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Perceptions of Stakeholders: A Look Beyond Community Health Workers in Tobacco Cessation Curriculum

By

Erika Rodrigues

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Faculty Advisor: Dr. Marcia Tan
Preceptor: Dr. Resney Gugwor

Abstract

The goal of this thesis is to examine how stakeholders who work with community health workers, including directors of training programs and direct managers, perceive the needs of community health workers in the domain of tobacco cessation programs and education. I will also examine how the needs of stakeholders are aligned with those of community health workers, as well as potential implications of misalignment. Results show salient themes of role playing, rapport, and resources for distribution mentioned by the stakeholders, which are largely adjacent to the need of CHWs for evidence-based personalized methods for tobacco cessation, motivation, and key language. Their themes are more consistent with empowering their CHWs and giving them the tools that they need, while CHWs are more focused on their patients, as is both of their mandates, respectively. Ultimately, both are interested in effective tobacco cessation and the decrease in tobacco rates in the communities they are a part of.

Introduction

Cancer is one of the leading causes of death in the United States, with 600,000 people dying from cancer every year and 81% of lung cancer deaths caused by tobacco (American Cancer Society, 2022). While cancer rates overall have improved, there is still a wide disparity between those with higher socioeconomic status and those with lower socioeconomic status. Ward et al. reports that five year cancer survival rates are 10 percentage points lower for both men and women in lower socioeconomic census tracts (2004). One of the primary causes of lung cancer is tobacco and smoking rates. The report by the Surgeon General showed that 30% of lung cancer deaths are caused by tobacco (National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health, 2014). Studies have shown that smoking rates can decrease with standard interventions by primary care physicians (Bittencourt, 2014). However, people of low socioeconomic status might have barriers to receiving care from primary care physicians that those of higher socioeconomic status do not have. Studies have found, though, that instead of receiving interventions at primary care visits, interventions by community health workers (CHWs) can be effective at tobacco cessation (Campbell, 2007).

The American Public Health Association defines CHWs as follows: “A community health worker is a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served.” CHWs are community members who are also connected to the health care system, bridging the gap between other health care professionals and the communities they serve and expanding healthcare access. They are also known as lay health workers, outreach workers, indigenous health workers, and health advisors, among other names (Nemcek, 2003). CHWs are particularly important in targeting health interventions to minorities and those with lower socioeconomic status. Because CHWs are part of the community they are working with, they are able to understand their patients on a deeper level, having been through many of the same life experiences as well as having similar identities, ethnicities, languages, socioeconomic status, and more. (Spencer, 2010).

The idea of using the CHW model has been around for over 60 years, yet CHWs are often overlooked (Nemcek, 2003). The practice of employing CHWs began in China in the 1920s, leading to the “barefoot doctor” program in that country. In the 1960s, CHWs came to prominence in Western countries, as doctors struggled to address health needs of low socioeconomic and rural populations. The idea was picked up by the WHO and became more formalized through a book they published called *Health of the People*. Throughout the 1970s and 1980s, government CHW programs blossomed, particularly in Brazil, Guatemala, Nicaragua, Honduras, and Peru. In the late 1980s and early 1990s, however, programs started running into problems because of “inadequate training, insufficient renumeration or incentives for CHWs, and lack of supervision and logistical support” as well as loss of funding for many of the programs (Perry, 2014). More recently, CHW programs have come back into prominence in the United States through formalization of the creation of a US Department of Labor Standard Occupational Classification in 2010 and inclusion as a health profession in the Affordable Care Act around the same time (Sabo, 2017).

Funding for CHWs has consistently been a challenge. Most funding sources are from grants from philanthropies or governmental organizations, yet many of these sources are not sustainable in the long-term (Park, 2021).

Goals of employing CHWs in the delivery of healthcare include establishing a therapeutic alliance, improving appropriate health care utilization, and reducing health risks of patients. A therapeutic alliance involves relationships between CHWs and their patients, hinging on trust between the two. The improved relationship between health care professionals and patients leads to the next goal of improving appropriate healthcare utilization by building trust and encouraging patients to visit their primary care providers, as well as reducing the health risks of patients both through visits to primacy care providers and by educating patients on early diagnosis, prevention, and treatment (Nemcek, 2003).

