IMPACT OF COMMUNITY HEALTH WORKERS IN PRIMARY CARE

Arizona Health Care Provider Survey Results

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Executive Summary

In 2013, Community Health Workers (CHWs), defined as a frontline public health worker who applies a unique understanding of the experience, language, and culture of the population were included in the Affordable Care Act as distinct members of the health care team. In 2014, the Centers for Medicaid and Medicare (CMS) issued new guidance that allows for reimbursement of preventive services offered by unlicensed professionals such as CHWs. These developments have tremendous implications for the integration and reimbursement of CHWs in the primary care setting in Arizona. In direct response to monumental shifts in health policy in support of the integration of CHWs in the health care setting, the University of Arizona, Arizona Prevention Research Center (AzPRC) conducted the **Community Health Worker Utilization and Impact in the Primary Care Setting Survey**, to assess general attitudes, barriers and impact CHWs among Arizona licensed health care providers. Providers were defined as licensed health professionals, inclusive of physicians, physician assistants, nurse practitioners, psychologists or behavioral health specialists, and pharmacists involved in direct patient care. The cross-sectional, anonymous, on-line survey was conducted with 364 Arizona providers from various clinical settings including federal qualified community health centers (FQCHC), Indian Health Service and 638 Tribal Clinics and other solo, group, managed behavioral care settings.

Approximately 67% (245) of Arizona providers who participated in the survey were directly or indirectly involved with CHWs. Highlights from the survey include:

- 90% of providers reported that CHWs have had a positive impact on patient care.
- No less than 70% reported that as a result of working with CHWs their patients were more likely to follow their recommendations, maintain regular care, better mange their chronic disease and have access to care.
- Approximately 70%, 52% and 63% of FQCHC, IHS/638 and other clinical provider respectively, agree that CHWs have contributed to the prevention of high risk or high cost health conditions.
- No less than half of all providers reported that CHWs saved them time in arranging clinical and social referrals for patients, as well as educating patients on disease management, health promotion and healthy childbirth.
- Approximately 75% of providers would be more likely to utilize CHWs as part of the health care team if CHWs service were reimbursable by the Center for Medicare and Medicaid Services (CMS) (or AHCCCS in Arizona) or third-party payers.

Among those 119 (34%) providers with no direct involvement with CHWs, 75% thought CHWs could provide culturally appropriate health education/information, serve as a bridge / culturally mediating between patient and health services, provide informal counseling, lead support groups, conduct home visits.

Summary and Recommendations

Arizona providers are activly enaged with the CHWs workforce and experience great value in the integration of CHWs into the primary care setting to improve health outcomes, reduce cost of care and save provider time. The biggest barrier to utilize and integrate CHWs into the health care team is the ability to reimburse and pay for CHW activities. A standardized system that recognizes and reimburses thise class of health care worker is required.

CHWs Impact in Primary Care

Since the 1960s, Community Health Workers (CHWs) have been characterized as community leaders who share the language, socioeconomic status and life experiences of the community members that they serve and are recognized as a promising strategy to address glaring health inequities (Balcazar et al., 2011; Rosenthal, Wiggins, Ingram, Mayfield-Johnson, & De Zapien, 2011). Community Health Workers (CHW) serve under a variety of titles including Community Health Advocate (CHA), Patient Navigator, Community Health Representatives (CHR) and Promotor/a. The American Public Health Association defines CHWs as:

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

The Insitute for Healthcare Triple Aim to improve the patient experience of care (including quality and satisfaction), improve the health of populations, and reduce the per capita cost of health care presents a niche opportunity for the integration of Community Health Worker integration in the primary care setting (Balcazar et al., 2011). Community Health Workers working within the health care system have been documeted to provide clients with culturally appropriate navigation of public health insurance coverage plans, work as part of an interdisciplinary health team to prevent hospital readmissions and assist nonprofit hospitals to meet new community-based health improvements mandated by health reform (Bovbjerg, Eyster, Ormond, Anderson, & Richardson, 2013a). Other more long range opportunities include facilitating patient care coordination between social supports, primary care, and collaborating with public health agencies to conduct community outreach, wellness education, and chronic disease management (Bovbjerg et al., 2013a).

Reforms in health care in the United States have incentivized the shift toward a value-based reimbursement structures that require evidence of favorable outcomes (Burwell, 2015). Community Health Workers (CHWs) have been recognized as integral contributors in collaborative health care teams focused on providing comprehensive care (Bovbjerg, Eyster, Ormond, Anderson, & Richardson, 2013b; Martinez, Ro, Villa, Powell, & Knickman, 2011; Protection & Act, 2010). Utilizing their unique position, skills and training CHWs have the potential to play a significant role by improving patient outcomes and reducing system costs for health care by assisting community members in avoiding unnecessary hospitalization and other forms of more expensive acute care (Brownstein, Hirsch, Rosenthal, & Rush, 2011).

