Getting on Target with Community Health Advisors (GOTCHA): an innovative stroke prevention project

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Health disparities along with insufficient numbers of healthcare providers and resources have created a need for effective and efficient grassroots approaches to improve community health. Community-based participatory research (CBPR), more specifically the utilization of community health advisors (CHAs), is one such strategy. The Getting on Target with Community Health Advisors (GOTCHA) project convened an interdisciplinary team to answer the call from 10 counties in the rural Mississippi Delta area of ‘The Stroke Belt’ to meet the region’s identified health needs, and to impact the health of a disparaged state. This article explores this CBPR project including the community involvement strategies, innovative CHA training curriculum, evaluation plan, and implications to healthcare professionals, particularly nurses.

Key words: cardiovascular health, community, education, health promotion, lay health workers, minority.

Health disparities along with insufficient numbers of healthcare providers and resources have created a need for grassroots approaches that effectively and efficiently address community health needs. Community-based participatory research (CBPR) is one such strategy and is defined as a ‘collaborative approach to research that equitably involves all partners in the research process and recognizes the unique strengths that each bring’ (Minkler and Wallerstein 2003, 4). CBPR is a long-term cyclical process that requires commitment to meet three goals: research, action, and education. In this participatory process, information is exchanged freely and all partners share problem-solving to accomplish knowledge attainment. The community is a unit of identity with existing strengths and resources upon which to build this process. Additionally, the resources and expertise of research partners are employed to benefit all stakeholders. CBPR focuses on local public health problems and ecology while recognizing that there are multiple determinants of health (Minkler and Wallerstein 2003). This approach creates a project that is truly community-based and community-driven not merely community-placed. This approach also provides a unique opportunity for nurses to engage the community to generate substantial societal change.

Community transformation works through a social ecology model (Stokols 2000; Institute of Medicine 2002). Social ecology implies that certain behaviors, social roles, and environmental conditions can influence an individual’s well-being, thus connecting well-being with the sociophysical environment. The social ecology model appreciates that the individual is intertwined with the environment in a dynamic relationship. Individual health behaviors are developed and reinforced by the personal, physical, and social context of multiple life domains (Stokols 2000). Health is a result of the quality of the individual’s fit with his or her environment.

A core assumption of the social ecology model is that environment is whole and interconnected. All parts of the whole are equal and mutually influence each other. Individ-
ual- and community-level variables influence health as well as health outcomes. Altering both levels of variables can initiate ecological transformation as well as impact specific health outcomes. Another key principle of the socioecological model is that a comprehensive understanding of health requires a multidisciplinary approach (Freudenberg et al. 1995). Healthcare providers’ participation in the process requires reciprocity and cooperation by all disciplines involved to bring about transformation (Grzywacz and Fugua 2000).

Considering an individual’s community is a powerful force in his or her lives, standard individually based interventions may not be suitable for long-lasting change. Innovation in developing or refining interventions to include broader community-based dimensions can improve outcomes. Developing interventions to solve community problems can occur through social engineering, new knowledge production, and transformational leadership inspired to create a self-reflective community of inquiry (Minkler and Wallerstein 2003).

Getting on Target with Community Health Advisors (GOTCHAs) is a cost-effective, community-based participatory research (CBPR) approach that can address a variety of constructs identified by the social ecological model. Community health advisors (CHAs) are lay persons with special training to provide designated health services and information to fellow community members. Serving primarily underserved populations, these health workers provide valuable liaison services between community members and the formal healthcare delivery system. An accepted characteristic of a CHA is that the individual is indigenous to the community and familiar with its physical and social characteristics. CHAs also have local knowledge of community problems and possible solutions (Nemcek and Sabatier 2003; Andrews et al. 2004).

Located in ‘The Stroke Belt’, Mississippi (MS), is a prime location to initiate grassroots efforts where recognized health disparities, especially in cardiovascular disease (CVD) and obesity, exceed those in other states and are exacerbated by a shortage of healthcare providers. Over three-fourths of the state’s counties, including all of those in the MS Delta, are designated health professional shortage areas (MS Department of Health 2004). The MS Delta is an obvious choice for a CBPR project because of its deep sense of community along with its rich history of coming together to overcome obstacles. The depth of community involvement has varied across CBPR projects with a wide range of success in their outcomes (i.e. Baker et al. 1997; Earp et al. 2002; Kegler and Malcoe 2004; Kim et al. 2004; Krieger et al. 2005; Mukherjee and Eustache 2007). The purpose of this article is to explore an innovative stroke prevention project in the MS Delta, GOTCHA, which incorporated CBPR principles in all phases of the project to engage and work with the community to address this overwhelming health disparity. At the conclusion of the article, implications of CHAs to nursing and community health practice are presented.

