Enhancing Health Care Delivery to the Medically Underserved and Indigent of Nashville and Davidson County

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EXECUTIVE SUMMARY

Introduction

In 2008, the Nashville and Davidson County Metropolitan Government (Metro) provided $63 million to the Nashville Hospital Authority (Authority), including:

- Approximately $35 million to Nashville General Hospital for inpatient care and ambulatory care;
- $11 million in operating loans to Nashville General Hospital;
- Approximately $15 million to Bordeaux Long-Term Care (Bordeaux) and the J. B. Knowles Home Assisted Living and Adult Day Services (Knowles); and
- $2.5 million in capital funding for the Authority.

These funds helped pay for care, including emergency room care, provided at Nashville General Hospital and its outpatient clinic; at Bordeaux; and at Knowles.

As the number of medically underserved and indigent residents in Nashville and Davidson County continues to grow, Metro has become concerned that its model for meeting the health care needs of the medically underserved and indigent is neither cost effective nor sustainable. In addition, the health indicators for the medically underserved and indigent population indicate that health care outcomes for this population are not improving despite increasing expenditures.

In April 2009, the Metropolitan Government of Nashville and Davidson County (Metro) engaged JSI to assess alternatives to meet the health care needs of the medically underserved and indigent citizens of Nashville and Davidson County, and to make recommendations to meet those needs in a more cost effective-manner.

As the number of medically underserved and indigent residents in Nashville and Davidson County continues to grow, Metro has become concerned that its model for meeting the health care needs of the medically underserved and indigent is neither cost effective nor sustainable.

Methodology

JSI utilized the following methodology to identify a sustainable business model for a safety net system to meet the health care needs of the medically indigent and underserved residents of Nashville and Davidson County:

- Review of existing quantitative data and collection of qualitative data from key stakeholders to better understand the Nashville and Davidson County health care safety net environment.

- Research of other health care safety net systems across the nation to determine attributes of these systems that impacted their viability.
- Coordination with the Mayor's Community Advisory Committee (community members appointed by the Mayor to facilitate community involvement in the project), the Metropolitan Nashville Hospital Authority, and other key stakeholders to develop recommendations to fortify the health care safety net for Nashville and Davidson County.

Key Research Findings

From research of Nashville and Davidson County data and local key stakeholder interviews:

- Nashville is a cosmopolitan city with numerous health care assets that could support economic redevelopment in impoverished areas.

  Medically indigent and uninsured residents of Nashville and Davidson County experience:

  – Significant health disparities for preventable conditions that could be addressed through primary care and prevention services.

  – Limited access to adult dental care and mental health care through safety net providers.

  – Limited access to inpatient pediatric care.

  – Difficulty accessing some health care specialists in an environment of adequate capacity.
- The health care safety net system:

  – Does not have a predictable funding source to support it.

  – Is made up of dedicated organizations.

  – Lacks an integrated planning and resource allocation process.
- The current physician workforce is insufficient to meet the needs of the medically underserved and indigent in Nashville and Davidson County.
- Enhanced trauma services at Nashville General Hospital could solidify a niche for the hospital while meeting local service area needs.
- TennCare is not financed to meet the needs of all the medically underserved and indigent residents of Nashville/Davidson County.
- Although the inclusion of Bordeaux and Knowles as part of the Hospital Authority provides many benefits, it also poses barriers to Bordeaux's and Knowles' abilities to be competitive in the long-term care environment.

From external research of other health care safety net systems across the country:

- All health care safety net systems that were researched:

  – Were autonomous and had fiduciary responsibility for the entire safety net system in their area.

  – Were publicly accountable entities with a dedicated public funding stream as part of their revenues.

  – Had strong community-based constituencies.

– Were led by a strong and visionary Chief Executive Officer, who was accountable for the safety net as a whole.

– Were governed by a group of advisors, or board members, consisting of health care leaders and the community's most prominent and influential business people.

– Had a common vision and goals for their safety net as part of multi-year strategic plans.

– Had member agreement on their definition of the safety net and its components.

– Had performance and accountability systems aligned with the overall safety net system goals.

– Had organized systems of care that were cohesive.

– Were aggressive in capturing paying (including Medicaid and Medicare) patients and in capturing research grant funding.

– Placed a particular emphasis on high quality care.

– Provided or arranged for primary care services for their target populations.

Most of the Systems Researched:

- Did not include dedicated funding for long-term care services over and above their Medicaid program.
- Had created their own niches for specialty services in their communities.
- Had made significant investments in information system technology to support their coordinated efforts.

Recommendations

Based on the findings outlined above, JSI, with input from the Mayor's Community Advisory Committee, the Metropolitan Nashville Hospital Authority (NHA), and other key stakeholders, is proposing the following recommendations for enhancing safety net services for the medically underserved and indigent population of Nashville and Davidson County:

- The community needs a strong leading entity that is responsible for successfully responding to the needs of the entire safety net system in a cohesive, coordinated manner. The leading entity could capitalize on the momentum of past efforts and, if appropriate, build on the infrastructure already established by current organizations like the NHA.

The community needs a strong leading entity that is responsible for successfully responding to the needs of the entire safety net system in a cohesive, coordinated manner.

- The leading entity should be autonomous and maintain independent financial authority. The leading entity should also have the fiduciary responsibility for addressing the health care needs of the medically underserved and indigent.
- The leading entity should have hiring and firing authority over a visionary Chief Executive Officer (CEO) who works to support the entire safety net.
- In its first year of operation, the leading entity should develop a strategic plan outlining its vision, mission, and goals that reflects its commitment to the population-based health needs of the

medically underserved and indigent residents of Nashville and Davidson County. The strategic plan should:

– Place particular emphasis on groups experiencing health disparities.

– Provide a roadmap of how the safety net system will provide cost effective, patient-centered, quality health care.

– Include a robust evaluation component that outlines proposed indicators of success and how they will be measured.

Based on the strategic plan, and in order to identify the financial support necessary to sustain the safety net system as developed through the planning process, participating safety net providers should be required to develop three-year business plans outlining their utilization projections, financial *pro formas*, and necessary resources to sustain their organizations. The business plans should be completed during the leading entity's second year of operation.

- The leading entity should be composed of strong, visionary leaders. The leading entity should include the community's most successful business leaders who have a deep understanding of and commitment to Nashvillians.
- The leading entity should implement its responsibilities through a committee structure that addresses: finance; human resources; community relations; and quality. Each of these committees should be composed of the community's experts in each of these areas to ensure innovation, creativity, and credibility.

  – The finance committee should determine budget needs for the safety net system; review funding levels of safety net entities; and monitor the financial operating performance of the safety net system.

    - Once the budget needs and funding levels of safety net components are determined, the finance committee should determine what level of funding will be needed on an annual basis to sustain the system. Based on its determination, the committee should recommend the implementation of a dedicated funding stream to support the efforts of the safety net system that cannot be sustained through other funding strategies.
    - In addition, the finance committee should assist the safety net providers in meeting their respective financial needs through other strategies. Examples of such strategies include: creating incentives for city and county employees to use the safety net system as a preferred provider; developing an approach for maximizing TennCare and other uncompensated care funds resulting from health care reform, such as forming an accountable care organization that contracts for coordinated care among system components.

  – In order to allow adequate time to make the financial determinations outlined above, a five-year predetermined dedicated funding stream should be allocated by Metro to continue support for the NHA while transitioning to the new model.

  – Funds should also be secured to develop the new leading entity and to support its initial strategic and business planning efforts. These funds should be obtained from Metro as well as through grant efforts.

  – The leading entity should take an aggressive approach (strengthened by a stabilized funding source) to grant funding.

