CHW Regional Common Metrics

As affirmed by the HEAL Healthcare Access Workgroup
May 8, 2018

PROJECT OVERVIEW

Priority 4 of the HEAL Healthcare Access Workgroup's CHW Workforce Partnership Strategy is to demonstrate the value of CHWs in the St. Louis Region. The CHW Regional Common Metrics project aimed to contribute to this priority. The goal of the project was to develop recommendations for a set of metrics that would capture the impact and value of CHWs at the regional level. The approach involved understanding the measures already being used by different programs, aligning shared metrics efforts currently underway, and surfacing the priorities and perspectives of CHWs, clients, and other stakeholders at the local, regional, and state level, including payers and providers.

The frame of reference was grounded in the 2018 Strategic Priorities as approved by the HEAL Healthcare Access Workgroup, which are 1) To build capacity and formalize the St. Louis region's CHW infrastructure, 2) To advocate for CHW long-term sustainability, 3) To develop a workforce strategy that supports training and career pipeline, and 4) To demonstrate the value of CHWs in the St. Louis Region. The project methodology was guided by an equity framework. The project was completed between January and May 2018, and lays a foundation for members of the HEAL table to adopt and implement the measures.

MAIN PHASES

Timeline	Step	Methods
Weeks of Jan 8 – Jan 29 (4 wks)	1) Methods design and information gathering	Site visits, shadowing; background reading; key stakeholder interviews
Weeks of Feb 5 – Feb 26 (4 wks)	2) First round of development: Themes	Iterative, continued engagement and testing with stakeholders
Weeks of Mar 5 – Mar 26 (4 wks)	3) Present update and first draft	Present and facilitate session at HEAL Meeting (3/13); incorporate feedback
Weeks of Apr 2 – Apr 23 (4 wks)	4) Second round of development: Metrics	Iterative, continued engagement and testing with stakeholders

Weeks of Apr 30 – May 21 (4 wks)	5) Present final draft	Present and facilitate session at HEAL Meeting (5/8); incorporate feedback
Week of May 28	6) Wrap up	

RATIONALE AND PRINCIPLES FOR COMMON MEASURES

In St. Louis, there is great variability in how CHW are deployed in health care, social service, and community based settings.[1,2] Despite this diversity of program designs, CHWs are distinguished by their adherence to a common set of core competencies and values.[3,4] Research and experience suggest that CHWs are uniquely positioned to effect positive outcomes for clients and communities, and to do so in a cost-effective way.[5–9] If our charge is to demonstrate the value of the workforce as a whole, it is important to identify cross-cutting measures that apply across this diverse landscape. The common measures should:

1. Align with indicator standards (validity, integrity, precision, reliability, timeliness)
2. Be measurable and applicable in clinical *and* non-clinical settings
3. Leverage existing infrastructure and tools for evaluation and reporting
4. Elevate patient outcomes, but not at expense of flexibility and personalization of services
5. Make a compelling case for *growing* and *sustaining* the CHW workforce

THEMES

The research process surfaced more than 20 themes of CHW impact and value, organized into three categories: Process, Outcomes, and Impact. All were identified as both *important* and *measurable* by HEAL Healthcare Access Workgroup members through a participatory feedback activity conducted at the March 13 meeting. The themes are:

PROCESS: *How* CHWs approach their work is a significant part of their value-add

- Flexibility to effectively address multiple, interconnected needs
- Enactment of CHW core competencies
- Development of trust-based relationships with patients/clients
- Motivational approach with patients/clients
- Trauma-informed approach with patients/clients
- Frequency, efficiency of referral/connection to resources (clinical and socioeconomic)
- CHW degree of participation / influence in organizational policy
- CHW degree of participation / influence in health care and social service policy

OUTCOMES: Individual and family health improves when CHWs are involved; “health” encompasses physical, mental, social well-being

- Patient/client clinical indicators
- Patient/client socioeconomic indicators
- Patient/client knowledge, attitudes, practices
- Patient/client access to health care and social services
- Patient/client self-reported health status