**GOTCHA PROJECT OVERVIEW**

In response to a request for proposals by the Delta Health Alliance (DHA), the Center for Sustainable Health Outreach staff members convened two informal discussion groups as a means of initiating the CBPR process prior to writing the proposal and guiding the project. The information provided in these discussion groups was used in proposal development. Two discussion groups were held in the MS Delta area – one with 13 healthcare professionals (social workers, dietitians, nurses, administrators, and clinic managers) and one with 10 community members. Participants in both groups identified CVD – particularly stroke and heart disease – as well as diabetes, hypertension, and obesity, as priority health concerns. Participants specifically discussed the lack of basic knowledge concerning risk factors, prevention methods, lifestyle, and behavior modification as well as the lack of access to health-care in the community. Participants were concerned that there was inadequate attention to the prevention of these chronic conditions.

When asked what type of programs and activities participants would like to see in their communities, both groups advocated for programs that incorporated methods that were participatory, accessible, and free. In addition, both groups discussed the need for easily understood educational activities and materials delivered in common language. Health professionals participating in the discussion group stressed the need for community residents to have access to free hypertension and glucose testing in their communities. Community residents expressed their desire for peer-to-peer education that was easily understood and without medical jargon as well as support, especially for caregivers of persons with chronic diseases and the elderly. Residents wanted practical information applicable to their daily routines.

Discussion questions were strength-based, explorative, and focused on the types of programs and services community members desired. Thus, the GOTCHA project was developed from the feedback provided in those discussion groups, input from other community leaders in the targeted service areas, and MS morbidity and mortality data.

The purpose of GOTCHA was to develop and implement a CHA project grounded in CBPR that focuses on stroke prevention and early detection methods. Although emphasis has been placed on the prevention and early detection of strokes in African American men and women, considerable attention
has not been focused on the several contributing chronic diseases (diabetes, hypertension, and CVD) to stroke in combination with lifestyle modification, improved nutrition, stress management, and increased physical activity. The GOTCHA service area included 10 of the 18 counties serviced by DHA in the MS Delta: (i) Coahoma, Quitman, and Tallahatchie counties; (ii) Leflore, Carroll, and Holmes counties; (iii) Sunflower and Bolivar counties; (iv) Washington county; and (v) Humphreys county. Staff and community leaders who live and work in the Delta area recommended the aforementioned groups of counties. Location of health services and resources was an additional consideration for clustering.

Utilization of CHAs as connectors between healthcare consumers and providers has become increasingly attractive as a means of promoting health among groups that have traditionally lacked access to health care. GOTCHA incorporated a training design that was comprehensive and holistic in nature. Recommendations from previous research guided GOTCHA program staff in adapting and designing the project curriculum. Following recommendations of other leaders in the field, project staff developed a curriculum that would first train participants with core skills and competencies in outreach, followed by disease-specific training (Catalani et al. 2009). Project staff did not assume that participants already possessed all necessary outreach skills. Rather, the training curriculum and educational methods are more comprehensive in an effort to address the complexities of health outreach.

The GOTCHA project comprised two segments of training: comprehensive core skills and chronic disease modules. The Comprehensive Core Skills in Outreach for CHAs training was adapted from The Community Health Workers Comprehensive Skills Training (Community Health Worker Network of NYC n.d.) curriculum and included the development of core skills and competencies identified by the National CHA Study (Rosenthal et al. 1998). Upon completion of a 35-hour core skills training, CHAs would acquire comprehensive outreach skills and be equipped to understand and translate chronic disease information. After completion of the Comprehensive Core Skills in Outreach for CHA training, CHAs selected areas of focus (nutrition, hypertension, diabetes, CVD, and lifestyle management) that they wished to pursue.

