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Pilgrimage to Wellness: An Exploratory Report of Rural African American Clergy Perceptions of Church Health Promotion Capacity

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Abstract

Churches serve a vital role in African American communities and may be effective vehicles for health promotion in rural areas where disease burden is disproportionately greater and healthcare access is more limited than other communities. Endorsement by church leadership is often necessary for the approval of programs and activities within churches; however, little is known about how church leaders perceive their respective churches as health promotion organizations. The purpose of this exploratory pilot was to report perceptions of church capacity to promote health among African American clergy leaders of predominantly African American rural churches. The analysis sample included 27 pastors of churches in Eastern NC who completed a survey on church health promotion capacity and perceived impact on their own health. Capacities assessed included perceived need and impact of health promotion activities, church preparedness to promote health, health promotion actions to take, and the existence and importance of health ministry attributes. The results from this pilot study indicated a perceived need to increase the capacity of their churches to promote health. Conducting health programs, displaying health information, collaborations within the church (i.e., kitchen committee working with the health ministry), partnerships outside of the church, and funding were most commonly reported needed capacities. Findings from this exploratory work lay the foundation for the development of future, larger observational studies that can specify some of the key factors associated with organizational change and ultimately health promotion in these rural church settings.

Keywords

clergy; African American; health promotion; churches; capacity

INTRODUCTION

Despite significant medical discoveries and overall improvement in health in the U.S., disparities in morbidity and mortality among underserved racial minorities persist. In fact, there is a growing concern that the nation's ethnic and racial health gap is widening (U. S. Department of Health and Human Services, 2000). These health disparities are a result of a disproportionate burden of multiple diseases among low-income, racial minority, and rural populations compared to the general population, rather than a different set of unique illnesses among the most vulnerable. Furthermore, they are not limited to one or two conditions, but persist across a very broad spectrum of health conditions and outcomes (Holt et al., 2009).

The racial and ethnic group carrying the excessively highest burden of disease is African Americans. Nearly three decades have passed since publication of the Heckler Report demonstrating that African Americans have the worst overall health profile of all minority groups in the United States (Heckler, 1985). More recent investigations continue to identify African Americans as over-represented among individuals diagnosed with asthma (Hatcher-Ross, Wertheimer, & Kahn, 2005; Smith et al., 2005; Boudreaux, Emond, Clark, & Camargo, 2003; Zoratti, Havstad, Rodriguez, Robens-Paradise, Lafata, & McCarthy, 1998; Zoratti, 1998); cancer (American Cancer Society, 2007); diabetes (Saaddine et al., 2002; Harris, Eastman, Cowie, Flegal, & Eberhart, 1999); heart disease (Lloyd-Jones & Adams, 2009; Kravitz, 1999), HIV (Cunningham, Mosen, & Morales, 2000); hypertension (Fields, Burt, Cutler, Hughes, Rokccella & Sorlie, 2004; Hertz, Unger, Cronell,k & Saunders, 2005; Rosamond et al. 2008); kidney disease (Bruce, Beech, Sims, et al., 2009; Hsu, Lin, Vittinghoff, & Shlipak, 2003; Tareen, Zadshir, Martins, Pan, Nicholas & Norris, 2005; Norris & Nissenon, 2008; Powe, 2003); and obesity (Ogden et al., 2006), among others.

African Americans in rural populations are particularly vulnerable. In the Eight Americas Study of U.S. health disparities (Murray, Kulkarni, & Ezzati, 2005), low income African Americans in rural communities represent one of the described Americas – 5.8 million of the nation's population – with an average annual income second lowest among the eight different Americas defined, and the lowest percentage of high school graduates (Murray et al., 2005). Their life expectancy is the lowest of all eight groups. Although this is the case, this group and others with high mortality do not have the worst levels of all identifiable risk factors or access to care, indicating that the explanations for the disparities in health are complex. Health disparities vary based on ethnicity, time, geographic location and outcome across the United States pointing to the complexity of potential psychosocial and physiological pathways and contributors (Adler & Rehkrphf, 2008).

