NEEDS ASSESSMENTS

Leveraging university-community partnerships in rural Georgia: A community health needs assessment template for hospitals

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ABSTRACT

Background: Under the Affordable Care Act, nonprofit hospitals are required to conduct a Community Health Needs Assessment (CHNA) every three years. Using recommendations proposed by Georgia Watch, students and faculty members from the University of Georgia (UGA) conducted a CHNA for a hospital in a rural county in Georgia. The purpose of the CHNA was to identify community health problems and needs, as well as community assets and resources. The aim of this report is to describe the process for conducting the CHNA, the findings, and the lessons learned.

Methods: The CHNA team consisted of students and faculty members from UGA's College of Public Health and a Public Service and Outreach professional who worked in the community. In completing the CHNA, the team used the following five-step process: define community, collect secondary data on community health, gather community input and collect primary data, prioritize community health needs, and implement strategies to address community health needs. Primary and secondary data were collected.

Results: By triangulating findings across data sources, the CHNA team created a community health profile for the service area of the hospital. Based on these findings, the community identified four main areas for improvement, prioritized these health issues, and developed an implementation strategy for the hospital and community.

Conclusions: The process used to conduct this CHNA can serve as a model for other rural communities undergoing similar assessments. Lessons learned from completing this CHNA can be applied to future CHNA efforts.

Key words: community health needs assessment, rural, community partnerships

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INTRODUCTION

March of 2016 marks the sixth anniversary of the Patient Protection and Affordable Care Act (ACA) being signed into law. The ACA imposed requirements that hospitals must satisfy in order to keep a nonprofit 501(c)(3) designation from the Internal Revenue Service (IRS). Specific to this study, the ACA added Section 501(r) to the tax code, which requires that hospitals "conduct a community health needs assessment (CHNA) and adopt an implementation strategy at least once every three years," beginning in tax year 2012 (IRS, 2015).

As the ACA is implemented, it is necessary to consider how this requirement can be used to assist hospitals and communities in making progress toward public health goals. Because many of Georgia's hospitals are in rural areas, the CHNAs being conducted by nonprofit hospitals can be utilized for community development, and to augment progress in achieving goals outlined in hospital strategic plans. Thus, the legal requirement to conduct the CHNA can be transformed from a burden to an opportunity for hospitals to engage the families they serve in a meaningful process of data collection and analysis process.

This approach to conducting and using the CHNA is advocated by Georgia Watch, the state's leading consumer advocacy organization, as outlined in a study conducted by their Health Access Program (Georgia Watch, 2015). In this report, a comprehensive review of 38 CHNAs and 29 Implementation Strategies from Georgia nonprofit hospitals was conducted. Georgia Watch defines five steps in conducting CHNAs. These include:

1. Define community
2. Collect secondary data on community health
3. Gather community input and collect primary data
4. Prioritize community health needs
5. Implement strategies to address community health needs

They advocate that hospitals engage in meaningful partnerships with community-based organizations and local health departments, use the CHNA to meet community

needs - especially for vulnerable populations, and incorporate community members into their prioritization and implementation processes.

With this five-step model and following the recommendations, faculty and students from the College of Public Health at UGA conducted a 2016 CHNA for a rural hospital in south Georgia. The CHNA team engaged with the Archway Partnership, a unit of Public Service and Outreach (PSO) at UGA (www.archwaypartnership.uga.edu). Communities join with Archway to address self-identified community issues such as education, economic development, leadership development, and health. Public service and outreach faculty members work full-time in the community and serve as connections between communities and UGA, bringing higher education resources to address community needs. Pulaski County is an Archway community located in rural Georgia, 130 miles from Atlanta and 120 miles from Columbus, with a population just under 10,000.

High priorities for Pulaski County are community health and supporting the Taylor Regional Hospital, an acute care facility and a private, not-for-profit hospital. Formed in 1998, the Taylor Health Care Group is composed of Taylor Regional and Bleckley Memorial Hospitals and includes a home health agency and durable medical equipment company, along with outreach clinics in surrounding counties. In July 2015, Pulaski County and the Archway Partnership collaborated with the College of Public Health to assist Taylor Regional Hospital in completing their CHNA. The result was a set of findings and lessons for the hospital and community stakeholders who participated in the process.

