COMMUNITY HEALTH REPRESENTATIVE
WORKFORCE ASSESSMENT
2019

A Report to the Arizona Advisory Council on Indian Health Care
In Collaboration with the Arizona Community Health Representative Coalition

Samantha Sabo DrPH, MPH
Associate Professor
Department of Health Sciences
Center for Health Equity Research
Northern Arizona University

Louisa O'Meara, MPH
Research Assistant
Center for Health Equity Research
Northern Arizona University

Ricky Camplain, PhD
Assistant Professor
Department of Health Sciences
Center for Health Equity Research
Northern Arizona University

NAU NORTHERN ARIZONA UNIVERSITY
Center for Health Equity Research

ARIZONA ADVISORY COUNCIL ON INDIAN HEALTH CARE

This report was commissioned by the Arizona Advisory Council on Indian Health Care in coordination with the Arizona Community Health Representative Coalition.

◊

Acknowledgements

We acknowledge and appreciate the Community Health Representative Coalition for commissioning and sharing the photographs for this report. Photographs featured in this report are part of a larger digital story initiative aimed at highlighting the important contributions of the CHR workforce to American Indian health and wellbeing. As per photo release agreements signed by participants, photos are for educational purposes only. Photographs do not represent participating individuals or Tribes in this project and are included for the explicit purpose of providing context for the daily work and community environments of the CHR workforce generally. Photographs courtesy of J. Daniel Hud (https://www.jdanielhud.com/) – unless otherwise noted.

◊

Suggested Citation: Sabo S., O'Meara L and Camplain R. (2019). *Community Health Representative Workforce Assessment: A report to the Arizona Advisory Council on Indian Health Care in collaboration with the Arizona Community Health Representative Coalition*. Flagstaff, Arizona: Center for Health Equity Research, Northern Arizona University.

To access this report digitally, please visit the AACIHC website (https://acoihc.az.gov) or the NAU-CHER website (https://nau.edu/cher/).

TABLE OF CONTENTS

EXECUTIVE SUMMARY

In 2018, the Community Health Representative (CHR) workforce celebrated their 50th year and serve as the oldest and only federally funded Community Health Worker (CHW) workforce in the United States. Since 2015, Tribal CHR Programs of Arizona have come together for annual CHR Policy Summit and Workforce Conferences to dialogue and plan for the unique issues and opportunities facing CHR workforce sustainability and advancement. Over time, the Policy Summit has resulted in an Arizona CHR Workforce Coalition, which advocates for inclusion of CHRs in state and national level dialogue regarding workforce standardization, certification, training, supervision and financing.

In 2019, the Arizona Advisory Council on Indian Health Care (AACIHC) commissioned the Northern Arizona University's Center for Health Equity Research (NAU-CHER) to conduct a baseline CHR workforce assessment to support current and future CHR professional development, training, supervision, career advancement and financing of the CHR profession and workforce in Arizona. To achieve this goal, CHR Scopes of Practice (SOP) and job descriptions were collected and analyzed for 12 of the 19 Tribal CHR Programs operating in Arizona.

Arizona CHR Workforce Assessment Objectives:

1. Collect CHR job descriptions and scopes of practice from the 19 CHR Programs, Urban Indian Health Centers and American Indian serving not for profit organizations operating in Arizona.
2. Develop a CHR Workforce Database to document and track CHR core roles and skills.
3. Document *current and emerging* CHR core roles and skills across the CHR workforce.
4. Compare CHR core roles and skills by: *(1) Indian Health Service CHR Standards of Practice and (2) National Community Health Worker (CHW) Core Roles and Competencies*

KEY FINDINGS

The **Community Health Representative** workforce employed through Tribal CHR Programs of Arizona are a **highly trained, standardized workforce with a comprehensive scope of practice** outlined by the Indian Health Service and enhanced by Tribal CHR Programs. CHR workforce roles and competencies span both the Indian Health Service and National Community Health Worker core roles and competencies.

CHRs are required various cultural, traditional and linguistic experiences and knowledge, and a variety of education and professional training and certifications to meet the unique needs of American Indian communities.

All 12 participating Arizona CHR Programs' SOPs and job descriptions identified the CHR workforce core roles and activities including the IHS standards of practice of : *health education, case finding and screening, care management and coordination and patient care and monitoring* and the following national CHW Core Competencies of *: providing culturally appropriate health education and information, conducting outreach, providing direct service, care coordination, case management and systems navigation and participating in evaluation and research*. This baseline CHR workforce assessment relied on the analysis of existing CHR scopes of practice, job descriptions and job announcements for those CHR Programs of Arizona willing to submit those documents for analysis and may under report or misclassify roles and services.

Workforce Policy Recommendations

1. Engage the CHR workforce in identification of workforce assessment priorities related to training, supervision, career progression, evaluation and financing.
2. Develop CHR workforce assessment protocol to systematically monitor workforce demographics, scope of practice, professional development, career progression and financing across urban and rural contexts over time.
3. Utilize the full range of IHS and Tribal level data sources to conduct rigorous CHR workforce impact studies, including cost benefit analysis and return on investment studies, to assess CHR impact on population health outcomes and cost savings.
4. Recognize CHRs as important members of the medical care team and critical to the American Indian Medical Home and Patient-Centered Medical Home models of care.

WORKFORCE ASSESSMENT PURPOSE

Since 2015, Community Health Representative (CHR) Programs of Arizona have come together for annual CHR Policy Summit and Workforce Conferences to dialogue and plan for the unique issues and opportunities facing CHR workforce sustainability and advancement. Over time, the Summit has resulted in an Arizona CHR Workforce Coalition, which advocates for inclusion of CHRs in state and national level dialogue regarding workforce standardization, certification, training, supervision and financing. Coalition members are made up of CHR Programs representing several Native Nations throughout the state and include CHRs and CHR supervisors, health department directors, leading American Indian health and social policy entities, as well as local University partners. Like many professional associations and professional conferences, the CHR Summit and CHR Coalition provide an interactive environment and mode of continuous communication among stakeholders in which policy initiatives and advocacy strategies unique to the CHR workforce can be discussed and deliberated.

In the summer of 2019, the Arizona Advisory Council on Indian Health Care (AACIHC) sought assistance with an assessment of the CHR workforce of Arizona. Specifically, researchers from the Center for Health Equity Research, Northern Arizona University (NAU) collaborated with AACIHC and with the leadership of the Arizona CHR Coalition, to define the scope of a baseline CHR workforce assessment and ensure appropriate dissemination of the workforce assessment results.

Arizona CHR Workforce Assessment Objectives:

1. Collect CHR job descriptions and scopes of work from the 19 CHR Programs, Urban Indian Health Centers and American Indian serving not for profit organizations operating in Arizona.
2. Develop a CHR Workforce Database to document and track CHR core roles and skills.
3. Document *current and emerging* CHR core roles and skills across the CHR workforce.
4. Compare CHR core roles and skills by: *(1) Indian Health Service CHR Standards of Practice and (2) National Community Health Worker (CHW) Core Roles and Competencies.*

Coalition members understand workforce development and planning as essential to recruit, retain and sustain a cadre of highly skilled, culturally and linguistically diverse CHRs able to serve the diverse medical, social, cultural and traditional facets of rural and urban American Indian communities in the U.S. This first ever CHR workforce assessment serves to support current and future CHR professional development, training, supervision, career advancement and financing of the CHR profession in Arizona.

CHR Program Area

CHR WORKFORCE BACKGROUND

In the 1960s, Tribal communities in the United States identified the need and advocated for community health professionals and paraprofessional to improve cross-cultural communication between Tribal communities and predominantly non-Native health care providers. In 1968, an Indian Health Service (IHS) funded CHR program was established through P.L. 100-713 as a component of health care services for American Indian people. In 1975, the Indian Self-Determination and Education Assistance Act, P.L. 93-638, provided Indian tribes the authority to contract with the Federal government to operate programs serving their tribal members and other eligible persons. Many tribes across the Nation and all the Tribes in Arizona have since "638" their CHR programs which are Tribally contracted/compacted and operated by the Tribe.

CHRs are a workforce of well-trained, community-based, health care providers, designed to integrate the unique support of Tribal life with the practices of health promotion and disease prevention. More specifically, CHRs are characterized as community leaders in health who share the language, and understand and can relate to the socioeconomic status and life experiences of the community member patients they serve. The CHR workforce acts as a liaison and advocate for clients to assist them in meeting their health care needs, while upholding traditions, values, and cultural beliefs of the individuals they serve.

Nationally, the CHR workforce consists of approximately 1,700 CHRs representing 264 Tribes. Of the 22 Tribes in Arizona, 19 Tribes operate a CHR Program and employ approximately 246 CHRs – which is equivalent to 30% of the total CHW workforce in Arizona estimated at 1000 CHWs.

