Organization does not track or type of referral is not relevant)	**Track Referrals Made**	**Track Referrals Completed** (i.e. initiation of services)	**Track Risk Factors Addressed** (i.e. social services received, enrolled in health plan, medication reconciliation, etc.)
Smoking cessation				
Fitness activities				
Nutrition/dietary advice				
Structured self-management program, e.g., DPP, PATH, other (please specify) _____				
Other healthy lifestyle programs/services (please specify) _____				
OTHER				
Please specify _____				

12. How are CHW referrals and follow-up tracking recorded by your organization? (Check all that apply)
    - □ Electronic health record
    - □ Electronic program database
    - □ CHW Encounter form
    - □ Client surveys
    - □ Referral forms
    - □ Other (please specify) _____
    - □ Not applicable

13. Please indicate which CHW role-related activities your organization tracks, i.e., recording conducting activities associated with the role. Click here to see a description of each of the roles listed. Please check all of the roles that apply.
    - □ Cultural mediation
    - □ Culturally appropriate health education and information
    - □ Care coordination, case management, system navigation
    - □ Providing coaching and social support
    - □ Advocating for individuals and communities
    - □ Building individual and community capacity
    - □ Providing direct service
    - □ Implementing individual and community assessments
    - □ Conducting outreach
    - □ Participating in research and/or evaluation
    - □ Other (please specify) _____
    - □ Not applicable

14. How are CHW role-related activities tracked by your organization? (Check all that apply)
    - □ Electronic health record
    - □ Electronic program database
    - □ CHW encounter form
    - □ Client surveys
    - □ Qualitative data (stories, focus groups)
    - □ Other (please specify) _____
    - □ Not applicable

15. What process measures does your organization use to evaluate its CHW program(s)?
    - □ Client/patient satisfaction with relationship with CHW (please specify name of instrument or measurement method): _____
    - □ Level of integration of CHWs with client/patient care team (please specify name of instrument or measurement method): _____
    - □ Other (please specify): _____
    - □ None

16. What CHW program costs do you track? (Check all that apply)
    - □ Personnel Salaries/fringe benefits

      What specific Personnel Salaries/Fringe Benefits do you track? (Check all that apply) (display logic)
        - □ CHWs
        - □ CHW Supervisory staff
        - □ Administrative support (human resources payroll, technology support, etc.) related to CHWs
    - □ Overhead (Indirect rate agreement) related to CHWs
    - □ Operational costs related to CHWs

      What specific operational costs, related to CHWs, do you track? (Check all that apply) (display logic)
        - □ Start-up cost

          Which start-up costs, related to CHWs, do you track? (Check all that apply) (display logic)
            - Telephones
            - Furniture
            - Computer equipment
            - CHW recruitment
            - Other (please specify) _____
        - □ Direct program cost

          Which direct program costs, related to CHWs, do you track? (Check all that apply) (display logic)
            - Rent/workspace
            - Office equipment/supplies
            - Travel/ employee mileage
            - Training/professional development
            - Mailings
            - Print materials
            - Incentives
            - Other (please specify) _____
    - □ Medical spending/health care utilization
    - □ Medical supplies
    - □ Other (please specify) _____

17. What health care utilization and cost indicators do you track? (Check all that apply)
    - □ ED visits
    - □ Urgent care visits
    - □ Hospital admissions
    - □ Days spent in hospital
    - □ Missed appointments (no-shows)
    - □ Total paid medical claims
    - □ Pharmacy claims
    - □ Appropriate # primary care visits
    - □ Other (please specify) _____

18. What outcomes does your organization use to evaluate its CHW program(s)? (Please, check all that apply) (participant only sees initial list of selections [first bulleted list] followed by related display logic questions)
    - □ Patient Activation, efficacy, empowerment, autonomy

      Which of the following measures does your organization use for **patient activation, efficacy, empowerment, autonomy** to evaluate its CHW program(s)? (Check all that apply) (display logic after Question #11)
      - □ Patient Activation Measure (PAM)
      - □ Other (please specify) _____
    - □ General Health