The purpose of this report is to present our processes for conducting a CHNA, the results of the CHNA, and the lessons learned, which could be useful for other rural communities preparing to engage or re-engage in the process of conducting their own CHNA. Although literature reports describe tools that can be used by hospitals in conducting CHNAs (Sutherland et al., 2016), and various approaches used to conduct CHNAs (Pennel et al., 2015), there is little information describing the resourcefulness of campus-community partnerships in conducting CHNAs. This project illustrates how universities, hospitals and communities can work together to conduct CHNAs.

METHODS

A CHNA team was formed, consisting of faculty members from the departments of Health Promotion and Behavior and Health Policy and Management; graduate students from the College of Public Health; and the PSO faculty member from Pulaski County, who served as the community liaison and worked in the community in which the CHNA was conducted. This team collaborated to complete the five steps of the CHNA process.

Stakeholder Engagement

An essential component of the CHNA process was stakeholder engagement. The goal of the CHNA team and Taylor Regional Hospital was to create a network of stakeholders that was representative of the population. To accomplish this goal, a CHNA Steering Committee was formed in September 2015. Individuals on this committee were selected because of their expertise in community health and their knowledge about the well-being of the community, including low income and minority populations.

Members of the CHNA Steering Committee included members of the hospital administration, the hospital marketing director, the health department director, a member of the hospital Board of Directors, an elected official from the local government, and the Family Connection coordinator for the county. This group was asked to provide expertise in the designation of the hospital's service area, identify leaders to serve on a Community Advisory Committee, and assist in strategies for data collection. The Steering Committee served as the guide for the entire process and led efforts to encourage participation and engagement.

In October 2015, a second committee, the Community Advisory Committee, was formed to represent the community health interests. Members of this committee, identified through recommendations from the Steering Committee, first met to discuss the CHNA process and assist in the collection of data. This group of 30 individuals was responsible for piloting the survey, recruiting participants for survey completion and focus groups, and providing feedback on collected data.

In February 2016, both committees were invited to review primary and secondary data collected for the CHNA. They were also encouraged to provide input on the CHNA process and data collection strategies in order to improve future assessments. At this meeting, committee members also assisted in the prioritization of identified health needs. This process of stakeholder engagement served as the foundation for the development of the strategy for community engagement and fostered a collaborative approach to community health.

1. **Define Community.** The first step in conducting the CHNA was to define the community. For this CHNA, it was defined as the service delivery area for Taylor Regional Hospital. Hospital officials, community members, and hospital utilization data were used to define the hospital service area, which includes the counties of Pulaski, Wilcox, Bleckley, and Dooly.

2. **Collect Secondary Data on Community Health.** The second step was to collect secondary data on community health indicators. Data were collected for the four counties within the service area for the hospital. Sources for secondary data included the

Georgia County Health Rankings, U.S. Census Bureau, Georgia Department of Public Health's Online Analytical Statistical Information System (OASIS), and the Annie E. Casey Foundation Kids Count. (Georgia Department of Public Health: Office of Health Indicators for Planning, 2016; Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, 2015; US Census Bureau, 2016 & The Annie E. Casey Foundation, 2016).

All secondary data were exported and stored in Excel. Key indicators extracted from secondary data sources were organized into the following categories: demographics, health outcomes, health behaviors, health care, Kids Count data, clinical care, and OASIS. When available, data were derived from two data points within a five-year span (e.g., 2009 and 2013) in order to compare multiple data points and observe any differences over time. The most recent year for available data served as the first data collection point. County-level data were compared across the four counties, then to data for the state of Georgia and the nation. For each county, summaries were used to generate a health profile that contained the comparative county, state, and national statistics to provide context and identify potential areas for improvement.