Specifically, CHWs are increasingly recognized for their value in improving the efficacy of care and contributing to the provision of high quality and coordinated care(Brownstein et al., 2005; Brownstein et al., 2007; Felix, Mays, Stewart, Cottoms, & Olson, 2011; Tang et al., 2014). Well functioning multidisciplinary care teams (Balcazar et al., 2011; Brownstein et al., 2005) that include a CHW have been identitied as contributing to the effficacy of Patient-Centered Medical Homes (PCMH), Accountable Care Organizations (ACO), and Community Health Teams(Brownstein et al., 2011). In addition to coordinated care, both ACOs, PCMHs strive to provide routine preventive care and patient education. CHWs are well positioned to support these entities effectively meet health reform mandates for prevention, education and

coordination of care(Brownstein et al., 2011). The Affordable Care Act (ACA) through expanding payment methods and focusing on value and quality of care may constitute a landmark in the movement to integrate Community Health Workers (CHWs) within the mainstream of health care, public health, and social services(Protection & Act, 2010).

CHWs Return on Investment

The use of CHWs is cost effective. CHW interventions improve clinical indicators(Allen et al., 2011; Culica, Walton, Harker, & Prezio, 2008; Esperat et al., 2012; Margellos-Anast, Gutierrez, & Whitman, 2012), lower risk factors in chronic disease and mental health(Krantz et al., 2013; Roman et al., 2007), and increase medication adherence in patients/clients(Margellos-Anast et al., 2012; Roth et al., 2012). CHW interventions also contribute to the reduction in Emergency Department visits (Bielaszka-DuVernay, 2011a, 2011b; Findley et al., 2011; Gary et al., 2009; Johnson et al., 2012; Margellos-Anast et al., 2012; Peretz et al., 2012). CHW integration into the primary care team and beyond is associated with reductions in cost (Bielaszka-DuVernay, 2011b; Brown et al., 2012; Esperat et al., 2012; Felix et al., 2011; Johnson et al., 2012; Krieger, Takaro, Song, & Weaver, 2005) with a return on investment that ranges from $0.02 to $5.58 per dollar invested in CHW interventions (Bielaszka-DuVernay, 2011a; Esperat et al., 2012; Felix et al., 2011; Margellos-Anast et al., 2012).

PURPOSE OF THE PROJECT

The Community Health Worker Utilization and Impact in the Primary Care Setting Survey, conducted by the University of Arizona, Arizona Prevention Research Center (AzPRC), assessed general attitudes, barriers and impact of the utilization of Community Health Workers (CHWs) among approximately 384 primary care health providers. Providers were defined as licensed health professionals, inclusive of physicians, physician assistants, nurse practitioners, psychologists or behavioral health specialists, and pharmacists involved in direct patient care. Between April and June 2015, cross-sectional quantitative and qualitative data were collected in an online or face-to-face anonymous survey that lasted approximately 2-3 minutes.

METHODS

AzPRC researchers compiled an exhaustive email list of over 136 contacts within Arizona's federally qualified health centers, hospitals, Indian Health Service, 638 Tribal Health Clinics behavioral health centers, provider local and state professional associations and networks, and health plan leadership. A formal letter was emailed to the CEO, Clinical Directors, Executive Administration Assistants or leadership of these contacts to make them aware of the purpose of the study. The email contained an embedded link to the anonymous online provider survey. CEOs, Clinical Directors, Executive Administration Assistants and leadership personnel were asked to forward the email to eligible licensed provider staff members who may choose to complete the survey at their leisure and in the privacy of their own office or home.

The online survey was distributed in three waves, initially in April 2015, the second email in May 2015 and a final email in June 2015, ten days before the survey closed. Each time, a week later, an AzPRC researcher followed up with a phone call or an email to (1) explain in more detail the study and answer questions and (2) learn the ways in which to better target dissemination of the survey to eligible licensed staff. In each follow up, approximately 63% (83) contacts were spoken with directly.

We specifically targeted licensed clinical staff working in federally qualified community health centers (FQCHC) and Indian Health Service or Tribal 638 Clinics. In terms of FQCHCs, we partnered with the Arizona Alliance for Community Health Centers to disseminate the survey with FQCHC leadership. We gave FQCHCs the option for an AzPRC researcher to attend regularly scheduled staff meetings to administer the survey. Approximately 2 large and 1 small FQCHC requested surveys to be conducted in person. In these instances, a researcher disseminated hard copies of the survey and the disclaimer form to all eligible licensed participants in attendance. AzPRC researchers used the recruitment script to explain the survey. In the case of face-to-face data collection, everyone was informed of the voluntary nature of survey. No identifying information was collected by the online or face-to-face survey. All information is reported in aggregate

Survey Development

The survey consisted of two distinct surveys – which screened for and redirected providers into two groups; those who were actively involved with CHWs and those with no involvement with CHWs. Participants were screened through a question asking whether they were (1) directly involved with CHWs (2) indirectly involved with CHWs, or who do not work directly with CHWs but staff or colleagues do and they receive information from those that are working with CHWs, (3) a Leader or champion that oversees implementation of a CHWs staff or program and (4) providers with no involvement with CHWs. Those who answered no involvement were directed to a survey that assessed perceived value of CHWs, projected utilization of CHWs and barriers to integration of CHWs into their organization or health care team. Those providers who were directly, indirectly involved with a CHW or provided leadership to CHW staff or program were directed a survey that measured current CHW utilization, CHW impact on access to and quality of care, health outcomes, provider time. This survey also assessed how the CHW was integrated into the health care team and barriers or opportunities to further integration and use of the CHW workforce.