- Patient/client self-reported sense of connectedness
- Patient/client self-reported sense of self-efficacy
- CHW job satisfaction

IMPACT: CHWs influence change at community, organizational, and policy levels

- Patient/client self-reported sense of empowerment, hope, resilience
- Reduction of health disparities
- Reduction of disparities in socioeconomic indicators
- Cost savings to health and social service organizations
- CHW voice in organizational, health care, social service policy

An overarching theme that emerged from the research process is that "health" should be conceptualized in the broadest sense of the word**.** The measures should intentionally reflect a broad definition, such as the one ratified by the World Health Organization: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."[10] Similarly, the definition of "community health" should be understood broadly. While definitions of community health are varied, a proposed shared definition is: "Community health is a multi-sector and multi-disciplinary collaborative enterprise that uses public health science, evidence-based strategies, and other approaches to engage and work with communities, in a culturally appropriate manner, to optimize the health and quality of life of all persons who live, work, or are otherwise active in a defined community or communities."[11] The CHW role embraces the complexity and breadth of these definitions of health and community health. Regardless of where a CHW carries out their work – in a health center, hospital, jail, social service agency, or community-based setting – their role and purpose center on promoting the conditions (or determinants) that enable full enjoyment of all elements of health. The measures should reflect the breadth and inclusivity of these constructs.

In synthesizing the research findings, choices had to be made in order to boil complex concepts down into metrics that can be collected, analyzed, and reported. It was also important to keep in mind the primary audience and purpose of these metrics. If the goal of utilizing these metrics is to advocate for, grow, and sustain the CHW profession, identifying measures that would be compelling to potential payers necessitated a lens on cost and return on investment. This does not imply that these are the only measures that are important, or that they completely and comprehensively describe the impact and value that CHWs add to their patients and communities. However, they begin to tell a story, and provide a foundation for CHWs to own the interpretation of their data.

SUMMARY AND OVERVIEW OF MEASURES

The HEAL Healthcare Access Workgroup affirmed four comprehensive measures that capture key elements of the Process, Outcomes, and Impact that CHWs achieve. The Technical Details Appendix includes information on reporting frequency, precise definitions (including units of measure and disaggregation), data collection methods and sources, and other elements.

In addition to the four measures, universal data elements will be collected, including race/ethnicity, gender, date of birth (age), chronic condition diagnosis category, and zip code. The reason for collecting demographic information is to be able to disaggregate by variables of interest or to control for differences in outcomes.

Process

MEASURE 1: People Reached and Services Provided
By addressing multiple and interconnected needs, CHWs break down traditional service sector silos and reach clients where they are. This measure includes three indicators:

- Total number of clients served per month
- Distribution of types of services provided per person per month, and in total
- Distribution of priority areas addressed by CHWs per person per month, and in total

The main rationale for this measure is that payers will need to understand the scope of practice that CHWs engage in, and how it is changing over time or within population segments. "Priority areas" include categories like employment, housing, childcare, and transportation, and "service types" include techniques like coaching, advocacy, screening, and motivational interviewing. In addition, based on distributions, we can make estimates of cost effectiveness and return on investment by leveraging existing research on social determinants of health and the impact on health outcomes and costs. This measure aligns with the process themes identified in the research phase, particularly around CHWs' role in addressing multiple, interconnected needs, enacting core competencies of the profession, and taking a personalized approach to clients.

Outcomes

MEASURE 2: Connection to Resources
By successfully making referrals to quality services, across multiple sectors and focus areas, CHWs connect individuals to the resources needed to achieve health and socioeconomic goals. This measure includes one indicator:

- Average number of successful per person per month resource connections, by type

The rationale for this measure is that payers will need to understand and trust that connection to resources is an indicator of quality service, and a positive outcome in itself. Definitions of "quality" and "successful" align with the Institute of Medicine's six domains of health care quality (safe, effective, patient/client-centered, timely, efficient, equitable).[12] The rationale for utilizing the IOM domains as reference standards for quality referrals revolves around their applicability to payment reform, their alignment with CHW core competencies and values, and their precedent in health care. This measure aligns with process and outcome themes identified in the research phase, including efficiency of referrals and expanding access to health care and social services.