3. **Gather community input and collect primary data.** Defining community and gathering secondary data, the first two steps of the process, must be conducted in order to guide the collection of primary data. Secondary data sources providing information at the county-level include indicators on demographics, health outcomes and behaviors, utilization of health care services, and available clinical resources. Some variables however, are not currently available from secondary sources. For this reason, the secondary data were collected and analyzed first, then the CHNA team identified gaps in information needed from the community. Used in primary data collection were quantitative and qualitative techniques that included focus groups, a key informant interview, and a community survey.

Community Survey

A community health household-level survey was developed by the CHNA team to examine individual health status, health behaviors, hospital use, and views on overall community health status and needs. General demographic information, such as insurance carrier, household income, age, race/ethnicity, and highest level of education was also collected.

The survey was finalized through a collaborative process that included feedback from the CHNA Community Advisory Committee. Community members completed the survey between October 2015 and January 2016. Paper surveys were distributed to community members through civic groups, churches, health departments, and physicians' offices. All surveys were returned to UGA. Results were analyzed to produce descriptive statistics for all survey variables, which provided the foundation for data analysis. Descriptive results provided an overview of respondent health habits, health care practices, and opinions regarding community health and needs. Bivariate correlations between health habits, such as diet, exercise, and tobacco use and respondent demographics were used to examine relationships between selected demographics and health behaviors. A p-value of 0.05 was used to determine significance. Table 1 outlines the constructs and variables included in the survey.

Table 1. CHNA Survey Developed for Primary Data Collection

Survey Constructs	Survey Variables
Community health	Most important community health problems Ways to improve community health
Health and health care practices	Perceived health status Existing health conditions Preventative health care practices Barriers to accessing care
Health habits	Use of tobacco products Use of alcohol products Preventative health behaviors Fruit and vegetable consumption Food security Mental health BMI

Survey Constructs	Survey Variables
Hospital use	Hospital use Reasons for using hospitals other than Taylor Regional Hospital services used at Taylor Regional Satisfaction with services at Taylor Regional Access to physicians at Taylor Regional Additional services requested for Taylor Regional
Demographics	Age Sex Ethnicity/Race Marital status Highest level of education Family size Household income Employment status Insurance coverage County of residence

Focus Groups and Key Informant Interview

In December 2015, the CHNA team from UGA facilitated focus groups in one of the rural counties in the service area defined in Step 1. A semi-structured focus group guide was developed to examine community assets, community resources, and additional services needed to address community health problems. The community's UGA Archway professional identified and recruited community members to participate in the focus groups. These participants represented a variety of community stakeholders and included pharmacists, business owners, clergy, elementary school and middle school staff, high school and college students, and retirees. A total of 22 community members participated in the three focus groups. In addition, a key informant interview was conducted by phone. Focus groups and the key informant interview were recorded and transcribed by the UGA CHNA team, which summarized the responses from the focus groups and the interview and identified key themes.

4. **Prioritization Strategy.** The fourth step in the CHNA process involved constructing a prioritization strategy. To accomplish this, primary and secondary sources were used to draw key findings from the research. The team authored a CHNA report, and findings were presented in March 2016 at the Community Engagement Meeting. Following the presentation, stakeholders at the meeting participated in an exercise to prioritize health issues. Based on the CHNA results, four principal categories were identified. Each participant then cast a vote to prioritize the four issues. Participants voted by placing stickers under the categories they perceived to be most important to the community and most feasible to address or easily modifiable. After participants completed this exercise, the stickers for each category were counted and used to rank the prioritized areas.

5. **Implementation Strategy.** The next phase of the project was development of an implementation strategy to address opportunities to continue the dialogue established during the CHNA process and provide accountability for addressing health needs in the community. Although no prescribed method for development of this strategy is specified under the ACA requirements, there is the requirement that the strategy be adopted by the hospital's governing body within 4 ½ months of the completion of the CHNA (Stephens, 2015).

   The implementation strategy, unlike the CHNA, does not have the same requirement "to be made widely available" or to "take into account input from persons who represent the interests of the community" (Stephens, 2015). However, Taylor Regional Hospital has a history of collaboration in the community through participation in the Archway Partnership. This provided an opportunity to develop an effective implementation strategy with a variety of community partners, publicize the intended strategy, and demonstrate progress toward addressing the established needs.