Analysis

Descriptive statistics were used to characterize the two groups with IBM SPSS version 22. CHW contact group was divided into three separate groups based on type of provider's practice. These are 1) Federally Qualified Health Center, 2) Indian Health Service/638 Clinic/Hospital, and 3) Other. Other group contains providers who reported to work for 1) Solo practice, 2) Group practice, 3) Managed care organization, 4) Hospital-based practice, or 5) Other (options not reported on this survey). CHW non-contact group was not divided however aggregated for all analyses.

Qualitative Analysis

Initially the qualitative data was stratified by level of involvement with CHWs, no involvement and involvement. After the initial stratification by level of involvement an AzPRC researcher reviewed the providers' narrative on two questions. Based on the initial review of the data researchers developed a codebook that outlined major themes. A researcher reread the data and coded according to the codebook and developed coding memos based on each theme.

SURVEY RESULTS

A total of 384 individuals began the on-line or hard copy survey. For purposes of this report, analysis includes only those 364 (94%) individuals who completed the survey. Among the 384 licensed providers who completed the survey 67% (245) were directly or indirectly involved with CHWs or provided leadership to CHW staff or program and 119 (32%) had no involvement with CHWs.

Provider participants were predominantly physicians, nurse practitioners and nurses (Table 1). Among those involved with CHWs, 68% were moderately to extremely familiar with CHWs. Approximately 90% of providers reported that CHWs have had a positive impact on patient care. While the biggest barrier for providers involved with CHWs was the lack of ability to bill insurers (47%) and lack of clarity of function (39%). Among those providers with no involvement with CHWs, approximately one-third were unclear on CHWs function and values, followed by lack of ability to bill insurer for CHW activities.

Table 1. Selected Characteristics of Licensed Arizona Provider Survey Participants

	Providers Involved with CHWs (N=245)	Providers NOT Involved with CHWs (N=119)
Provider Credential		
Physician	106/245 (43.3)	61/119 (51.3)
Nurse Practitioner	37/245 (15.1)	25/119 (21.0)
Physician Assistant	17/245 (6.9)	13/119 (10.9)
Registered Nurse	27/245 (11.0)	4/119 (3.4)
Pharmacist	6/245 (2.4)	4/119 (3.4)
Behavioral Health Provider	20/245 (8.2)	5/119 (4.2)
Other	32/245 (13.1)	7/119 (5.9)
Provider Familiarity with CHWs		
Extremely Familiar	92/245 (37.6)	1/119 (0.8)
Moderately Familiar	80/245 (32.7)	14/119 (11.8)
Somewhat Familiar	51/245 (20.8)	22/119 (18.5)
Slightly Familiar	19/245 (7.8)	34/119 (28.6)
Not at all Familiar	3/245 (1.2)	48/119 (40.3)
Barriers in CHW integration		
Lack of ability to bill insurer	117/245 (47.8)	40/119 (33.6)
Lack of clarity about the value	64/245 (26.1)	44/119 (37.0)
Lack of clarity about the function	95/245 (38.8)	46/119 (38.7)
Lack of CHW training	59/245 (24.1)	30/119 (25.2)
Overall CHWs have a positive impact on patient care	193/222 (86.9)	-
Federally Qualified Community Health Center	78/84 (92.9)	-
Indian Health Service/638 Tribal Clinic	55/65 (84.6)	-
Other*	37/47 (78.7)	-
Employed or Operate in a Patient Centered Medical Home Model	125/225 (55.6)	40/103 (38.8)
Interested in learning more about CHWs	N/A	69/103 (58.0)
Observe areas in their organizations where CHWs could be used but are not currently	N/A	58/100 (48.7)

** Other includes solo practice, group practice, managed care organization and behavioral health*

CHWs Impact on Patient Health Outcomes and Quality of Care

Among those providers involved with CHWs, no less than 70% of licensed providers reported that as a result of working with CHWs their patients are more likely to follow their recommendations, maintain regular care, better mange their chronic disease and have access to care (Table 2). Approximately half of providers either agree or are unsure whether patients have good birth outcomes as a result of working with a CHW. Results vary slightly by FQCHC, HIS/638 and other providers.

Table 2. Licensed Provider Beliefs Regarding Impact of CHWs on Patient Health Outcomes and Quality of Care

	Strongly Agree/Agree n/N (%)			Unsure n/N (%)		
	FQCHC	**IHS/638**	**Other**	**FQCHC**	**HIS/638**	**Other**
As a result of working with CHWs, patients are more likely to:						
Follow my recommendations	66/87 (75.0)	47/66 (71.2)	36/48 (75.0)	21/87 (23.9)	16/66 (24.2)	10/48 (20.8)
Show up for scheduled appointments	63/88 (71.6)	49/66 (74.2)	34/48 (70.8)	23/88 (26.1)	15/49 (74.2)	12/48 (25.0)
Maintain regular care	71/88 (80.7)	46/66 (69.7)	36/48 (75.0)	15/88 (17.0)	16/66 (24.2)	10/48 (20.8)
Better manage their chronic disease	69/87 (79.3)	45/66 (68.2)	31/48 (64.6)	17/87 (19.5)	17/66 (25.8)	16/48 (33.3)
Have good birth outcomes	39/81 (48.1)	34/66 (51.5)	23/46 (47.9)	42/81 (51.9)	28/66 (42.4)	23/46 (50.0)
Have more effective communication during office visits	62/88 (70.5)	37/66 (56.1)	29/47 (61.7)	26/88 (29.5)	24/66 (36.4)	17/47 (36.2)
Have better access to care	75/88 (85.2)	50/66 (75.8)	32/47 (68.1)	12/88 (13.6)	13/66 (19.7)	12/47 (25.5)