**Comprehensive core skills in outreach for CHAs curriculum**

CHAs do not merely educate community members about their health, and consequently, this CHA training included more than just health education. CHAs serve in a variety of roles including community facilitators, lay health educators, resource referrals, advocates, community organizers, home visitors, medical interpreters, and patient navigators to name a few. When working with members of the community, their efforts are neither pedantic in nature nor didactic in methodology (Community Health Worker Network of NYC n.d.). Yet historically, CHAs are trained in narrowly defined content information utilizing methods that are instructive and didactic with the expectation that they will enable citizens to assume the responsibility for their own and their community’s health. This counterintuitive thought process speaks to the existing health disparity gaps, and a paradigm shift must occur. Employing participatory and emancipatory educational methods provide training in more appropriate behaviors to meet the goal of community and social transformation and reinforce CPBR theoretical constructs (Matos and Mayfield-Johnson 2006).

Contrary to formal pedagogy, an androgogical philosophy or adult education and adult-learning theories should guide CHA training (Mayfield-Johnson 2007). An emphasis on experiential learning is crucial because adult-learning teaching principles and methodology should be grounded in the learners’ experiences as true learning takes place when applied to experience (Knowles 1980, 1984; Mayfield-Johnson 2007). The purpose of adult education is to give meaning to experience (Lindeman 1989). Lindeman (1989) has stated, ‘experience is the adult learners living textbook’ (7), and adult education is ‘a continuing process of evaluating experience’ (85). Through this continual process of evaluating experiences, a method of awareness where one learns to become alert in the discovery of meanings is developed. The goal of adult education is twofold: personal self-improvement in the short term with changing the social order in the long term (Lindeman 1989).

Fundamental to adult-learning theory is the realization that an individual must experience a need to change or to learn before a change can occur. Lewin (1977) postulated that people must experience an ‘unfreezing’ of old attitudes and beliefs before they can consider new ones. Likewise, Nyswander (1956) built upon this perspective when she articulated the principle of relevance, or starting where the people are, as perhaps the most fundamental tenet of health education practice. Parallel to this notion of relevance is the importance of participation and experience (Matos and Mayfield-Johnson 2006; Mayfield-Johnson 2007). With health viewed as a resource originating from people within their social context rather than from the healthcare system, participation is critical to ensure the cultural sensitivity of
programs, facilitate sustainability of change efforts, and enhance health in its own right (Jewkes and Murcott 1998). CBPR principles support this theoretical framework.

Such emphasis on appropriate pedagogy is fundamental to the development of a successful CHA training program including popular education techniques as the primary teaching methodologies. Popular education is an educational approach designed to raise participant consciousness of the connection between individual personal experiences and larger societal problems. Popular education has origins in the writings of exiled Brazilian philosopher Paulo Freire through the publication of *Pedagogy of the oppressed* (Freire 1970) and other banned writings during the Latin American military dictatorship in the 1970s. Freire expressed that reality was not objective truth or facts to be discovered but ‘includes the ways in which people involved with facts perceive them… The concrete reality is the connection between subjectivity and objectivity, never objectivity isolated from subjectivity’ (Freire 1973, 29). Freire (1970) provided the psychosocial understanding of how emancipatory knowledge can lead to the power to make change. As people engage in dialog with each other about their communities and the larger social context, how they think and ascribe meaning about their social world changes, their relationships to each other become strengthened and their ability to reflect on their own values and choices increases (Matos and Mayfield-Johnson 2006; Mayfield-Johnson 2007). Social change then begins with persons reflecting on their values, their concern for a more equitable society, and their willingness to support others in the community. As people learn about root causes to issues and understand their strengths, they are better able to recognize and understand the political, economic, and social conditions that surround them. After which, people are able to move from passivity to active participation, to be critical of the status quo, reject oppression, and affect change (Mayfield-Johnson 2007).

As a result, the GOTCHA training design and curriculum differs significantly from other CHA interventions and programs. In most CHA models, an integrative disease-specific curriculum is developed and implemented with identified recruits. Because most training participants in CHA programs are identified as informal leaders in the community, assumptions are made about their abilities to be a CHA. CHA models work well in communities because CHAs are members of their communities with knowledge of the community’s culture, language, and history. Community residents often look to these persons for advice and assistance, and they are informal gatekeepers to the community. However, funding is rarely non-prescriptive. The collective assumptions made about an individual’s ability to conduct outreach by restrictive proposals when submitted to funders are often misguided. Often, these proposals direct little attention to the core skills necessary to be effective in outreach because outreach skills are assumed. Instead, attention is largely focused on the specific disease or topic. These core skills are foundational building blocks to personal development, program implementation, program evaluation, and community capacity building.