The CHW model has been proven to be effective in tobacco cessation efforts in lower socioeconomic communities and minority communities (Tan, 2022). Tobacco cessation efforts are typically delivered in primary care settings, however, lower socioeconomic and minority communities already have many barriers to regular primary care or other evidence-based care forms, such as the 5 A's (Tan, 2022). The 5 A's are a proven model for effective tobacco cessation, consisting of "Ask, Advise, Assess, Assist, and Arrange" as a framework suggested by the WHO (2014). Because of the general lack of access to evidence-based smoking cessation advice through primary care visits, the use of the CHW model has been successfully employed to provide a community-based approach to smoking cessation (Cox, 2011). Multiple studies have shown the effectiveness of the CHW model, with continued tobacco abstinence (21 - 28%) over a control group (6 - 9%) (Cox, 2011). However, studies with CHWs have shown that while they are able to bring up the topic of tobacco cessation with patients, they often do not feel prepared to deliver effective advice on how to quiet (Castaneda, 2010). A study by Nguyen in Vietnam showed that while 72% of village health workers asked patients if they used tobacco, 53.2% stated that they did not feel that they had the necessary training or skills to be

able to counsel patients in tobacco cessation. In the survey, the health workers labeled lack of training as one of the main barriers to providing smoking cessation advice, due in part to perceived self-efficacy of delivering advice (Nguyen 2018).

Much of what community health workers do, including trainings participated in and community strategies, are directed by their managers. According to Gutierrez Kapheim and Campbell, most CHWs are trained on the job, having been hired for their connection to the community rather than more technical skills, and therefore the way they are trained and supervised has an impact on how they operate in the community. If their managers don't have the same sense of what the community health workers need to do, the community health workers might not get the resources or time allotment in training and on the ground to be able to affect change through tobacco cessation programs. A study by Brown showed that supervisors of CHWs play an important role in providing "real time support, ongoing training, and help with clinical integration," all of which are important to tobacco cessation programs (2020).

A study by Findley, et al. worked with CHWs and their managers to understand what they thought the core competencies of CHWs were and came to a consensus on five main elements: outreach and community organizing, case management and care coordination, home visits, health education and coaching, and system navigation (Findley, 2012). Interestingly, there was a difference in employer's and CHW's rankings of "retention of clients" and "establishment of rapport and trust", which the authors postulated was due to the difference in perception of the purpose of the rapport and trust. Employers see trust as a means to "retain clients" whereas CHWs see trust as "a quality that is instrumental in helping their clients achieve their own goals" (Findley, 2012). This difference epitomizes one of the main differences between CHWs and their employers, with CHWs focused on patient care while employers have multiple interests to balance.

A study by Bittencourt on CHWs has shown that managers and CHWs often agree on "core functions", "home visits, patient referrals, and identification of patients and are not

specifically related to the TCP [Tobacco Cessation Program]", but are not as well aligned on aspects such as "follow-up visits" and "involvement in groups" (Bittencourt, 2014). In this thesis, I will detail the needs of CHWs as perceived by their managers, and argue that there is a perceived disconnect between community health workers' managers and community health workers, defined by different priorities and approaches between managers and CHW, specifically in regards to tobacco cessation programs.

Methods

In order to effectively investigate this research question, a qualitative approach building on previous research by Tan et al. was used. Tan et al. are currently working on a project aimed at adapting an evidence-based tobacco cessation curriculum to be specific to the CHW model of care, using the participatory action framework. Previous research by Tan et al. included conducting semi-structured interviews with current CHWs through focus groups (n=11) and CHW managers individually (n=3). CHWs were recruited by a flyer emailed to managers via email. CHWs were eligible if they were older than 18, if they were currently working as a CHW or manager, and if they spoke English. Participants were informed that their participation in the focus group would not affect their employment. All participants who signed up for the focus group attended. The focus groups were 90 minutes in length and CHWs were recruited from CHW programs at an academic medical center and a local community college. Focus groups and interviews were held virtually due to the COVID-19 pandemic and were conducted by two Ph-D level and master's level health psychologists.

Data from semi-structured interviews with community health workers stakeholders and managers was used to help unearth perceptions of needs for community health workers, background understanding on trainings, and current knowledge level on tobacco cessation information and interventions. A qualitative approach was important in this regard in order to allow the stakeholders and supervisors to provide an unbiased perspective on what they think community health workers needs are as well as look at mechanisms. Interviewees included both

supervisors of current community health workers and managers of training programs for community health workers. By interviewing supervisors of current community health workers, we obtained first-hand knowledge of what the managers perceive their current, in-the-field community health workers need in order to be effective in their jobs. It was also important for us to include managers of training programs as well because the way that managers of training programs view the needs of community health workers will influence the way the trainings are provided and what topics are covered. Two interviews were conducted with managers or directors of community health workers, one in a hospital setting and one in an academic setting, and one interview was conducted with a manager of a training program (n=3), which was audio recorded. Participants were compensated for their participation with $75 gift cards. Transcripts were transcribed by research assistants and were not returned to participants for comment.