Adequately addressing health outcomes among African Americans that effectively reduces and ultimately eliminates health disparities will require collaborative, multi-faceted strategies (Adderley-Kelly & Green, 2005). Diverse sectors of the community must be involved, through non-traditional partnerships and by using culturally competent participatory action methodologies (Adderley-Kelly and Greene, 2005). An increasing number of public health scientists and practitioners have begun using community-based settings for health promotion activities and interventions targeting high risk groups and hard-to-reach populations (Holt et al., 2009).

Churches have been popular community organizations for health promotion programs and research studies targeting African American populations (Flegal, Carroll, Ogden & Johnson, 2002; Stecker, Fortney, Steffick, & Prajapati, 2006; Wimberly, 2001; Resnicow et al., 2000), frequently serving as the first source of support for health promotion in low-income and minority communities (Goldmon and Roberson, 2004; Olson, Reis, Murphy, & Gehm,

1988). They are also the oldest and perhaps most stable institutions in these communities. Recent research has specified some of structural and organizational assets of churches that contribute to their popularity as settings for health promotion (Campbell, Hudson, Resnicow, Blakeney, Paxton & Baskin, 2007). Organizational change theory research implies that senior-level administrators are most influential in defining the problem and in making the decision to adopt a program (Huberman & Miles, 1984). Arguably, in the context of churches, the most critical of these are pastors because they serve as "trusted messengers" whose endorsement or support is critical to the success of health promotion interventions (Carter-Edwards, Johnson, Jr., Whitt-Glover, Bruce & Goldmon, in press). Research indicates that pastors with congregational health ministries were significantly more involved in health promotion and disease prevention activities than those without health ministries; however those without health ministries were willing to become involved if they had adequate resources (Catanzaro et al., 2007). In spite of these findings, it is not clear whether involvement indicated changes in their own health behaviors, which may also be important for successful health promotion within their churches. Although the relative importance of their role for conducting health promotion in church settings, no studies to date have examined rural African American pastors' attitudes and perceptions about their churches' health promotion organizational capacity. To this end, we conducted an exploratory pilot study and preliminarily analyzed data from a sample of African American pastors and associate pastors who lead rural congregations to describe how these key leaders perceive their churches as advocates for health promotion and as catalysts that contribute to the prevention and treatment of chronic diseases in their respective communities.

METHODS

Pilgrimage to Wellness Exploratory Study: Purpose and Design

The Pilgrimage to Wellness Exploratory Study was designed to assess pastors' or associate pastors' perceptions and attitudes about the capacities of their churches as organizations for promoting their health and the health of the congregation, in order to ultimately: a) identify specific characteristics that may be necessary for the sustainability of health promotion programs and activities within their churches; and b) subsequently measure their impact on clergy and church members' health behaviors and outcomes. The focus is on African American pastors of predominantly African American churches. Clergy were recruited from an urban area (Durham, NC) and from rural counties in Eastern NC. Pastors were initially invited to participate by completing a survey either via the Internet or a mailed survey. They could appoint an associate pastor or clergy to complete it on behalf of their church if they were unable to do so. Only one survey was submitted per church. The majority of clergy successfully reached and consented completed the survey (or had the survey completed) via mail or at an information meeting with the research team. The current pilot study targets the African American clergy in Eastern NC who are members of the Community Empowerment Network.