The National CHA Study (Rosenthal et al. 1998) recommended that CHA programs adopt and refine the following identified CHA roles and competencies: (i) cultural mediating between communities and healthcare providers; (ii) informal counseling and social support; (iii) providing culturally appropriate health education; (iv) advocating for an individual’s and the community’s needs; (v) assuring individuals receive necessary services; (vi) building individual and community capacity; and (vii) providing limited direct services (e.g., blood pressure readings, glucose testing). CHA skill competencies identified included: communication skills, knowledge expertise, capacity-building skills, interpersonal skills, service coordination skills, teaching skills, advocacy skills, and organizational skills.

Table 1 (Rosenthal et al. 1998) summarizes the implementation of these roles and competencies into the GOTCHA training, and these core roles and competencies encapsulate the functions CHAs can serve in their communities. For example, many CHAs play an important role as bridges and mediators between communities and the healthcare delivery system. This cultural mediation may include collecting pertinent and private information from community members that is often not shared with health and social service providers. CHAs can ‘translate’ medical and other health terminology into lay language a community member can understand. They may educate community members on changes in how services are offered, hours and pay rates at community health clinics, and ways to engage provider interaction. CHAs provide informal counseling and support through leading support groups, time spent working with community members on goal setting, and community resources CHAs have developed through extensive resource networks. CHAs provide culturally appropriate health education by often making it physically available to community members through handing out pamphlets on street corners, performing door-to-door outreach, and home visits. CHAs often advocate for individual and community needs as intermediaries between community members and bureaucracies, explaining systems in lay language and assisting to resolve problems like the lack of insurance or prescription assistance programs.

CHAs do not just put community members in contact with health services; they go much further to ensure that ser-
vices are actually obtained. As Table 1 (Rosenthal et al. 1998) specifies, CHAs attempt to ensure that people receive necessary services. Ensuring people receive these services may include physically locating an individual who lacks a telephone about test results or providing referrals to food banks and other support programs. CHAs assist in building individual and community capacity. CHAs increase the individual’s capacity to protect and improve health through education and skill development, such as how to prepare traditional foods with less fat. CHAs also help communities identify their priority needs and work to resolve identified problem areas. Finally, some CHAs provide various limited services such as BMI assessment, cardiopulmonary resuscitation and first aid, and home glucose and blood pressure monitoring.

Incorporation of a core skills curriculum that included the identified CHA roles and competences in an emancipatory and participatory curriculum design was vital to the philosophical foundational for this project. The Community Health Workers Comprehensive Skills Training (Community Health Worker Network of NYC n.d.) curriculum was adapted for use with the GOTCHA program. The Commu-

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<tr>
<th>CHA roles and competencies</th>
<th>Methods for incorporating suggested roles and competencies into GOTCHA</th>
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<tr>
<td>Cultural mediating between communities and healthcare providers</td>
<td>Educating community members on understanding and navigating the healthcare and social service systems</td>
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<td>Translation, interpretation, and facilitation of community-provider communication</td>
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<td>Gathering information for medical providers</td>
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<td>Educating medical and social service providers about community needs</td>
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<td>Linking health professionals to community needs</td>
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<td>Informal counseling and social support</td>
<td>Helping families develop social capital</td>
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<td>Leading support groups</td>
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<td>Providing individual support through active listening techniques</td>
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<tr>
<td>Providing culturally appropriate health education</td>
<td>Teaching concepts of disease prevention and health promotion</td>
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<td>Helping manage chronic illness</td>
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<td>Integrating concepts of adult learning and popular education</td>
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<td>Advocating for an individual’s and the community’s needs</td>
<td>Knowledge of resources in community</td>
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<td>Representatives for community needs</td>
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<td>Presentations to community and larger stakeholders</td>
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<td>Assuring an individual receive necessary services</td>
<td>Linking to services</td>
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<td>Making referrals</td>
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<td>Providing follow-up</td>
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<td>Building individual and community capacity</td>
<td>Individual – change health-related behaviors</td>
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<td>Community – help communities assess their needs and develop action plans</td>
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<td>Providing limited direct services</td>
<td>Personal height, weight, waist circumference, body fat percentage, and BMI awareness; CPR and first aid; home glucose monitoring; home blood pressure readings; leading physical activity exercise sessions and walking groups; and demonstrating how to read food labels, control portion sizes, reducing salt, fat, and sugar in foods, and translating consumer marketing techniques and food buying relationships into healthier habits</td>
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<td>Assisting with food, employment, and/or housing resources</td>
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Community Health Workers Comprehensive Skills Training is a 35-hour training designed by community health workers to include the core skills and competencies identified by the National CHA Study (Rosenthal et al. 1998). Additional examples of cultural humility (Tervalon and Murray-Garcia 1998), popular education methods, reflections of MS Delta history, and participants’ life stories were included in training to enhance the application and utility of the curriculum by MS Delta residents. The resulting Comprehensive Core Skills in Outreach for CHAs curriculum is consistent with popular education and adult-learning principles in design, length, and philosophy.