The qualitative interviews were transcribed and coded using the Framework Method, which involves familiarization with the interviews before applying a label to a passage that seems important, grouping said 'codes' together to develop an analytical framework, and then reapplying the framework to the interviews, allowing for themes and ideas to emerge (Gale, 2013). The interviews were coded by two masters level coders, including myself, and the results were compared against the other interviewees to see if themes are consistent. The two coders independently reviewed the transcripts to ascertain preliminary codes. The coders together then refined the code definitions, producing themes, or primary codes, and subthemes, or secondary codes. The transcripts were independently reviewed again using the updated codebook and Dedoose software. Independently coded transcripts were then compared to determine interrater reliability and consensus for coding.

The results of the perceived needs themes were then compared to community health workers needs using existing literature and previous data gathered as part of a larger ongoing project, with particular focus on the areas where the perceived needs and actual needs differ.

Results

Results from the collaborative coding resulted in 10 primary themes and 21 secondary themes, as seen in Table 1. Of the stakeholders that participated, work experience as a manager ranged from 4 months to 15 years. Two worked in a hospital setting, and one worked in an academic setting.

Key themes brought up in the interviews include 1) role playing as part of the training content, 2) additional resources for distribution by CHWs, and 3) the rapport aspect of the CHW model of care.

Role playing

We defined role playing as techniques to help CHWs understand how to deliver cessation training to patients and that give CHW opportunity to practice and receive feedback. Role playing in this context included case studies, loose scripts, scenario walkthroughs, motivational interviewing, and teach back. All stakeholders were consistent about the importance of role playing, bringing it up both when asked directly about it and in relation to other parts of the interview. They stated it would be “helpful” and “important” for interactivity during the training session, learning from other CHWs, and to have a general idea of how to approach the topic of tobacco cessation, practicing actually saying the words out loud, and receiving feedback on how they were perceived by the audience. The stakeholders emphasized how important it was to use different techniques to really absorb the material, “because it’s one thing to hear and listen, but it’s a whole other thing to start to practice it.” - Stakeholder A

Additional resources for distribution by CHWs

All of the stakeholders mentioned a plethora of resources that they thought would be beneficial to CHWs in the course of helping patients. The materials they talked about included promotional materials, such as magnets, coloring pages, and t-shirts, hand-outs, or one pagers with key information, follow up materials, such as pre-scripted texts and emails that include ways for patients to reach specialists, among other things, and a toolkit with resources that patients could reference, including websites, quick links, and phone numbers that patients can

call if they need further information or help. Because CHWs have so many things to juggle and they sometimes don't get to all the details about tobacco cessation ("*Everyone has really good intentions to continue talking about the process and continue connecting them to resources, but that is a whole other step they sometimes don't get to*" - Stakeholder A) , stakeholders thought it would be helpful to have a list of Frequently Asked Questions (FAQs) and other information to give to patients at the tips of their fingers in older to make the connection to tobacco cessation as soon as the patient is ready.

Rapport in CHW model of care

Rapport in the CHW model of care is defined as building of the relationship between CHWs and their patients in order to gain trust and determine how CHWs can approach their patients. All stakeholders recognized relationship building as one of the most important aspects of the CHW model of care, and that was reflected in their interviews. They discussed rapport in terms of visiting patient homes and commenting on what they saw there (e.g., ash tray, mold), sharing accurate information, getting patients to open up about what is troubling them, asking about whether they're ready to quit smoking, "*planting the seed*" (Stakeholder B) to start thinking about quitting, and dispelling common myths. "*Everything is about the relationship*": stakeholders emphasized how foundational the relationship with the patient is, and how everything else a CHW does is based on the trust that they build with their patients. "*You gotta get that trust factor first*" - Stakeholder C. Overall, this theme emphasized the importance of CHWs being comfortable with patients and patients being comfortable with CHWs before being able to address health concerns.

Previous research by Tan et al. identified the top themes of concern with CHWs as motivation, personalization, stress, and role playing. The interviews found that smoking was a stress reliever for patients, that CHWs want key language and ways to personalize smoking education to patient's specific needs, and how to motivate patients to quit smoking. The themes

overlap in nature, meaning that personalizing the information is also an important part of motivating patients to quit.