In an effort to advance and sustain the CHR workforce among Tribes of Arizona, members of the CHR Coalition designed and implemented a CHR workforce assessment to administer with CHRs and CHR Managers during the 2018 CHR Policy Summit and Workforce Conference. This assessment was the first of its kind, and attempted to document important demographic, professional development and training characteristics of the CHR workforce attending the CHR Summit.

A total of 60 CHRs completed the workforce assessment which represents approximately 24% of the total 246 total members of the CHR workforce employed in Arizona. CHRs were predominately female, aged 47 years in age and had an average of 13 years of employment experience as a CHR.

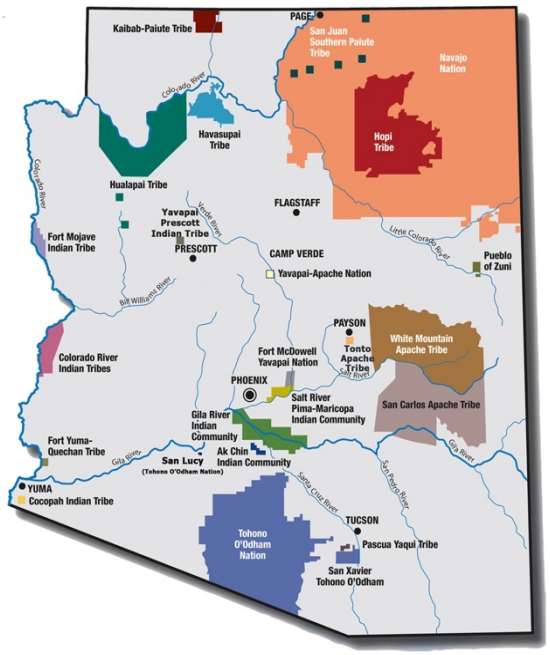


Figure 1 Native Nations of Arizona

In terms of the CHR workforce formal educational achievement, approximately one quarter of the CHR workforce reported a high school diploma or a GED equivalent as their highest level of education. Almost half (47%) of CHRs reported having achieved some college education and 23% had received a college degree. In terms of annual earned income as a CHR, one quarter of CHRs who completed this assessment reported an annual salary of less than $25,000 and approximately 53% of CHRs earned between $25,000 - $35,000 annually and 16% of CHRs reported earning between $35,000 - $50,000 annually as a CHR. In terms of CHR employer, approximately 66% of CHRs reported current employment with a Tribal Health Department, while 15% were employed within a community-based organization and approximately 10% of CHR participants were employed in a clinical setting, including a hospital, federally qualified community health center (FQCHC) or an Indian Health Services or Urban Indian Health Center or facility.

Nationally, the CHR workforce is considered a member of the Community Health Worker (CHW) workforce recognized in 2007 by the US Bureau of Labor. According to the American Public Health Association, the CHW workforce is further defined as:

Frontline public health workers who are trusted members of and/or have an unusually close understanding of the community served. This trusting relationship enables CHWs 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.

Figure 2 Community Health Worker Job Titles

IHS COMMUNITY HEALTH AIDE PROGRAM (CHAP)

It is important to differentiate the CHR workforce and the CHR Program from the Community Health Aide (CHA) workforce and Community Health Aide Program (CHAP). The CHA workforce consists of mid-level community, behavioral, and dental health paraprofessionals who provide healthcare services, including chronic, preventative and emergency care, to patients in tribal communities.[1,2] The program has been in place in Alaska since 1968, and in 2010 the Indian Health Care Improvement Act (IHCIA) was amended to authorize the creation of a national CHAP in order to expand the program to the lower 48 states. This expansion is still in the planning and development phase; however, in the last decade, a dozen states (including Arizona) have independently authorized the use of Dental Health Aide Therapist (DHAT) programs. IHS identifies three key areas that differentiate CHAs from CHRs: legislative authority, funding source, and scope of work. First, in regards to legislative authority, CHAP is authorized under 25 U.S. Code § 1616l a-d, while the CHR program is authorized under the IHCIA public law 100-713. Secondly, the two programs have different funding sources. While the CHAP in Alaska is funded through the IHS budget under the hospital and health clinics line item, CHRs are funded through a specific line item in the IHS budget. Finally, and most importantly, the scope of work for CHAs and CHRs are fundamentally distinct. Community Health Aides (CHA) and related Community Health Practitioners (CHP) are “mid-level medical providers” whose purpose is to provide basic medical care and connect patients with higher level medical care as needed.[1] CHA/Ps work under the medical supervision of a licensed physician, through whom they are given authorization to treat patients, and follow a strict protocol to refer patients to higher medical care.[3] The primary purpose of the CHR program, on the other hand, is health promotion, education, and outreach.[1]

CHR Workforce Is Unique from Other Health Professions in the Following Ways:

1. **Relationship and trust-building** – to identify specific needs of clients
2. **Communication** – especially continuity and clarity, between provider and patient
3. **Focus on Social Determinants of Health** – conditions in which people are born, grow, work, live, and age

One last area of distinction is in the type of training and certification required for each field. CHAs must have emergency medical technician (EMT) training and attend 15 weeks of basic training (broken out into four, 3- to 4-week training sessions), usually over the course of two years. After training, they have the option to complete a 1- to 2-week clinical preceptorship and pass a written exam, in order to receive professional certification as a Community Health Practitioner (CHP) from the Community Health Aide Program Certification Board. In order to maintain their credentials, CHA/Ps must complete regular continuing medical education and retake the exam and preceptorship every six years.[3] The mandatory CHR training set by IHS consists of a Basic CHR Training course to be completed within one year of hire, followed by a Refresher CHR course to be completed 36-48 months later. These courses may be supplemented by specialty or advanced training in specific health topics, or other trainings as required by individual programs.[4]

APPROACH

This workforce assessment was guided by the National Child Welfare Workforce Institute Workforce Development Framework. As a statewide workforce assessment, rather than an assessment in one organization or employment context, we began our process at Step 5: Close the Gaps and focused our analysis on:

(1) CHR job analysis and position requirement (s);

(2) CHR Education and Professional Preparation;

(3) CHR Recruitment, Screening and Selection;

(4) CHR Professional Development and Training.

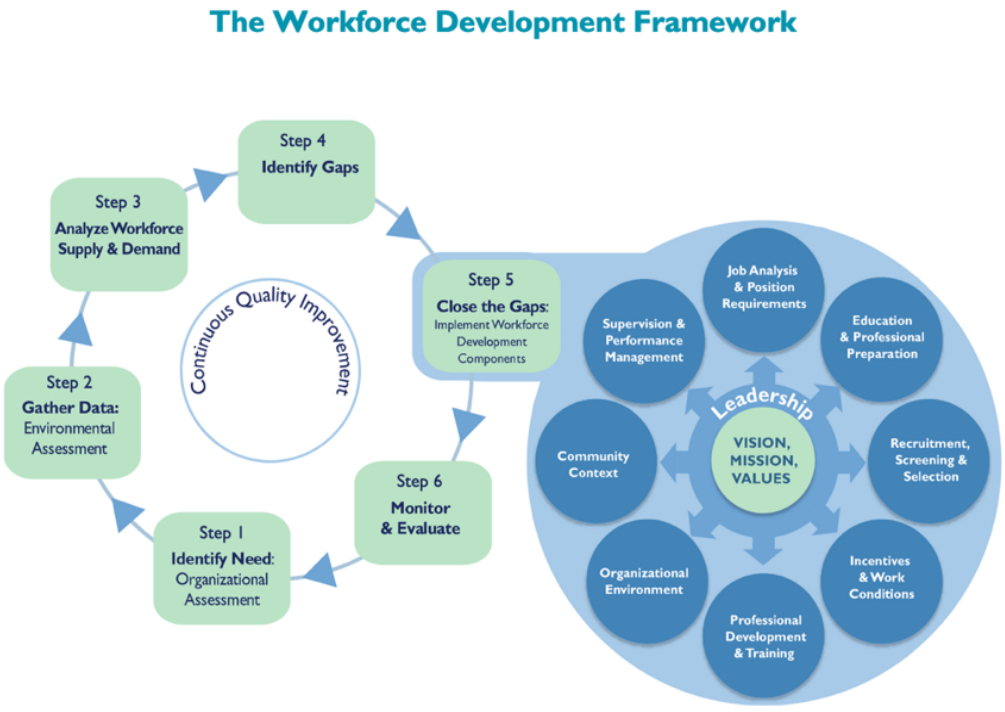


Figure 3 National Child Welfare Workforce Institute Workforce Development Framework