Community Empowerment Network: Brief Description

The Community Empower Network (CEN), which started under Success Dynamics Community Development Corporation (SDCDC) in 2005, is a collaboration of faith-based organizations originating in eastern North Carolina. CEN's mission is to advance their communities through partnerships that thrive on economic development, superior education, and the elimination of health disparities. CEN was established in 2005 through support from the North Carolina Office of Minority Health and Health Disparities (NCOMHHD). This support allowed CEN to receive funding to help its member organizations establish wellness centers, develop health ministries, train lay health workers, and provide health screenings. CEN conducts a series of programs, including a leadership project designed to enhance

skills of faith-based leaders and increase the organizational capacity of churches to engage their members and communities in the civic process so that they can be equipped to mobilize change. One of the signature programs of NCOMHHD, the Community Health Ambassador Program (CHAP) (Pullen-Smith et al., 2008), started as a pilot program from this SDCDC-NCOMHHD partnership and currently operates in more than fifteen of the CEN churches by providing health screenings for diabetes and other health disparities.

At the time of this Pilgrimage to Wellness exploratory pilot study, there were 40 CEN member churches in 15 rural counties in Eastern North Carolina. To date, the membership continues to grow, in rural Eastern North Carolina and in other, more urban counties, with the intent to expand across the entire state.

Analysis Sample

Of the 40 Community Empowerment Network (CEN) member pastors invited to participate, 28 (70%) pastors or their associate pastors or ministers completed the survey. One respondent was excluded from analysis due to missing demographic data. Thus, the analysis sample included 27 (67.5%) respondents who were members of the CEN.

Variable Measurement

Variables measured in this sample for this study included: clergy and church demographics; perceptions of church capacity, health ministry and church priorities and existing resources; and perceived impact of church and family on clergy's health. *Clergy demographics* measured were age, gender, marital status, educational attainment, church role, work status beyond church role, and years as clergy or ministerial leader. Measures also included perceptions of own health, such as existing health conditions and perceived impact of church on personal health. *Church demographics* included church size (less than 100, 100–299, or 300+ members, both on the roster and active (members who attend at least monthly)). *Perceptions of church capacity* included the most important role of churches in terms of primary or secondary prevention, greatest health concern and health promotion barrier for their church, first/immediate health promotion action their church should take, measures of perceived importance and existence of health ministry attributes categorized into four areas: church function, leadership and staffing, technology and funding, and collaboration (Carter-Edwards et al., 2006). Negative percent differences reveal health attribute need, and positive percent differences reveal there is no need to improve access to the attribute. The larger, negative percent differences reveal the greatest perceived need based on what the pastors perceive as most important and what they believe exists in their church.

Analyses

Analyses included means and percent frequency statistics for the variable measures. McNemar's test of differences in percents were used to compare the percent differences between the importance of a health ministry attribute and whether it exists in the pastors' church (to assess attribute of greatest need, as defined by the clergy themselves). This study was approved by an Institutional Review Board at the Duke University Medical Center.

RESULTS

For the clergy sampled, 85% were senior pastors, 4% associate pastors, and 11% other clergy/ministerial staff (not specified). The mean age was 51.6 years. The majority was male, married, with a college education, and had an average of 15 years of pastoral experience, with a mean of 12 years at their current church (Table 1). Approximately 60% of the sample held another job outside of the church. Regarding personal health, the majority rated their health as very good (44%) or good (41%); however, they also reported they were

overweight (56%), had hypertension (41%), had high cholesterol (26%), and diabetes (19%). Twenty-six percent of the sample reported having none of these chronic diseases (Table 1). Of the 74% who reported having a health condition, 40% reported having two or three of the health conditions, and 10% reported having all four conditions. When asked whether church members had a major impact on their health behavior as clergy, two-thirds agreed or strongly agreed. For the quality of that impact, 67% reported it as positive or very positive, yet 15% reported it as negative or very negative. Eighty-nine percent of the clergy believed that improving church health promotion would improve their own physical health.