- The leading entity should establish a Quality Improvement Committee to support continued success with quality improvement efforts throughout the safety net system.
  - This committee should also set high standards for patient satisfaction and customer service and monitor them closely. The committee should include highly regarded members of the health care provider community and draw from Nashville's wealth of health care experts and researchers in this area.
  - This committee will provide the basis upon which a community awareness campaign is developed regarding the high quality of services provided by the safety net as well as the universal need for health care.
  - The leading entity should focus on primary care and prevention and explore the "medical home model" as a potential approach to service provision by the safety net system.
  - The leading entity should continue to leverage the efforts of the Access to Healthcare Research Collaborative to move toward interoperability of records among the safety net providers.
- The leading entity should assess the community's needs and capacity for specific health services and providers in order to develop a service mix that is responsive to patient needs.
  - This capacity analysis should serve as the basis for a physician workforce plan that includes details regarding recruitment and retention of appropriate providers, the role of Meharry Medical College in supplying primary care residents, as well as the need for contracting arrangements with providers. For example, gaps in services for the medically underserved included mental health and dental services for adults. Indigent and additional inpatient pediatric capacity surfaced as a need in the qualitative research.
  - The leading entity should work closely with the finance committee to determine the appropriate service mix for the safety net. As part of this process, the leading entity should engage all safety net providers in Nashville and Davidson County to implement a collaborative system to access specialty care.
  - The leading entity should evaluate the need for a Level 2 Trauma Center in Nashville and Davidson County. Should the feasibility study identify a need for a Level 2 Trauma Center, Nashville General Hospital, as the key facility for the uninsured, should determine the feasibility of becoming a Level 2 Trauma Center.
  - The leading entity should examine the optimal structure for Bordeaux and Knowles within the safety net system.
  - The leading entity should establish a Community Relations Committee. The committee should:
    - Have a strong and broad-based presence in the community and include the target population as part of the committee.
    - Initiate efforts to improve consumer involvement in policy-making decisions, operations, customer service, and service mix.
    - Build on community development activities in impoverished areas of the city, including the Hadley community, and work with the business community, Meharry, and others to revitalize the area.

CONCLUSION

The recommendations proposed by JSI will provide a more cost-effective and sustainable model for the safety net system in Nashville and Davidson County. The overall focus of the recommendations is to develop an autonomous leading entity that:

- Has fiduciary responsibility for the health care safety net system in Nashville and Davidson County;
- Is publicly accountable;
- Is responsible for planning and implementing an integrated health care delivery system that emphasizes access to timely, cost effective, quality care for the medically underserved and indigent population; and
- Works to lead a community-wide prevention and healthy lifestyle program.

The proposed model supports the development and implementation of a well-coordinated system of care that more effectively uses public funds to provide access to quality and effective care for the medically underserved and indigent population of Nashville and Davidson County.

INTRODUCTION

In April 2009, the Metropolitan Government of Nashville and Davidson County (Metro) engaged JSI to recommend models to meet the health care needs of the medically underserved and indigent citizens of Nashville and Davidson County.

Because of the rapidly increasing costs of providing health care services to the medically underserved and indigent, Metro sought an independent assessment of its current health care delivery system for this population. As part of the assessment, Metro wanted to identify opportunities to enhance current services for the medically underserved and indigent while reducing the total annual cost to Metro. JSI proposed a scope of work that included a qualitative internal analysis of the current system and external research of comparable communities recognized as providing high quality indigent health care in a cost effective manner. The results of the research enabled JSI to identify potential success factors and strategies that could be implemented in Nashville and Davidson County. Based on these results, JSI formulated recommendations to fortify the health care safety net in Nashville and Davidson County. The recommendations are described in this report.

In order to ensure that JSI was fully aware of and accounted for the unique attributes of Nashville and Davidson County, the Mayor appointed a Community Advisory Committee to facilitate community input and work with the JSI team. The Community Advisory Committee was integrally involved in helping JSI understand Nashville and its political and commercial dynamics. Reflecting a diverse group of individuals from key sectors of the community, the Community Advisory Committee provided JSI with public input, feedback and insight regarding the recommendations set forth in this report.

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The report is divided into four sections: Methodology, Research Results, Recommendations and Rationale, and Conclusions. The Methodology section describes the process whereby JSI gathered the information needed to support the development of the recommendations. The Research results section describes the information gleaned from the internal and external research conducted by JSI. Recommendations and Rationale reflect JSI's findings, which incorporate the input of the Mayor's Community Advisory Committee and key safety net providers. The Conclusion section of the report summarizes the focus of the recommendations. Appendices provide supporting documentation where referenced.

METHODOLOGY

JSI's methodology was centered on the concept that while the most optimal approach to fortifying the safety net would draw from best practices around the nation, the way to apply those models to Nashville and Davidson County would come from the local community. In order to conceptualize a sustainable business model for the safety net system that would meet the health care needs of the medically indigent and underserved of Nashville and Davidson County, JSI utilized the following methodology:

- JSI reviewed existing quantitative data and collected qualitative data from key stakeholders in the Nashville community, in order to gain context and understand the Nashville and Davidson County health care safety net environment.

- JSI researched other health care safety net systems across the nation to determine successful attributes of these systems that impacted their viability.
- Based upon these two research components, JSI worked closely with the Mayor's Community Advisory Committee, the Nashville Hospital Authority (NHA), and other key stakeholders to develop recommendations to fortify the health care safety net for Nashville and Davidson County.

Although JSI implemented quantitative and qualitative methods alike to identify relevant information, the majority of the research was qualitative. These methods are described in detail below.

Quantitative Research

JSI developed a list of background data and possible sources that would inform the project and provide relevant quantitative data. JSI obtained additional data from the Davidson County government Web site. A list of quantitative data reviewed is included in Appendix A. In addition, JSI reviewed other pertinent reports referenced in Appendix B to provide a context for the data obtained for Nashville and Davidson County. In its research efforts JSI was made aware of the "Nashville Safety Net Assessment 2009 project." Although the results of the study are not yet available, JSI is hopeful that the results will help provide additional detail for the activities necessary to carry out the recommended strategies described in this document. The quantitative research enabled JSI to formulate its recommendations so that they reflect the particular socio-demographics and health status of the medically underserved and indigent of Nashville and Davidson County.

Qualitative Research

The methods proposed for this project were primarily qualitative and consisted of: 1) interviews and focus groups with key local stakeholders regarding the health care safety net in Nashville and Davidson County; and 2) a review of other health care safety net models across the nation that exhibited success factors that could apply to Nashville and Davidson County.

KEY INFORMANT INTERVIEWS

For the local interviews and focus groups, JSI developed a discussion tool to gather information from key informants and focus group participants regarding the health care safety net in Nashville and Davidson County (Appendix C). The discussion tool provided a framework for eliciting information on the Nashville and Davidson County medically underserved and indigent populations, market dynamics, principles, and perspectives regarding the current state of the health care safety net. During the interviews, stakeholders shared their perspectives on opportunities for a better business model for health care delivery for Nashville and Davidson County's safety net system. JSI also asked key stakeholders if they were aware of similar cities with successful health care safety net systems that could serve as a model for Nashville.

JSI worked closely with the Mayor's office and Mayor's Community Advisory Committee to develop a list of individuals and groups to be included in the key stakeholder interviews and focus group discussions. JSI conducted in-person and phone discussions with 67 key stakeholders in July 2009 (Appendix D). The stakeholders represented the following health care entities:

- Mayor's Community Advisory Committee
- Metropolitan Nashville Hospital Authority and Board
- Local Government Officials

- Federally Qualified Health Centers
- Academic Health Science Centers
- Health Plans
- Public Health
- Advocacy Groups
- Tennessee Hospital Association
- Bordeaux Long-Term Care Residents (Bordeaux)
- J. B. Knowles Home Assisted Living and Adult Day Services (Knowles)

The JSI team also visited Nashville General Hospital (NGH), the J. B. Knowles Home Assisted Living and Adult Day Services, and Bordeaux Long-Term Care.