WORKFORCE ASSESSMENT

In collaboration with the AACIHC, NAU consultants requested CHR job descriptions and CHR scopes of practice from Tribal CHR Programs as well as CHR grant funded positions within the agency or program. Requests were emailed and discussed through regularly scheduled face to face meetings with all 19 CHR Program Managers and Tribal Health Department Directors as well as Indian Health Service Area Office Area Consultants and the network of urban Indian health centers and American Indian serving not for profits. Consultants developed a database to organize and analyze the documents received. Two consultants independently and systematically read the documents repeatedly and then organized or coded the information based on CHR roles and activities outlined by the IHS CHR Standards of Practice[4] and the Resource and Patient Management System (RPMS) Training Manual [5] (Table 1) and the Community Health Worker Core Consensus (C3) Project [6] (Table 2). The first twelve categories of the CHR Standards of Practice in Table 1 comprise the IHS approved patient-oriented services that CHRs use to code and report on their work through the PCC or RPMS system. Five service codes were excluded from the workforce assessment because they do not reflect a unique role or activity of the CHR workforce and only describe activities related to: *administrative management, attend training, staff training, not found* and *leave time*. Where possible, documents were used to identify: (1) CHR job analysis and position requirement (s); (2) CHR Education and Professional Preparation; (3) CHR Recruitment, Screening and Selection and (4) CHR Professional Development and Training and (5) compare CHR rolls, skills, and activities by Indian Health Service CHR Standards of Practice, RPMS Service Codes and the National Community Health Worker (CHW) Core Competencies. This process also included identifying new and emerging CHR roles, skills, and activities.

Indian Health Service CHR Standards of Practice

The Indian Health Service published the *Indian Health Manual,* Part 3, Chapter 16[4] which sets forth the goals and objectives of the program, the standards of practice for the workforce, and requirements related to training, oversight and data collection and reporting. IHS also published the Resource and Patient Management System (RPMS) Training Manual [5] which outlines the CHR service codes used by CHRs to document their services completed with individual patients, community organizations and other events.

CHR Conducting a Home Visit

Table 1. Indian Health Service CHR Standards of Practice

1. **HEALTH EDUCATION** provides individuals, families and communities with the appropriate information to practice a healthy lifestyle.
2. **CASE FIND/SCREEN** is carrying out efforts for the early detection of patients with diseases or conditions requiring medical attention (e.g., hypertension, TB, pregnancy, etc.)
3. **CASE MANAGEMENT/COORDINATE** is developing a patient care plan in conjunction with a community health nurse or physician, deciding upon the various responsibilities for the people involved in the patient's care. Serve as a patient advocate by arranging appointments, filing complaints, obtain services and coordinates with service providers to ensure continuity of care.
4. **MONITOR PATIENT** is making periodic contact with a patient with a known health problem or is high risk for illness or disablement, by telephone or at home, to see if he/she is feeling well, has enough food, medicine, has unmet home health care needs, with immediate action taken.
5. **EMERGENCY PATIENT CARE** is giving care to a sick or injured person while arranging or waiting for transportation to a hospital or clinic, contracting an ambulance or hospital driver, transporting a seriously ill patient to medical care or performing crisis intervention with an emotionally upset or suicide patient.
6. (**NON-EMERGENCY) PATIENT CARE** is the taking of vital signs or providing other clinical services, such as foot care, or counseling or contacting traditional services for social, emotional, mental or other related problems. Home health care and maintenance of patient equipment such as: crutches, wheelchairs, eyeglasses and hearing aids are included. Delivering items such as medications, supplies and equipment, to the patient's home.
7. **HOMEMAKER SERVICES** is assisting the disabled, homebound, or bedridden with household chores, preparing food and feeding incapacitated patients, or assisting with personal care such as bathing or hair washing.
8. **TRANSPORT** is the transportation of a patient, without other means of transport, to/from an IHS or Tribal hospital/clinic when necessary for routine, non-emergency problems, which includes waiting for a patient, such as a dental patient, to finish treatment.
9. **INTERPRET/TRANSLATE** is the taking of a statement from one language and expressing the meaning, either orally or in writing, in another language, so as to enable people who do not speak the same language to communicate with one another.
10. **ENVIRONMENTAL HEALTH** is inspecting the community's environment in: water/waste-water management; vector control; air quality; solid waste; and, food handling. Example services include animal immunization clinic, community clean up, coordinating the repair/maintenance of homes or community facilities, or checking for health/safety hazards in a patient's home.
11. **OTHER PATIENT CENTERED SERVICES** are **a**ny patient-centered services NOT included in other service codes. E.g. Assisting with funeral arrangements; Planning, coordinating and conducting a specialty clinic/event; Preparing for or clean-up after an event; PCC documentation.
12. **COMMUNITY DEVELOPMENT** is activities that help support the Tribal / community. E.g. Assist with non-health related Tribal function; Assist another Tribal department with a project; Assist a community organization with a project; Fund-raising activities; Disaster preparedness.

4. Indian Health Service. Standards of Practice. Section 3-16.9D4. Indian Health Services. (1991.) Retrieved from https://www.ihs.gov/ihm/pc/part-3/p3c16/
5. Indian Health Service Office of Information Technology. (n.d.) RPMS Training: Community Health Representatives; Coding Health Problem & Service Codes [PowerPoint slides].

Community Health Worker Core Competencies & Roles

Beginning in 2016, through a highly participatory national consensus building strategy, the Community Health Worker (CHW) Core Consensus (C3) project [6] engaged CHWs, of which CHRs are a part, and their allies nationwide (https://www.c3project.org/) to update CHW workforce core competencies, roles and skills outlined in the landmark 1998 National Community Health Advisor Study (NCHAS) (http://bit.ly/2vUzgt4). Building from NCHAS, the 2018 C3 Project confirmed many of the longstanding CHW core competencies, roles and skills and identified new roles related to evaluation and research not identified in the 1998 NCHAS. Ultimately, the goal of both the 1998 NCHAS and 2018 C3 was to engage the CHW workforce to outline the CHW core competencies, roles and skills to assist public and private entities in developing CHW policies and positions. Results of interviews with Arizona health plan leadership suggest health plans engage nearly the full range of CHW core competencies identified by C3.[7]

Table 2. Community Health Worker Core Competencies and Roles

CHW Core Roles & Competencies

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

6. The Community Health Worker Core Consensus (C3) Project: 2016 Recommendations on CHW Roles, Skills, and Qualities. UT Health Project on CHW Policy and Practice and TTUHSC El Paso. http://bit.ly/2wzz2oe. Published 2016.

CHR Morning Commute

Social Determinants of Health and CHR Standards of Practice

According to the World Health Organization (WHO), social determinants of health (SDoH) are the "conditions in which people are born, grown, live, work and age."[8] These conditions are understood to be largely responsible for health inequities and have significant impact on morbidity, mortality and other health indicators.[8,9] Recent shifts in health care policy toward value-based care models that reward both favorable medical *and* social outcomes, indicate an increasing recognition of the importance of addressing SDoH as part of primary care efforts.[9] Community Health Workers including **CHRs are the frontline workforce focusing on improving SDoH for underserved populations to decrease health inequities across the country.**

Figure 4 Vitalyst Healthy Community Model

The Vitalyst Healthy Community Model (see Figure 4) identifies 12 primary social determinants of health: access to health care and coverage, affordable quality housing, economic opportunity, educational opportunity, community safety, food access, environmental quality, social and cultural cohesion, healthy community design, parks and recreational opportunities, social justice, and transportation options.[10] The IHS Standards of Practice for CHRs include several CHR activities that address many of the SDoH categories. Although not a primary focus of this report, it is important to highlight the overlap between CHR activities and SDoH. More research and evaluation of CHR programs may yield further intersections.

Social Determinants of Health (SDoH) and CHR Standards of Practice

Access to health care and coverage, CHR activities related to case find and screening identify patients in need of health care and connect them with providers. Case management activities also improve client access to appropriate and affordable health care. **Affordable quality housing,** CHR environmental health services address the quality component of this category. CHRs are responsible for home safety inspections of clients receiving home health care and coordinate the repair or maintenance of homes, if needed. **Educational opportunity,** CHR health education provides individuals, families and communities with the appropriate information to practice a healthy lifestyle. **Food access,** as part of their activities related to monitoring patients, CHRs make sure that clients have sufficient food and coordinate access to additional food supplies, if needed. **Environmental quality,** environmental health activities require CHRs to assess community environmental hazards and assist in addressing them through activities such as community clean-up or animal immunization clinics. **Social and cultural cohesion,** CHR activities are vital to the cohesion of health care services in a community through their role as cultural and linguistic liaisons between clients and providers. **Healthy community design,** CHR Community Development activities support capacity building and other efforts that encourage a healthy community. **Parks and recreational opportunities,** CHR environmental health activities contribute to maintaining safe spaces for exercise and recreation. **Social justice,** CHR care coordination involves patient, community and systems level advocacy. **Transportation options,** CHRs are responsible for transporting (or coordinating transportation for) clients from their homes to health care facilities.