### Table 2  Summary of chronic disease modules

<table>
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<tr>
<th>Chronic Disease Modules</th>
<th>Objectives</th>
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| **Nutrition**          | - Reinforce key stroke messages  
                         | - Increase knowledge of basic nutrition knowledge  
                         | - Identify the functions of nutrients in the body  
                         | - Demonstrate accurate measurement of height, weight, waist circumference, and body mass index  
                         | - Compare and contrast serving sizes and portion sizes  
                         | - Demonstrate accurate readings of food labels  
                         | - Understand grocery store marketing techniques and consumer food buying relationships  
                         | - Translate Delta culture eating habits  
                         | - Model a supermarket tour and food label reading exercise  
                         | - Cook heart healthy meals  
                         | - Explore options for CHA to use knowledge and skills in the community |
| **Diabetes**           | - Reinforce key stroke messages  
                         | - Increase knowledge of diabetes including risk factors, prevention, treatment, and complications  
                         | - Increase knowledge of how to engage healthcare professionals to improve personal diabetes outcomes  
                         | - Demonstrate accurate measurement of blood glucose  
                         | - Explore options for CHA to use knowledge and skills in the community |
| **Hypertension**       | - Reinforce key stroke messages  
                         | - Increase knowledge of hypertension including risk factors, prevention, treatment, and complications  
                         | - Increase knowledge of how to engage healthcare professionals to improve personal hypertension outcomes  
                         | - Demonstrate accurate blood pressure measurement  
                         | - Explore options for CHA to use knowledge and skills in the community |
| **Cardiovascular disease** | - Reinforce key stroke messages  
                          | - Increase knowledge of hypertension including risk factors, prevention, treatment, and complications  
                          | - Demonstrate proficiency in community cardiopulmonary resuscitation  
                          | - Explore options for CHA to use knowledge and skills in the community |
| **Lifestyle management** | - Reinforce key stroke messages  
                           | - Define stress and understand the body’s physiological responses  
                           | - Increase knowledge of stress risk factors, prevention, modification techniques, and potential complications of unmanaged stress  
                           | - Demonstrate stress management techniques  
                           | - Increase knowledge of physical activity basics and potential for life enhancement and disease reduction  
                           | - Identify potential home exercise equipment activities  
                           | - Demonstrate strength training, low impact and stretching exercises |
**Chronic disease modules for CHAs curriculum**

Public health professionals, nutritionists, and a nurse affiliated with the project developed the chronic disease modules in collaboration with community members. Specifically, training modules related to nutrition, hypertension, diabetes, CVD, and lifestyle management were developed following input from community consultants (see Table 2). Table 2 also identifies the content areas and the objectives for each of the training modules. To obtain this input, professionals trained in the content areas met with CHA representatives to determine the community’s expectations, needs, and previous content experiences. The information gained from these meetings then guided the development of each module. Once the modules were developed, GOTCHA staff substantiated these chronic disease modules with the CHAs to determine whether the module accurately and culturally reflected the information they had shared. These CHA representatives also received acknowledgement in authorship of the modules for the critical part they played in its development. This interdisciplinary partnership, among both program staff and CHAs, reflects the CBPR focus and commitment guiding the GOTCHA project.

Key stroke messages including the American Heart Association’s Know Your Numbers (KYN; blood pressure, body mass index, glucose, cholesterol) underlined each disease module, and the connection of stroke to each individual chronic disease area was demonstrated. The premise for all the chronic disease modules was not only to increase knowledge in these areas but also to equip CHAs with skills that could be used in the community and at their jobs when applicable. These skills included the measurement of blood pressure, pulse, weight, height, body mass index, and blood glucose as well as cardiopulmonary resuscitation. The ultimate goal of the chronic disease modules was to create lay ‘content experts’ that could then go out and train future CHAs in these areas as well as conduct community-level activities. CHAs can utilize their familial and peer networks to share correct stroke prevention and early detection education, offer some direct services, and provide social support.