REVIEW OF SAFETY NET MODELS IN OTHER COMMUNITIES

JSI reviewed the literature for key attributes of safety net models and corresponding examples of communities with successful safety net models. Based on this research, JSI developed an initial list of communities to compare to Nashville in terms of demographics and resources. Local key stakeholders and health reform experts within JSI suggested additional communities yielding 22 communities for initial review:

- Austin, Texas
- Atlanta, Georgia
- Birmingham, Alabama
- Boston, Massachusetts
- Chattanooga, Tennessee
- Chicago, Illinois
- Cincinnati, Ohio
- Colorado Springs, Colorado
- Dallas, Texas
- Denver, Colorado
- Greeley, Colorado
- Indianapolis, Indiana
- Memphis, Tennessee
- Miami, Florida
- Montgomery County, Maryland
- Philadelphia, Pennsylvania
- Pueblo, Colorado
- New Orleans, Louisiana
- San Francisco, California
- Seattle, Washington
- Tampa, Florida
- Washington, DC

These communities were reviewed for demographic comparisons to Nashville and existence of health systems that were addressing similar issues of financial viability. The cities were also reviewed to determine whether their safety net systems included multiple safety net providers and affiliations with an academic health science center.

The JSI team selected the eight communities most comparable to Nashville with viable safety net systems for more in-depth review and developed profiles that described the safety net systems in further detail. These profiles included:

- Descriptions of the systems' operational components, including the range and types of safety net entities.
- Services provided in the system, including areas of emphasis.
- Financial arrangements among system components and stability.

- Overall similarities and differences to Nashville and Davidson County with regard to level of coordination among health care providers, composition of the safety net, and target population demographics.

Profiles for the following selected cities are included in Appendix E:

- Atlanta, Georgia
- Austin, Texas
- Boston, Massachusetts
- Dallas, Texas
- Denver, Colorado
- Indianapolis, Indiana
- Memphis, Tennessee
- Seattle, Washington

The JSI team interviewed key leadership of most of these health care safety net systems using an interview tool (Appendix F). The purpose of the interviews was to: 1) validate the information collected in the profiles; and 2) to discuss in-depth issues related to the system's components including its governance, financing, human resources, clinical staffing, planning, quality, and local support.

RESEARCH RESULTS

The results of the data review, key informant interviews and focus groups, as well as the results from the national research, are summarized below.

Highlights of Local Research

Demographic Overview

Nashville is the second-most populous city in Tennessee,[1] estimated at 626,000 residents. It is a diverse community, with thriving and growing industries, including corporate health care, music, publishing, and others. Table 1 shows that the top three private employers in Davidson County, based on the number of total employees, are in part or wholly health care-related.

Table 1. Top 5 Private Employers, Based on Number of Employees, 2007.[2]

Name	Products/Services	2007 Total Employees
Vanderbilt University and Medical Center	Education, health care, research	19,968
Hospital Corporation of America, Inc.	Health care	8,700
St. Thomas Health Services	Health care	7,200
Wal-Mart Stores, Inc.	Retail	4,500
Cracker Barrel	Restaurant/retail	4,017

Approximately 66% of Davidson County residents are white, compared with 74% nationwide. The percentage of blacks in Davidson County (27%) is more than double that of the percentage nationwide (12%).[3] Davidson County has a higher percentage of individuals living in poverty (16%) compared with the U.S. as a whole (13%).[4] As of September 2009, the Davidson County unemployment rate was 9%,

[1] U.S. Census Bureau, 2008 Population Estimates, Census 2000, 1990 Census.
[2] 2009 Book of Lists, Nashville Business Journal.
[3] U.S. Census Bureau, 2006–2008 American Community Survey.
[4] U.S. Census Bureau, 2006–2008 American Community Survey.

nearly doubled since 2007.[5] The number of medically indigent in Davidson County is approximately 217,000 individuals, or 35% of the population (using the proxy of the number of individuals under 200% of the Federal Poverty Level based on the U.S. Census Bureau, 2006–2008 American Community Survey).

Health Status Overview

The top three leading causes of death in Davidson County (heart disease, cancer, and stroke) [6] are all conditions that can be addressed by appropriate and timely primary care. These causes of death accounted for over half of deaths in Davidson County in 2003.

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Table 1 demonstrates a selected group of health disparities Davidson County residents experience compared with U.S. residents as a whole. The table also compares morbidity rates for black individuals and white individuals, demonstrating that blacks fare better than whites in half of the health disparities between Davidson County and the nation. The most dramatic disparities are for low-income residents compared to those of moderate to higher incomes.

Table 2. Health Disparities (Percents) Identified in the 2008 Behavioral Risk Factor Survey, Davidson County, including race and income factors and United States.[7]

			Davidson County			
Health Issue	**Davidson County**	**U.S.**	**Blacks**	**Whites**	**<$15,000**	**$50,000+**
Cardiovascular Disease (Heart Attacks)*	5.2	4.2	3.1	6.2	18.9	1.9
Cardiovascular Disease (Angina or coronary heart disease)	5.9	5.7	6.8	2.9	26.2	3.0
Cardiovascular Disease (Stroke)	3.1	2.6	2.7	3.8	18.1	0.6
Diabetes	8.6	8.2	11.5	8.5	35.3	0.6
Diabetes (Pregnancy Related)	2.5	0.8	3.6	2.1	N/A	N/A
Disability (special equipment required)	8.6	7.1	8.4	9.3	9.3	3.7
Fair or Poor health status (Q: How is your health? A: Fair or Poor)	15.6	14.4	18.5	15.4	15.4	4.2
Oral health (Adults 65+ with all natural teeth extracted)	20.5	18.5	18.1	20.2	20.2	11.4
No Prostate Cancer Screening (Men 40+ past 2 years)	48.7	45.2	47.4	50.1	50.1	46.3
Current Smokers	22.4	18.3	28.0	21.7	21.7	85.9

** Davidson County rate (12.6%) is twice the national rate (6.3%) in age group 55–64.*

[5] U.S. Bureau of Labor Statistics, September 2009.
[6] McKelvey, B. et al. Davidson County Mortality Report, Division of Epidemiology and Research Metro Public Health Department, issued February 2006.
[7] 2008 Prevalence of Behavior Risk Factor Survey Data, http://www.healthweb.nashville.gov/HealthData/SurveyMain.htm

- In comparing Nashville youth with their Tennessee counterparts, a 2007 report noted that Nashville youth were more likely to report:[8]
  - Having been in a fight or having been injured in a fight.
  - Being forced to have sexual intercourse.
  - Attempting suicide and requiring medical attention.
  - Consuming alcohol.
  - Using marijuana.
  - Using cocaine, heroin, methamphetamines, and ecstasy.
  - Initiating intercourse before age 13.
  - Trying to lose weight (despite lower rates of perceived overweight).

In comparing Nashville/Davidson County to the rest of Tennessee, a 2007 report noted the disparities described in Table 2.[9]

Table 3. Health Disparities between Davidson County and Tennessee, 2007.

Health Issue	Davidson County	Tennessee
Teen birth rate (per 1,000 females 15–19)	61	56
Sexually transmitted diseases (per 100,000 population)	707	309
Violent crime cases (per 100,000 population)	15,266	7,247

These identified health issues can lead to morbidity that prevents individuals from leading healthy and productive lives, and even death. These disparities demonstrate an even more critical need for adequate access to primary care.

Health Insurance Status

For the population as a whole, the Nashville and Davidson County uninsurance rate (13.1%) is better than that of the state (16.5%) and the nation (14.5%). Although uninsurance rates are lower among Nashville and Davidson County whites and blacks compared with their counterparts nationwide, over half of Hispanics in Nashville and Davidson County are uninsured (56%) compared with their national counterparts at 34%. In addition, nearly one in three individuals reporting an annual income below $25,000 reported not having public or private health insurance.[10] The health disparities identified in Table 1 may be preventable by ensuring adequate access to health care for low-income individuals.