FQCHC: federally qualified community health center; IHS Indian Health Service/638 Tribal Health Clinic; Other includes solo practice, group practice, managed care organization and behavioral health

CHWs Impact on Health Outcomes and Cost of Care

Providers' perspectives varied across clinical setting regarding how CHWs impact the cost of care and health outcomes among high risk and low risk/cost patients (Table 3). Approximately half of providers agree or are unsure that CHWs reduce the cost of care and improve patient outcomes among high risk or high cost patients. Approximately 70%, 52% and 63% of FQCHC, IHS/638 and other clinical provider respectively, agree that CHWs have contributed to the prevention of high risk or high cost health conditions.

Table 3. Licensed Provider Beliefs Regarding CHWs Impact on Health Outcomes and Cost of Care

	Strongly Agree/Agree n/N (%)			Unsure n/N (%)		
In my experience, CHWs have contributed to:	**FCQHC**	**IHS/638**	**Other**	**FQCHC**	**IHS/638**	**Other**
Reduction in the *cost of care* for high risk or high cost patients	52/88 (59.1)	29/66 (43.9)	28/48 (58.3)	33/88 (37.5)	36/66 (54.5)	16/48 (33.3)
Reduction in the *cost of care* for NON-high risk or high cost patients	48/88 (54.5)	22/66 (33.3)	20/48 (41.7)	37/88 (42.0)	41/66 (62.1)	23/48 (47.9)
Improved *health outcomes* for high risk or high cost patients	64/88 (72.7)	42/66 (63.6)	30/48 (62.5)	23/88 (26.1)	23/66 (34.8)	16/48 (33.3)
Improved *health outcomes* for NON-high risk or high cost patients	60/88 (68.2)	37/66 (56.1)	23/48 (47.9)	27/88 (30.7)	28/66 (42.4)	21/48 (43.8)
Prevention of high risk or high cost health conditions	62/88 (70.5)	34/66 (51.5)	30/48 (62.5)	25/88 (28.4)	30/66 (45.5)	14/48 (29.2)

** Other includes solo practice, group practice, managed care organization and behavioral health*

CHWs Impact on Provider Time

Again provider perspectives regarding how CHWs save provider time varied across clinical setting. No less than half of all providers reported that CHWs saved them time in arranging clinical and social referrals for patients, as well as educating patients on disease management, health promotion and healthy childbirth.

Table 4. Licensed Provider Beliefs Regarding CHWs Impact on Provider Time

	Strongly Agree/Agree n/N (%)			Unsure n/N (%)		
In my experience, CHWs have saved me time:	**FQCHC**	**IHS/638**	**Other**	**FQCHC**	**IHS/638**	**Other**
Arranging clinical referrals and follow-up for patients	58/88 (65.9)	36/66 (54.5)	35/48 (72.9)	21/88 (23.9)	18/66 (27.3)	10/48 (20.8)
Arranging social service referrals for patients	60/88 (68.2)	34/66 (51.5)	39/48 (81.3)	21/88 (23.9)	21/66 (31.8)	7/48 (14.6)
Educating patients on disease management	59/88 (67.0)	48/66 (72.7)	33/48 (68.8)	23/88 (26.1)	14/66 (21.2)	12/48 (25.0)
Educating patients on health promotion (i.e. nutrition and physical activity)	69/88 (78.4)	53/66 (80.3)	32/48 (66.7)	15/88 (17.0)	10/66 (15.2)	14/48 (29.2)
Educating patients on healthy childbirth	44/82 (53.7)	28/65 (43.1)	24/46 (52.2)	37/82 (45.1)	29/65 (44.6)	20/46 (43.5)

** Other includes solo practice, group practice, managed care organization and behavioral health*

CHWs Integration within the Clinical Care Team and Barriers to Utilization

CHW integration within the primary care team varied across clinical site. Arizona providers predominately report that CHWs regularly receive referrals or assignments from the primary care staff team. Approximately half of FQCHCs and those providers working in solo practice, group practice, managed care organization and behavioral health regularly meet with CHWs.

Approximately 75% of providers would be more likely to utilize CHWs as part of the health care team if CHWs service were reimbursable by the Center for Medicare and Medicaid Services (CMS) (or AHCCCS in Arizona) or third-party payers.