Discussion

The most important needs stakeholders found were rapport in terms of the CHW model of care, a toolkit for resource distribution by CHWs, and role playing by CHWs in the training session. The need for rapport ties in well to the general model of CHW care, where CHWs build trust with their patients over a period of time, due in part to their being a part of the community with shared experiences with their patients. The idea of rapport is foundational to being a CHW and emphasizes the longevity of the relationship with the patient. The other two needs, a toolkit for resource distribution and role playing in training sessions, show how managers view tobacco cessation training as not part of the average CHW visit, and therefore CHWs need more training – both in the form of resources and in practicing approaching patients about the topic. Both these themes would help empower CHWs to address tobacco cessation with their patients, as they would have both the tools and the knowledge to back up their conversation, and improve CHW self-efficacy in delivering the trainings.

Previous research by Tan, et. al (2022; 2023) described the top needs of CHWs are the need for a set protocol that can also be adapted to different types of patients, smoking as a stress reliever for patients, CHWs wanting key language, and motivating patients to quit (Tan, 2022). While these themes were not mentioned as frequently by stakeholders, they are largely adjacent to the themes that stakeholders found important. Both feature the idea of role play, including pre-written scripts, FAQs, and practicing delivering tobacco cessation advice to patients in a way that is largely standard, but tailored to meet the patients' needs. Furthermore, the idea of improving the self-efficacy CHWs is salient, with the need for more information through trainings, role playing, and an established toolkit with resources requested by stakeholders. The idea of improving self-efficacy through training is also found in a study by Castaneda, et al., where they found that increased training helped CHWs improve their delivery

of training and helped them better understand and enact their role as health influencers in the community. Other findings from the Castaneda study highlighted the idea of social risk for CHWs, defined in the paper as “perceived threat to existing and potential relationships with which a person is faced when challenging the behavior, views, or identity of a significant other.” Social risk was a concern for CHWs interviewed, especially surrounding tobacco cessation, which they described as a sensitive topic. They were afraid of negatively affecting relationships with the people they were working with by bringing up quitting smoking. The CHWs expressed a desire for more training and role-playing in order to better prepare themselves for these types of conversations, and interested in the use of “materials resources as a means of mediating [social risk]” (Castaneda, 2010). This theme reinforces the findings from our study, emphasizing rapport, role-playing, and additional resources for distribution as important aspects to consider in training CHWs.

One of the themes mentioned by stakeholders but was not as salient with CHWs is the theme of cost. The theme was more salient with stakeholders both because they were directly asked about it in the interview guide as well as because of the logistics involved in training the CHWs they are responsible for. Stakeholders discussed cost in terms of the cost of delivering training to the CHWs as well as the ability to find grants or other sources of funding that would help pay for the trainings. Because managers are more directly involved with the logistics of CHW trainings, it follows that they would be more concerned with the cost and funding source of trainings than the CHWs themselves.

Agendas and trainings for community health workers are set by managers. If managers are not present or aware of the CHW needs in terms of trainings or resources for effective tobacco cessation, the CHWs performance as related to tobacco cessation may suffer. A study by Ludwick in Uganda shows that CHW team performance is “correlated with the quality of their supervisor and relationships with other healthcare workers” (2018). Furthermore, if community health workers do not receive adequate training, they may not feel comfortable or qualified to

help intervene in tobacco cessation programs. Research has shown that even a brief intervention by community health workers can have a big impact on current smokers and reduce prevalence of smoking in minority populations by 21% compared to 9% in a control group (Cox, 2011). Because community health workers are able to target at-risk populations in low socioeconomic areas that typically do not go to primary care visits, the effective implementation of tobacco cessation programs could have tremendous effects on the rates of cancer disparities that we are currently seeing.

Conclusion

The needs of CHWs and the needs perceived by their managers are different, but not as disconnected as expected. The themes of role playing, rapport, and resources for distribution mentioned by the stakeholders are largely adjacent to the need of CHWs for evidence-based personalized methods for tobacco cessation, motivation, and key language. The lens through which stakeholders and CHWs view the needs is different, however, with managers focusing more on what their CHWs need and CHWs focusing more on what their patient needs, such as smoking as a stress reliever. Furthermore, stakeholders are concerned with the more logistical parts of training, such as how to provide key language to the CHWs through role playing, and the cost of delivering such trainings. Their themes are more consistent with empowering their CHWs and giving them the tools that they need, while CHWs are more focused on their patients, as is both of their mandates, respectively. Ultimately, both are interested in effective tobacco cessation and the decrease in tobacco rates in the communities they are a part of, with stakeholders focusing on empowering their CHWs and CHWs on empowering their patients.