Davidson County participates in TennCare, the state's Medicaid program. The predominant managed care organizations for the TennCare population in the area include AmeriGroup and AmeriChoice. Although TennCare started as a very robust insurance plan for the low income population in Tennessee in terms of options, the state was unable to sustain the necessary funding and made several cutbacks to the program over the years. TennCare Medicaid eligibility criteria are now very similar to other states across the nation.

[8] Rogers, B. *Risk Behaviors of Nashville's Youth, 2007.* Metro Public Health Department: 2008.
[9] *2007 County Health Snapshot, Davidson County*, Tennessee Institute of Public Health.
[10] *2008 Prevalence of Behavior Risk Factor Survey Data*, http://www.healthweb.nashville.gov/HealthData/SurveyMain.htm

Health Care Services Capacity Overview

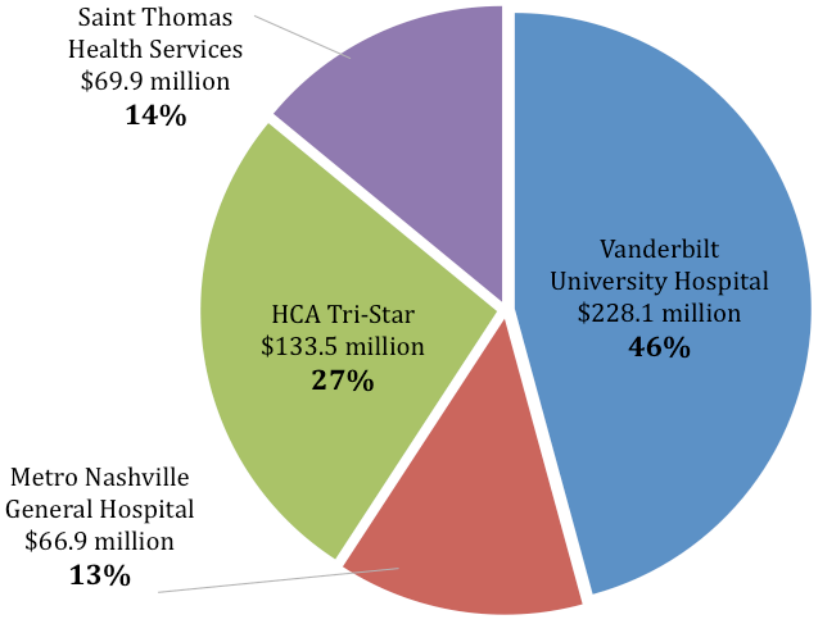
Nashville and Davidson County boasts four times as many doctors per capita as the rest of the state.[11] The County also has 2.6 times as many dentists per capita as the rest of the state. Davidson County has 7.1 hospital beds per 1,000 compared with 4.2 per 1,000 for the state as a whole.

Nashville is also unique in its role as the headquarters for the largest for-profit health care company in the world, Hospital Corporation of America. With its rich history as an important center for the Civil Rights movement, Nashville is home to one of only four historically black medical colleges in the country, Meharry Medical College. In addition, Nashville's Vanderbilt University includes a preeminent medical school that further elevates Nashville's status in the health care field.

Despite these robust health care resources, key stakeholder interviews identified gaps in health care services for the medically underserved and indigent residents of Nashville and Davidson County. Interviews with key stakeholders identified Nashville General Hospital, Vanderbilt University Medical Center, and St. Thomas Hospital as the community's safety net hospitals for the medically underserved and indigent with Nashville General Hospital serving as the primary hospital for the uninsured population. Figure 1 demonstrates that Vanderbilt University hospital had nearly half of uncompensated care charges for Davidson County hospitals:[12]

Despite these robust health care resources, key stakeholder interviews identified gaps in health care services for the medically underserved and indigent residents of Nashville and Davidson County.

Figure 1. 2008 Uncompensated Care Charges in Davidson County – Local Hospitals.



Nashville General Hospital serves as the teaching site for Meharry Medical College's residency program, and often provides an affiliate teaching site for Vanderbilt University School of Medicine. Nashville General Hospital has 150 beds and is relatively small compared with other public safety net hospitals

[11] *2007 County Health Snapshot*, Davidson County, Tennessee Institute of Public Health.
[12] 2008 *Joint Annual Report of Hospitals*.

(defined by the National Association of Public Hospitals and Health Systems [NPH] as a subset of public and not-for-profit hospitals that provides disproportionate amounts of care to low-income and uninsured patients*)*. Most safety net hospital members of the NPH have 200 or more staffed beds and average annual admissions around 17,000.[13] At Nashville General Hospital, the average occupancy rate for licensed beds in 2007 was low (47%) compared with the state as a whole (50.6%). For staffed beds, the average occupancy rate was also lower at 61% compared with the state as a whole (66.9%).[14]

Medically Underserved and Indigent

Local stakeholders interviewed by JSI agreed that the medically underserved and indigent included those without insurance as well as individuals with TennCare. The stakeholders indicated that the number of uninsured has increased with increased unemployment and recent cutbacks in TennCare. In addition, some noted that those with TennCare also lacked coordinated and consistent access to health care services, particularly for specialty services, mental health, and adult dental services. Recent immigrants, disabled individuals, and residents of the Hadley neighborhood were also perceived as medically underserved and indigent. Notably, few of those with whom JSI spoke identified the elderly as medically underserved or indigent.

A collaboration among Tennessee State University, Vanderbilt University, Meharry Medical College, and other members of Nashville's Safety Net Task Force is currently underway. This collaboration is conducting an in-depth study of the safety net, led by Dr. Pamela Hull from Tennessee State University. This assessment leverages existing stakeholder groups and their past efforts to collect primary and secondary data to further describe the size and characteristics of the medically underserved and indigent in Nashville and Davidson County. The study also includes additional primary data collection through interviews and surveys. It will provide details regarding the experiences of the medically underserved and indigent, in addition to the perspectives of safety net providers. The study's focus is on addressing barriers to access for needed care.

Nashville and Davidson County Safety Net Providers

In Nashville and Davidson County, the health care safety net includes community clinics (hospital-based ambulatory care clinics, federally qualified health centers, free clinics, faith-based clinics); specialty care providers; emergency rooms and inpatient care centers at local hospitals like Vanderbilt University Medical Center, Nashville General Hospital, and others; as well as long-term care at Bordeaux and Knowles. In addition, the Nashville Regional Health Information Organization is working on developing an integrated health information network to provide an electronic infrastructure for a more comprehensive and coordinated system. However, there was general consensus among those interviewed that while there may be adequate numbers of safety net providers, Nashville and Davidson County lacks a coordinated, cohesive, consistently well-funded safety net system.

Ambulatory Care

Nashville is home to a number of diverse ambulatory care providers that serve the medically underserved and indigent. These include federally qualified health centers, as well as health department-, faith-, and hospital-based clinics that provide primary care. Academic health science centers (Vanderbilt and Meharry) affiliated with local hospitals also offer specialty care services.

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[13] NAPH Annual Member Survey, 2004. Data are for 2002. AHA Annual Survey Database, FY2002 *in Ibid.*

[14] Tennessee Department of Health, Joint Annual Reports, *in Follow-up Audit of Nashville General Hospital, Metropolitan Government of Nashville and Davidson County*, Office of Internal Audit, Final Report, March 2, 2009.

Nashville's federally qualified health centers, in particular, have been successful in obtaining capital and expansion grants from the Bureau of Primary Health Care to expand their ability to meet the primary care needs of the medically underserved and indigent. Many of these clinics also offer dental and mental health services for children.

