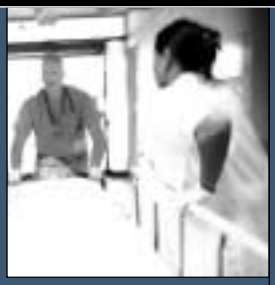
AN ASSESSMENT OF THE

SAFETY NET
in Memphis, Tennessee



Urgent Matters

The George Washington University Medical Center

School of Public Health and Health Services

Department of Health Policy

Acknowledgments

The *Urgent Matters* safety net assessment team would like to thank our community partner, the University of Tennessee Health Sciences Center, for its help in identifying key safety net issues in Memphis and connecting us with stakeholders in the community. At the University of Tennessee Health Sciences Center, Alicia McClary, EdD, was instrumental in coordinating our site visits, interviews and focus groups and an essential resource through the course of the project.

The mission of the University of Tennessee Health Sciences Center is to reduce disparities in the overall health, quality of care and length of survival among minorities through student and public education, and health services and research into the causes of disparities. More information on the University of Tennessee Health Sciences Center can be found at www.utmem.edu.

We would also like to acknowledge Rhonda Nelson, RN, at the Regional Medical Center at Memphis (the Med) for providing us with important information and resources regarding the emergency department at the Med. The *Urgent Matters* team would also like to recognize the many individuals in the Memphis health care community, who gave generously of their time and provided important and useful insights into the local safety net system. The Memphis, Tennessee, Safety Net Assessment would not have been possible without their participation.

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The Department of Health Policy is the home for health policy research and studies at the George Washington University Medical Center, School of Public Health and Health Services. The Department of Health Policy is dedicated to providing policymakers, public health officials, health care administrators, and advocates with the information and ideas they need to improve access to quality, affordable health care. This report and other *Urgent Matters* safety net assessments are available at the Department of Health Policy website www.gwhealthpolicy.org or the *Urgent Matters* website www.urgentmatters.org.

AN ASSESSMENT OF THE

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Foreward

After several years of decline, the number of Americans without health insurance is climbing rapidly. Meanwhile erosion in tax revenues is driving states to cut funding for Medicaid. Both trends are hitting all health care providers hard, as they are simultaneously attempting to cope with a nursing shortage, escalating labor costs, and the adoption of expensive new technologies.

These forces are felt the most in the health care safety net. These providers of care for the poor, uninsured and other vulnerable populations have not had to face such a confluence of challenges in recent memory. They must survive in an industry in upheaval, while attempting to serve the ballooning numbers of our fellow Americans in need. They must also continue to provide a set of highly specialized services, such as burn, trauma and neonatal care to a broad swath of their local communities.

It is against this backdrop that we have assessed the "state of the safety net" in Memphis. Due to the foresight of the Robert Wood Johnson Foundation, a team of researchers at The George Washington University Medical Center led by Marsha Regenstein, PhD, MCP, has assessed the health of the safety net in ten United States communities. In each community we worked with a Community Partner—a local organization that helped us to identify the key issues and stakeholders. In Memphis, we are deeply indebted to the University of Tennessee Health Sciences Center. These community partners have also committed to convening opinion leaders and others in their region to discuss the implications of the reports' findings. All of this was done as part of the *Urgent Matters* project, a national program designed to spur awareness of safety net issues while finding practical ways to relieve one symptom of distress—crowded emergency departments.

Our goal is to provide new analysis and information on what is happening today in the critical systems of care for the underserved in these communities. By doing so we seek to inform the health care discussions in these places and the nation, and to lay a foundation for rational change and improvement. We do not presume to know all the answers. But we believe that an objective analysis by an unbiased team can be immensely helpful to communities in need of a critical analysis of their safety net. This report seeks to meet this need.