Most organizations that employ CHWs have a form of referral tracking already built in to their procedures. However, not all currently have features to track all the Resource Types (such as employment, housing, childcare, transportation, etc.) in a systematic way. It will be important to ensure there is a valid crosswalk between their structures and the common set of Resource Types, a shared understanding of the definitions of "quality" and "successful," and the capacity to track according to these definitions.

OPTIONAL MEASURE:
For clinical programs that have capacity to do so, hospital readmission rates and emergency department (ED) utilization rates may also be worth tracking and reporting. These two measures

do not apply to all organizations that employ CHWs. However, hospital readmission rates and ED utilization rates tend to be compelling indicators to health care payers; so, to the degree that MO HealthNet, individual MCOs, or private insurers are a targeted audience for the workforce development strategy, having regional data may be beneficial. There may also be opportunity to collect data on the factors or barriers that affect readmission and utilization rates, to better make the case for how CHWs are uniquely positioned to add value. For organizations that choose to track this measure, technical details will need to be built out to ensure comparability.

Impact

MEASURE 3: Self-Reported Health Status and Mental Health
By addressing social determinants of health, CHWs contribute to improving individuals' self-reported health status and mental health. This measure includes one indicator:

- Distribution of perceived health status and perceived mental health ratings

The rationale for this measure is based on the consistent finding from the Agency for Healthcare Research and Quality (AHRQ) that self-reported health status is associated with health care expenditures. The evidence base is drawn from the Medical Expenditure Panel Survey (MEPS), a set of large-scale surveys of individuals and families, medical providers, and employers selected from a nationally representative sample across the US.[13] The indicator requires patients/clients to rate their own health and mental health as excellent, very good, good, fair, or poor. Given the breadth of populations that CHWs work with and the breadth of services they provide, it was not feasible to come up with a single clinical indicator (e.g. asthma symptoms, HbA1c, etc.) that would apply across all CHW programs. The benefit of a measure like perceived health status and perceived mental health status is that any patient or client, regardless of their medical conditions or areas of need, can report how they feel – and, the fact that this has been tied reliably to costs can tell a compelling story to payers about how CHWs add value over time. This measure aligns with the outcome and impact themes identified in the research phase, including self-reported health status, reduction of disparities, and, ultimately, cost savings.

It is important to note that framing to patients or clients how their answers to this question will be used, that it will not affect the services they receive, will be critical to reliability. The intent is not to make the case to payers that people reporting "good" health or mental health should receive less care. Rather, it is to demonstrate how CHW involvement helps people to move "up" in their self-reported health status; therefore, payers are making a good investment by funding CHW services, since improved health is associated with less spending. Still, CHW interpretation of trends in this measure will be important for making sense of self-reported data.

MEASURE 4: Socioeconomic Stability
By addressing social determinants of health, CHWs contribute to improving individuals' socioeconomic stability and well-being. This measure includes one indicator:

- Self Sufficiency Matrix score: distribution of ratings, and percentage of respondents progressing one level in at least one domain

The Arizona Self-Sufficiency Matrix is a tool originally developed by the Arizona Homeless Evaluation Project in 2002. Designed to measure an individual's social, economic, and overall well-being and stability, it has been validated by the Office of the Assistant Secretary for

Planning and Evaluation (ASPE) of the Department of Health and Human Services,[14] and adaptations have been validated by other researchers as well.[15,16] The Self-Sufficiency Matrix encompasses 18 domain areas, each with an outcome scale (with ratings from 1 to 5, translating to "In Crisis" to "Thriving / Empowered" based on observable actions or achievements) that reflects the dynamic, progressive path toward self-sufficiency. Modifications to the scale have adapted by agencies in Colorado, Michigan, Oregon (Snohomish County), and in Kansas City. Christian Hospital and the Salvation Army are utilizing a version of the scale for their Pathways program, and Mission: St. Louis uses it as an assessment tool as well.