Since its start in 2000, the Safety Net Consortium of Middle Tennessee, an effort led by the Metropolitan Public Health Department and other safety net providers to address the health care needs of Nashville and Davidson County's medically underserved and indigent residents, has contributed significantly to coordinated care efforts. In 2002, the Safety Net Consortium established the Bridges to Care program to link medically underserved and indigent Nashville and Davidson County residents to a medical home. According to the Bridges to Care Web site, safety net providers participating in Bridges to Care address medical (19 provider sites), dental (7 provider sites), and mental health (7 provider sites) care needs.[15]

Like their counterparts nationwide, Nashville's medically underserved and indigent residents are experiencing increasing difficulty accessing many specialty care services.[16,17] Because of this, public safety net hospitals both nationally and in Nashville are under increasing pressure to support low-income residents who have no other avenues to turn to for a broad range of specialty care services. In addition to accessing specialty care directly through the safety net hospitals, patients in Nashville and Davidson County who are registered with the Bridges to Care program can access specialty care through the Bridges to Care Plus program, a network of approximately 750 specialists and six hospitals (Baptist Hospital, Centennial Medical Center, Saint Thomas Health Services, Skyline Medical Center, Southern Hills Medical Center, and Summit Medical Center) in the Nashville area that donate their services.

Despite these efforts to coordinate ambulatory care, qualitative research indicates that the system continues to be fragmented, and access to adult dental and mental health care remains limited. Patients continue to use emergency rooms for primary health care needs, and medically indigent and uninsured individuals experience inconsistent access to specialists.

Despite these efforts to coordinate ambulatory care, qualitative research indicates that the system continues to be fragmented, and access to adult dental and mental health care remains limited.

Emergency Care

Nashville is home to a number of hospitals that are willing to take medically underserved and indigent patients in their emergency rooms.

Like Bridges to Care, the Nashville Medical Home Connection is a program designed to address the community's high rates of emergency room visits for non-emergent needs.[18] Funded by the Centers for Medicaid and Medicare Services through June 2010, the program staffs United Neighborhood Health Services (UNHS) patient advocates in emergency rooms during high volume hours. The advocates facilitate emergency room diversion activities including patient enrollment and referral, transfer of records, and arranging for transportation as needed. The program also establishes UNHS clinics on hospital campuses during high volume hours. As part of this $1.35 million program, UNHS extended hours at its two sites closest to area hospitals to include evenings and weekends.

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[15] https://bridgestocare.nashville.gov/phSiteListing2.asp, accessed 12.07.09.

[16] Regenstein M, Nolan L, Wilson M, Mead H, Siegel B. *Walking a Tightrope: The State of the Safety Net in Ten U.S. Communities*, George Washington University Medical Center, May 2004.

[17] Felt-Lisk S, McHugh M, Howell E. *Monitoring local safety-net providers: do they have adequate capacity? Health Affairs*, September/October 2002; 21(5): 277-283.

[18] Fitzgerald, S. Cutting ER Wait Times, Nashville Medical News, October 10, 2008.

Both Bridges to Care and the Nashville Medical Home Connection reflect the considerable amount of effort and resources that have been allocated toward establishing alternatives to more costly emergency room care. However, medically underserved and indigent residents continue to access emergency room services for non-emergent care, and their access to care remains episodic and costly. Qualitative data collected as part of this project did not suggest that these programs have mitigated the overall systemic issues faced by the health care safety net.

For serious trauma, Nashville has a Level 1 Trauma Center at Vanderbilt University Medical Center. There are no Level 2 or Level 3 Trauma Centers in the area. Since two of the major causes of death are heart disease and stroke, enhanced emergency care could prove beneficial.

Inpatient Care

In 2008, Vanderbilt University Medical Center contributed nearly half of the uncompensated care provided by the nine area hospitals to the medically underserved and indigent residents of Nashville and Davidson County. Nashville General Hospital contributed about 13% of the uncompensated care provided to the medically underserved and indigent.[19] However, qualitative research identified a lack of consistent and reliable access to a broad range of inpatient care for the medically underserved and indigent, particularly at Nashville General Hospital. Qualitative feedback gathered as part of this project suggested a need for an overall physician workforce plan for Meharry Medical College and Nashville General Hospital to address the health care needs of the medically underserved and indigent in a more systematic and intentional manner. Qualitative research also identified the lack of a predictable funding source for Nashville General Hospital as a barrier to preventing the hospital from achieving its full potential long term.

The lack of a coordinated system to meet the needs of patients requiring inpatient specialty care was an issue of concern raised by local stakeholders. Additionally stakeholders noted that increased inpatient pediatric capacity is needed to meet the needs of medically underserved and indigent children.

The lack of a coordinated system to meet the needs of patients requiring inpatient specialty care was an issue of concern raised by local stakeholders.

Long-Term Care

Unlike the majority of the other safety net systems reviewed as part of this project, Metro has assumed the responsibility of supporting nursing home, assisted living, and adult day care services for the medically underserved and indigent of Nashville and Davidson County under the Hospital Authority, which includes Nashville General Hospital, Bordeaux and Knowles.

Bordeaux is a nursing facility that is licensed to provide to patients both intermediate and skilled services like rehabilitation and advanced wound care. Bordeaux also offers other specialty services, like palliative care, outpatient rehabilitation, and an extended rehabilitation program for individuals requiring medical ventilation support. In addition, Bordeaux partners with outside agencies to bring other medical and supportive services, like dental, podiatry, mental health, and optometry, on site for its residents. Bordeaux is an integral component of Nashville and Davidson County's safety net. Its patient census consists primarily of patients covered by Medicaid. More than four out of five residents at Bordeaux (a four hundred bed facility) are sponsored by Medicaid. Such a heavy focus on Medicaid services assists

[19] Howser, J. "VUMC bears brunt of uncompensated care burden," *Reporter*, Vanderbilt Medical Center, November 6, 2009.

the community in mitigating the chronic shortage of long-term care beds for the medically indigent and underserved.

Knowles provides quality assisted living and adult day services to residents of Nashville and Davidson County. Individuals served in the programs at Knowles are charged fees on a sliding scale based on their income and whether or not they receive sponsorship through various funding programs with qualifying criteria. Knowles is a contract provider of both assisted living and adult day care services in the Medicaid Waiver Home and Community Based Services (HCBS) program, which funds support services to help individuals who qualify for nursing home care remain in the most integrated setting possible. Approximately 25% of Knowles assisted living residents are enrolled in the HCBS program, allowing them to remain in a home environment while maximizing the fees that are collected to support the cost of their care. Knowles is a grant participant in the federally funded Social Service Block Grant (SSBG). The SSBG program funds services for low-income seniors and disabled adults who are over 30 years of age.

The Hospital Authority realizes a number of benefits by including Bordeaux and Knowles facilities along with Nashville General Hospital in its service mix. As an integrated health care delivery system, the Hospital Authority can provide a continuum of appropriate level care for its patients. This provides a number of competitive benefits to Nashville General Hospital. For example, it enables the hospital to manage its length of stay under fixed payment arrangements by providing lower cost alternatives like long-term care and other patient care services. The Hospital Authority is also able to leverage administrative costs across the three facilities, sharing the cost of services such as administration, legal, information technology, laboratory, materials and facility management across all entities. Additionally, acute care hospitals could become responsible for the cost of post acute care services as a result of potential Medicare reform included in national heath care legislation. Having costs that are competitive in the post acute care environment would be an advantage in such an environment

In contrast to the benefits described above, the inclusion of Bordeaux and Knowles as part of the Hospital Authority has presented both institutions with issues that have compromised their ability to be competitive with market standards. Employees of Knowles and Bordeaux are considered public employees entitled to the benefits and requirements of all Metropolitan Government employees. This arrangement distinguishes Knowles and Bordeaux from its private long-term care counterparts and contributes significantly to the higher operating costs reflected by each organization. Specifically, the costs of pension benefits are considerably higher than those in private or non-profit facilities, which, if they provide a retirement plan at all, offer 401(k) style benefits. Contrasted with the Metro defined benefit plan in which the Hospital Authority participates, the cost difference is substantial. In addition, the qualitative information gathered for this project indicates that patients at Bordeaux tended to be younger and dealing with more serious chronic medical and mental health issues than patients at other long-term care centers. This is an additional cost factor for Bordeaux compared with other long term care facilities.