Upon the completion of the core skills and chronic disease training, participants received continuing education units (CEUs) from the Office of Professional Development and Educational Outreach at The University of Southern Mississippi (USM) in addition to certificates of completion. By including CEUs as a part of the training design, the significance of the training is emphasized with goals, objectives, content outline, and teaching methodologies submitted and approved by a governing academic institution. CEU transcripts are from the university, not from the program. Training participants also received a small monetary stipend for their participation at the completion of the comprehensive core skills and three of the chronic disease training modules. At the conclusion of the core and chronic disease training modules, a graduation ceremony was held at each training site to celebrate the accomplishment of completing the extensive CHA trainings. Each CHA group had completed approximately 95 hours of training over a period of 6 months, and graduation often reflects the deep physical, emotional, and time commitment each CHA voluntarily makes. A graduation ceremony also forges a strong CHA group identity in that it facilitates a strong sense of accomplishment and gives value to the training they have received (Mayfield-Johnson 2007). The ceremony also presented the CHAs to the community and introduced their new roles. During this ceremony, the CHAs received a tool kit including the necessary equipment (i.e. glucose monitors, strips, blood pressure cuffs, scales, tape measures, biohazard containers, sanitizing wipes, antibacterial hand sanitizer) needed to conduct skills acquired in the chronic disease training. The CHAs can use the toolkits to implement their newly acquired skills in their community.

**RECRUITMENT**

Recruitment of GOTCHA training participants involved a two-step process that began with the identification of community consultants, who were recognized, informal leaders, in a community area. These persons represented invaluable resources and often were gatekeepers in their communities. An informal method of snowball interviewing, specifically reputational and decisional analysis, through community forums held in each training area identified community consultants. Identification involved the formal or informal nomination of residents who play a powerful role in community affairs by knowledgeable community members. Additionally, community informants were asked to describe recent community decisions and key players in those decisions. The following questions were used to help identify community consultants: (i) Who do people in this community go to for help or advice? (ii) What person in this community do people trust will do what is right for the community? (iii) When the community has had a problem in the past, who has been involved in working to solve it? and (iv) Who would have to be involved to get things done in the community? Persons designated as meeting the above criteria were asked to serve as community consultants.

Roles of the community consultants included assisting GOTCHA staff in publicizing the GOTCHA project, identifying and recruiting potential community members to partici-
pate in CHA training, and assisting staff with training set up. The following criteria guided CHA training recruitment: (i) participants must be at least 18 years old; (ii) participants must hold a high school diploma or equivalent; and (iii) participants should display an active interest in improving the health of their communities. Some community consultants utilized a convenience sampling method to recruit participants, often targeting people who attended the same church or worked in the same business thus limiting representation of the entire target areas. GOTCHA staff guided community consultants to broaden their recruiting base to represent the target service area comprehensively. Changes in marketing strategies (i.e. local television, radio, and newspapers) were employed to increase community awareness of the project and improve recruitment.

Additionally, the consultants worked closely with GOTCHA staff in identifying training locations, arranging for audiovisual equipment needs, and coordinating food for each training group. The consultants assisted in greeting participants and providing assistance at each training session. Each community consultant received monetary compensation for the assistance provided.

COMMUNITY PRESENCE

In addition to reducing the incidence of stroke in the MS Delta, GOTCHA staff worked to develop and maintain positive relationships with community members. Prior to beginning training, all GOTCHA staff from the principal investigator/director down to the community consultants attended and facilitated community informational meetings in the target service areas. To establish positive relationships with the community, GOTCHA staff recognized the importance of removing distance and unfamiliarity as barriers to their accessibility and acceptance within the communities. These meetings provided an opportunity for staff to introduce themselves to the community as well as to share information regarding the purpose and design of the project with the community. During the informational meetings, GOTCHA staff asked community members to prioritize their major health issues and identify local community resources and barriers to improving health in the area. Further, community members were encouraged to ask questions, offer suggestions, and hold the staff accountable to maintaining open community dialog so that the project would truly reflect an equitable community relationship. These meetings were foundational to the project’s paradigm and would aid in successful implementation of the project. Staff mailed a summary of all information obtained during the community informational meeting to all community members who attended the meeting. Too often, data shared with academic intuitions and health programs are not reported back to the community members from which the information originated (Minkler and Wallerstein 2003); GOTCHA staff desired to facilitate an emancipatory model in philosophy and practice. All communication shared with the program is disseminated to the community. This approach is one method of ensuring the ongoing communication and supporting a true CPBR relationship.