Table 5. CHWs Integration within the Clinical Care Team and Barriers to Utlization

	Strongly Agree/Agree		
Overall, how do CHWs in your organization work with the primary care team:	**FQCHC**	**IHS/638**	**Other**
Meeting regularly with primary care staff	43/87 (49.4)	14/66 (21.2)	27/48 (56.3)
Regularly receiving patient referrals or assignments from primary care staff (for needed education sessions or home visits)	66/87 (75.9)	38/66 (57.6)	34/48 (70.8)
Providing interpreting services	43/86 (50.0)	31/66 (47.0)	27/47 (57.4)
What would make you more likely to use CHWs as part of the health care team:			
More evidence that CHWs improve health outcomes	66/87 (75.9)	47/66 (71.2)	35/48 (72.9)
If CHWs services were reimbursed (i.e. By Center for Medicare and Medicaid Services (CMS), AHCCCS, third party payers)	63/86 (73.3)	47/66 (71.2)	38/48 (79.2)
Barriers in CHW integration			

Lack of ability to bill insurer	43/88 (48.9)	26/66 (39.4)	30/48 (62.5)
Lack of clarity about the value	17/88 (19.3)	20/66 (30.3)	19/48 (39.6)
Lack of clarity about the function	33/88 (37.5)	35/66 (53.0)	18/48 (37.5)
Lack of CHW training	14/88 (15.9)	20/66 (30.3)	14/48 (29.2)
** Other includes solo practice, group practice, managed care organization and behavioral health*			

Qualitative CHW Involvement

Providers currently working with CHWs recommend potential program areas for CHWs use including CHW integration with Primary Care Providers, Behavioral Health, specific populations and CHW self-advocacy to promote awareness of CHWs skills. Providers sited very broad potential areas of use for CHWs that encompass and demonstrate the essence of a CHW as well as possibly extending the model beyond health care.

> *Our CHWs do a lot. They coordinate mammography clinics, teach diabetes self management, do home safety evaluations, fall risk work, diabetic foot checks, and work to bring healthy food to our Community, but they do not have a way to document their work so that the licensed staff can see the work they do or the outcomes. (Registered Nurse, Indian Health Service/638)*
>
> *They permeate everything we do! (Physician, Federally Qualified Community Health Center)*
>
> *CHWs work with people in the community. CHWs/CHRs complement the community's perception of health, regardless of what the CHW program may specify for the CHW to do in the community. The CHW do what the community requests. (Public Health Nurse, Indian Health Service/638)*
>
> *We would like to see this model moved to primary care health; child welfare organizations; all educational settings and the juvenile justice system. (Behavioral Health Provider, Licensed Outpatient Treatment Center for Behavioral Health)*

Providers suggested more CHW integration with primary care, including having more CHWs available to meet patient needs in the clinic.

> *Greater integration of CHW services with provider teams including efforts on child health and chronic disease management. More CHWs to provide optimal patient to CHW ratio (Physician, Indian Health Service/638)*
>
> *More of them available in clinic to work with a greater percent of patients (Physician, Federally Qualified Community Health Center)*
>
> *A CHW is part of our interdisciplinary team managing a sub-population of high acuity adult patients within our family practice. She is a great asset to the team, and I would like to see CHW services available to our whole population. (Nurse Practitioner, group practice)*

Since most CHWs are funded by short term grants their services target specific groups, proper reimbursement for CHW services was considered by providers to enable for more direct integration of CHWs.

Reimbursement for CHWs would allow us to increase the use of CHWs in the primary care setting (Behavioral Health Provider, Federally Qualified Community Health Center)

Currently, because they are paid through grants, we can only use them for specific sub-populations (e.g. refugee, under age 5, etc.). I would like to see them used in our whole practice to improve follow through in our mobile population that has difficulty navigating the health care system. (Physician, Hospital based practice)

This concept of integration is further expressed in the request for more transparent communication between CHWs and Primary Care Providers (PCP). Currently there is no set communication protocol between PCPs and CHWs. Providers suggested that CHWs conduct follow up, home visits and outreach to support the prevention, education, screening and management of chronic diseases, if not currently occurring. Behavioral health also emerged as another area that CHWs could be utilized to support patients.

Would like more direct involvement with clinical staff; we don't usually hear much about what they are doing or offer. (Physician, Indian Health Service/638)

There is no way for PCPs to directly contact the CHRs. if there were, we would use them a lot more. (Physician, Indian Health Service/638)

CHWs along with Public Health Nurses can contribute greatly to Population health management (by) providing screening, education and continuity of care (Physician, Indian Health Service/638)

Providers identified specific vulnerable populations that could benefit from integrating CHWs, outside of the typical chronic disease prevention and management services. Some examples highlight postpartum mothers, veterans, behavioral health patients and the elderly.

Postpartum visit especially to first time mothers! It would serve follow up in education, contraception, breastfeeding issues, Newborn care. At the same time assess for safety and issues as family violence (Nurse Practitioner, Federally Qualified Community Health Center)

The VA uses this group of professionals all the time: they have tools in their toolbox that others are not aware and assist the patient connection to other resources and I use them all the time (Nurse Practitioner, Federally Qualified Community Health Center)

Discussing long term care options with patients, organizing safety / functional evaluations of patient and homes. (Nurse Practitioner, Federally Qualified Community Health Center)

Diabetes, hypertension and prenatal has been well covered, would be nice to have CHW involvement with psych patients. (Physician, Federally Qualified Community Health Center)

Results for Providers NOT Involved with CHWs

A total of 119 providers were identified as those providers who were not directly involved with CHWs. The majority of such providers saw great value in integrating CHWs into their organizations and clinical team. Approximately, three – quarters of such providers thought CHWs could provide the following functions, including provision of culturally appropriate health education/information, serve as a bridge / culturally mediating between patient and health services, provide informal counseling, lead support groups, conduct home visits. Between 50-60%

of these providers agreed CHWs could offer case finding and recruitment, referrals to community resources, serve as an advocate for individual community needs, assist in communication during patents visits and serve as a health systems navigator. Approximately, one third of providers thought CHWs could contribute to a reduction in cost of care and improved health outcomes for high cost and high-risk patients. A slightly higher proportion of providers thought that CHWs could reduce cost and improves outcomes among non-high cost high-risk patients (Table 5).