   A diverse team of CHNA Steering Committee members was identified to develop the implementation strategy for Taylor Regional Hospital. The team was composed of the hospital's Director of Nursing, the hospital's Public Relations and Marketing Director, and the Archway PSO faculty member. This group will engage community members in the development of and the execution of the implementation strategy. This approach exceeds the

current ACA requirement but supports the goals of greater transparency and greater community involvement in the process expressed in the CHNA requirements.

RESULTS

Secondary Data on Community Health

Collection of secondary data is a means to understanding the health needs of a community. Data gathered from a variety of sources were used to create community profiles for each county and then compared to state and national statistics. Table 2 provides some of the key indicators collected and assessed. For ease of comparison, each county is included in the table, as well as the state-level indicators. Various differences between county and state level indicators were evident. Although half of the selected county level indicators were similar to the overall indicators at the state level, the remaining indicators, including diabetes, premature age-adjusted mortality, adult smoking, obesity, teen births, uninsured adults, and primary care providers were slightly, and in some cases, moderately higher than those for Georgia. In addition, the results revealed cases for which specific counties had worse outcomes in comparison to neighboring counties and to Georgia (e.g., the number of teen births in Wilcox County and the patient-provider ratios in Wilcox and Bleckley Counties). These results were used to understand cross-county variation and guide primary data collection needs.

Table 2. Examples of secondary data collected for community profiles

	Pulaski	Dooly	Wilcox	Bleckley	Georgia
Diabetes N (%)	__ (13%)	__ (17%)	__ (14%)	__ (11%)	__ (11%)
Adult smoking N (%)	__ (16%)	__ (22%)	__ (20%)	__ (18%)	__ (17%)
Obesity N (%)	__ (32%)	__ (34%)	__ (32%)	__ (30%)	__ (29%)
Physical inactivity N (%)	__ (31%)	__ (32%)	__ (27%)	__ (29%)	__ (25%)
Uninsured adults N (%)	__ (23%)	__ (29%)	__ (27%)	__ (21%)	__ (21%)
Uninsured children N (%)	__ (11%)	__ (12%)	__ (10%)	__ (8%)	__ (10%)
Low birth weight babies N (%)	14 (14.9%)	11 (9.2%)	11 (10.6%)	6 (4.6%)	12,158 (9.5%)
Premature age-adjusted mortality rate	380	360	470	490	370
Teen births, ages 15-19 (number and rate per 1,000)	11 (34.6)	12 (34.8)	21 (92.5)	8 (11.8)	10,251 (30.3)
STDs (morbidity and rate)	70 (606)	77 (538)	41 (457.6)	84 (657)	62,398 (624)
Poor mental health days	4	4.4	4.1	4.1	4
Primary care providers	1,440:1	-	4,480:1	3,190:1	1,540:1

Table Notes: Data are from 2016 Community health rankings and the 2013 Annie E. Casey Kids Count Data (Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, 2015; The Annie E. Casey Foundation, 2015). The N and percent are reported where information was available from the data source. "__" denotes cases where the N was not provided.

Primary Data Results

Community Survey. The community survey assessed indicators that were not available from secondary data and allowed the CHNA team to compare perceptions to the outcomes observed from secondary sources such as OASIS. Community members completed 339 surveys, which were offered in both paper and online versions. Most respondents were residents in the county in which the hospital is located, Pulaski County (47%), followed by Bleckley (16%), Dooly (8%), and Wilcox (7%). Most community members who completed the survey were also White (71%), followed by African American (27.4%), which is representative of U.S. Census data for the area surrounding Taylor Regional Hospital (United States Census Bureau 2015). Of the respondents, 93.6% had completed high school or a GED equivalent and 24.6% were college graduates, 44% had an annual household income of $55,000 or more. Table 3 provides an example of the demographic information collected in the community survey. U.S. Census data were used to compare the level of representativeness of the survey to the actual population. Based on the comparison of respondent demographics to U.S. Census data, the findings may reflect the views of community members with higher levels of education and may also be slightly skewed to reflect the views of older adults (United States Census Bureau 2015). These differences in demographics create potential limitations for the generalizability of these findings.