The domain areas included in the Self-Sufficiency matrix align with key social determinants of health, and reflect the concept that there is a spectrum of well-being and stability that individuals may step forward or back along over the course of their lives. Each of the domain areas is characterized by an "outcome scale," each of which can be used independently of the others depending on the mission and parameters of the agency or program. This modularity allows different CHWs to adapt the set of outcome scales used, and still maintain a cohesive measure across the region that is inclusive of diverse CHW programs. This measure aligns with outcome and impact themes identified in the research phase, particularly around CHWs' role in addressing socioeconomic indicators.

Existing tools like ICD-10 codes, PRAPARE, or other case management tools can inform the Self-Sufficiency Matrix, using a tailored crosswalk; or, a standard matrix can be deployed across all participating CHW programs. In addition, by collecting information on patient/client progress within each domain area or outcome scale, we will gain a foundation to calculate cost savings – for example, based on research showing the association between gaining access to stable housing and utilization of emergency health care. The standard Arizona Self-Sufficiency Matrix is included in this document, but may be modified as other organizations have done to reflect the St. Louis context.

OPTIONAL MEASURE:
Measures related to changes in patients' or clients' sense of empowerment, hope, resilience, self-efficacy, and connectedness may also be worth tracking and reporting. These constructs came up frequently in the research phase, as a key element of what makes CHWs unique. However, given the payer audience, it was challenging to find evidence that changes in these important internal capacities are associated with cost savings, so a detailed measure was not built out. That said, it would be powerful to demonstrate region-wide evidence that CHWs quantifiably help patients and clients to develop such internal strengths. This evidence could become a tool to educate and advocate to payers that investment in people, in their capacity to succeed and aspire, is absolutely worth their attention. Existing assessment tools for these constructs could be utilized, and technical details would again need to be built out to ensure comparability.

Arizona Self-Sufficiency Matrix (standard)

Domain	1	2	3	4	5
Housing	Homeless or threatened with eviction.	In transitional, temporary or substandard housing; and/or current rent/mortgage payment is unaffordable (over 30% of income).	In stable housing that is safe but only marginally adequate.	Household is in safe, adequate subsidized housing.	Household is safe, adequate, unsubsidized housing.
Employment	No job.	Temporary, part-time or seasonal; inadequate pay, no benefits.	Employed full time; inadequate pay; few or no benefits.	Employed full time with adequate pay and benefits.	Maintains permanent employment with adequate income and benefits.
Income	No income.	Inadequate income and/or spontaneous or inappropriate spending.	Can meet basic needs with subsidy; appropriate spending.	Can meet basic needs and manage debt without assistance.	Income is sufficient, well managed; has discretionary income and is able to save.
Food	No food or means to prepare it. Relies to a significant degree on other sources of free or low-cost food.	Household is on food stamps.	Can meet basic food needs, but requires occasional assistance.	Can meet basic food needs without assistance.	Can choose to purchase any food household desires.
Child Care	Needs childcare, but none is available/accessible and/or child is not eligible.	Childcare is unreliable or unaffordable, inadequate supervision is a problem for childcare that is available.	Affordable subsidized childcare is available, but limited.	Reliable, affordable childcare is available, no need for subsidies.	Able to select quality childcare of choice.
Children's Education	One or more school-aged children not enrolled in school.	One or more school-aged children enrolled in school, but not attending classes.	Enrolled in school, but one or more children only occasionally attending classes.	Enrolled in school and attending classes most of the time.	All school-aged children enrolled and attending on a regular basis.
Adult Education	Literacy problems and/or no high school diploma/GED are serious barriers to employment.	Enrolled in literacy and/or GED program and/or has sufficient command of English to where language is not a barrier to employment.	Has high school diploma/GED.	Needs additional education/training to improve employment situation and/or to resolve literacy problems to where they are able to function effectively in society.	Has completed education/training needed to become employable. No literacy problems.
Health Care Coverage	No medical coverage with immediate need.	No medical coverage and great difficulty accessing medical care when needed. Some household members may be in poor health.	Some members (e.g. Children) have medical coverage.	All members can get medical care when needed, but may strain budget.	All members are covered by affordable, adequate health insurance.
Life Skills	Unable to meet basic needs such as hygiene, food, activities of daily living.	Can meet a few but not all needs of daily living without assistance.	Can meet most but not all daily living needs without assistance.	Able to meet all basic needs of daily living without assistance.	Able to provide beyond basic needs of daily living for self and family.
Family /Social Relations	Lack of necessary support form family or friends; abuse (DV, child) is present or there is child neglect.	Family/friends may be supportive, but lack ability or resources to help; family members do not relate well with one another; potential for abuse or neglect.	Some support from family/friends; family members acknowledge and seek to change negative behaviors; are learning to communicate and support.	Strong support from family or friends. Household members support each other's efforts.	Has healthy/expanding support network; household is stable and communication is consistently open.