Table 2 presents the findings on the church characteristics and pastors' perception of church's capacity to promote health. Size of church membership (for those who reported) was primarily less than 300 members, whether the membership on the roster or the active membership (those that attend church at least once a month). Approximately two-thirds of the sample reported that their church has a health ministry, and of those that responded, 65% have a health ministry that is less than 5 years old. When asked "what is the *most important* role churches should play right now in promoting health in their congregations," just over half of the sample (56%) selected primary prevention efforts (assisting members in the prevention of health problems); however 41% selected secondary prevention efforts (assisting members with existing health problems to improve or maintain their health). The most common activity selected to address churches' role in health promotion was conducting health programs and classes (96%), followed by display of health education materials (59%), referral of members to health resources (56%), provide one-to-one health management (56%), and implementation of church health policy (37%). For the greatest physical health concern in their churches, pastors most commonly selected hypertension and obesity. The most common first actions churches should take are building partnerships with helpful organizations (collaborative external partnerships) (37%) and serving healthier food at church functions (22%). However, when asked about level of preparedness to actively promote health, 59% reported their churches were either somewhat prepared or not prepared at all.

Regarding health ministry attributes, those for which over 80% of the clergy reported as very important included: receipt of foundation or government funds for operating their health ministries; obtaining a separate, non-profit business status (501c3) for their outreach ministry; health ministry working with the kitchen committee; health ministry keeping a system for tracking members' health; health fairs for members; and display of health information within the church (Table 3). For the percent difference between importance and existence in their church (as a measure of perceived need), attributes revealing the largest, statistically significant difference were: church willingness to receive foundation (−59.3%) or government (−51.9%) funds (both $p < 0.0001$); health ministry working with the kitchen committee (−40.8%, $p=0.003$); and the church having a separate non-profit business status for outreach ministries (−25.9%, $p=0.039$).

DISCUSSION

Results indicate that, in this exploratory sample of African American clergy from churches located in rural eastern NC, there is a perceived need to increase the capacity of their churches to promote their health and that of their congregations. There are also perceived financial and infrastructural challenges that need to be addressed to increase this capacity. Internal and external collaborative partnerships (i.e., kitchen committee working with the health ministry, and partnerships with outside organizations, respectively), and the offering of health programs and classes are apparent ways their churches can readily promote better health, whether through prevention of disease or disease-related complications.

Overall, clergy felt that their church had a major impact on their own behavior, and the quality of that impact varied (from very positive to very negative). However, regardless of perceived impact, the majority believed that improving health promotion within their church would improve their own physical health, for which nearly three-quarters reported the presence of at least one chronic health condition (Table 1). Yet, self-rated health was quite favorable. These findings are similar to those reported on the 883 clergy in the Pulpit and Pew Study on church leadership (Carroll, 2006). For the African American clergy, who represented 16% of that sample, over 85% rated their health as favorable (excellent, very good, or good); however over 82% were classified as being overweight (based on self-reported weight and height), and at least 50% also reported having hypertension, diabetes, and/or high cholesterol. Although this disconnect between self-rated health and reported health conditions would be viewed as a lack of awareness of their health conditions, the data imply that clergy in the current study (as well as the Pulpit and Pew Study) acknowledge room for improvement in personal health behaviors through improved church infrastructure. Additionally, other factors in the current study, such as dual jobs (59% of the sample) may impose levels of stress on clergy such that elements of the church environment and time requirements for clergy may exacerbate the impact of the general church environment on their health. Thus, these relationships are complex and have yet to be explored in detail.