Table 5. Selected Survey Responses Among Arizona Licensed Providers Who Reported No Current Involvement with CHWs (N=119)

	Agree	Unsure
What functions could CHWs offer in your organization?		
Provide culturally appropriate health education/information	74/102 (72.5)	22/102 (21.6)
Home visits	72/103 (69.9)	26/103 (25.2)
Bridge / culturally mediating between patient and health services	75/101 (74.3)	20/101 (19.8)
Case finding/recruitment	52/100 (52.0)	43/100 (43.0)
Informal counseling	80/102 (78.4)	17/102 (16.7)
Refer or link patients to community-based resources (the Y, farmer's markets, after-school programs, senior centers, exercise programs)	54/101 (53.5)	39/101 (38.6)
Lead support groups	70/101 (69.3)	23/101 (22.8)
Advocate for individual and community needs	65/101 (64.4)	33/101 (32.7)
Insurance enrollment (AHCCCS, etc.)	47/100 (47.0)	38/100 (38.0)
Case management	70/100 (70.0)	24/100 (24.0)
Translation/Interpretation	74/101 (73.3)	22/101 (21.8)
Health System Navigation	65/101 (64.4)	32/101 (31.7)
Assist in more effective communication during patient visits	55/100 (55.0)	35/100 (35.0)
Improve patient's access to care	71/101 (70.3)	24/101 (23.8)
In your opinion, could CHWs contribute to:		
Reduction in the *cost of care* for high risk or high cost patients	34/104 (32.7)	33/104 (31.7)
Reduction in the *cost of care* for NON-high risk or high cost patients	50/104 (48.1)	27/104 (26.0)
Improved *health outcomes* for high risk or high cost patients	33/104 (31.7)	39/104 (37.5)
Improved *health outcomes* for NON-high risk or high cost patients	46/104 (44.2)	37/104 (35.6)
Prevention of high risk or high cost health conditions	41/103 (39.8)	35/103 (34.0)
What would make you more likely to use CHWs as part of the health care team:		
More evidence that CHWs improve health outcomes	76/98 (77.6)	0/98 (0.0)
If CHWs services were reimbursed (i.e. By Center for Medicare and Medicaid Services (CMS), AHCCCS, third party payers)	67/95 (70.5)	0/95 (0.0)

Barriers to Integration of CHWs

Although more evidence regarding the impact of CHWs on health outcomes would influence approximately 75% of providers to use CHWs as part of the health care team, almost 70% of would integrate this workforce if CHWs were reimbursed.

Mechanisms for Integration of CHWs into Primary Care

Based on the short narratives provided by Arizona health care providers that currently do not utilize CHWs in the primary health care setting, many saw value in CHWs involvement with patient care coordination and continuity of care among vulnerable populations. Providers' suggested CHW care coordination activities could take many forms including patient follow up, health education and linking patients to social services. Providers suggested CHWs to focus on patients with multiple comorbidities, chronic disease and general high-risk populations.

> *Diabetic training, medication compliance and understanding, coaches for improved lifestyles, conduit to social services and mental health services. (Physician, Residency Training Clinic)*
>
> *An additional area would be support and transition for high-risk patients that are seen for short-term rehab prior to discharge to assist with transition home and education. (Nurse Practitioner, Indian Health Service/638)*
>
> *…More frequent contact with high-risk population. (Physician, Group Practice)*
>
> *I feel home visits from CHWs could be a great tool to help both chronic disease management as well as during transitions of care. (RN, Federally Qualified Community Health Center)*
>
> *We need case managers to monitor compliance and enhance timely access to care in chronically ill and very elderly patients with multiple health problems. We need dietary and exercise counselors to promote more active lifestyles and prevent obesity in our patients with diabetes and hypertension. (Physician, group practice)*

Barriers to CHW Integration

Providers that currently do not utilize CHWs in the primary health care setting sited the ability to meaningfully integrate CHWs into care teams, lack of clarity about the value of CHW use, and cost as barriers in hiring and integrating CHWs. Other mentioned that more site-specific training to increase CHW integration. Similarly other providers were unsure about the value of including a CHW as a member of a primary care team, some were not quite sure who CHWs are or their scope of work.

> *Need integration with rest of the care team (physicians, RNs, Pharmacy. More training re where to refer for additional services and what services are appropriate for which problems (Physician, Solo practice)*
>
> *I don't know what they are or what they do. (Physician, Federally Qualified Community Health Center)*
>
> *I'm not clear about their training (Physician, group practice)*
>
> *Who are these people? What is their training? (Physician Assistant, Indian Health Service/638)*

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The University of Arizona Disclaimer

Community Health Worker (CHW) Utilization and Impact in the Primary Care Setting Survey

The University of Arizona, Arizona Prevention Research Center is conducting a 2-3 minute, anonymous survey to assess licensed health care providers opinions of the impact of Community Health Workers (CHWs) in the primary care setting. CHWs serve under a variety of titles including Community Health Advocate (CHA), Patient Navigator, Community Health Representatives and Promotor/a and are defined as:

> A frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the CHW to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery.