Limitations of this study include the small sample size as well as asking stakeholders about certain themes, such as cost, rather than letting needs and concerns emerge naturally. Further research could include increasing the number of stakeholders interviewed and including CHWs and stakeholders in focus groups.

References

American Cancer Society. (2022). *Cancer Facts & Figures 2022| American Cancer Society*. www.cancer.org. https://www.cancer.org/research/cancer-facts-statistics/all-cancer-facts-figures/cancer-facts-figures-2022.html

Bittencourt, L., & Scarinci, I. C. (2014). Is There a Role for Community Health Workers in Tobacco Cessation Programs? Perceptions of Administrators and Health Care Professionals. *Nicotine & Tobacco Research*, *16*(5), 626–631. https://doi.org/10.1093/ntr/ntt217

Brown, O., Kangovi, S., Wiggins, N., & Alvarado, C. S. (2020). Supervision Strategies and Community Health Worker Effectiveness in Health Care Settings. *NAM Perspectives*. https://doi.org/10.31478/202003c

Campbell, J., Mays, M. Z., Yuan, N. P., & Muramoto, M. L. (2007). Who are health influencers? Characterizing a sample of tobacco cessation interveners. *American Journal of Health Behavior*, *31*(2), 181–192. https://doi.org/10.5555/ajhb.2007.31.2.181

Castañeda, H., Nichter, M., Nichter, M., & Muramoto, M. (2008). Enabling and Sustaining the Activities of Lay Health Influencers: Lessons From a Community-Based Tobacco Cessation Intervention Study. *Health Promotion Practice*, *11*(4), 483–492. https://doi.org/10.1177/1524839908318288

Cherrington, A., Ayala, G. X., Amick, H., Allison, J., Corbie-Smith, G., & Scarinci, I. (2008). Implementing the Community Health Worker Model Within Diabetes Management. *The Diabetes Educator*, *34*(5), 824–833. https://doi.org/10.1177/0145721708323643

Cherrington, A., Ayala, G. X., Elder, J. P., Arredondo, E. M., Fouad, M., & Scarinci, I. (2010). Recognizing the diverse roles of community health workers in the elimination of health

disparities: from paid staff to volunteers. *Ethnicity & Disease*, *20*(2), 189–194. https://pubmed.ncbi.nlm.nih.gov/20503902/

Cox, L. S., Okuyemi, K., Choi, W. S., & Ahluwalia, J. S. (2011). A Review of Tobacco Use Treatments in U.S. Ethnic Minority Populations. *American Journal of Health Promotion : AJHP*, *25*(5 0), S11–S30. https://doi.org/10.4278/ajhp.100610-LIT-177

Findley, S. E., Matos, S., Hicks, A. L., Campbell, A., Moore, A., & Diaz, D. (2012). Building a Consensus on Community Health Workers' Scope of Practice: Lessons From New York. *American Journal of Public Health*, *102*(10), 1981–1987. https://doi.org/10.2105/ajph.2011.300566

Gale, N. K., Heath, G., Cameron, E., Rashid, S., & Redwood, S. (2013). Using the Framework Method for the Analysis of Qualitative Data in multi-disciplinary Health Research. *BMC Medical Research Methodology*, *13*(1), 1–8. https://doi.org/10.1186/1471-2288-13-117

Giblin, P. T. (1989). Effective utilization and evaluation of indigenous health care workers. *Public Health Reports (Washington, D.C.: 1974)*, *104*(4), 361–368. https://pubmed.ncbi.nlm.nih.gov/2502807/

Gutierrez Kapheim, M., & Campbell, J. (2014, January 30). *Best Practice Guidelines for Implementing and Evaluating Community Health Worker Programs in Health Care Settings*. CHW Central; Sinai Urban Health Institute. https://chwcentral.org/resources/best-practice-guidelines-for-implementing-and-evaluating-community-health-worker-programs-in-health-care-settings/

Hill, Z., Dumbaugh, M., Benton, L., Källander, K., Strachan, D., ten Asbroek, A., Tibenderana, J., Kirkwood, B., & Meek, S. (2014). Supervising community health workers in low-income countries – a review of impact and implementation issues. *Global Health Action*, *7*(1), 24085. https://doi.org/10.3402/gha.v7.24085