      Which of the following measures does your organization use for **General Health** to evaluate its CHW program(s)? (Check all that apply) (display logic after Question #11)
      - □ SF 36 Health Questionnaire
      - □ Other (please specify) _____
    - □ Heart disease

      Which of the following measures does your organization use for **Heart Disease** to evaluate its CHW program(s)? (Check all that apply) (display logic after Question #11)
      - □ Lipid levels
      - □ Blood pressure (BP)
      - □ Hypertension

        If you selected Hypertension, which of the following measures does your organization use to evaluate its CHW program(s)? (display logic)
        - □ BP change (unadjusted systolic/diastolic ± SE; adjusted systolic/diastolic ± SE)
        - □ Baseline and follow-up BP (systolic/diastolic)
        - □ Blood pressure self-monitoring
        - □ Other (please specify) _____
      - □ Other (please specify) _____
    - □ Diabetes

      Which of the following measures does your organization use for **Diabetes** to evaluate its CHW program(s)? (Check all that apply) (display logic after Question #11)
      - □ BMI
      - □ HbA1c

- □ Insulin levels
- □ Blood glucose
- □ Glucose self-monitoring
- □ Other (please specify) _____

□ Cancers

If you selected **Cancer**, which of the following does your organization use to evaluate its CHW program(s)? (Check all that apply) (display logic after Question #11)

- □ Breast Cancer

  Which of the following measures does your organization use for **Breast Cancer** to evaluate its CHW program(s)? (Check all that apply) (display logic)

  - □ Increase in mammography rates
  - □ Mammograms over past 12 months (self-report)
  - □ Mammograms over past 2 years (self-report)
  - □ Breast self-exam in past month (self-report)
  - □ Clinical breast exam in past 12 months
  - □ Ever completed mammography
  - □ Other (please specify) _____

- □ Cervical Cancer

  Which of the following measures does your organization use for **Cervical Cancer** to evaluate its CHW program(s)? (Check all that apply) (display logic)

  - □ Ever completed Papanicolaou test (Pap smear)
  - □ Completed Papanicolaou test in past 12 months
  - □ Completed Papanicolaou test in past 3 year
  - □ Other (please specify)_____

- □ Colorectal Cancer

  Which of the following measures does your organization use for **Colorectal Cancer** to evaluate its CHW program(s)? (Check all that apply) (display logic)

  - □ Completed FOBT after 3 months (% yes)
  - □ Completed endoscopy at 3 months (%)
  - □ Completed endoscopy at 6 months (%)
  - □ Other (please specify) _____

□ Oral Health

Which of the following measures does your organization use for **Oral Health** to evaluate its CHW program(s)? (Check all that apply) (display logic after Question #11)

- □ Visual Analog Scales (VAS)
- □ Oral Health Impact Profile (OHIP)
- □ Patient Reported Outcome Measures (PROMs)
- □ Other (please specify) _____

□ Asthma

Which of the following measures does your organization use for **Asthma** to evaluate its CHW program(s)? (Check all that apply) (display logic after Question #11)

- □ Days with activity limitation/2 weeks

- □ Missed school in past 2 weeks (%)
- □ Urgent health services use/2 months (%)
- □ Other (please specify) _____

□ HIV/AIDS

Which of the following measures does your organization use for **HIV/AIDS** to evaluate its CHW program(s)? (Check all that apply) (display logic after Question #11)

- □ # of eligible cases reported to partner services program within [time frame] of confirmation of case report
- □ # of eligible cases within a defined period
- □ # of named partners initiated for cases of HIV infection
- □ # of named partners elicited for cases of HIV infection, for a defined period
- □ Other (please specify) _____

□ Mental Health Measures

If you selected **Mental Health Measures**, which of the following does your organization use to evaluate its CHW program(s)? (Check all that apply) (display logic after Question #11)