Health ministries are organized to address health needs through activities and information dissemination related to health and wellness (Carter-Edwards et al., 2006; Westberg, 1990). For the current study, building or bolstering health ministries were clear desires of the clergy. Although nearly two-thirds of the sample reported that their churches have a health ministry (one indicator of health promotion capacity), most have been in existence for less than five years, which corresponds with their perceived lack of preparedness of their churches to promote health. Additionally, in response to what is deemed most important on which churches should focus, over 40% of clergy reported secondary prevention, indicating a need for churches to better address the current health conditions of its members, almost as much as keeping other members from developing diseases in the first place (i.e., primary prevention, which was 55% of the sample). Nearly 75% reported hypertension or obesity as the greatest physical health concerns for their churches. So, lack of blood pressure control still remains a public health problem, despite national efforts to increase awareness, the availability of anti-hypertension therapy, and public health efforts to improve lifestyle. Obesity is an increasing concern (Flegal et al., 2002) and, in most cases, a modifiable risk factor that can, in part, be addressed through improved food choices in churches. Not surprisingly, among the clergy surveyed, conducting health promotion programs, displaying health education materials, building partnerships with outside organizations, and serving healthier food at church functions were the prevailing ways and actions by which their churches could promote health. However, the fact that many clergy listed conducting health promotion programs and displaying health education materials, and given the concern about the high prevalence of conditions such as hypertension and obesity, indicates continued need to promote community awareness. This may be particularly important in rural communities, where information and healthcare access can be limited. Building active, collaborative partnerships will become increasingly more important, particularly in today's economy, as resources will need to be shared and innovative opportunities to work together will need to be created. This means that more efforts will have to focus on building church infrastructure to promote health. Bishop Blake of West Angeles Church of God in Christ in Los Angeles stated, in the context of describing mega-churches, "A church can grow as long as the organizational structure is in place" (Mamiya, 2006). This may also apply for smaller churches attempting to build or enhance their health ministries. Regarding serving healthier food, improving dietary outputs of African American church kitchens, specifically increased fruit and vegetable offerings was also found in the Black Churches United for Better Health Study (Glanz & Yaroch, 2004). Other preliminary studies also indicate that working with

church auxiliary members to improve food offerings within the church can lead to lower weight among members (Carter-Edwards et al., 2005).

Funding and improved communication within the church (i.e., kitchen committee working with the health ministry) appear to be the health ministry attributes of greatest perceived needs (Table 3). Concern for adequate funds to conduct the work of the church is not new (Lincoln and Mamiya, 1990). The challenge of doing such work without funding means clergy and their churches are almost totally dependent on volunteer staff, which may be limited in long-term effectiveness. There is criticism for accepting government grants (Mamiya, 2006). However, it may be necessary to do so. Large churches may have the capacity to handle the paperwork necessary to apply for this type of funding. What this may mean for small, rural churches is that collaboration between churches to identify common areas for pursuing funding may be essential (Carter-Edwards, Johnson, Jr., Whitt-Glover, Bruce & Goldmon, in press). It also suggests opportunity for universities to expand the nature and functions of partnerships with churches and clergy in identifying areas where the transfer of existing knowledge regarding (health care and health promotions) can be adapted to daily use by clergy and health ministries to inform members and communities. For example, such collaboration would likely be effective in obtaining funding to develop podcasts of different disease topics such as diabetes, strokes, etc. to be used by health ministries as programmatic content. Likewise, clergy and communities may have to specifically seek out individuals and organizations that can provide the technical expertise to assist in obtaining grant funding. Multiple strategies will have to be developed and implemented to address the challenges of building organizational capacity and obtaining the necessary resources to sustain and grow health ministries.

It should be noted that CEN has begun to address and respond to the needs and challenges of clergy by offering a series of workshops for clergy and church members to help enhance or introduce grant writing skills. Other areas of professional development training include an understanding of key components of board development, organizational development, financial management, budgeting, and community capacity. Building skills in these areas can help clergy engage in more intentional organizational capacity efforts that may impact health outcomes of churches. Regarding improved internal communication, there needs to be a clearer understanding of the operations and structures of the kitchen committees and health ministries within the churches, whether the structures are formal or informal. If there is no health ministry and/or no kitchen committee, efforts may be necessary to establish such committees to simply begin active promotion of health.