Kash, B. A., May, M. L., & Tai-Seale, M. (2007). Community health worker training and certification programs in the United States: Findings from a national survey. *Health Policy*, *80*(1), 32–42. https://doi.org/10.1016/j.healthpol.2006.02.010

Ludwick, T., Turyakira, E., Kyomuhangi, T., Manalili, K., Robinson, S., & Brenner, J. L. (2018). Supportive supervision and constructive relationships with healthcare workers support CHW performance: Use of a qualitative framework to evaluate CHW programming in Uganda. *Human Resources for Health*, *16*(1). https://doi.org/10.1186/s12960-018-0272-1

National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health. (2014). *The Health Consequences of Smoking—50 Years of Progress*. Nih.gov; Centers for Disease Control and Prevention (US). https://www.ncbi.nlm.nih.gov/books/NBK179276/

Nemcek, M. A., & Sabatier, R. (2003). State of Evaluation: Community Health Workers. *Public Health Nursing*, *20*(4), 260–270. https://doi.org/10.1046/j.1525-1446.2003.20403.x

Nguyen, N., Nguyen, T., Chapman, J., Nguyen, L., Kumar, P., VanDevanter, N., & Shelley, D. (2017). Tobacco cessation in Vietnam: Exploring the role of village health workers. *Global Public Health*, *13*(9), 1265–1275. https://doi.org/10.1080/17441692.2017.1360376

Park, J., Regenstein, M., Chong, N., & Onyilofor, C. L. (2021). The Use of Community Health Workers in Community Health Centers. *Medical Care*, *59*(Suppl 5), S457–S462. https://doi.org/10.1097/mlr.0000000000001607

Perez, M., Findley, S. E., Mejia, M., & Martinez, J. (2006). The Impact of Community Health Worker Training and Programs in NYC. *Journal of Health Care for the Poor and Underserved*, *17*(1), 26–43. https://doi.org/10.1353/hpu.2006.0011

Perry, H. B., Zulliger, R., & Rogers, M. M. (2014). Community Health Workers in Low-, Middle-, and High-Income Countries: An Overview of Their History, Recent Evolution, and Current Effectiveness. *Annual Review of Public Health*, *35*(1), 399–421. https://doi.org/10.1146/annurev-publhealth-032013-182354

Rabbani, F., Shipton, L., Aftab, W., Sangrasi, K., Perveen, S., & Zahidie, A. (2016). Inspiring health worker motivation with supportive supervision: a survey of lady health supervisor motivating factors in rural Pakistan. *BMC Health Services Research*, *16*(1). https://doi.org/10.1186/s12913-016-1641-x

Sabo, S., Allen, C. G., Sutkowi, K., & Wennerstrom, A. (2017). Community Health Workers in the United States: Challenges in Identifying, Surveying, and Supporting the Workforce. *American Journal of Public Health*, *107*(12), 1964–1969. https://doi.org/10.2105/ajph.2017.304096

Spencer, M., Gunter, K. E., & Palmisano, G. (2010). Community Health Workers and Their Value to Social Work. *Social Work*, *55*(2), 169–180. https://doi.org/10.1093/sw/55.2.169

Strachan, D. L., Källander, K., ten Asbroek, A. H. A., Kirkwood, B., Meek, S. R., Benton, L., Conteh, L., Tibenderana, J., & Hill, Z. (2012). Interventions to Improve Motivation and Retention of Community Health Workers Delivering Integrated Community Case Management (iCCM): Stakeholder Perceptions and Priorities. *The American Journal of Tropical Medicine and Hygiene*, *87*(5_Suppl), 111–119. https://doi.org/10.4269/ajtmh.2012.12-0030

Tan, M. M., Veluz-Wilkins, A., Styrczula, P., & McBrayer, S. (2022). Gaps in Knowledge and Practice in Treating Tobacco Use Among Non-physician Healthcare Professionals and Lay Health Workers in Chicago, Illinois. *Cancer Control*, *29*, 107327482211053. https://doi.org/10.1177/10732748221105310

Ward, E., Jemal, A., Cokkinides, V., Singh, G. K., Cardinez, C., Ghafoor, A., & Thun, M. (2004). Cancer Disparities by Race/Ethnicity and Socioeconomic Status. *CA: A Cancer Journal for Clinicians*, *54*(2), 78–93. https://doi.org/10.3322/canjclin.54.2.78

WHO. (2014). *Toolkit for delivering the 5A's and 5R's brief tobacco interventions in primary care*. https://apps.who.int/iris/bitstream/handle/10665/112835/9789241506953_eng.pdf