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Executive Summary

The *Urgent Matters* program is a new national initiative

of The Robert Wood Johnson Foundation, designed to identify opportunities for relieving crowding in our nation's emergency departments and to improve access to quality care for uninsured and underserved community residents. *Urgent Matters* examines the interdependence between emergency department (ED) use and the health care safety net in ten communities throughout the United States. One component of this program was the development of comprehensive assessments of the safety nets in each of the ten communities that served as the focus of this study. This report presents the findings of the Memphis, Tennessee, safety net assessment.

Each of the *Urgent Matters* safety net assessments was prepared by a research team from The George Washington University Medical Center, School of Public Health and Health Services, Department of Health Policy, in close collaboration with the project staff from the hospitals selected for this study and a community partner. The Memphis assessment draws upon information collected from interviews with senior leaders in the Memphis health care community and from on-site visits of safety net facilities. The research team also conducted focus groups with residents who use safety net services.

To set the context for this study, the research team drew upon secondary data sources to provide demographic information on the populations in Memphis, as well as data on health services utilization, coverage statistics and related information. The assessment includes an analysis of data that indicates the extent to which the emergency department at The Regional Medical Center at Memphis (The Med) provides care that could safely be provided in a primary care setting.

This report examines key issues that shape the health care network available to uninsured and underserved residents in Memphis. It provides background on the Memphis health care safety net and describes key characteristics of the population served by the safety net. It then outlines the structure of the safety net and funding mechanisms that support safety net services. The report also includes an analysis of key challenges facing providers of primary and specialty care services and specific barriers that some populations face in trying to access them.

Key Findings and Issues for Consideration: Improving Care for Uninsured and Underserved Residents of Memphis

The safety net assessment team's analysis of the Memphis safety net generated the following key findings:

The Regional Medical Center at Memphis has taken important steps to improve continuity and coordination of services by partnering with the Memphis and Shelby County Health Department to jointly run the Health Loop clinics. This partnership has helped to reduce duplication of services and conserve resources, allowing the Health Department to focus its efforts on core public health functions.

Aside from these partnerships, Memphis' safety net providers generally do not collaborate or coordinate services. Long-standing turf issues, competition for patients and feelings of distrust among members of the safety net inhibit efforts to coordinate care and to exchange information across sites.

While there is a general sense that sufficient primary care capacity exists to meet the needs of Memphis residents, this is not the case for specialty care. Uninsured and low-income patients have very poor access to specialty physicians, and there are reports that many providers are no longer willing to treat TennCare patients.

Access to behavioral health and dental care services are extremely limited for both uninsured and TennCare populations. Community behavioral health centers offer a subsidy for outpatient services (up to 50 percent), but the price of care is still beyond the reach of most uninsured patients. TennCare beneficiaries have slightly more access, since they technically are covered for services. Payment rates for providers are so low, however, that behavioral health care centers limit the amount of care they deliver at any one visit to whatever is most necessary at the time. Similarly, very few dental providers will treat uninsured or TennCare patients. Those safety net facilities that do provide dental care deliver mostly preventive services.

A significant percentage of emergency department visits at The Med are for patients whose conditions are non-emergent. About 14 percent of all emergency department encounters that did not result in an admission were for patients who presented with non-emergent conditions. Another 14 percent were for patients whose conditions were emergent but could have been treated in a primary care setting.

Interpreter services are inadequate to serve non-English speaking populations. The rapid growth of the Latino community in Memphis has challenged providers' abilities to accommodate their needs. While clinics and hospitals attempt to hire bilingual and bicultural staff when possible, more interpreters are necessary to assist medical providers in delivering health care to Spanish speaking patients and others with limited English proficiency.

Some low-income residents distrust safety net providers and efforts to serve the uninsured and underserved populations of Memphis. To strengthen relationships between providers and patients, low-income populations and recent immigrants need information about how to use the health care system more effectively.