Although an employee of USM, the GOTCHA project program coordinator lives and works in the MS Delta. The involvement of an MS Delta resident as a project staff member allowed community consultants and training participants to relate to a well-known and recognized person in the community with the GOTCHA project. The program coordinator successfully developed rapport with community members because of their similar ethnic and cultural backgrounds. The program coordinator’s accessibility in the community enhanced the GOTCHA project’s entry and acceptance in the community, and the program coordinator’s presence in the community increased the participants’ trust in the GOTCHA project and its staff. According to Catalani et al. (2009), trust represents the most consequential aspect of community health work that allows access to personal information – essential in helping community members make healthful lifestyle and behavioral changes. Observation of the trusting and respectful relationships between the program coordinator and other GOTCHA staff accelerated entry into the community and increased the probability of successful project implementation.

EVALUATION

Because of the time limitations of funding for this project, evaluation of community- and policy-level changes is not possible. An extensive amount of time is needed to observe and measure macro-level changes resulting from CBPR projects. However, from the beginning of the project, GOTCHA staff sought to evaluate rigorously the impact of the CHA training on participants. Because implementation of the GOTCHA project is ongoing, impact or outcome evaluation cannot be conducted at this time. With these limitations stated, it is important to review and disseminate information on what evaluation strategies are being implemented to evaluate the impact of GOTCHA’s training. A mixed method approach is being used to evaluate comprehensive core skills training and training in the chronic disease modules. Quantitative and qualitative approaches are employed to assess how the comprehensive core skills training enhanced CHAs competency, stroke prevention skills, as well as other factors, such as CHAs’
sense of empowerment. Table 3 defines the data collection instruments used, identifies whether it is qualitative or quantitative in nature, and specifies when each data collection method occurs.

To evaluate CHA’s competency in core skills, the CHA core competency instrument is administered as a traditional pretest at the first core training session, and again as a retrospective pretest at the end of the CHAs’ chosen chronic disease training. Core competencies evaluated include leadership, translation, guidance, advocacy, and caring as related to stroke prevention. Based on previous work, Story (2008) identified these as skills critical to an individual’s ability to perform as a CHA.

To assess CHA’s competency in a specific chronic disease module, several instruments are used. These include the KYN knowledge assessment that is administered at the beginning and ending session of each chronic disease training session to evaluate the key stroke prevention knowledge attainment. Similarly, a brief assessment pertaining to CVD, lifestyle, diabetes, nutrition, and hypertension is administered to participants before they begin a particular chronic disease module and after they conclude the module. Additionally, a checklist is used to assess whether CHAs are able to successfully complete certain skills. These skills include the accurate measurement of blood pressure, pulse, weight, height, body mass index, and blood glucose. Periodically, the project’s registered nurse assesses whether participants are competent in these skills. If a participant is unable to meet these basic skills, they receive additional training on the unmet practices. Participants should be able to perform tasks related to the chronic disease modules they completed.

At the initiation of training and at the end of the chronic disease training, the CHA lifestyle behaviors instrument is administered to assess how participating in CHA training affects personal health behaviors. This instrument assesses participant’s health-related behaviors, including diet, physical activity, and smoking. Finally, an assessment of a CHA’s perceived locus of control instrument is administered at the first training and repeated at the end of the chronic disease training. To collect demographic information, training participants complete a profile sheet at the initiation of training – the first core training session.