Results from this report should be interpreted with caution. The sample size was small and may not be representative of other clergy in the area. However, 67.5% of the CEN membership participated. Limited financial resources were used to recruit clergy. With additional resources and time, it is possible that the participation rate would have increased. Secondly, the prevalence of chronic conditions for the clergy as well as their congregations are self-reported and cannot be validated at this time. Future studies need to be designed, not only to capture clinical data to assess association between organizational structure and health outcomes, but also to equip churches with health information for them to use to help monitor the impact of their programs and activities on improving the health of their congregations.

Church health promotion capacity is a key concern and challenge for this sample of African American clergy from rural churches in NC. Central to the challenge of health promotion is the need for capacity building, within individual churches and collectively, as a group of organizations like CEN. While CEN collectively has made great strides towards developing organizational capacity, there is still the challenge of connecting the churches with existing

resources in the community and region. The need for more intentional partnership development and collaboration has never been greater, as the financial resources are more difficult to access and, for CEN and other rural churches, having the talent and expertise to prepare the necessary paperwork to get funding. The opportunity in this challenge is for more intentional collaboration with universities in the regions who have the knowledge and technical expertise needed to assist with the knowledge transfer and skills development of clergy and their health ministries.

This study is one of the initial steps necessary in identifying the common organizational issues that need to be defined and addressed. Further study within this population will be important in building both individual and collaborative church organizational models to implement programs and activities that effectively mobilize members towards improved health behaviors within the church and in their communities, thereby diminishing health disparities that impact many African Americans.

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Table 1

Pastor Characteristics (n=27)

Characteristic	Value
Age (yrs)	
Mean (SD)	51.6 (± 8.3)
Range	33–69
Gender	
Male	81%
Female	19%
Marital Status	
Married	81%
Single/Divorced/Widowed	19%
Education	
High School Diploma	15%
Some College	33%
College or Graduate Degree	52%
Church Role	
Senior Pastor	85%
Associate Pastor	4%
Other Minister (unspecified)	11%
Other Job Outside of Church	
Yes	59%
No	41%
Tenure as Pastor/Associate Pastor	
Mean (SD) Years Total (n=25)	14.7 (± 7.9)
Mean (SD) Years at Current Church (n=27)	12.3 (± 8.0)
Self Rated Health	
Excellent	7%
Very Good	44%
Good	41%
Fair	4%
Missing	4%
Reported Medical Conditions (n=27) *	
Overweight	56%
Hypertension	41%
Diabetes	19%
High Cholesterol	26%
None	26%
Number of Reported Medical Conditions (n=20)	
One Condition	50%

Characteristic	Value
Two Conditions	20%
Three Conditions	20%
Four Conditions	10%
Church Has Major Impact on Own Health Behavior	
Strongly Agree	33%
Agree	33%
Disagree	26%
Strongly Disagree	4%
Missing	4%
Quality of Church Impact on Own Health Behavior	
Very Positive	19%
Positive	48%
Negative	11%
Very Negative	4%
Don't Know	4%
Not Applicable	4%
Missing	11%
Improving Church Health Promotion Would Improve Own Physical Health	
Yes	89%
No Improvement Needed	7%
Don't Know	4%

* Respondents may have more than one condition.

Table 2

Church Characteristics and Perceived Health Promotion Capacity (n=27)

Characteristic	Value
Reported Church Size – Total on Roster	
Less than 100 Members	19%
100–299 Members	30%
300 or more Members	19%
Missing	33%
Reported Church Size – Active Roster *	
Less than 100 Members	37%
100–299 Members	30%
300 or more Members	7%
Missing	26%
Existence of a Health Ministry	
Yes	63%
No	37%
Length of Time Health Ministry has Existed in the Church	
Less than 5 Years	65%
5 Years of More	35%
Most Important Role of Churches	
Assist in Promoting Primary Prevention	56%
Assist in Promoting Secondary Prevention	41%
Missing	4%
Ways to Promote Role Within the Church **	
Conduct Health Programs and Classes	96%
Display Health Education Materials	59%
Refer Members to Health Resource	56%
Provide one-on-one Health Management	56%
Implement Church Health Policy	37%
Other (not specified)	7%
Greatest Physical Health Concern of Own Church ***	
Hypertension	44%
Obesity	30%
Diabetes	19%
No Answer	7%
Greatest Barrier to Promoting Better Health	
Not Enough Funding	37%
Not Having a Health Ministry	22%
A Disconnect Between Physical and Mental/Spiritual Health	19%