SUMMARY OF LOCAL RESEARCH FINDINGS

- Nashville is a cosmopolitan city with numerous assets in health care that could support economic redevelopment in impoverished areas.
- Significant health disparities exist in the low-income population in Nashville and Davidson County for preventable conditions that could be addressed by primary care and prevention services.

- The health care safety net system does not have a predictable funding source to support it.
- The current physician workforce is insufficient to meet needs of the medically underserved and indigent in Nashville and Davidson County.
- The health care safety net provider organizations are dedicated but lack an integrated planning and resource allocation process.
- Medically indigent and uninsured residents experience limited access to adult dental care and mental health care through safety net providers. Additional inpatient pediatric capacity is also needed to meet the needs of medically underserved and indigent children in Nashville and Davidson County.
- Medically underserved and indigent residents have difficulty accessing some health care specialists in an environment of adequate capacity.
- Enhanced trauma services at Nashville General Hospital could solidify a niche for the hospital while meeting local service area needs.
- TennCare is not financed to meet the needs of all the medically underserved and indigent residents of Nashville/Davidson County.
- Although the inclusion of Bordeaux and Knowles as part of the Hospital Authority provides many benefits, it also poses barriers to Bordeaux's and Knowles' abilities to be competitive in the long-term care environment.

HIGHLIGHTS OF NATIONAL RESEARCH

Key Attributes of Successful Safety Net Models

The health care safety net models reviewed in-depth by JSI share several characteristics that appear to be key factors in their success:

- All of the models had clear leadership that implemented an agreed-upon definition of the safety net among members.
- Their delivery models were organized and included large hospitals with affiliations with an academic health sciences center.
- All of the models included a strong primary care component, either by having the leading entity responsible for providing primary care directly or by contracting with safety net providers in the community to provide primary care.

Most of the systems reviewed did not include long-term care. However long term care could become a critical component of the health care safety net, given the trend toward patient-centered care and increasing accountability of health care organizations to payers for providing the full spectrum of health care services needed throughout the lifespan.

Each of the models reviewed in-depth were innovative in capturing paying patients, including those enrolled in Medicaid and Medicare. One of the common strategies utilized by the models in attracting insured patients included creating a niche in the community and addressing broad-based needs such as creating a center of excellence for a burn unit, poison control, or trauma center.

Each model included a system that addressed physician performance and accountability aligned with overall safety net system goals.

Each model included a system that addressed physician performance and accountability aligned with overall safety net system goals.

The safety net models were a source of pride in the respective communities, which were committed to supporting these institutions. This community support ranged from involvement in hospital boards to passage of bond measures and support of capital campaigns.

Additional characteristics of the models that were researched are described in detail below. The characteristics described are: governance (leadership); finance, community support (image, reputation), and information technology.

Governance

All successful safety net models were led by a board or entity (hereinafter referred to as a "leading entity") that was responsible for development and implementation of a coordinated strategy to address the medically underserved and indigent population needs across a broad spectrum of health care services. The leading entity was committed and visionary in its goals for the health of the medically underserved and indigent community as a whole. The leading entities were typically independent non-profit organizations, as opposed to being within the city government "bureaucracy." Nonetheless, the leading entity was also accountable to the community at large through board composition that included clients and community members, reports to the community, and public officials. The leading entity addressed the entire safety net system as either a direct provider of needed services or as a payer to other organizations responsible for needed services. In doing so, the entities set accountability standards and principles for contracted providers. Its strategies were described in a multi-year plan.

The Board members of the leading entity were highly regarded, credible leaders with business acumen and also included other opinion leaders in the community.

The leading entity addressed the entire safety net system either as a direct provider of needed services, or as a payer to other organizations responsible for needed services.

The leading entities all had a designated leader, a Chief Executive Officer (CEO) or Executive Director (ED) who was influential and visionary and who was accountable for the entire safety net system. This role was typically filled by a person who was not bound by the interests of any particular safety net provider. The CEO/ED was politically astute in his/her ability to balance competing interests for the benefit of the safety net system.

The safety net models were coordinated systems that included a network of primary care service providers who referred Medicaid patients for inpatient care. In some cases, this network of primary care service providers were federally qualified health centers owned by the leading entity. In other cases, the primary care service providers were a diverse group of ambulatory care centers that contracted with the leading entity to address the primary care (?) needs of the medically underserved and indigent.

Finance

The safety net models that were reviewed in detail were large, urban systems with high revenue. They all had a dedicated public funding stream; however, for one model, the dedicated public funding stream was below 1% of its total revenues.[20]

The research reflected that the safety net models were all anchored by a hospital that was the primary source of care for the medically underserved and indigent in need of inpatient and specialty care services in the community. The hospitals were all affiliated with an academic health sciences center. The hospitals had a sustainable payer mix that included Medicaid and other paying patients to balance the self-paying patients. The leading entities were also able to leverage research grant funding through a large and diverse research base due to their affiliation with an academic health science center. Some of the leading entities participated in the payer market by offering their own internal health insurance products, self-insuring their own staff and being their health care provider, or by being the Medicaid managed care organization for their service area.

Critical to the financial viability of the safety net models was their independence from government, which facilitated their ability to issue bonds and conduct capital fundraising campaigns to support their growth and vision.

Community Support

Because of their association with an academic health sciences center, the affiliated community hospitals in the safety net systems that were researched were a source of pride in the community. The hospitals were also sources of innovation and medical advances. The community perception was that these hospitals offered the most technologically advanced care as well as access to care for the most vulnerable. In several cases, the safety net hospital and system had gone through a major transformation with focused efforts to improve customer service, develop centers of excellence, and in other ways solidify their position within their health care system.

The hospital's role in the community, described above, supported the leading entities' efforts in garnering strong political support and passing ballot initiatives in their communities. The leading entities usually had formidable fundraising capacity in the community, evidenced by their establishment of successful foundations.

In addition, the leading entities collaborated with private and public organizations alike to address community issues. The safety net systems were an economic engine for their communities, employing individuals from the local community and supporting local businesses through patronage.

Information Technology

The leading entities were key players in the regional health information organizations currently underway in their areas. The majority used electronic health records, integrated throughout the system to promote patient-centered care.

[20] 2007 Denver Health Financial Statements, www.denverhealth.org, accessed August 2009.

SUMMARY OF NATIONAL RESEARCH FINDINGS

- All health care safety net systems that were researched were autonomous and had fiduciary responsibility for the entire safety net system in their area.
- The systems were led by a strong and visionary Chief Executive Officer, who supported the safety net as a whole.
- The systems were governed by a group of advisors, or board members, consisting of health care leaders and the community's most prominent and influential business people.
- All systems had member agreement on their definition of the safety net with a common vision and goals for their safety net as part of multi-year strategic plans.
- Performance and accountability of the systems were aligned with the overall safety net system goals.
- All systems had organized systems of care that were cohesive.
- All systems were publicly accountable entities with a dedicated public funding stream as part of their revenues.
- All systems were aggressive in capturing paying (including Medicaid and Medicare) patients and research grant funding alike.
- All systems placed a particular emphasis on high quality care.
- All systems provided or arranged for primary care services for their target populations.
- Most systems did not include dedicated funding for long-term care services over and above their Medicaid program.
- Most systems had created their own niches for specialty services in their communities.
- All systems had strong community-based constituencies.
- Most systems had made significant investments in information system technology to support their coordinated efforts.

RECOMMENDATIONS AND RATIONALE

Based on the information gathered from the local stakeholder interviews and focus group discussions, the national research of successful safety net models, and a thorough literature review, JSI developed recommendations for an improved business model to address the health care needs of the medically underserved and indigent of Nashville and Davidson County. The recommendations were initially vetted with the Mayor's Community Advisory Committee, the NHA staff and Board, Meharry Medical College, Vanderbilt University Medical Center, the Davidson County Public Health Department, and key safety net clinics. The recommendations reflect the input and feedback of these key stakeholders.

