

Utilizing Stakeholder Input within the Tennessee Heart Health Network to Improve Cardiovascular Health Outcomes in Tennessee

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Abstract

Background: Tennessee ranks sixth nationwide for most deaths related to heart disease. The Tennessee Heart Health Network (TN-HHN), an initiative coordinated by the Tennessee Population Health Consortium (TN-PHC), was created to combat this issue. The TN-HHN is a statewide network of primary care practices, health systems, and academic centers committed to implementing patient-centered outcomes research (PCOR) approaches to demonstrably improve cardiovascular disease (CVD) health outcomes and health equity across Tennessee.

Objective: Evaluate stakeholder experiences in participating in the Network in an effort to assess partner satisfaction and improve the TN-HHN as a whole.

Methods: Eligible stakeholders were invited via email to complete an electronic survey to give their input on the formation, evolution, and development of the TN-HHN. The survey was programmed and administered via REDCap and ran from June 22 – July 8, 2022. It was comprised of 17 required multiple-choice questions and five optional open-ended questions related to diversity, partnership opportunities, membership roles, meeting productivity, goals and success of the Network, and knowledge of PCOR and priority heart health issues.

Results: Of the 156 stakeholders who were invited, 46 (29.5%) completed the survey. There was a high level of agreement on the multiple-choice questions; at least 50% of participants responded approvingly (selected “agree” or “strongly agree”) on every question, with an average of 79.5% total approval on all questions. The highest-scoring quantitative questions had an approval rating of at least 85% and mainly pertained to understanding and supporting the goals of the Network and feeling comfortable and valued during Network meetings. The lowest-scoring quantitative questions concerned Network diversity and meeting productivity and efficiency.

Discussion: Most of the survey responses were positive, demonstrating an overall high level of stakeholder satisfaction. Members indicated that they were most appreciative of the opportunities they have had to form partnerships with other health care organizations and to learn more about their patient-care strategies. Based on the multiple-choice and open-ended questions, there is room for improvement regarding the diversity of the Network and the efficiency of Network meetings.

Introduction

Cardiovascular disease (CVD) is the leading cause of premature morbidity and mortality in the United States [1]. Compared to the rest of the country, Tennessee is unduly affected by CVD. Tennessee has the sixth highest death rate attributed to heart disease—212 out of every 100,000 people—out of all 50 states [2]. The high incidence of CVD in Tennessee can largely be ascribed to the pervasiveness of behavioral risk factors and chronic health conditions. In 2021, Tennessee ranked 5th in diabetes prevalence (14.1%), 7th in hypertension (39.3%), 9th in high cholesterol (36.2%), 13th in obesity (35.6%), and 5th in smoking (19.5%) [3]. Furthermore, Tennesseans have poor access to primary health care. Tennessee ranks 40th in the nation in access to care, and 91 out of 95 counties (95.7%) hold federal designations as health professional shortage areas [3, 4]. Due to all these factors, Tennesseans are less likely than residents of other states to receive the critical ABCS of cardiovascular health (aspirin use, blood pressure control, cholesterol management, and smoking cessation) [5, 6].

Because of its disproportionate burden of CVD, Tennessee—alongside Alabama, Ohio, and Michigan—was selected by the Agency for Healthcare Research and Quality (AHRQ) to receive external funding to develop state-based quality improvement (QI) support infrastructure to improve care delivery and health equity. The goal of the program is to help states implement patient-centered outcomes research (PCOR) interventions into primary care to improve overall heart health [7]. To accomplish these goals, the Tennessee Heart Health Network (TN-HHN) was formed. The TN-HHN is the signature initiative of the Tennessee Population Health Consortium (TN-PHC), a statewide cooperative of health systems, academic institutions, patients, and other key stakeholders. The main objective of the TN-HHN is to help the primary care practices optimize the delivery of the ABCS to improve the clinical outcomes of CVD patients. The project focuses on high-risk patient populations: Black people with hypertension and persons with diabetes, obesity, or CVD. One of the aims outlined by AHRQ is to evaluate all stages of the project, including the effectiveness of participation in the Network. To assess stakeholder experience, the TN-PHC—TN-HHN Member Survey was administered to receive their input on the formation, evolution, and development of the TN-HHN.

Methods

The TN-PHC—TN-HHN Member Survey was originally developed by the Alabama team that is working with AHRQ and was then adapted to be used in Tennessee. The survey has 22 questions, 17 multiple-choice and five open-ended, all of which pertain to stakeholder experience as members of the TN-HHN. To qualify to take the survey, stakeholders must be a member of one of the following:

- TN-PHC Executive Council
- TN-HHN Executive Council
- Organizational partner of the TN-PHC or TN-HHN
- TN-HHN Learning Collaborative

In total, 156 members were eligible to participate. The survey was programmed in REDCap and distributed via email. REDCap's system allowed us to track who had responded without linking the answers to the respondents, thereby maintaining anonymity to comply with the IRB. Because the research involved no more than minimal risk to participants and did not use identifiable private information, we were able to include a consent disclosure statement at the start of the survey in lieu of a consent form requiring a signature. In order to improve the quality of our data, we decided to make the multiple-choice questions required for submission, whereas the open-ended questions remained optional. Sixteen of the 17 multiple-choice questions utilized the same five-point scale: strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree. The last multiple-choice question asked the participants to identify themselves as a provider, health system representative, professional or advocacy organization, health plan representative, or academic institution. The survey was sent out on June 22 and closed on July 8. All participants that had not yet responded were sent a reminder email every three days until the survey closed, totaling in five reminders. To analyze the results, we ranked the responses to each question based on approval ("strongly agree" and "agree" responses combined) and disapproval ("strongly disagree" and "disagree" responses combined).