Table 3. Example of county-level comparison of survey respondent demographics and U.S. Census

	Pulaski (*n* = 148)		Dooly (*n* = 25)		Wilcox (*n* = 22)		Bleckley (*n* = 51)	
	Survey	Census	Survey	Census	Survey	Census	Survey	Census
Age (% 65 and older)	19%	19%	48%	16%	24%	16%	27%	17%
Race	65% White 30% African American	66% White 32% African American	56% White 44% African American	48% White 51% African American	76% White 23% African American	62% White 36% African American	82% White 18% African American	71% White 27% African American
Education (% Bachelor's degree or higher)	46%	10%	12%	10%	30%	9%	40%	15%

Table Notes: The *n* listed for each county reflects the overall number of survey respondents for each county. Not all respondents answered each demographic question. Therefore, the specific n for each demographic varies

Focus Groups and Key Informant Interview. The focus groups and one key informant interview contributed to the CHNA team's understanding of community perceptions related to health, access to healthcare and barriers to care. Findings were organized into categories such as community assets, community health challenges, and financial assistance.

Participants were asked questions related to community strengths. One participant stated:
"I think that (the hospital) is definitely a great hospital, especially a rural hospital that's probably thriving compared to some of the other rural hospitals around here that have been struggling in the past." – CHNA Focus Group Participant

They also discussed the main health challenges in the community, which ranged from chronic diseases including cancer, diabetes, and heart disease to health behaviors related to chronic disease such as unhealthy eating, obesity, lack of physical activity and tobacco use among both adults and youth. One participant said that:
"Diabetes is really [everywhere], I've seen young people, I've seen white, black, older [people]. At one time I thought it was basically the black males, but I was wrong. I mean you see kids with diabetes sometimes." – CHNA Focus Group Participant

Community members expressed concerns about mental health, substance use, depression, and suicides within the county, not knowing how to adequately address these challenges. Another participant stated that:
"… this community has had some serious problems with suicide and depression and it's awful… It's not just about physical sickness and physical health problems, there's a lot of mental health and a lot of emotionally sick people around here who need help too." – CHNA Focus Group Participant

These findings emphasize the resources that community members are aware of and changes that can be made to improve the health outcomes of others. They also support previous secondary and survey data related to health disparities and access to care within the county.

Prioritization of Community Health Needs

The CHNA team used data from all sources to share key findings with community members. These results were presented during a monthly community engagement meeting. Four health-related issues emerged from the data: preventive care, education, and chronic disease management; education on available resources; mental health services; and teen sexual behavior and STDs. Table 4 illustrates the results from the prioritization exercise, with the community issue and the number of votes received during the stakeholder meeting. This exercise serves as an example of the product that can emerge from a CHNA process that engages in mixed-methods data collection and has extensive stakeholder engagement.

Table 4. Prioritization of community issues

Community Issue	Number of Votes
Preventive care, education, and chronic disease management, caregiver education/support (internal and external)	17
Education on available care, coverage and services, indigent care, and proper resource utilization	14
Mental health services and support	11
Teen sexual behavior, pregnancies, and STDs	9

DISCUSSION

This report has outlined the processes used to conduct a CHNA assessment for a rural hospital through a university-community partnership using a model template. The lessons learned can be generalized for other CHNA efforts.

When conducting projects with communities, having an individual who is knowledgeable and trusted within the community is helpful. For this CHNA, the UGA Archway PSO faculty member was instrumental in (1) rallying community interests and forming committees to support the project; (2) identifying key stakeholders and organizing community meetings; (3) disseminating surveys and increasing response rates; (4) recruiting diverse community members for focus groups that represented various viewpoints and expertise within the community; (5) engaging the community groups in the prioritization and implementation strategies; and (6) nurturing the university-community partnership.

Overall, the community liaison was an advocate for the project within the community and a gatekeeper who held community insight not known at the university level. As such, having an individual who works as a community liaison, bridging the connection between the university and the community, is valuable to ensuring the success of similar partnerships.