The Urgent Matters *safety net assessment team offers the following issues for consideration:*

The Memphis safety net would benefit from a comprehensive study examining available services and capacity issues to develop a more complete understanding of gaps in care. This process could also serve as a starting point for bringing individual components of the safety net together to discuss methods of coordinating services and maximizing capacity.

The Health Loop clinics should consider conversion to FQHC status to enable them to apply for federal funding from the Health Resources and Services Administration. The Med's primary care system could be restructured to meet the governance requirements of FQHCs (i.e., to meet the requirement for a community board). This move would create an important source of revenue for the uninsured and would enable the clinics to qualify for enhanced Medicaid reimbursements.

Safety net providers should consider instituting an information system that would allow providers across sites to share patient files and help streamline eligibility processes when patients apply for publicly sponsored services.

Hospitals and other safety net providers should institute a formal referral network to ensure that patients who present at the ED with a non-emergent condition and no medical home are given information on where they should seek care in the future. This referral system could also benefit patients who have medical homes, such as community health centers, but whose clinical information does not flow back to their primary care physician. Currently patients are sent home with written discharge directions, but they frequently fall through the cracks with little or no follow-up care.

Community-based organizations and faith-based groups should work with safety net providers to develop outreach programs explaining how to use the health care system, stressing the importance of preventive care, and encouraging acceptance of the use of mental health and substance abuse services. These programs should use community health workers as their outreach workers to better connect with underserved populations.

The effectiveness of bus routes and the transportation system in serving low-income, underserved populations should be evaluated. Consideration should be given to changing routes to increase their accessibility to and from health care sites. A transportation voucher system for low-income populations should also be considered.

Representation of ethnic/racial minorities on committees and decision-making boards of health care providers and other organizations should be increased. While the Latino population has grown rapidly over the past decade, their inclusion in these groups has not.

Introduction

In 2000, the Institute of Medicine (IOM) published a report on the health care system serving uninsured and underserved individuals in the United States. Entitled *America's Health Care Safety Net: Intact but Endangered,* the report examined the viability of the safety net in the face of major changes in the financing and delivery of health care. The IOM report concluded that the safety net in America is under significant pressure from changing political and financial forces, including the growth in the number of uninsured, the reduction or elimination of subsidies funding charity care, and the growth of mandated managed care.

The Robert Wood Johnson Foundation established the *Urgent Matters* program in 2002 to further study the dynamics of the health care safety net. While the IOM report focused its review principally on ambulatory and primary care settings, the *Urgent Matters* program takes IOM's research a step further and examines the interdependence between the hospital emergency department (ED)—a critical component of the safety net—and other core safety net providers who "organize and deliver a significant level of health care and other health-related services to uninsured, Medicaid, and other vulnerable patients."[1]

The purpose of *Urgent Matters* is to identify opportunities for relieving crowding in our nation's emergency departments and to improve access to quality care for uninsured and underserved community residents. The program consists of three key components: 1) technical assistance to ten hospitals whose EDs serve as critical access points for uninsured and underserved patients; 2) demonstration grants to four of these ten hospitals to support innovative and creative solutions to patient flow problems in the ED; and 3) comprehensive assessments of the safety nets in each of the communities that are home to the ten hospitals. This report presents the findings of the safety net assessment in Memphis, Tennessee.

The purpose of Urgent Matters *is to identify opportunities for relieving crowding in our nation's emergency departments and to improve access to quality care for uninsured and underserved community residents.*

Each of the *Urgent Matters* safety net assessments has been prepared by researchers at The George Washington University Medical Center, School of Public Health and Health Services, Department of Health Policy, in close collaboration with the hospital ED project staff and a community partner—an organization that is well-positioned to convene key stakeholders in the community to work together to strengthen safety net services on behalf of community residents. The *Urgent Matters* grantee hospitals and community partners are listed on the back cover of the report.

These assessments have been developed to provide information to communities about the residents who are most likely to rely on safety net services. They are designed to highlight key issues affecting access to care for uninsured and underserved residents, as well as to identify potential opportunities for improvement.