Appendix

Table 1: Primary and secondary codes with descriptive quotes

Primary	Secondary	Definition	Descriptive Quote
Training content: how topics are delivered in training	Visuals	Do CHW want visuals in the training? What kind? (Videos, graphics, etc.)	"Will some of this be interactive? Will- will we have hands on tools like um what- what of snuff looks like or tobacco or cigarettes or all that? Will you have props and would will it be interactive?" - C
	Statistics	Statistics and facts to be included in CHW training or how they want facts presented.	"I do think that having facts is really important um I think that they don't have to be that long because most people know." - B
	Role playing	Techniques to help CHWs understand how to deliver cessation training to patients. Gives CHW opportunity to practice and receive feedback.	"Because it's like one thing to hear and listen and, but it's a whole other thing to like start to practice it. Uh especially because, you know, that requires you to talk and that's public speaking is, you know, I mean it's different for everyone and um especially if you're talking to a group. So, I think roleplay is really important because you- that you start to also realize this like just like this tone and how wording and it's nice to get feedback from someone who's also taking the training with you and be like you know, I would probably word that a little differently." - A
Additional resources for distribution (by CHW)	Follow up (CHW follow up with patient)	Resources that help CHWs follow up with patients	"Yeah, like whether it's about facts or different programs that are in their area and direct them to it. Because I think that everyone can have really good intention to continue talking about the process and continue connecting them to the resources but doing that is a whole other step sometimes

			they don't get to or it's delayed! But if it's kind of prewritten format, especially the most asked questions or most said responses." - A
	Promo materials	Promotional materials (not paper) that CHWs can distribute to patients. Related to quitting and staying quit (encouraging materials or reminders)	"Yeah, so maybe like make the- or even, I don't know, maybe like a checklist on a magnet, they may see it or something. I don't know because I think I would imagine it if I was smoking and I wanted to quit it would be nice to have motivators in different places or reminders like 'oh hey this is my goal' and a magnet on a fridge seems so in my face every day, you know?" - B
	Toolkit	List of resources for help with tobacco cessation that CHWs can distribute to patients	"So, it's nice to have it, you know, it but like if they can pull out their phone and pull it up and be like oh like, 'I know the right thing,' instead of being like, 'Let me wait til the next meeting when we meet up.' So, for sure I think that a website is essential just to house everything." - A
Logistics of CHW training	Delivery of training	Mode of delivering training to CHWs	I think that I do a better job, you know, once they have the foundation of it I can kind of make it real for them as they're doing it. And so a lot of times, all I need is the system to have some basic understanding of what to do, how it works, and then we can kind of just talk through it." - B
	Cost	Cost aspect of CHW training	"I think honestly the best for them is when their employer is going to pay for it" - A
	Sustainability	How to maintain CHW training over time	"I think those bootcamps would be very helpful, just to kind of like offer maybe a twenty minute refresher course on what they learned before". - B

	Certification	Aspects of training that relate to certificates or CME	“We are in the process of working toward certification for community health workers here in Illinois, and aside from that we are talking a little bit more like what additional certifications or certificates or trainings or um continued education that we would for our community health workers and definitely this came up – like smoking, lots of other mental health or suicide prevention or so I think this can definitely be a segway after our real certification for community health workers. Ater they get certified this could be like a continual education piece for them.” - C
	Length of training	How long CHW training should be	“I think you know two to three hours is fine with a little break in between. I think that is definitely fine and with this information I think what’s most important for them: starting to practice.” - A
	Frequency	How frequent CHW trainings should be	“If you’re gonna do this and really do this and do this well and only this right here I would say three to four times a year because yeah as community health workers they come in and they go” - C
	Setting	Setting / format of CHW training	“Spring is a fresh start and people want new healthy habits and so I think that’s a great theme that you could probably go with.” - C
	High relevance	Relevance of training to CHWs and why a training like this is needed / important	“Regardless, yeah, this would be important, especially like this is one of the top issues we have” - A
CHW model of care	Communication	Important aspects of communication between CHWs and their patients.	“I always tell community health workers, be organic, it should not sound scripted. We should not have a script, it should really be a conversation back and forth” - C