Domain	1	2	3	4	5
Mobility	No access to transportation, public or private; may have car that is inoperable.	Transportation is available, but unreliable, unpredictable, unaffordable; may have care but no insurance, license, etc.	Transportation is available and reliable, but limited and/or inconvenient; drivers are licensed and minimally insured.	Transportation is generally accessible to meet basic travel needs.	Transportation is readily available and affordable; car is adequately insured.
Community Involvement	Not applicable due to crisis situation; in "survival" mode.	Socially isolated and/or no social skills and/or lacks motivation to become involved.	Lacks knowledge of ways to become involved.	Some community involvement (advisory group, support group), but has barriers such as transportation, childcare issues.	Actively involved in community.
Parenting Skills	There are safety concerns regarding parenting skills.	Parenting skills are minimal.	Parenting skills are apparent but not adequate.	Parenting skills are adequate.	Parenting skills are well developed.
Legal	Current outstanding tickets or warrants.	Current charges/trial pending, noncompliance with probation/parole.	Fully compliant with probation/parole terms.	Has successfully completed probation/parole within past 12 months, no new charges filed.	No active criminal justice involvement in more that 12 months and/or no felony criminal history.
Mental Health	Danger to self or others; recurring suicidal ideation; experiencing severe difficulty in day-to-day life due to psychological problems.	Recurrent mental health symptoms that may affect behavior, but not a danger to self/others; persistent problems with functioning due to mental health symptoms.	Mild symptoms may be present but are transient; only moderate difficulty in functioning due to mental health problems.	Minimal symptoms that are expectable responses to life stressors; only slight impairment in functioning.	Symptoms are absent or rare; good or superior functioning in wide range of activities; no more than every day problems or concerns.
Substance Abuse	Meets criteria for severe abuse/dependence; resulting problems so severe that institutional living or hospitalization may be necessary.	Meets criteria for dependence; preoccupation with use and/or obtaining drugs/alcohol; withdrawal or withdrawal avoidance behaviors evident; use results in avoidance or neglect of essential life activities.	Use within last 6 months; evidence of persistent or recurrent social, occupational, emotional or physical problems related to use (such as disruptive behavior or housing problems); problems have persisted for at least one month.	Client has used during last 6 months, but no evidence of persistent or recurrent social, occupational, emotional, or physical problems related to use; no evidence of recurrent dangerous use.	No drug use/alcohol abuse in last 6 months.
Safety	Home or residence is not safe; immediate level of lethality is extremely high; possible CPS involvement.	Safety is threatened/temporary protection is available; level of lethality is high.	Current level of safety is minimally adequate; ongoing safety planning is essential.	Environment is safe, however, future of such is uncertain; safety planning is important.	Environment is apparently safe and stable.
Disabilities	In crisis – acute or chronic symptoms affecting housing, employment, social interactions, etc.	Vulnerable – sometimes or periodically has acute or chronic symptoms affecting housing, employment, social interactions, etc.	Safe – rarely has acute or chronic symptoms affecting housing, employment, social interactions, etc.	Building Capacity – asymptomatic – condition controlled by services or medication	Thriving – no identified disability.
Other: (Optional)	In Crisis	Vulnerable	Safe	Building Capacity	Empowered

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