The safety net assessments were conducted over the summer and fall of 2003. Each assessment draws upon information obtained from multiple sources. The Memphis assessment team conducted a site visit on September 22-24, 2003, touring safety net facilities and speaking with numerous contacts identified by the community partner and others. During the site visits, the community partner convened a meeting of key stakeholders who were briefed on the *Urgent Matters* project, the safety net assessment, and key issues under review.

Through the site visits and a series of telephone conferences held prior to and following the visit to Memphis, the assessment team interviewed many local informants, including senior leaders at hospitals and health systems, community health centers and other clinics, public health and other service agencies and mental health agencies. Individual providers or provider

groups, advocates, and policymakers were interviewed as well. The team also drew upon secondary data sources to provide demographic information on the population in Memphis as well as data on health services utilization and coverage.

While in Memphis, the team conducted focus groups with residents who use safety net services. The assessment team worked with the community partner and grantee hospital to recruit patients who were likely to use such services. Finally, the assessment included an application of an ED profiling algorithm to emergency department data from The Regional Medical Center at Memphis (The Med). The algorithm classifies ED encounters as either emergent or non-emergent cases.

Section one of the Memphis safety net assessment provides a context for the report, presenting background demographics on Memphis. It further describes the structure of the safety net, identifying the providers and facilities that play key roles in delivering care to the underserved. Section one also outlines the financial mechanisms that support safety net services. Section two discusses the status of the safety net in Memphis based on the site visits, telephone conferences and in-person interviews. This section examines challenges to the safety net, highlighting problems in access to needed services, growing burdens on hospital emergency departments, stresses on safety net providers, declining rates of insurance coverage, and other barriers to care faced by the underserved.

Section three presents findings from the focus groups and provides insights into the challenges that uninsured and underserved residents face when trying to access services from the local health system. Section four includes an analysis of patient visits to the emergency department at The Regional Medical Center at Memphis. This analysis includes demographic information on patients who use the emergency department and examines the extent to which the emergency department at The Regional Medical Center at Memphis may be providing care that could safely be provided in a primary care setting. Finally, section five presents key findings and issues that safety net providers and others in the Memphis area may want to consider as they work together to improve care for uninsured and underserved residents in their communities.

Background

Shelby County is the largest county in Tennessee. Within it lies the city of Memphis, the largest urban center in the state. Nearly 900,000 people live in Shelby County. Table 1 provides a snapshot of the population of the county compared to the population of the State of Tennessee. Residents of Shelby County tend to be younger, on average, than residents in the rest of the state.[2]

Table 1 A Snapshot of Shelby County and Tennessee

Selected Demographics	Shelby County	Tennessee
Population		
Size	896,013	5,644,716
Density: Persons/square mile	1,189.4	138.0
Race		
White	46.6%	80.2%
Black	50.2%	16.0%
Asian	2.3%	1.0%
Other	0.9%	0.3%
Latino origin and race	2.8%	1.0%
Age		
18 years and over	72.0%	75.3%
65 years and over	9.5%	12.0%
Median age (in years)	33.6	36.8

Source: American Community Survey Profile, 2002, U.S. Census Bureau.

Half of the residents in Shelby County are black and another four out of ten residents are white. There are also neighborhoods made up largely of Latino and Vietnamese residents. Four percent of Shelby County residents are foreign born; more than half of these individuals have been in the U.S. for fewer than 10 years and only about one-third are naturalized citizens.[3]

Though still small, the numbers of Asian and Latino residents settling in Shelby County and the city of Memphis have increased over the past several years. While earlier estimates are not available,[4] most observers believe that the Latino population grew substantially over the 1990s. In 2000, the county reported a Latino population of close to 24,000.[5] The actual number of Latinos may be higher due to uncounted undocumented immigrants who come to Memphis to work. The remarkable increase in births also indicates a growing population; between 1995 and 2000, births among Latinos increased by 225 percent.[6]