Talking circles, very similar to the focus group methodology, are used to evaluate the CHA training program, including core skills and chronic disease-specific training sessions. Each CHA group in their respective clustering is invited to join in this reflective process at the end of the chronic disease modules. The facilitator, an internal evaluator who has not trained any of the CHA groups, moderates each focus group using the same question guide. Concepts

Table 3  GOTCHA project data collection timeline

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<td>Baseline</td>
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<td>Quantitative</td>
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<td>KYN knowledge</td>
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</tr>
<tr>
<td>CVD knowledge</td>
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<tr>
<td>Lifestyle knowledge (physical activity and smoking)</td>
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<td>Diabetes knowledge</td>
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<td>Nutrition knowledge</td>
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<td>Hypertension knowledge</td>
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<tr>
<td>CHA lifestyle behaviors</td>
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<tr>
<td>CHA self-assessment of perceived control</td>
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<td>Skills checklist</td>
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<td>Overall training evaluation</td>
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<tr>
<td>Empowerment</td>
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<td>Locus of control</td>
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381
explored in the talking circles include the quality of the overall training, their perception of being prepared to perform CHA duties, personal empowerment from completing the program, and additional support needed to perform their role as a CHA.

Data are also collected to evaluate the process of program implementation. At the conclusion of each training session, participants complete a brief, open-ended survey. The survey asks participants to identify material covered in each session that is valuable to them and their role as a CHA. Similarly, participants are asked to identify what segments of the session need improvement. The overall delivery of the material is also assessed. GOTCHA staff members review the comments provided after each training session and seek to enhance the quality of future sessions based on participant’s feedback. Findings from each assessment are reported to training participants at the beginning of the following training session. Again, this is a method for staff to understand the importance of participants’ experience, comments, and reflections. Although the content of each training session remains the same, feedback from the participants directs project staff’s delivery of the material. Participants’ honest responses on these surveys help staff tailor the trainings to the specific needs and desires of each group, respectively. At the conclusion of the core and chronic disease training, each CHA completes an open-ended questionnaire to evaluate all training sessions as a whole.

**IMPLICATIONS?? FOR NURSING AND COMMUNITY HEALTH PRACTICE**

Although there are statewide efforts to recruit and retain health professionals in the MS Delta, health disparities, and specifically access to medical providers, remain a barrier. A major barrier to optimal care is the lack of access to quality, culturally appropriate preventative health care, which is exacerbated by the fact that many people who are trying to manage chronic diseases do not have health insurance coverage. Even with medical care, there may be multiple individual- and community-level barriers to adequate self-care. Healthcare providers, interested community members, and even policy-makers are continually exploring innovative strategies for filling the healthcare gap.

Many noteworthy CHA programs are currently meeting the health professional gap among groups that experience health disparities (Perez and Martinez 2008). As knowledge about the effectiveness of CHAs increases, greater attention is being directed toward identifying the specific training needs of persons preparing to become CHAs. Until recently, very little attention has been given to standardizing CHA training as related to critical competencies. CHAs increasingly report that they see themselves as a frontline public health worker. This perception, and the increasing demand for CHAs to bridge the gap between health institutions and communities, suggests that practitioners and researchers should explore training needs and effectively meet those needs through competency-based curriculum. Identifying competencies, documenting training procedures that address those competencies, and measuring the attainment of competencies will provide a framework for evaluating training effectiveness.

During the development and implementation of GOTCHA, program staff considered how to address training needs related to core competencies and chronic diseases. Evaluation of this more comprehensive training curriculum, as well as implementation of adult-learning methods, contributes to the evidence base of CHA training. Specifically, findings from this project will provide additional insight into the process, content, and structure of a two-pronged approach to CHA training.

The GOTCHA project is an initial step toward rigorously evaluating the process and impact of CHA trainings. Findings from this project have the potential to inform and enhance the usefulness and relevance of CHA training programs in the MS Delta and beyond. Documentation and evaluation of training methods and content will help establish best training practices, and further develop the educational evidence base of CHA trainings.

The training and practice of CHAs in communities could be of particular interest to front-line medical providers, such as nurses. Increasingly, nurses and nurse educators are recognizing the need for community-based approaches to care as a means of addressing health disparities. The need for health practitioners, including nurses, to understand and incorporate the perspectives of diverse communities is becoming more relevant as health professionals realize that many health problems are influenced by factors other than biological causes (Anderson, Calvillo, and Fongwa 2007). The relationship between nurses and CHAs is important as health professionals seek to connect disadvantaged populations with a fractured healthcare system.

CHAs are a logical partner for nurses who deliver chronic disease prevention and maintenance education. Participatory methods, specifically CBPR, will continue to be invaluable as nurses and community members, including CHAs, collaborate to meet local needs and harness assets. For improving the delivery of health care, nursing education and practice could include the interdisciplinary implementation and evaluation of CHA-based CBPR programs, such as the one presented in this study.
ACKNOWLEDGEMENTS

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