The recommendations are divided into five categories: 1) Governance; 2) Finance; 3) Quality; 4) Service Mix; and 5) Technology.

Governance

Recommendation 1.1

The community needs a strong leading entity that is responsible for successfully responding to the needs of the entire safety net system in a cohesive, coordinated manner. The leading entity could capitalize on the momentum from past efforts and, if appropriate, build on the infrastructure already established by existing organizations such as the Hospital Authority.

The community needs a strong leading entity that is responsible for successfully responding to the needs of the entire safety net system in a cohesive, coordinated manner.

Rationale

Nashville has a wealth of capable, successful safety net providers. Under the current model, Nashville's medically underserved and indigent patients often experience gaps in access to care when they are referred from one safety net provider to another safety net provider that can offer additional required medical care. Past efforts to bridge this gap have been developed and executed with limited success. Medically underserved and indigent patients continue to experience inconsistent access to care, particularly for specialty care and some inpatient services. Limited health care resources, time, and effort are redeployed each time a patient needs a service outside the scope of their current provider's services. Coordination that includes accountability, or "mechanisms with teeth," is needed to leverage the community's safety net providers and resources—bridging the gaps in care currently experienced by medically underserved and indigent patients.

Recommendation 1.2

The leading entity should be autonomous and maintain independent financial authority. The leading entity should have the fiduciary responsibility for addressing the health care needs of the medically underserved and indigent.

Rationale

The leading entity needs to represent the best interests of the safety net system as a whole. An independent financial authority and structure will ensure that the leading entity is capable of supporting the safety net as a whole system and avoiding political or financial obligations that may be associated with affiliation with any particular safety net provider. An autonomous leading entity will facilitate more agility in the market regarding contracting, employment, and other key considerations that impact cost efficiencies. In addition, independent financial authority will enable the leading entity to float bonds and raise capital for the safety net system.

Recommendation 1.3

A visionary Chief Executive Officer (CEO) who works to support the entire safety net should be employed by the leading entity.

Rationale

The leading entity requires a designated leader to implement its vision, mission, goals, and objectives in support of the entire safety net. Since the CEO will report to the leading entity, the entity will maintain the authority needed to hold him or her accountable to the mission, vision, and goals of the organization.

Recommendation 1.4

In its first year of operation, the leading entity should develop a strategic plan outlining its vision, mission, and goals that reflect its commitment to the population-based health needs of the medically underserved and indigent population of Nashville and Davidson County. With particular emphasis on groups experiencing health disparities, the plan should provide a roadmap of how the safety net system will provide cost effective, patient-centered, quality health care. The plan should also include a robust evaluation component that outlines proposed indicators of success and how they will be measured.

Based on the strategic plan, and in order to identify the financial support necessary to sustain the entire safety net system as developed through the planning process, participating safety net providers should be required to develop three-year business plans outlining their utilization projections, financial *pro formas,* and necessary resources to sustain their organizations,. The business plans should be completed during the leading entity's second year of operation.

Rationale

In order to be successful, the leading entity must strive to achieve a vision of health for the medically underserved and indigent Nashvillians. A clear vision is needed to align the goals of the safety net providers and create new, substantial momentum to organize the resources needed to achieve the vision. Through participation in the development of the vision and mission, the stakeholders will clearly and consistently define the safety net system. The strategic planning process will enable the leading entity to identify an appropriate organizational structure, the target population to be served, the capacity necessary to serve the target population, and to determine gaps. The business plan for the leading entity will provide the basis for outlining the financial needs for the safety net system and facilitate funding decisions.

Recommendation 1.5

The leading entity should be composed of strong, visionary leaders. The leading entity should include the community's most successful business leaders who have a deep understanding of and commitment to Nashvillians.

Rationale

The strategic plan will represent a turning point in the way Nashville and Davidson County address the health needs of its most vulnerable residents. The strategic plan needs to be developed by the community's most innovative and creative business minds in order to ensure that the goals are reflective of the unique needs of Nashville and Davidson County and are achievable in the context of the community. Leveraging the community's business leaders will add credibility and encourage buy-in for the plan's implementation.

Recommendation 1.6

The leading entity should implement its responsibilities through a committee structure that addresses: finance; human resources; community relations; and quality. Each of these committees should be composed of the community's experts in each of these areas to ensure innovation, creativity, and credibility.

Rationale

As an organization focused on the needs of the community, the leaders should be reflective of the community in terms of its tremendous talent in the areas of finance, human resources, community relations, and quality. In order to be successful, the leading entity will need to draw from experts with specialized knowledge in these areas. A committee structure that has participation from individuals

outside of the leading entity will ensure that these areas benefit from the appropriate community members and that each area is focused on independent of other sectors and addressed appropriately.

Finance

Recommendation 2.1

The leading entity should include a finance committee that determines budget needs for the safety net system; reviews funding levels; and monitors the financial operating performance of the safety net system. Once these budget needs and funding levels are determined, the finance committee should determine what level of funding is needed on an annual basis to sustain the system. Based on its determination, the committee should recommend the implementation of a dedicated funding stream to support the efforts of the safety net system that cannot be sustained through other funding strategies. In addition, the finance committee should assist the safety net providers with meeting their respective financial needs through other strategies. Examples of such strategies include: creating incentives for city and county employees to use the safety net system as a preferred provider; and developing an approach for maximizing TennCare and other uncompensated care funds resulting from health care reform, such as forming an accountable care organization that contracts for coordinated care among system components.

Rationale

The leading entity requires a group of financial experts to review the financial state of the safety net system as a whole in order to identify critical areas requiring support as well as opportunities for growth. By deploying a group of financial leaders from the community to this task, the leading entity will develop a plan that will be transparent, rational, and reflective of the needs of the safety net community. In order to fill the financial gap necessary to sustain the safety net services, the finance committee will have to determine the best scenario for creating sustainable sources of revenues.

Recommendation 2.2

In order to allow adequate time to make the financial determinations outlined above, a five-year predetermined dedicated funding stream should be allocated by Metro to continue support for the NHA while transitioning to the new model. Funds should also be secured to develop the new leading entity and support its initial strategic and business planning efforts. These funds should be obtained from Metro as well as through grants.

Rationale

By committing a funding stream to support the transition process, the members of the leading entity and the community will not be distracted by unpredictable or unstable funding. The funding will allow the safety net system to continue to operate and meet the needs of the medically underserved and indigent while transitioning to a more effective model. This security will ensure that the process focuses on developing the needed strategic and business plans for a better safety net system. In addition, large foundations and other funders place heavy emphasis on the financial stability of an organization. A stabilized funding source will allay funders' fears of investing in a failing organization.

Recommendation 2.3

The leading entity should take an aggressive approach (strengthened by a stabilized funding source) to grant funding.

Rationale

Nashville can become an attractive study site for funders interested in supporting population-based health care and health care research by leveraging the patient base of the entire safety net system, along with that of its world-class academic health sciences centers. The establishment of the Meharry Clinical and Translational Research Center, Meharry Medical, and its recent award from the National Institutes of Health National Center for Research Resources, Research Centers in Minority Institutions, Clinical and Translational Research program, is an excellent example of how Nashville can become a hub for health disparities research.

Quality

Recommendation 3.1

The leading entity should establish a Quality Improvement Committee to support continued success with quality improvement efforts throughout the safety net system. This committee should also set high standards for patient satisfaction and customer service and monitor their achievement closely. The committee should include highly regarded members of the health care provider community and draw from Nashville's wealth of health care experts and researchers in this area. This committee will provide the basis upon which a community awareness campaign is developed regarding the high quality of services provided by the safety net as well as the universal need for health care.