Involving key stakeholders at the beginning of the project was essential to guiding work on the CHNA, interpreting the results, prioritizing the health issues, and developing the implementation plan. This demonstrates an investment of these leaders in monitoring progress towards the strategic plan, creation of community partnerships, and leveraging resources to improve community health.

A multi-method approach to data collection and analyses was necessary to develop a community profile highlighting community resources, recognize health problems in the community, barriers to accessing care and managing health conditions, and additional services needed. Secondary data provided a source of statistics that reflect the health status of the community overall and allow a comparison to other counties in Georgia. The community survey augmented the secondary data by providing relevant and demographic-specific community data on variables not assessed by the secondary data. The focus groups provided context to statistics found in the survey, such as challenges to addressing specific community health problems. Although a portion of the survey respondents had higher incomes and were more educated, focus group members had insight on the particular challenges experienced by low-income and uninsured populations. The triangulation of all data collected was presented and used by the community engagement committee to prioritize community health issues.

There are benefits from collaborating with colleges or universities to complete a CHNA. The university research team brought skills in survey development, data collection, and quantitative and qualitative data analyses. This allowed for streamlined data collection instruments and provided expertise in community engagement. Communities without the presence of an organization such as Archway can still engage in a meaningful university partnership—the key is having a strong community liaison who will connect stakeholders and research professionals to complete the CHNA.

A university partnership also engages students and provides them with opportunities to apply knowledge gained from coursework. In this assessment, students applied skills learned in a variety of classes to conduct focus groups and interviews, analyze data, and develop surveys guided by principles of survey research methodology. Students were afforded opportunities to engage with the community, which adds real-world experience and allows them to demonstrate mastery of key competencies. Finally, such partnerships are relatively inexpensive, in comparison to contracting agencies, and foster a synergistic relationship in which both community and the university benefit. This community-university partnership will also foster future collaborations and projects that will contribute to improving the health of the community.

The CHNA process for Taylor Regional Hospital was not without limitations. First, the primary data collection methods relied on self-report from survey respondents, which introduced the potential for recall bias and desirability bias in reporting sensitive information. Information on visits to the Taylor Regional Hospital within the past two years or services received was not corroborated by hospital records. In addition, the data collection utilized a convenient sample of participants, which may limit the generalizability of the findings to other communities.

For the scope of this report, findings from the secondary analysis are limited to the values for the prevalence of chronic conditions within one year. Differences between the prevalence of certain chronic conditions in the rural counties and prevalence at the state level are noted. However, an in-depth statistical analysis of trends over time from secondary data was not conducted, but would provide additional information about existing disparities within the counties.

The CNHA team assembled a representative and diverse sample of community members, but there were challenges in reaching the most vulnerable populations in the community. Therefore, the findings from the CHNA may or may not reflect the views of those most vulnerable populations due to their limited representation in survey respondents and focus groups. The lower of representation of vulnerable groups means that findings are conservative estimates of barriers to health and healthcare. In addition, there were differences between the demographics of survey

respondents when compared to U.S. census data for the counties, which may also limit generalizability. Finally, the CHNA relied on cross-sectional data collection. Cross-sectional methods limit the ability to track trends in community health over time and cannot show causation.

CONCLUSIONS

Since the passage of the ACA, hospitals are obligated to complete a CHNA every three years. Although this may be viewed as a burden by many hospitals and communities, this study highlights the usefulness of such a process. The CHNA, when conducted by research professionals and community stakeholders, can be a useful tool in guiding a community toward progress in the area of public health. Further, the benefit of a CHNA is great for rural communities in our state that struggle with systematic health disparities and have greater barriers to achieving good health than their urban counterparts.

The process proposed by Georgia Watch could become the template that all communities in Georgia use to complete their assessments. The CHNA team worked with the community to identify and prioritize health issues that will allow the hospital to tailor programs and services to meet community needs. The success of the process used for this CHNA can serve as a model for similar efforts in communities across the state of Georgia.

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