Results

Of the 156 members who received the survey, 46 people submitted it, which is a 29.5% completion rate. Upon reviewing the literature on survey participation rates in health care communities, one study that surveyed physicians had an 8.5% response rate, and another study that surveyed pharmacists had a 10.2% response rate [8, 9]. We were therefore satisfied with our nearly 30% participation rate. Since the multiple-choice questions were required for submission, the completion rate for those 17 questions was 100%. The completion rate on the open-ended questions ranged from 10.9 – 37.0%, with an average of 20.0% participation. There was a high level of agreement on the multiple-choice questions: for every question, greater than 50% of respondents answered approvingly (selected either “strongly agree” or “agree”), with an average approval rating of 79.5%. The highest-scoring quantitative questions are shown in the table below, and they mostly pertain to understanding and supporting the goals of the Network and feeling comfortable and valued during Network meetings (figure 1). Each of these questions had an approval rating of at least 85%.

Survey Statement	Strongly Agree (%)	Agree (%)	Total Approval (%)
Purpose and goals are clear and understandable	30.4	63.0	93.4
Goals reflect the highest priority population health concerns	32.6	54.3	86.9
I want to ensure the Network is successful	39.1	47.8	86.9
I feel comfortable expressing my thoughts in meetings	39.1	52.2	93.1
My thoughts and contributions in meetings are valued	28.3	58.7	87.0

Figure 1

One of the statements with a less positive response was, “The membership of the Network represents the diversity of health care stakeholders in our state.” This question had more “strongly disagree” responses than any other question (8.7%). The accompanying open-ended question, “How can we make the Network more representative of our state’s health care stakeholders?” had a 21.7% response rate. Some of the suggestions for improvement provided

by the participants were expansion of the Network with a wider variety of organizations, involvement of more people from distinct ethnic and socioeconomic backgrounds, and inclusion of patient representatives during Network meetings. Another question that had a lower-than-average approval score (73.9%) was, “I find the Network meetings to be productive.” Stakeholders suggested setting more specific action steps and deadlines, limiting introductions at the start of meetings, and hosting more lunch and learns to make the best use of providers’ time. Some mentioned that they have joined other groups as a result of being a part of the Network, thereby expanding their list of professional contacts. Of the 46 participants, 29 (63.0%) self-identified as a provider (e.g., doctor, nurse, office manager, etc.). The next largest group was health system representatives, with eight people choosing this category. The last groups were academic institutions, health plan representatives, and professional or advocacy organizations, with five people, three people, and one person selecting those categories, respectively.

Discussion/Conclusion

The optional open-ended survey questions allowed for stakeholders to share what they most enjoy about the Network and where they see room for improvement. The open-ended question with the highest participation rate (37.0%) asked how the Network has provided members with the opportunity to build partnerships, and the responses were overwhelmingly positive. Multiple members commented on how they have been able to share information and learn new methods to improve care delivery from other providers. Some other recommendations given by stakeholders were to add an onboarding process for new Network members to help them understand their role and purpose; to review specific CPT codes during meetings that can be used to reflect the care that stakeholders are providing to patients; and to implement a system to track patients enrolled in the study in order to measure their health outcomes throughout the project. We hope to apply many of these great ideas as the TN-HHN continues to grow and develop.

There were limitations to the survey and items that could be improved in the future. For example, we did not include a “not applicable” answer choice, and it appears likely that

respondents chose “neither agree nor disagree” on questions that did not apply to them since “not applicable” was not an option. There were a few questions on the survey that may not have been particularly relevant to our Network stakeholders since the survey was taken directly from the Alabama team. In future surveys, the questions could be curated to apply directly to our Network members. Additionally, the survey questions should have been pre-tested with a few members of the target audience, instead of just tested within our team, to ensure that all the questions were pertinent and clear. Lastly, though the response rate was a satisfactory 29.5%, participation likely could have been higher. We sent out a series of reminder emails, but we should have encouraged survey participation during a Network meeting and added incentives for survey completion to maximize participation.

In conclusion, stakeholders are overall satisfied with their membership experience, as evidenced by the 79.5% average approval rating and the open-ended responses regarding forming partnerships through the Network. It is most important to members for us to increase diversity, enhance meeting efficiency and productivity, and more clearly explain members’ roles and purposes within the Network. The results of this survey will help us to better cater to and suit the needs of our stakeholders, as well as provide general knowledge on how to make state-wide professional health care networks like ours successful.

References

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