11. Vitalyst. *Elements of a Healthy Community*. 2016; http://vitalysthealth.org/wp-content/uploads/2015/05/Healthy-Communities-and-social-determinants-final.pdf. Accessed November 25, 2019.

WORKFORCE ASSESSMENT RESULTS

Job descriptions and or scope of practice (SOP) documents were received from 13 of 19 Tribal CHR Programs, and one not for profit agency. Given the limited number of CHR job descriptions and SOPs provided by urban Indian health centers and not for profit agencies, only Tribal CHR Programs are described. Due to limited information provided in the documents received, one Tribal CHR Program SOP was excluded from analysis.

CHR JOB ANALYSIS, SCREENING & TRAINING

CHRs are required various cultural, traditional and linguistic experiences outlined in Table 3. All CHRs are required to have knowledge of the Tribe and community, including familiarity with the culture, traditions, health status, government, and socio-economic context. CHRs' required knowledge of the Tribe and community translates to the CHR's ability to establish and maintain good working relationships with Tribal members, staff, IHS staff, and other Tribal departments and agencies. Approximately 58% of CHR Programs required or preferred CHRs the ability to communicate in the Tribe's language. Three quarters of CHR Programs required CHRs to be familiar with the local community and health resources available to clients. In accordance with Title VII of the Civil Rights Act, Sections 701(b) and 703(i),[11] 42% of programs identified a preference for CHR candidates who are of American Indian descent.

Table 3. CHR Required and Preferred Cultural and Traditional Knowledge and Skills

TRIBE	Knowledge of Culture & Tribe	Ability to Speak & Understand Language	Knowledge of Community Resources	Enrolled Tribal Member
A	1	1	1	1
B	1	0	0	1
C	1	0	0	1
D	1	1	1	0
E	1	0	1	1
F	1	1*	1	1
G	1	1	1	0
H	1	0	1	0
I	1	0	1	0
J	1	1*	1	0
K	1	1*	1	0
L	1	1	0	0
Total	**100%** (12/12)	**58%** (7/12)	**75%** (9/12)	**42%** (5/12)

An asterisk indicates knowledge or skill is required *for the position.*

Before hire, a variety of education and professional training backgrounds are also required and preferred among CHR candidates as outlined in Table 4. Three quarters of CHR programs required a high school diploma or GED equivalent. Approximately 75% of programs required CHRs to have a State of Arizona, Nurse Assistant (CNA) or Medical Assistant (CMA) certification and 58% of programs require First Aid or Basic Life Support (BLS) and CPR certifications. Approximately 92% of CHR programs required 6 months to 4 years of experience working in the health field, or in providing direct patient care or employment as a CHR. Most programs noted that any "equivalent combination of education and experience" that allows the candidate to successfully perform the job duties would also be considered. Programs that offered this equivalency are indicated in the Health Care Experience column with an asterisk.

Table 4. CHR Required or Preferred Formal Education and Training

TRIBE	CNA / CMA	Health Care Experience	FIRST AID / BLS	CPR	High School Diploma or GED
A	0	1	1	1	1
B	0	0	1	1	1
C	1	1	1	1	1
D	1	1	1	1	0
E	1	1	0	0	1
F	1	1	0	0	1
G	1	1*	0	0	1
H	1	1*	1	1	1
I	0	1*	1	1	0
J	1	1	1	1	1
K	1	1*	0	0	1
L	1	1	0	0	1
Total	**75%** (9/12)	**92%** (11/12)	**58%** (7/12)	**58%** (7/12)	**83%** (10/12)

In some cases, CHR training and certification provision upon hire was described in a job description or SOP and this information is outlined in Table 5. Approximately 58% of CHR Programs offered CHR Basic upon hire and 25% of programs articulated in a SOP or job description the provision of Patient Care Component (PCC) system coding and RPMS data entry training upon hire. Two programs (17%) stated that they require and provide opportunities for their CHRs to complete First Aid/CPR certifications and HIPPA training upon hire – and renew such trainings or certifications annually or biannually as needed.

One program required CHRs to have certification as a CNA, CMA, or CHW and provides the opportunity for those trainings after hire. The 'Other' category includes a wide variety of trainings that CHRs are required or preferred to obtain, ranging from medical terminology, disease specific knowledge and health promotion techniques, to special evidenced based health promotion curricula. Tribes that reported utilizing grant-funded programs (outside of IHS) to train or certify CHRs are indicated with an asterisk. Approximately 75% of programs required or provided the opportunity for CHRs to receive some sort of training or certification.

Table 5. CHR Training and Certification Provided Upon Hire

TRIBE	CHR Basic	RPMS/ PCC	CNA / CMA	First Aid / CPR	HIPPA	Other Training or Certifications
A	0	0	0	0	0	1
B	1+	1	0	1	1	1*
C	1	0	0	0	0	1
D	1	0	0	0	0	1*
E	0	0	1	1	1	0
F	0	0	0	0	0	0
G	0	0	0	0	0	1
H	1	0	0	0	0	1
I	1	0	0	0	0	1
J	1+	1	0	0	0	0
K	1+	1	0	0	0	1
L	0	0	0	0	0	1
Total	**58%** (7/12)	**25%** (3/12)	**8%** (1/12)	**17%** (2/12)	**17%** (2/12)	**75%** (9/12)

+ Indicates requirement of the CHR Refresher course 36-48 months after completing the Basic CHR Training course.
** Evidence-based health promotion curricula or program*

CHR Program Service Area

Several pre-hire screening requirements were identified and are described in Table 6. All CHR Programs required a valid driver's license. Approximately, 67% of CHR Programs also required CHR candidates to complete and pass a background check prior to hire. Additionally, 25% of programs required a current Arizona Level 1 Clearance card, which involves fingerprinting and a thorough review of criminal history records through the Arizona Department of Public Safety. Other screening requirements by some CHR Programs included drug screening, proof of immunizations of certain communicable diseases (such as tuberculosis and Hepatitis A and B), and in some cases a review of the candidate's driving record was also identified as a screening conducted prior to hiring of the CHR candidate.

Table 6. CHR Pre-hire Screening Requirements

TRIBE	Background Check	Arizona Level 1 Clearance Card	Drug Screening	Proof of Immunization	Driver's License	MVD Driving Record Check
A	0	0	1	0	1	1
B	1	0	1	0	1	1
C	0	0	0	0	1	0
D	1	0	1	1	1	0
E	1	0	1	1	1	0
F	1	0	0	0	1	0
G	1	1	0	0	1	1
H	0	0	0	0	1	0
I	1	0	0	0	1	1
J	1	1	0	0	1	0
K	1	1	1	0	1	0
L	0	0	0	0	1	0
Total	**67%** (8/12)	**25%** (3/12)	**42%** (5/12)	**17%** (2/12)	**100%** (12/12)	**33%** (4/12)

CHR Programs described that CHRs often work in environments outside of traditional health care settings and may be exposed to environmental or on the job exposures, which are outlined in Table 7. CHR Programs identified several occupational health and safety risks associated with CHR work. Two programs stated exposure to communicable diseases or bloodborne pathogens as a potential risk of the position. Two job descriptions described unpredictable environmental conditions that range from working in a climate-controlled office/clinic setting to working in a patient's home, outside, in extreme temperatures, or in spaces with poor ventilation. One-third of job descriptions outlined the non-traditional schedule associated with CHR work, such as needing to be on-call or available for extended shifts, nights, weekends and/or holidays. Half of the programs also described the physical requirements of the position, which included the ability to lift 50-75 pounds and be able to work for extended periods while walking, standing, kneeling, pushing, pulling, and so forth.