	Non-judgmental	Sensitive aspects CHWs need to think about when communicating with their patients.	"The one thing that I want you to understand is that people, and I tell my community health workers this all the time, people have the right to make a bad decision and you have to respect that decision." - B
	Rapport	Building relationships and trust between CHWs and their patients. Your rapport with someone determines how you can approach them.	"And also have to recognize that you as a CHW, ninety percent of what you do is gut. It's not the time to open it up, don't open it up, bypass that question. Just because you don't wanna know, doesn't me you gotta ask it now, build that rapport. Right?" - B
Current CHW trainings	--	Characteristics of current CHW trainings, including type of trainings offered, who gives the trainings, etc.	"So, within the courses, they learn- they start to use their tools to do that specifically in our intro to CHWs course. They work on different techniques and communication techniques and like motivational interviewing and all those skills. So, when they get into the other classes they can start to link the knowledge to those things." - A
Inclusion of family	--	Including family members in tobacco cessation programming	"When someone is trying to quit, if they're quitting for their kid or if there is something like that, you know, there's support in the home, in the household, usually their quit attempts are much, much more effective. So, that's really helpful that you mention that specifically especially in relation to the work that the CHWs do." - B
Tobacco cessation knowledge: specific topics CHW want to learn about	History	History of tobacco use and Big Tobacco companies	"One thing that I elaborate on when just talking about the the introduction of giving them that information about tobacco use and the facts and the background, give them the real facts, teach them that they don't make money of tobacco. Teach them what is happening right

			around the corner from them, I think that all of that is where you can actually spark someone's interest, because that's what mine was like. And I was like wow you know tell me some real stuff, you know." - B
	Types of smoking	Different types of smoking other than commercial cigarette	"Yeah, so what popped out to me or is popping out to me is the introduction to nicotine products. I think that is super huge." - C
	Terms	Terminology for tobacco slang and medical jargon	"So, just some examples or just letting them know so they know like, 'Hey don't use the technical word,' like there's a fresh word and your community uses that." - A
	Hands on tools	Props that the trainers could use during the CHW training to make it more hands on and interactive.	"Giving actual props to people, letting them see what it actually looks like, what a lung looks like, what it looks like when no one smoking and when they are smoking - like actual visuals. I think a lot of people learn better when they can actually see it and play around with it." - C
Health conditions (of patients)	--	Other health conditions / comorbidities	"I think that would be because everybody doesn't work with certain disease specific populations. So if they can easily identify the ones that's really really can hone in on and benefit that patient. I think that would make sense to color code it or somehow disseminate which ones are related to a disease." - C
Virtual patient visits	--	During the pandemic, CHW had to shift how they interacted with patients, including various forms of virtual visits.	"I have a virtual visits where patients are comfortable with that but I guess it depends on the patient itself too, how eager they are to quit or want to learn. Then they'll do whatever so I guess you have to find that out too so." - C

Supervision	--	Aspects of supervision or empowering community health workers by their supervisors or managers	"Yeah a lot of times community health workers second guess themselves too with what they can take in and take what they can. I mean, they have a lot inside of them and they just need someone to help foster it and bring it out of them so you may get some feedback from 'Oh that's too much' and 'I don't know that I wouldn't take that too' because we have to be able to challenge community health workers to work to the top of their capacity and you know they're capable and can do it. It's just a lot of fear sometimes in some community health workers, so empowering [them], yeah." - C

Table 2: Number of codes by stakeholder, just E.R. coding

Theme	Stakeholder A	Stakeholder B	Stakeholder C	Totals
Additional resources for distribution by CHW	16	18	13	**47**
Follow up	5	0	4	**9**
Promotional materials	1	10	0	**11**
Toolkit	9	8	10	**27**
CHW model of care	13	21	9	**43**
Communication	4	11	1	**16**
Non-judgmental	5	4	2	**11**
Rapport	7	7	6	**20**
Current CHW trainings	4	7	6	**17**
Health conditions	0	1	5	**6**
Inclusion of family	0	1	0	**1**
Logistics of CHW training	20	18	29	**67**
Certification	5	2	2	**9**
Cost	7	2	5	**14**
Delivery of training	1	4	3	**8**
Frequency	0	0	4	**4**

High relevance	5	1	5	**11**
Length	3	3	2	**8**
Setting	2	0	0	**2**
Sustainability	1	6	7	**14**
Supervision	0	0	3	**3**
Tobacco cessation knowledge	2	4	5	**11**
Hands on tools	0	0	3	**3**
History	0	1	0	**1**
Terms	2	1	1	**4**
Types of smoking	0	2	1	**3**
Training content	13	9	12	**34**
Role playing	6	5	7	**18**
Statistics	2	2	3	**7**
Visuals	2	0	2	**4**
Virtual patient visits	3	0	6	**9**
Totals	**138**	**148**	**156**	**0**