You are invited to participate because you are a licensed health professional, involved in direct patient care. You do not need to work directly with CHWs to complete this survey.

Your participation is voluntary and you may stop the survey at any time. There are no known risks to participate except your time. No identifying information will be collected and all information will be reported in aggregate. There are no direct benefits to participation. Information you share will contribute to a better understanding of current and projected utilization and impact of CHWs in the clinical setting. We expect approximately 500 Arizona licensed health care providers to participate in the survey.

For questions, concerns, or complaints about the project you may contact **the Principal Investigator**, Samantha Sabo, DrPH, MPH at 520-626-5204 or COPH-azprc@email.arizona.edu.

For questions about your rights as a participant in this project or to discuss other project-related concerns or complaints with someone who is not part of the research team, you may contact the Human Subjects Protection Program at 520-626-6721 or online at http://www.orcr.arizona.edu/hspp.

An Institutional Review Board responsible for human subjects research at The University of Arizona reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.

Your Participation is Greatly Appreciated Thank You!

THE UNIVERSITY OF ARIZONA
Mel and Enid Zuckerman College of Public Health

ARIZONA PREVENTION RESEARCH CENTER

Community Health Worker (CHW) Utilization and Impact in the Primary Care Setting Survey

A community health worker (CHW) is a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the CHW to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery. CHWs serve under a variety of titles including Community Health Advocate (CHA), Patient Navigator, Community Health Representatives and Promotor/a.

You are invited to participate because you are a licensed health professional, involved in direct patient care. You do not need to work directly with CHWs to complete this survey.

What is your medical degree/role in patient care?
(Choose only one)

- ❍ Physician
- ❍ Nurse Practitioner
- ❍ Physician Assistant
- ❍ Registered Nurse
- ❍ Pharmacist
- ❍ Behavioral Health Provider
- ❍ Other *(Please specify)* _____

Overall, how familiar are you with the role of Community Health Workers (CHWs)?
(Choose only one)

- ❍ Extremely Familiar
- ❍ Moderately Familiar
- ❍ Somewhat Familiar
- ❍ Slightly Familiar
- ❍ Not at all Familiar

In what ways have you been involved with CHWs?
(CHWs: also known as Patient Navigators, Community Health Advisors, Peer Navigators, Community Health Representatives, Community Health Advocates)
(Choose only one)

- ❍ Leader/Champion that oversees implementation of CHW staff or program
- ❍ Direct involvement (I directly work with the CHWs)
- ❍ Indirect involvement (I do not work directly with CHWs, but my staff or my colleagues do and/or I receive information from those that are working with CHWs)
- ❍ No involvement with CHWs **If NO Please continue to BLUE Section ▼**
- ❍ Other *(Please specify)* _____

Please indicate how much you agree or disagree with each of the following statements.

As a result of working with CHWs, patients are more likely to:	**Strongly Agree**	**Agree**	**Unsure**	**Disagree**	**Strongly Disagree**
1. Follow my recommendations	❍	❍	❍	❍	❍
2. Show up for scheduled appointments	❍	❍	❍	❍	❍
3. Maintain regular care	❍	❍	❍	❍	❍
4. Better manage their chronic disease	❍	❍	❍	❍	❍
5. Have good birth outcomes	❍	❍	❍	❍	❍
6. Have more effective communication during office visits	❍	❍	❍	❍	❍
7. Have better access to care	❍	❍	❍	❍	❍
In my experience, CHWs have contributed to:	**Strongly Agree**	**Agree**	**Unsure**	**Disagree**	**Strongly Disagree**
8. Reduction in the *cost of care* for high risk or high cost patients	❍	❍	❍	❍	❍
9. Reduction in the *cost of care* for NON-high risk or high cost patients	❍	❍	❍	❍	❍
10. Improved *health outcomes* for high risk or high cost patients	❍	❍	❍	❍	❍
11. Improved *health outcomes* for NON-high risk or high cost patients	❍	❍	❍	❍	❍
12. *Prevention* of high risk or high cost health conditions	❍	❍	❍	❍	❍
In my experience, CHWs have saved me time:	**Strongly Agree**	**Agree**	**Unsure**	**Disagree**	**Strongly Disagree**
13. Arranging clinical referrals and follow-up for patients	❍	❍	❍	❍	❍
14. Arranging social service referrals for patients	❍	❍	❍	❍	❍
15. Educating patients on disease management	❍	❍	❍	❍	❍
16. Educating patients on health promotion (i.e. nutrition and physical activity)	❍	❍	❍	❍	❍
17. Educating patients on healthy childbirth	❍	❍	❍	❍	❍
Overall, how do CHWs in your organization work with the primary care team:	**Strongly Agree**	**Agree**	**Unsure**	**Disagree**	**Strongly Disagree**
18. Meeting regularly with primary care staff	❍	❍	❍	❍	❍
19. Regularly receiving patient referrals or assignments from primary care staff (for needed education sessions or home visits)	❍	❍	❍	❍	❍
20. Providing interpreting services	❍	❍	❍	❍	❍
What would make you more likely to use CHWs as part of the health care team:	**Strongly Agree**	**Agree**	**Unsure**	**Disagree**	**Strongly Disagree**
21. More evidence that CHWs improve health outcomes	❍	❍	❍	❍	❍
22. If CHWs services were reimbursed (i.e. By Center for Medicare and Medicaid Services (CMS), AHCCCS, third party payers)	❍	❍	❍	❍	❍

Overall, the way I care for patients has been positively impacted by CHWs.