Table 7. CHR Occupational and Environmental Job Exposure

TRIBE	Communicable Disease	Unpredictable Environmental Conditions	Non-traditional Schedule	Physical Requirements
A	0	0	0	0
B	0	0	1	1
C	1	1	0	1
D	1	0	0	0
E	0	0	0	0
F	0	0	0	0
G	0	1	1	1
H	0	0	1	0
I	0	0	0	1
J	0	0	1	1
K	0	0	0	1
L	0	0	0	0
Total	**17%** (2/12)	**17%** (2/12)	**33%** (4/12)	**50%** (6/12)

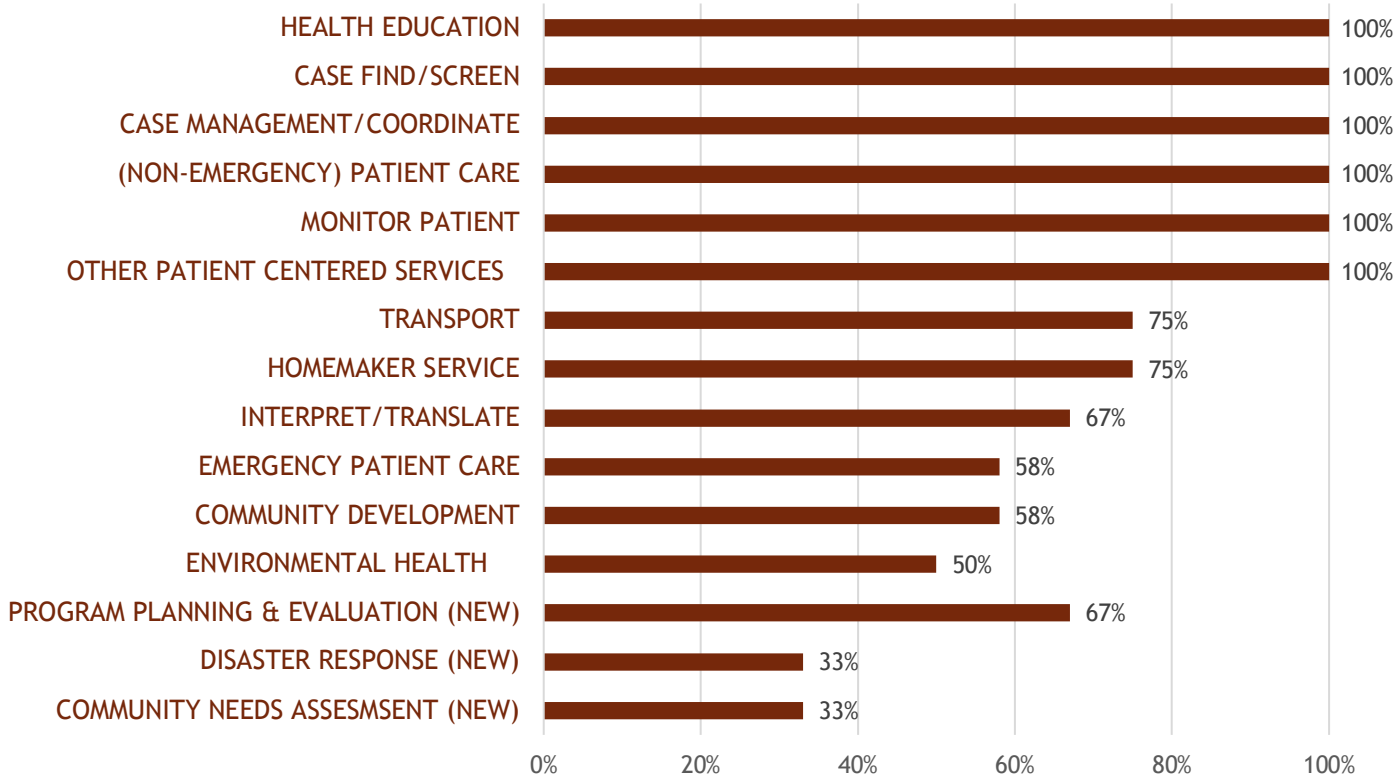
COMMUNITY HEALTH REPRESENTATIVE STANDARDS OF PRACTICE

We applied the National CHR Standards of Practice (SOP) set by the Indian Health Service (IHS) CHR Program to assess scopes of practice and job descriptions submitted by 12 participating Arizona CHR Programs. CHR workforce alignment with these IHS Standards of Practice are displayed in Figure 5. Prevalence of IHS SOP is outlined by Tribe and SOP category in Table 8. Refer to Table 1 for a detailed description of the 12 CHR Standards of Practice categories.

CHR SOPs and job descriptions were found to be strongly aligned with the IHS Standards of Practice. All 12 participating Arizona CHR Programs' SOPs and job descriptions identified the CHR workforce core roles and activities included the IHS standard of practice of: *health education, case finding and screening, care management and coordination and patient care and monitoring.*

Approximately, 75% of CHRs employed in Arizona CHR Programs required *homemaker* and *transportation* roles, while approximately 67% of CHR Programs performed *interpretation* and *translation* roles. Approximately half of CHR Programs of Arizona identified *environmental health, community development* and *emergency patient care* as CHR roles. CHR SOPs described three new and emerging roles: One third of CHR SOPs included *community needs assessment* and *disaster response*, and 67% of SOPs identified CHR roles and services related to *program planning and evaluation*.

Figure 5. Prevalence of IHS CHR Standards of Practice among CHR Programs of Arizona



In the next section, we provide a detailed summary of the five most common CHR roles and services identified by all 12 CHR Programs: *health education, case find and screen, case management and care coordination, non-emergency patient care* and *patient monitoring*.

Health Education

Beyond the general definition of **health education** provided by the IHS SOP (Table 1), CHR Programs also defined CHR health education services through their modified SOPs and job descriptions. CHRs engaged in health education by conducting one-on-one and group education. CHRs provided health education with clients and families on chronic and infectious diseases, in areas such as nutrition, physical activity, medication management, chronic disease self-management as well as school and adolescent health, maternal and child health, sexual and reproductive health. CHRs in some CHR Programs developed and maintained an up-to-date education library that included videos, tape cassettes, and literature. CHRs SOPs encouraged CHRs to use evidence-based strategies and or promote promising practices to develop health education materials by reviewing trusted information, talking to an expert, researching the topic. CHRs were described to develop and modify existing materials, information and sessions to be responsive to cultural and traditional knowledge, language and world views of their clients and community.

In one CHR Program, CHRs' health education roles and services included:

"[CHR will] *research and teach basic concepts of health promotion and disease prevention based on 2020 indicators. Discuss health concerns with individuals, and identify both the barriers to health and the behavior changes needed to improve and manage health. Identify the positive and negative behaviors that influence health and to communicate in a manner that empowers individuals to accept and follow recommendations. Conduct health education presentations in home settings. Provide Individual Health Education during all direct client visits."*

In another Program, CHRs "*organized, coordinated, conducted, planned, and evaluated presentations … on a one-to-one basis or in a group setting. Based on standardized information*." Health education roles and services required coordination with other programs as described by this CHR job description:

"…Public Health Nursing, WIC, Maternal Child Health, Diabetes Prevention, Weight Management, Health Education, Animal Control, Injury Prevention and the IHS Office of Environmental Health. Collaboration can include, "assisting in maternal child health clinics, Diabetes Clinic, elderly clinic, Head Start Program, to inmates incarcerated within the tribe's Detention Facility in a group setting, to elders receiving services from the tribe's Senior Center …and to tribal programs requesting such presentation for the benefit of its employees and at Community events."

Case Finding, Screening and Outreach

CHRs' **case finding, screening and outreach** roles and services were engaged during home visitation, community activities, or public health forums, events, fairs and at schools to identify existing and new cases of individuals or families in need of services or assistance. CHRs were trained to perform a variety of direct patient and community level assessments to identify and monitor health status and early detection of patients with diseases or conditions requiring medical attention. Specifically, CHRs conducted health screenings or assessments, such as blood pressure, oxygen saturation, glucose screening, pulse and temperature, blood glucose testing, HIV screening, diabetic foot screening, wound care, BMI, vison and hearing among others. CHRs also performed interviews, surveys and other assessments to assess risk for disease.

CHR Preparing for Her Day

Table 8. Community Health Representative core roles by national IHS CHR Standards of Practice

Arizona Tribal CHR Programs (A-L)	A	B	C	D	E	F	G	H	I	J	K	L	Total
1. Health Education	1	1	1	1	1	1	1	1	1	1	1	1	**100% (**12/12)
2. Case Find/Screen	1	1	1	1	1	1	1	1	1	1	1	1	**100% (**12/12)
3. Case Management/ Coordinate	1	1	1	1	1	1	1	1	1	1	1	1	**100% (**12/12)
4. Patient Care (Non-Emergency)	1	1	1	1	1	1	1	1	1	1	1	1	**100%** (12/12)
5. Monitor Patient	1	1	1	1	1	1	1	1	1	1	1	1	**100%** (12/12)
6. Other Patient Centered Services	1	1	1	1	1	1	1	1	1	1	1	1	**100%** (12/12)
7. Transport	1	1	1	1	1	0	0	1	1	1	0	1	**75%** (9/12)
8. Homemaker Service	0	1	1	0	1	1	1	1	1	1	0	1	**75%** (9/12)
9. Interpret/Translate	1	0	0	1	1	1	0	0	1	1	1	1	**67%** (8/12)
10. Environmental Health	0	1	0	1	1	0	0	1	0	0	1	1	**50%** (6/12)
11. Emergency Patient Care	0	0	0	1	1	1	0	1	1	1	0	1	**58%** (7/12)
12. Community Development	0	1	1	1	1	1	0	0	0	0	1	1	**58%** (7/12)
Emerging CHR Roles/Activities that fall outside established Standards of Practice													
13. Disaster Response	0	0	0	1	0	1	0	1	0	0	1	0	**33%** (4/12)
14. Community Needs Assessment	0	1	0	0	1	0	0	0	0	1	0	1	**33%** (4/12)
15. Program Planning and Evaluation	0	1	0	1	1	1	1	0	0	1	1	1	**67%** (8/12)