- □ Stress

  Which of the following measures does your organization use for **Stress** to evaluate its CHW program(s)? (Check all that apply) (display logic)
  - □ Cohen Perceived Stress
  - □ Other (please specify) _____
- □ Depression

  Which of the following measures does your organization use for **Depression** to evaluate its CHW program(s)? (Check all that apply) (display logic)
  - □ PHQ-9
  - □ Edinburg scale
  - □ Other (please specify) _____
- □ Suicide Risk

  Which of the following measures does your organization use for **Suicide Risk** to evaluate its CHW program(s)? (Check all that apply) (display logic)
  - □ Columbia-Suicide Severity Rating Scale (C-SSRS)
  - □ SAFE-T (Suicide Assessment Five-Step Evaluation and Triage)
  - □ PHQ-9
  - □ Other (please specify) _____
- □ Patient Safety Indicators (PSI)
- □ Anxiety

  Which of the following measures does your organization use for **Anxiety** to evaluate its CHW program(s)? (Check all that apply) (display logic)
  - □ GAD-7
  - □ Other (please specify) _____
- □ Trauma

  Which of the following measures does your organization use for **Trauma** to evaluate its CHW program(s)? (Check all that apply) (display logic)

- □ PCL 5 (20 item)
- □ PCL-C or PCL-M (17 item)
- □ Life Event Checklist (LEC) (17-item)
- □ Other (please specify) _____

□ Drug and/or Alcohol Use/Misuse

Which of the following measures does your organization use for **Drug and/or Alcohol Use/Misuse** to evaluate its CHW program(s)? (Check all that apply) (display logic)

- □ SBIRT
- □ CRAFFT
- □ CAGE AID (5 item)
- □ AUDIT-C (3 item)
- □ AUDIT (10 item)
- □ Other (please specify) _____

□ Level of medication/treatment adherence

Please specify the tool used your organization to evaluate the **level of medication/treatment adherence**, as part of your CHW program(s) evaluation? (display logic)

[TEXT BOX]

□ Self-management behaviors

Which of the following measures does your organization use to evaluate **Self-management Behaviors**, as part of your CHW program(s) evaluation? (display logic)

□ Self-management (global measure)

Please specify the tool used for **Self-management** (global measure)

[TEXT BOX]

□ Healthful eating plan

Please specify the tool used for **Healthful Eating Plan**

[TEXT BOX]

□ Physical activity

Please specify the tool used for **Physical Activity**

[TEXT BOX]

□ Sleep hygiene

Please specify the tool used for **Sleep Hygiene**

[TEXT BOX]

□ Nutrition

Which of the following measures does your organization use for **Nutrition** to evaluate its CHW program(s)? (Check all that apply) (display logic)

□ Dietary change (baseline and follow-up)

If you selected **Dietary Change (baseline and follow-up),** which of the following does your organization use to evaluate its CHW program(s)? (Check all that apply) (display logic)

- □ Reduced calories from fat
- □ Reduced calories from added sugar
- □ Increased fruit and vegetable consumption
- □ Increased fiber consumption

- □ Other (please specify) _____

- □ Nutrition Data System 24-hour Dietary Recall Interview
  If you selected **Nutrition Data System 24-hour Dietary Recall Interview** which of the following does your organization use to evaluate its CHW program(s)? (Check all that apply) (display logic)
  - □ Percentage of calories from fat
  - □ Total grams fiber
  - □ Total fat grams
  - □ Other (please specify) _____

□ Physical Activity
Which of the following measures does your organization use for **Physical Activity** to evaluate its CHW program(s)? (Check all that apply) (display logic)
- □ Recreational (moderate to vigorous) activity
- □ Energy expenditure units metabolic equivalent or MET hours/week
- □ Steps/ pedometer step data
- □ Other (please specify) _____

□ Body size
Which of the following measures does your organization use for **Body Size** to evaluate its CHW program(s)? (Check all that apply) (display logic)
- □ Weight
- □ BMI
- □ Waist circumference
- □ Other (please specify) _____