- ❍ Yes
- ❍ No

Are there areas in your organization where you feel CHWs could be utilized but are not currently?

- ❍ Yes
- ❍ No

(Please specify)

_____

_____

_____

What are the barriers you face in hiring or integrating CHWs into your health care team?
(Select all that apply)

- ❑ Lack of ability to bill insurers for their services
- ❑ Lack of clarity about the value of their use
- ❑ Lack of clarity about how they function as members of or link to a primary care team
- ❑ Lack of training of CHWs
- ❑ Other *(Please specify)* _____

_____

_____

_____

Which of the following <u>best</u> describes your practice type?
*(Please select **ONLY ONE**)*

- ❑ Solo practice
- ❑ Group practice
- ❑ Managed Care Organization
- ❑ Federally Qualified Health Center
- ❑ Hospital-based practice
- ❑ Indian Health Service / 638 Clinic / Hospital
- ❑ Other *(Please specify)* _____

Are you part of a Patient Centered Medical Home?

- ❍ Yes
- ❍ No

NON CHW Provider Survey Next Section ▲

A community health worker (CHW) is a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the CHW to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery. CHWs serve under a variety of titles including Community Health Advocate (CHA), Patient Navigator, Community Health Representatives and Promotor/a.

Please indicate how much you agree or disagree with each of the following statements.

What functions could CHWs offer in your organization?	**Strongly Agree**	**Agree**	**Unsure**	**Disagree**	**Strongly Disagree**
1. Provide culturally appropriate health education/information	❍	❍	❍	❍	❍
2. Home visits	❍	❍	❍	❍	❍
3. Bridge / culturally mediating between patient and health services	❍	❍	❍	❍	❍
4. Case finding/recruitment	❍	❍	❍	❍	❍
5. Informal counseling	❍	❍	❍	❍	❍
6. Refer or link patients to community-based resources (the Y, farmer's markets, after-school programs, senior centers, exercise programs)	❍	❍	❍	❍	❍
7. Lead support groups	❍	❍	❍	❍	❍
8. Advocate for individual and community needs	❍	❍	❍	❍	❍
9. Insurance enrollment (AHCCCS, etc.)	❍	❍	❍	❍	❍
10. Case management	❍	❍	❍	❍	❍
11. Translation/Interpretation	❍	❍	❍	❍	❍
12. Health System Navigation	❍	❍	❍	❍	❍
13. Assist in more effective communication during patient visits	❍	❍	❍	❍	❍
14. Improve patient's access to care	❍	❍	❍	❍	❍
In your opinion, could CHWs contribute to:	**Strongly Agree**	**Agree**	**Unsure**	**Disagree**	**Strongly Disagree**
15. Reduction in the *cost of care* for high risk or high cost patients	❍	❍	❍	❍	❍
16. Reduction in the *cost of care* for NON-high risk or high cost patients	❍	❍	❍	❍	❍
17. Improved *health outcomes* for high risk or high cost patients	❍	❍	❍	❍	❍
18. Improved *health outcomes* for NON-high risk or high cost patients	❍	❍	❍	❍	❍
19. *Prevention* of high risk or high cost health conditions	❍	❍	❍	❍	❍
What would make you more likely to use CHWs as part of the health care team:	**Strongly Agree**	**Agree**	**Unsure**	**Disagree**	**Strongly Disagree**
20. More evidence that CHWs improve health outcomes	❍	❍	❍	❍	❍
21. If CHWs services were reimbursed (i.e. By Center for Medicare and Medicaid Services (CMS), AHCCCS, third party payers)	❍	❍	❍	❍	❍

What are the barriers you face in hiring or integrating CHWs into your health care team?
(Select all that apply)

- ❑ Lack of ability to bill insurers for their services
- ❑ Lack of clarity about the value of their use
- ❑ Lack of clarity about how they function as members of or link to a primary care team
- ❑ Lack of training of CHWs
- ❑ Other *(Please specify)* _____

_____

_____

_____

Which of the following <u>best</u> describes your practice type?
*(Please select **ONLY ONE**)*

- ❑ Solo practice
- ❑ Group practice
- ❑ Managed Care Organization
- ❑ Federally Qualified Health Center
- ❑ Hospital-based practice
- ❑ Indian Health Service / 638 Clinic / Hospital
- ❑ Other *(Please specify)* _____

Are you part of a Patient Centered Medical Home?

- ❍ Yes
- ❍ No

Would you be interested in learning more about research regarding the impact of CHWs on health outcomes?

- ❍ Yes
- ❍ No

Are there areas in your organization where CHWs could be utilized but are not currently?

- ❍ Yes
- ❍ No

(Please specify)

_____

_____

_____