In this example, a CHR Program job description offered a comprehensive definition of the role and services of CHR case find, screen and outreach as:

"*Community Health Representative Program collaborating with community health programs… Perform blood pressure checks and blood glucose checks in public settings such as Bashas' or other health events to assist individuals determine possible abnormal readings that my warrant further medical attention. Hearing screenings, Hair Lice check and basic foot check and individuals determine possible abnormal readings that may warrant further medical attention to be referred to a physician. Conducts outreach in community to identify community members not already in the system in need of services and assists them in accessing those services. Makes referrals to other resource agencies, sources of insurance and other health and social*

services both on and off the reservation. Assists with community health clinics (i.e., pediatric clinics, Diabetes screenings and clinics, specialty clinics).”

In another CHR Program, **Case Finding, Screening and Outreach** services involved CHRs conducting periodic personal contacts in various locations (home, elderly center, heath centers, group homes) or by phone to participants who are high risk for illness or are disabled. Through these contacts, CHRs checked for unmet healthcare needs, safety, and well-being which are taken care of immediately by the CHR. In another CHR Program, CHRs utilized the local Radio station as a Public Relations tool to promote the CHR program and inform the community of services and activities happening every month. In another job description, CHRs “*set up an educational booth at community events to promote the program and perform health screenings as a tool to encourage community members to utilize CHR services to maintain their health and promote disease prevention awareness.*”

CHR Conducting a Home Visit

Case Management and Care Coordination

CHR SOPs and job descriptions of **Case Management and Care Coordination** were defined by three major categories of case management, including service coordination, patient navigation and advocacy.

CHR case management and care coordination roles and services related to service coordination included coordinating patient/family centered services, and home health services, with a variety of members of the health care team. CHRs were expected to work across providers and programs including primary care physicians, public health nurses, case managers, social workers, insurance case managers, dialysis clinics, local hospital and other service providers. In some Programs, CHRs developed or executed patient care coordination and or discharge plans and were involved in chart reviews and monitoring of the patient. In some CHR Programs, CHRs were members of the care coordination team, and were required to attend and participate in inter-agency care team meetings or staff meetings in which patient progress and plans are discussed and implemented by various members of that care team, including the CHR. For some CHR Programs, CHR service coordination required CHRs to coordinate and work closely with various federal, state, county and local service agencies such as AHCCCS, ALTCS, HHCC, PHN and Tribal Programs. CHRs were found to be both responsible for generating referrals, receiving and following up on patient referrals. CHRs ensured communication between health care team and patients, through delivering messages from health care team and reviewing instructions for self-care. CHRs collaborate with other departments, stakeholders and community groups to comprehend overall goals of the patient care plan, and plan outreach interventions and develop effective communication strategies between health care and social service entities and patient and family.

CHR care coordination involved the role of **patient, community and systems level advocacy.** CHRs served as the patient advocate through language translation and interpretation, arranging appointments, filing patient complaints, assisting the patient to obtain medication, medical equipment or transportation to ensure continuity of care. CHRs also served as an advocate for individuals, families, community and health resources of the community. They engaged in community level advocacy by educating the community on available health programs, health policies and procedures. In other cases, CHRs clarified health plans through language interpretation to reduce barriers to compliance and communicate patient and family level concerns and problems. CHRs assisted community members in seeking and applying for services through other resource agencies, and acted as an advocate to communicate the needs of the clients to medical team, as well as CHR Supervisor and Public Health Nursing Program. In many cases, CHRs conducted individual and family assessments to make referrals for family meetings, elder abuse cases and other client concerns. CHRs advocated on behalf of both medical and social needs, such as light house cleaning and or cooking; completing necessary applications and or documents on behalf of the patient due to possible disabilities or physical limitations; picking up medications and delivering prescriptions to patient and monitoring general health needs of patient. Additionally, CHRs acted as a liaison and advocate for the community served by Federal, State and local agencies. Such advocacy related to improving the cultural responsivity and safety of the systems of care. This systems level advocacy included CHRs clarifying the role of American Indian traditional and value systems, and cultural beliefs. Cultural and traditional advocacy supports the CHR Program goal to "*reduce the potential for conflict and misunderstanding regarding the health conditions of American Indian and Alaska native people.*"

CHR Coordinating Care Across Generations

Photo credit: Robert Merhaut 2017, hosted by IHS.gov/communityhealth/chr/

Emerging within the role of Care Coordination was Patient Navigation. In some CHR Programs, CHRs SOPs and job descriptions articulated their ability to work with newly diagnosed clients, or clients with complex chronic conditions, including behavioral health diagnosis or substance use disorders or cancer. CHRs serving such clients were tasked with an added layer of monitoring and support, including identification of the need for a higher level of care, emotional support for clients and their families with a chronic or serious illness or injury and referrals to the proper agencies for clients in crisis, clients experiencing loss, vulnerable clients and other situations which affected family health and well-being.

CHR patient navigation also included helping clients identify a support network to provide for day-to-day care, arranging for transport of clients for follow-up care following discharge from a health, psychiatric or residential substance abuse program, as well as transporting clients at high risk of deterioration in emotional or physical health. In one CHR Program, CHRs would begin to explore and utilize the Patient Navigation system and become Patient Navigators for patients diagnosed with cancer.

CHR Program Team Excited to Serve

Patient Care and Monitoring

Patient care and monitoring roles and services included CHRs making home visits to provide patient care and monitor various conditions, take vital signs, deliver and explain medication directions and provide assistance as needed to clients spanning the life course, with a special focus for some CHR Programs on the elderly, children, dialysis patients, disabled, ill or homebound clients. CHR patient care roles included providing **non-emergency medical care**, such as vital sign monitoring, diabetic foot care, wound cleaning and dressing changes. Often CHR services were described as being conducted under the direction of and/or in coordination with the Public Health Nursing Staff, Case Management Team, or the Primary Care Physician's request. Patient care also included delivering items such as medication, medical supplies, and messages from the health care team or primary care provider or PHN as well as other medical equipment to the patient's home. CHR services in this category involved monitoring vitals, visual/hearing exams, education on disease progression, dressing changes, exercise/physical therapy, client assessment and evaluation. CHRs often conducted joint home visits with various health care team members and provided home health and wellness services. Other services included counseling for social, emotional, mental, or other related problems. When appropriate, CHRs also arranged for cultural and traditional services for their clients.

CHRs are also required to give care to a sick or injured person while arranging or waiting for transportation to a hospital or clinic, contracting an ambulance or hospital driver, transporting a seriously ill patient to medical care or performing crisis intervention with an emotionally upset or suicide at-risk patient. CHRs provide direct client care in accordance with established care plans; assist with personal hygiene (e.g., bathing, shampooing, foot care, nail care); and assist with range of motion exercises. Patient Care was often conducted as a home visit, described here by one CHR Program job announcement:

"[CHRs] make home visits to evaluate and monitor the health status, public health needs and general well-being of Community members and their family members of all ages residing in the Community. Homemaker

services may be part of the services provided. Patient handling and personal care may be required for the patient. Medicine Management: Assists with medication self-administration. Screens for client needs to determine, in collaboration with the Community Health Nurse, the appropriate level of medication management."