Characteristic	Value
Not Enough Volunteers to Lead	11%
Not Enough Time for Pastors to Address	4%
Other Barrier ****	4%
Missing	4%
First Action Church Should Take to Promote Health	
Build Partnerships with Helpful Outside Organizations	37%
Serve Healthier Food at Church Functions	22%
Start Physical Activity Programs within the Church	11%
Incorporate Health Messages in Sermons	7%
Incorporate Health Messages in Bible Studies	7%
Raise Funds to Support Health Promotion	7%
Implement Sustainability Plan for Current Health Services	4%
Other (not specified)	4%
Preparedness of Church to Actively Promote Health	
Very Prepared	19%
Prepared	22%
Somewhat Prepared	37%
Not Prepared at All	22%

Note: For characteristics above, sums of percents not equal to 100% are a result of rounding.

* Attend church monthly

** Respondents could choose as many methods as desired.

*** Cancer and HIV were also listed as response choice options in the survey, but not selected by respondents.

**** Other barriers included health insurance and provider access.

Table 3

Perceived Importance and Existence of Health Ministry Attributes (n=27)

Attribute	Attribute Area	% Exist	% Very Important	Difference in %*	p-value**
Church is willing to receive foundation funds for its health ministry	Technology and Funding	29.6	88.9	-59.3	<0.0001
Church is willing to receive government funds for its health ministry	Technology and Funding	37.0	88.9	-51.9	0.0001
Health ministry works with the kitchen committee	Leadership and Staffing	44.4	85.2	-40.8	0.003
Church has separate 501c3 for outreach ministries	Technology and Funding	63.0	88.9	-25.9	0.039
Church participates in research studies with universities	Collaboration	40.7	66.7	-25.9	0.092
Church has earmarked funds for health ministry	Technology and Funding	44.4	63.0	-18.6	0.227
Health ministry has system for keeping track of members' health	Function	63.0	81.5	-18.5	0.180
Church hosts health fairs for the community	Function	63.0	77.8	-14.8	0.289
Health ministry uses biblical scripture with members	Function	55.6	66.7	-11.1	0.581
Health ministry occasionally provides members transportation to physician offices or health centers	Function	33.3	44.4	-11.1	0.629
Church participates in research with local community organizations	Collaboration	51.9	63.0	-11.1	0.453
Church hosts health fairs for members	Function	70.4	81.5	-11.1	0.453
Pastor has access to internet at church	Technology and Funding	74.1	77.8	-3.7	1.000
Pastor leads ministry and makes all of the decisions	Leadership and Staffing	14.8	18.5	-3.7	1.000
Health messages/announcements are in Sunday bulletins at least once per month	Function	70.4	74.1	-3.7	1.000
Church displays health information (pamphlets)	Function	88.9	81.5	7.4	0.688
Health ministry is headed by a healthcare professional	Leadership and Staffing	59.3	51.9	7.4	0.754
Pastor appoints member to lead health ministry	Leadership and Staffing	77.8	70.4	7.4	0.688
Members have access to internet at church	Technology and Funding	63.0	55.6	7.4	0.688
Pastor incorporates health messages in sermons monthly	Function	74.1	63.0	11.1	0.549

* Differences in percents of perception of attribute as very important compared to its existence in the church. Measures perceived need of attribute, where the more negative the difference the greater the need.

** McNemar's test of differences in percents of very important and exist in church. Bolded p-values indicate where there is a significant difference between what pastors deem important and what they actually have at their church.