□ Tobacco use
Which of the following measures does your organization use for **Tobacco** use to evaluate its CHW program(s)? (Check all that apply) (display logic)
- □ Smoking
- □ Environmental smoke
- □ Cessation
- □ Specific tool used (please write in here): _____

□ Maternal/Child Health
Which of the following measures does your organization use for **Maternal/Child Health** use to evaluate its CHW program(s)? (Check all that apply) (display logic)
- □ Breastfeeding initiation
- □ Breastfeeding duration
- □ Other infant feeding and nutrition
- □ Child nutrition
- □ % fully immunized at 12 months
- □ Infant/child development (ASQ/SE)
- □ Substance-exposed infant (parent, at birth, environment)
- □ Birth weight appropriate for gestational age

- □ Preterm birth
- □ Low birth weight
- □ Infant mortality
- □ Other (please specify) _____

□ Infant safety

Which of the following measures does your organization use for **Infant Safety** use to evaluate its CHW program(s)? (Check all that apply) (display logic)

- □ Safe sleep
- □ Car seat use
- □ Baby proofing
- □ Lead in the home
- □ Specific tool used (please write in here)_____

□ Health literacy

Please specify the tool used for **Health Literacy**, as it relates to evaluating your organization's CHW program(s). (display logic)

[TEXT BOX]

18. What other outcomes does your organization use to evaluate its CHW program(s)? (Please specify)

[TEXT BOX]

19. Regarding the outcome data that you collect, what is your source of data? (Check all that apply)
    a. Electronic health records
    b. Medical program records
    c. Medicaid/Medicare use
    d. Chart reviews
    e. Hospital discharge data
    f. Birth and death files
    g. Self-report survey
    h. Qualitative data (stories, focus groups)
    i. Other (please specify) _____
    j. Not applicable

20. What other methods and measures do you suggest for documenting the unique contributions of CHWs?

[TEXT BOX]

Appendix C. CHW activities/process metrics tracked, by organization type (Table B1)

N=34	Community-based organization (n=8)	Federally qualified health center (FQHC)[1] (n=10)	Health Insurance Plan (n=4)	Local Health Department (n=10)	Other[2] (n=2)
Visits/encounters by CHW completed	50.0%	72.7%	100.0%	100.0%	50.0%
Participants enrolled	87.5%	54.5%	50.0%	100.0%	0.0%
Patient/clients assessed or screened by CHW	87.5%	45.5%	100.0%	44.4%	0.0%
Referrals made by CHW	75.0%	45.5%	75.0%	55.6%	50.0%
Referrals completed by CHW	62.5%	54.5%	50.0%	66.7%	0.0%
Education offerings taught by CHW	62.5%	45.5%	50.0%	44.4%	0.0%
Patient reminders sent by CHW (calls, texts, mailings, etc.)	25.0%	45.5%	25.0%	55.6%	50.0%
Patient/clients completing education offerings taught by CHW	87.5%	27.3%	0.0%	33.3%	0.0%
Type of education material disseminated by CHW	50.0%	18.2%	50.0%	44.4%	0.0%
Case management sessions completed by CHW	62.5%	18.2%	0.0%	33.3%	0.0%
Patient appointments attended by CHW (appointment with others)	37.5%	27.3%	25.0%	22.2%	50.0%
Appointments scheduled	25.0%	27.3%	50.0%	11.1%	0.0%
Times educational material disseminated by CHW	37.5%	9.1%	0.0%	33.3%	0.0%
Other[2]	50.0%	18.2%	0.0%	0.0%	50.0%

[1]The FQHC includes the non FQHC Community Health Center (n=1).
[2]The data entered for "Other" is as follows: "Non-profit/WFD," and "Peer Support Agency."
[3]The written-in data for "Other" is as follows: number of no-show appointments, number of touches including phone calls, outreach, and screening/follow-up.