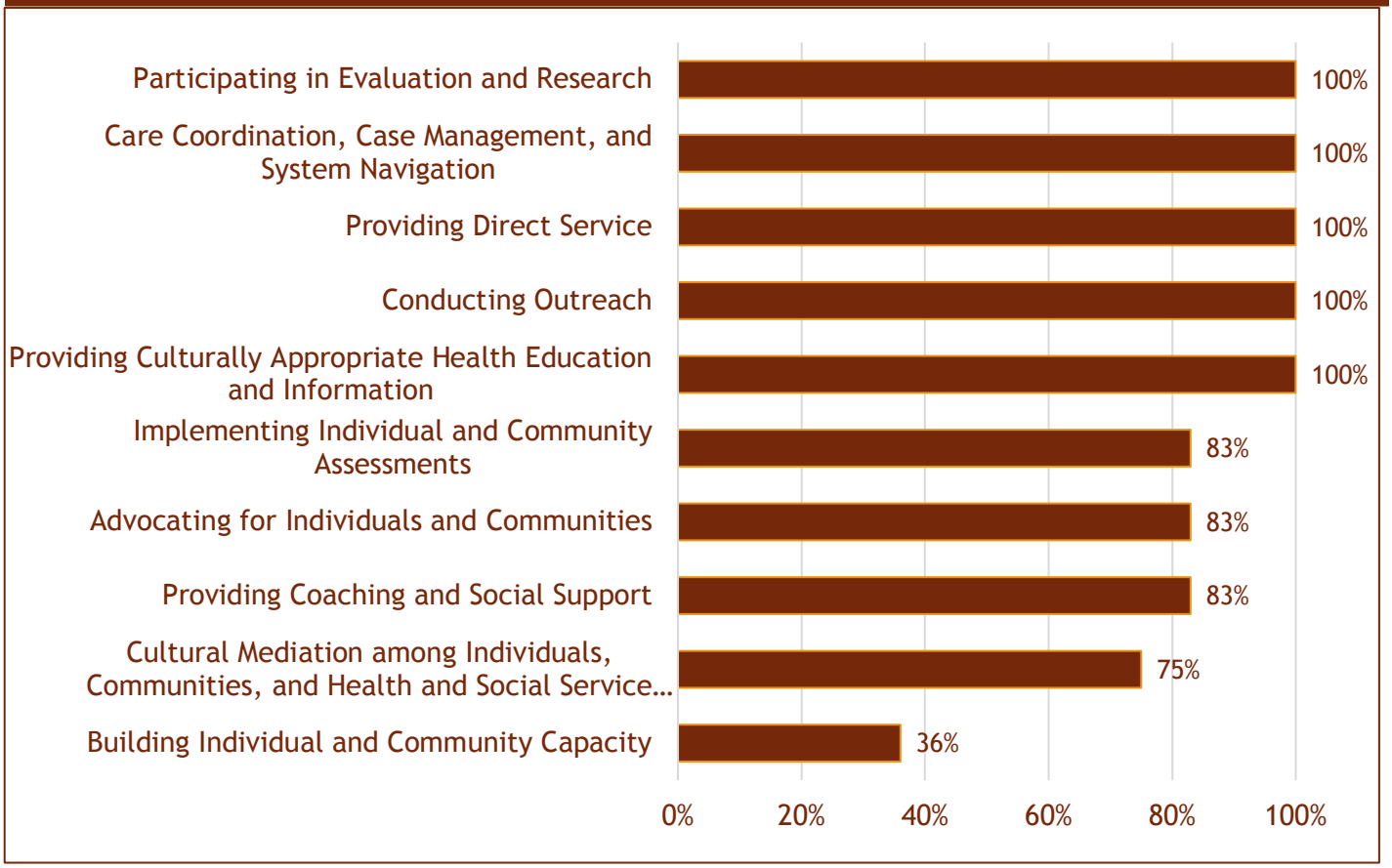
Patient services is further defined by another CHR Program as:

"[CHR] Provides emotional support and advice through follow up with clients newly diagnosed with a chronic or serious illness or injury and their families, clients in domestic violence settings, clients experiencing loss and other situations which affect family health and well-being."

NATIONAL CORE COMMUNITY HEALTH WORKERS ROLES, ACTVITIES AND SERVICES

We assessed the CHR SOPs and job descriptions by the national Community Health Worker (CHW) Core Roles and Competencies. CHR Program alignment with CHW Core Competencies are displayed in Figure 6 and outlined in Table 9 by Tribe and SOP category. Table 2 describes the 10 CHW Core Competency categories.

Figure 6. Prevalence of National CHW Core Roles Among CHR Programs of Arizona



All 12 (100%) of the Arizona CHR Programs SOPs and job descriptions included in the workforce assessment identified the CHR workforce to be engaged in the following national CHW Core Competencies of: (1) *Providing culturally appropriate health education and information*, (2) *Conducting outreach*, (3) *Providing direct service*, (4) *Care coordination, case management and systems navigation* and (5) *Participating in evaluation and research*

Table 9. Prevalence of CHR Roles, Skills and Services by National CHW Core Competencies

CHW Competencies and Roles[1]	A	B	C	D	E	F	G	H	I	J	K	L	
1. Cultural Mediation among Individuals, Communities, and Health and Social Service Systems	1	1	1	1	1	1	0	0	1	1	1	1	**83% (20/12)**
2. Providing Culturally Appropriate Health Education and Information	1	1	1	1	1	1	1	1	1	1	1	1	**100% (12/12)**
3. Care Coordination, Case Management, and System Navigation	1	1	1	1	1	1	1	1	1	1	1	1	**100% (12/12)**
4. Providing Coaching and Social Support	1	1	0	1	1	1	0	1	1	1	1	1	**83% (10/12)**
5. Advocating for Individuals and Communities	1	1	1	1	1	1	0	0	1	1	1	1	**83% (10/12)**
6. Building Individual and Community Capacity	0	1	0	1	1	1	0	0	0	0	1	0	**42% 5/12**
7. Providing Direct Service	1	1	1	1	1	1	1	1	1	1	1	1	**100% (12/12)**
8. Implementing Individual and Community Assessments	1	1	0	1	1	1	0	1	1	1	1	1	**83% (10/12)**
9. Conducting Outreach	1	1	1	1	1	1	1	1	1	1	1	1	**100% (12/12)**
10. Participating in Evaluation and Research	1	1	1	1	1	1	1	1	1	1	1	1	**100% (12/12)**
CHR Roles/Activities that fall outside the CHW Core Competencies and Skills													
1. Homemaker services	0	1	1	0	1	1	1	1	1	1	0	1	**75%** (9/12)
2. Emergency Patient Care	0	0	0	1	1	1	0	1	1	1	0	1	**58%** (7/12)
3. Other Patient Centered Services	1	1	1	1	1	1	1	1	1	1	1	1	**100% (12/12)**

3. The Community Health Worker Core Consensus (C3) Project: 2016 Recommendations on CHW Roles, Skills, and Qualities. *UT Health Project on CHW Policy and Practice and TTUHSC El Paso. http://bit.ly/2wzz2oe. Published 2016.*

Among the remaining 10 CHW Core Competencies, 83% of CHR Programs identified their workforce to be engaged in (6) *Implementing individual and community assessment*, (7) *Advocating for individuals and communities*, (8) *Providing coaching and social support*, while 75% of CHR Programs perform (9) *Cultural mediation among individuals*, *communities and health and social systems*. Slightly more than one third of participating CHR Programs specifically identified elements of CHR engagement in (10) *Building individual and community capacity*.

DISCUSSION

The **Community Health Representative** workforce employed through Tribal CHR Programs of Arizona are a **standardized workforce with a comprehensive scope of practice** outlined by the Indian Health Service and enhanced by Tribal CHR Programs to meet the unique needs of community members and Tribe. CHR Program scope of practice and job descriptions identified CHRs to be engaged in the full array of IHS CHR core roles and services as well as the 10 National CHW core roles and competencies outlined by the broader Community Health Worker workforce of the United States.

Specifically, 100% or 12 of 12 CHRs Programs participating in this baseline CHR workforce assessment engaged in **health education, case find and screen, case management and coordination, patient care and patient monitoring**. While all Programs engaged in 'other patient centered services', we found this IHS SOP to be a catch-all term which overlapped with several other roles and services. Although not all CHR Programs' SOPs and job descriptions identified the remaining six IHS roles and services of transportation, homemaker services, interpretation and translation, emergency patient care, community development, and environmental health, these roles and services remain relevant and no less than 50-75% of Programs engaged CHRs in these roles.

CHRs are culturally and linguistically embedded community leaders, with the unique ability to serve as the link and intermediary between community members and systems. Unique to the CHR workforce, CHRs are required a high level of integration with the medical and social service care team to deliver integrated patient, family and systems level care coordination and case management. CHRs are expected to be a member of the care team, and assist in the development of these patient care plans. CHRs serve as both the patient advocate and emerging in some Programs, as patient navigator to ensure the continuity, completion and acceptability of care. CHRs SOPs and job descriptions describe highly trained public health professionals able to provide direct patient care and monitoring over the course of the lifespan in a variety of primary, secondary and tertiary prevention contexts, including chronic and infectious disease. To achieve this aspect of their SOP, and provide these services at the highest level of cultural responsiveness and safety, CHRs are required several professional and personal experiences before and after hire into the workforce. Many CHR Programs require CHRs to have experiences in health care specifically, and or specific medical and emergency training and certification upon hire. Formal education is equally weighted with cultural, traditional and linguistic knowledge of the communities CHRs serve.