Rationale

The leading entity will need to dedicate a group of individuals to monitor the performance of the safety net system in terms of how patient-centered it is. The entity will also need to demonstrate its high quality of care to potential funders, payers, patients, and community, both in terms of clinical quality and patient satisfaction. Demonstrating a high quality of care becomes increasingly important under health care reform in which more people will have insurance and will be able to choose their health care provider. Customer service and patient satisfaction are key contributors to individuals' choices of providers.

Service Mix

Recommendation 4.1

The leading entity should focus on primary care and prevention and explore the "medical home model" as a potential approach to service provision by the safety net system.

Rationale

Across the nation, urban safety net hospitals have seen increases in outpatient care services as their inpatient services have decreased or remained stable. By focusing on primary care and prevention, the safety net system will be better equipped to respond to patient needs and be consistent with health care reform. The medical home model, which addresses patient-centered care, will become increasingly important as payers continue to seek partners that address the full spectrum of patients' needs in line with health care reform efforts. This approach is better positioned to be more cost-effective by providing access to prevention and primary care before a health condition becomes more costly, and is therefore a key component of health care reform efforts.

Recommendation 4.2

The leading entity should assess the community's needs and capacity for specific health services and providers in order to develop a service mix that is responsive to patient needs. This capacity analysis should serve as the basis for a physician workforce plan that details strategies for recruitment and retention of appropriate providers, the role of Meharry Medical College in supplying primary care residents, and the need for contracting arrangements with providers. For example, stakeholders described gaps in mental health and dental services for medically underserved adults and the qualitative research identified a need for additional inpatient pediatric capacity for indigent patents. The leading entity should work closely with the finance committee to determine the appropriate service mix for the safety net system. As part of this process, the leading entity should engage all safety net providers in Nashville and Davidson County to implement a collaborative system to access specialty care

Rationale

The safety net system should offer the services needed by the medically underserved and indigent residents of Nashville and Davidson County. By assessing the capacity of the entire safety net system and identifying gaps, the leading entity will be able to develop business plans and *pro formas* for new services, along with sustainability plans to continue services needed.

Recommendation 4.3

The leading entity should evaluate the need for a Level 2 Trauma Center in Nashville and Davidson County. Should the feasibility study identify a need for a Level 2 Trauma Center, Nashville General Hospital, as the key facility for the uninsured, should determine the feasibility of becoming a Level 2 Trauma Center.

Rationale

There are no Level 2 Trauma Centers in Nashville and Davidson County, only a Level 1 at Vanderbilt University Medical Center. Based on the quantitative data regarding disparities in the Nashville and Davidson County community and input from the local key stakeholder interviews, a feasibility study that would determine the impact of adding a Level 2 Trauma Center to Nashville's emergency capabilities should be conducted. The study should evaluate the potential impact of adding Level 2 Trauma Center on the health outcomes for the medically underserved and indigent of Nashville and Davidson County. Should the study identify a clear need for a Level 2 Trauma facility, or even for upgraded emergency facilities, the feasibility of locating this resource at Nashville General Hospital should be assessed, as Nashville General Hospital is the safety net hospital for the uninsured and would have the most impact on the disparities exhibited by that population.

Recommendation 4.4

The leading entity should examine the optimal structure within the safety net system for Bordeaux and Knowles.

Rationale

There is a clear need for Medicaid long-term care beds and assisted living services that Bordeaux and Knowles provide. However, the retention of Bordeaux and Knowles as part of the Metro benefits system presents both institutions with issues that compromise their ability to be competitive. Bordeaux and Knowles are bound by the Metro benefit system and the city benefit cost structure, which inflates the costs of these institutions and contributes to the financial losses being experienced by these facilities. In addition, because Knowles is a publicly owned institution, its residents who receive Social Security Income (SSI) payments as a source of income are not allowed to continue receiving their SSI payments

when they enter the program, leaving them with no income or means to contribute dollars, which could be used to offset the cost of their care and residence at Knowles.

The costs and revenues, as well as the patient mix, for both Bordeaux and Knowles, need to be examined in detail in order to determine the cause of the deficits at these facilities. Case mix is impacted by mission and function in the community (both institutions serve relatively high acuity, low-income populations), which, in turn, potentially contribute to the deficits. Once the contributions to the deficit are fully outlined, an optimal structure for each facility and potential strategies that assist both organizations in eliminating or reducing their deficits should be implemented. The elimination and/or control of these deficits will be critical under health care reform, in order for Bordeaux and Knowles to be part of a competitive safety net system vying for patients.

Community Support

Recommendation 5.1

The leading entity should establish a Community Relations Committee. This committee should have a strong and broad-based presence in the community and include the target population as part of the committee. The committee should initiate efforts to improve consumer involvement in policy-making decisions, operations, customer service, and service mix.

Rationale

Community support is essential to the success of this effort, which involves a variety of sectors across the entire city. The committee established to support these efforts will be the "faces" of the safety net system, and thus should be reflective of the diversity, talent, and wisdom of its residents.

Recommendation 5.2

The Community Relations Committee should build on community development activities in impoverished areas of the city, including the Hadley community and work with the business community, Meharry, and others, to revitalize the area.

Rationale

The safety net system needs to demonstrate that its focus is on health, including the economic well-being of the population as a whole. By taking this holistic approach, the safety net system will establish its credibility and demonstrate its commitment to contributing to the community it serves.

Technology

Recommendation 6.1

The leading entity should continue to leverage the efforts of the Access to Healthcare Research Collaborative to move toward interoperability of records among the safety net providers.

Rationale

Patients benefit from interoperable health records because quality of care is improved. Integrated electronic health records allow providers to review the medical history of patients within a system, regardless of which provider the patient is visiting. Payers are increasingly reliant on electronic submissions for payment, and eventually penalties will apply to those who do not use electronic systems. Finally, electronic health records provide a wealth of data that can be shared to monitor quality, support research efforts, and ultimately improve patient care.

CONCLUSION

In 2008, the Nashville and Davidson County Metropolitan Government (Metro) provided $63 million to the Nashville Hospital Authority (Authority), allocated as follows:

- Approximately $35 million in funding to Nashville General Hospital for inpatient care and ambulatory care.
- $11 million in operating loans to Nashville General Hospital (as of 2008 cumulative operating loans totaled approximately $30 million).
- Approximately $15 million to Bordeaux and Knowles.
- $2.5 million in capital funding for the Authority.

These funds helped pay for:

- An average daily census of 71.3 patients at Nashville General Hospital.
- 32,983 clinic visits to Nashville General Hospital's outpatient clinics.
- 29,587 emergency room visits at Nashville General Hospital.
- An average daily census of 372 patients at Bordeaux.
- 94 annual residents at Knowles.

As the number of medically underserved and indigent residents in Nashville and Davidson County continues to grow, Metro has become concerned that its model for meeting the health care needs of the medically underserved and indigent is neither cost effective nor sustainable. In addition, the health indicators for the medically underserved and indigent population indicate that health care outcomes for this population are not improving despite increasing expenditures.

Implementation of JSI's recommendations will provide a more cost-effective and sustainable model for the safety net system in Nashville and Davidson County. The overall focus of the recommendations is to develop an autonomous leading entity that:

- Has fiduciary responsibility for the health care safety net system in Nashville and Davidson County.
- Is publicly accountable.
- Is responsible for planning and implementing an integrated health care delivery system that emphasizes access to timely, cost-effective, quality care for the medically underserved and indigent population.
- Works to lead a community-wide prevention and healthy lifestyle program.

The proposed model supports the development and implementation of a well-coordinated system of care that more effectively uses public funds to provide access to quality and effective care for the medically underserved and indigent population of Nashville and Davidson County.

APPENDICES

Appendix A

Nashville/Davidson County Quantitative Background Data Listing

Appendix B

Bibliography

Appendix C

Key stakeholder interview tool

Appendix D

Listing of key stakeholders interviewed

Appendix E

Safety net model profiles of selected cities

Appendix F

Discussion tool for interviews with key leadership of safety net models