Appendix D. CHW role-related activities tracked, by organization type (Table E1)

N=26	Community-based organization (n=7)	Federally qualified health center (FQHC)[1] (n=8)	Health Insurance Plan (n=4)	Local Health Department (n=7)
Conducting outreach	100.0%	75.0%	100.0%	71.4%
Care coordination, case management, system navigation	71.4%	75.0%	100.0%	57.1%
Providing coaching and social support	85.7%	62.5%	50.0%	71.4%
Advocating for individuals and community capacity	71.4%	37.5%	50.0%	57.1%
Implementing individual and community assessments	71.4%	37.5%	50.0%	57.1%
Culturally appropriate health education and information	57.1%	37.5%	25.0%	71.4%
Providing direct service	57.1%	37.5%	25.0%	28.6%
Participating in research and/or evaluation	42.9%	12.5%	0.0%	28.6%
Cultural mediation	42.9%	12.5%	0.0%	14.3%

[1]The FQHC includes the non FQHC Community Health Center (n=1).

Appendix E. Outcomes used to evaluate CHW program(s), by organization type (Table F4)

N=26	Community-based organization (n=7)	Federally qualified health center (FQHC)[1] (n=8)	Health Insurance Plan (n=4)	Local Health Department (n=7)
Patient activation, efficacy, empowerment, autonomy	100.0%	12.5%	0.0%	28.6%
General health	28.6%	37.5%	25.0%	28.6%
Level of Medication/treatment adherence	28.6%	37.5%	25.0%	28.6%
Self-management behaviors	57.1%	25.0%	0.0%	14.3%
Tobacco use	28.6%	12.5%	25.0%	42.9%
Diabetes	0.0%	37.5%	25.0%	0.0%
Mental Health Measures	28.6%	12.5%	0.0%	14.3%
Physical Activity	14.3%	0.0%	25.0%	28.6%
Maternal/Child health	14.3%	0.0%	0.0%	28.6%
Asthma	14.3%	0.0%	25.0%	0.0%
Health Literacy	14.3%	12.5%	0.0%	0.0%
Body Size	14.3%	0.0%	25.0%	0.0%
Infant Safety	14.3%	0.0%	0.0%	14.3%
Heart Disease	14.3%	0.0%	25.0%	0.0%
Cancer	0.0%	0.0%	25.0%	0.0%
Oral Health	14.3%	0.0%	0.0%	0.0%
HIV/AIDS	0.0%	12.5%	0.0%	0.0%
Nutrition	14.3%	0.0%	0.0%	0.0%

[1]The FQHC includes the non FQHC Community Health Center (n=1).

Appendix F. Other Outcomes Used to Evaluate CHW Program(s)

What other outcomes does your organization use to evaluate its CHW program(s)? (Themes)	
Theme	**Quotes**
Pathway (n=3)	• "# of Pathways completed by topic" • "We use Pathways; clients open a pathways during assessment, and when referrals are completed or needs are met, pathways are closed." • "# of Pathways closed/completed successfully"
Finance (Return of Investment) (n=1)	• **"**Currently evaluating methods to determine ROI for funders"
Paternal/child health (n=1)	• **"**Father engagement during pregnancy and infancy; Daily reading to children > 5 months of age"
Caseload (n=1)	• **"**CHW caseload"
Social determinants (n=1)	• **"**Social determinants"

Appendix G. Other Methods and Measures to Document CHW Contributions

What other methods and measures do you suggest for documenting the unique contributions of CHWs?	
Theme	**Quotes**
Satisfaction or perception of CHW (n=2)	• "Personal story or testimony" • "Satisfaction surveys"
Data Collection (n=1)	• "Obtaining data from Health Plans – concern with the data – we have been working with multiple health plans that only pay for certain pathways (focus on medical, not social determinants of health) – not the true model of the program."
Integration (n=1)	• "Our CHW is integrated into our Support Coordination team providing feedback loop."
Intervention Tools (n=1)	• "We developed a CHW Intervention tool that differentiates CHW interventions from MIHP RN and SW interventions."
Finance (n=1)	• "Return of investment"