We encountered **three emergent CHR roles and services**, not articulated consistently throughout IHS CHR SOPs. These emergent roles and services included, disaster response services, community needs assessments and program planning and evaluation. Respectively the latter two roles are considered CHW core roles and competencies. Disaster response services were found to be included in 33% of CHR program SOP or job descriptions. CHR Programs that included this role and service required the CHR to respond to emergency situations related to disease outbreaks or environmental catastrophes. Such a role may have emerged due to increasing incidence of volatile environmental conditions experienced on and off Tribal lands, such as flood, drought, wildfire, and vector-borne diseases. As integral leaders and members of the community, CHRs are the frontline or first responders and given their critical link to the community, a role in disaster preparedness and response has emerged.

One third of CHR Programs identified the emergent CHR role and service of community needs assessments and program planning and evaluation. CHRs are required to input data into the PCC and RPMS systems, and although many programs are unable to access their data to evaluate and plan for the delivery and growth of their services, CHRs are activity engaged in contributing to the IHS evaluation system. Through CHR roles of patient services and monitoring and given the breadth and scope of their reach into other systems and programs (schools, WIC, justice, child welfare, community development, behavioral health etc.) CHRs are able to conduct community assessments in a variety of settings and populations to better serve the needs of their clients and the broader community of Tribal services and programs also serving CHR clients.

Like the CHR workforce, the Cornstalk is a symbol of survival and resilience, representing strength, power, community and health.

CHRs and CHWs' competencies, roles, services, skills and activities are in direct alignment and were found to be comparable across both CHR and CHW scopes of practice. The parallels should not be surprising, and only reinforces emerging evidence of the level of standardization across the CHW workforce as a whole, of which CHRs are included. Approximately, 83% of CHRs employed in CHR Programs in Arizona engage in roles, activities and services of care coordination, direct patient care, outreach, culturally appropriate health education, community assessment, cultural mediation, advocacy, social support and building capacity – all of which are fundamental to what CHRs do in their everyday work.

Such roles and activities promote a better understanding of cultural and traditional beliefs and value systems vital to enhancing local, state and federal agencies and systems. CHRs assist such agencies and programs "to design or redesign" services appropriate and responsive to the specific needs of the community. CHRs also act as cultural mediators between clients and health care providers and systems, their unique knowledge of the community, bicultural and bilingualism is foundational to facilitate communication and enhance the health care experience for their clients and communities. We found 100% of CHR Programs to provide culturally and linguistically appropriate health information and education with the specific purpose of helping to prevent and manage disease. Using their unique knowledge of the community and skills related to behavior modification and disease management, 83% of CHR Programs provided services related to coaching and social support. The national standards of practice for CHRs set forth by IHS includes non-emergency services such as counseling for social and emotional problems and require CHRs a knowledge base related to motivation and behavior change techniques.

As previously mentioned, CHRs are also involved in high level care coordination and case management, where they are expected to assist in the development of a patient care plan and serve as a patient advocate in the continuity and completion of that plan. Approximately 100% of CHR Programs require their CHRs to provide some level of care coordination and 83% of programs identified individual and community level advocacy roles.

CHRs are well positioned to support the AHCCCS American Indian Medical Home Program. Health plans across the country are increasingly incorporating a Patient-Centered Medical Home (PCMH) model in order to coordinate patient care through multidisciplinary teams that provide primary care services and health education. In Arizona, the American Indian Medical Home (AIMH) Program is available to American Indian/Alaska Native (AI/AN) members enrolled in the American Indian Health Program (AIHP) through

AHCCCS. The AIMH Program provides primary care case management, care coordination and diabetes education.[12] By utilizing their position within the community, in addition to their skills and training related to community outreach, wellness education and chronic disease prevention, CHRs are uniquely qualified to act as a part of the care team in a medical home model. It is recognized that the inclusion of CHWs into multidisciplinary care teams contributes to the efficacy of PCMHs and Community Health Teams.[13,14] In addition to coordinated care, PCMHs are required to provide routine preventive care and patient education. CHRs are well positioned to support these efforts and effectively meet mandates for prevention, education and coordination of care.[13,14,15]

LIMITATIONS

This baseline CHR workforce assessment relied on the analysis of existing CHR scopes of practice, job descriptions and job announcements for those CHR Programs of Arizona willing to submit those documents for analysis. Therefore, our analysis is limited to what was outlined in the documents submitted by the CHR Programs, with some CHR Programs' documents more and less comprehensive, which may have resulted in under reporting of CHR roles and services, and or the lack of detail on roles and services unique to the CHR workforce. This assessment only included Tribal CHR Programs in Arizona, and does not reflect CHR Programs in other IHS Service Areas or CHRs employed in non IHS 638 Programs, such as Urban Indian Health Centers and or not for profit agencies serving American Indian populations. This workforce assessment is strengthened through its highly collaborative approach to data collection and interpretation of results by partnering CHR Programs and American Indian health policy experts.

CONCLUSION

Nationally, the Community Health Representative workforce consists of approximately 1,700 CHRs, representing 264 Tribes. Of the 22 Tribes in Arizona, 19 Tribes operate a CHR Program and employ approximately 246 CHRs – which is equivalent to 30% of the total CHW workforce in Arizona estimated at 1000 CHWs. In 2018, CHRs celebrated their 50th year and serve as the oldest and only federally funded Community Health Worker workforce in the United States. CHRs are a highly trained, well established standardized workforce serving the medical and social needs of American Indian communities. After 50 years, the CHR workforce of Arizona has earned the right to understand their collective workforce and its impact on the patient and population level health of the communities they serve. As a workforce, CHRs deserve to understand and plan for the next 50 years.

REFERENCES

1. IHS. Community Health Aide Program Expansion. Indian Health Service Web site. https://www.ihs.gov/chap/. Published 2018. Accessed November 20, 2019.
2. Chernoff M, Cueva K. The Role of Alaska's Tribal Health Workers in Supporting Families. *Journal of community health.* 2017;42(5):1020-1026.
3. Overview of the Alaska Community Health Aide Program. Alaska Community Health Aide Program, Office of Statewide Services. Alaska Community Health Aide Program Web site. http://www.akchap.org/resources/chap_library/Referral_Physician/CHAM_CHAP_Overview.pdf. Accessed November 26, 2019.
4. IHS. Chapter 16 - Community Health Representatives Program | Part 3. Indian Health Service. https://www.ihs.gov/ihm/pc/part-3/p3c16/. Published 1991. Accessed June 28, 2019.
5. IHS. Resource and Patient Management System (RPMS) | Indian Health Service (IHS). Indian Health Service. https://www.ihs.gov/rpms/. Published 2019. Accessed August, 2019.
6. The Community Health Worker Core Consensus (C3) Project: 2016 Recommendations on CHW Roles, Skills, and Qualities. UT Health Project on CHW Policy and Practice and TTUHSC El Paso. http://bit.ly/2wzz2oe. Published 2016. Accessed.
7. Sabo SOM, L. Castro, K. *Integration and Financing of the Community Health Worker Workforce in Arizona Cost Containment Care System Health Plans.* Flagstaff, AZ: Northern Arizona University, Center for Health Equity Research;2019.
8. WHO. Social determinants of health. World Health Organization. https://www.who.int/social_determinants/sdh_definition/en/. Published 2019. Accessed November 25, 2019.
9. DeVoe JE, Bazemore AW, Cottrell EK, et al. Perspectives in primary care: a conceptual framework and path for integrating social determinants of health into primary care practice. In: Annals Family Med; 2016.
10. Vitalyst. Elements of a Healthy Community. Vitalyst Health Foundation. http://vitalysthealth.org/wp-content/uploads/2015/05/Healthy-Communities-and-social-determinants-final.pdf. Published 2016. Accessed November 25, 2019.
11. Commission UEEO. Title VII of the Civil Rights Act of 1964. US Equal Employment Opportunity Commission. https://www.eeoc.gov/laws/statutes/titlevii.cfm. Published 2019. Accessed August 28, 2019.
12. AHCCCS. American Indian Medical Home. AHCCCS. https://www.azahcccs.gov/AmericanIndians/AmericanIndianMedicalHome/. Published 2019. Accessed November 29, 2019.
13. Brownstein JN, Hirsch GR, Rosenthal EL, Rush CH. Community health workers "101" for primary care providers and other stakeholders in health care systems. In: *J Ambul Care Manage.* Vol 34. United States2011:210-220.
14. Kangovi S, Mitra N, Grande D, et al. Patient-centered community health worker intervention to improve posthospital outcomes: a randomized clinical trial. *JAMA Intern Med.* 2014;174(4):535-543.
15. Hartzler AL, Tuzzio L, Hsu C, Wagner EH. Roles and Functions of Community Health Workers in Primary Care. *Ann Fam Med.* 2018;16(3):240-245.