Table 2 Income, Poverty Level and Insurance Coverage in Shelby County and Tennessee

	Shelby County	Tennessee
Income and poverty*		
Living below poverty	18.5%	14.5%
Median household income	$36,701	$37,281
Insurance coverage#		
Commercial	57.6%	58.4%
Medicare	10.4%	12.9%
Medicaid and SCHIP	20.3%	17.8%
Uninsured	11.5%	10.8%

** Source: American Community Survey Profile, 2002, U.S. Census Bureau.*
 # Resources to Expand Access to Community Health (REACH) Data, 2002, National Association of Community Health Centers.[7]

Memphis and Shelby County have areas that are characterized by significant concentrations of poverty, and the income distribution across the county shows a large divide between the affluent and the poor. In some communities, 80 percent of residents live in households with incomes below the federal poverty line.[8] As in many metropolitan areas, most poor residents live in the inner city while the more affluent live on the perimeter and in the suburbs. County-wide, over 18.5 percent of Shelby County residents live in poverty, and the median household income is $36,701 (see Table 2). Eighty percent of Shelby County residents have high school degrees but only 25 percent hold a bachelor's degree or higher.[9]

Shelby County's uninsured population is growing too, in part because of the state budget crisis and a retrenchment in TennCare, the state's Medicaid program. Over 11 percent of the county's population is uninsured, just slightly higher than the percentage of state residents who are uninsured (see Table 2). Proportionately more Shelby County residents than state residents are covered by public insurance programs such as Medicaid and the State Children's Health Insurance Program (20 versus 18 percent, respectively).[10]

Recently the State of Tennessee has faced a serious financial crisis, causing a 9 percent cut in its current budget. With public agencies constituting the second largest employer in Shelby County,[11] spending cuts of this sort can have serious adverse effects on the economic condition of many Shelby County residents. The State Legislature approved nearly $1 billion in tax increases in July 2002, primarily in the form of an increase in the basic state sales tax rate from 6 percent to 7 percent.[12] Although the economy has sped up, providing some gains in tax revenue, Tennessee's budget for fiscal year 2004-5 will include 5 percent budget cuts across the board. With spending at the state level continuing to outpace revenue growth, there are continued concerns that further cuts in government programs could erode recent economic gains.

Also adding to these pressures is a series of corporate layoffs, resulting in loss of income and health insurance for many Shelby County residents.[13] In September 2003 the unemployment rate in Memphis was 5.6 percent up from 3.7 percent in 1999.[14]

Chronic health problems are prevalent among Shelby County residents. Compared to residents elsewhere in the state, Shelby County residents experience higher rates of heart disease and stroke as a result of behavioral risk factors such as obesity, smoking and sedentary lifestyles. In fact, the region falls within the nation's top five regions for obesity, inactivity and smoking.[15] In addition, Shelby County's rate of infant mortality (13.2 per 1,000) is significantly higher than similarly-sized counties in the country.[16] In response, the Memphis and Shelby County Department of Health has initiated several activities to change health perceptions

and behaviors, including joint ventures with the media, schools and community organizations.

Improving health status and access to care has become a primary concern of the Shelby County community. Local government is examining many of the health and access issues facing Shelby County residents. Officials are focusing efforts on increasing access to health care, eliminating health disparities and improving the general health and welfare of Memphis residents. For example, Shelby County Mayor Wharton recently commissioned a study of the health care delivery system in Shelby County[17] and has also convened a community council that is called "Investing in our People." A work group called Healthy Communities has also been formed to identify, examine, prioritize and report on the health needs of Shelby County residents.

Structure of the Safety Net in Memphis

The Memphis safety net consists of a patchwork of providers that includes The Regional Medical Center at Memphis (The Med), ten Health Loop clinics operated by both the County Health Department and The Med, two Federally Qualified Health Centers (FQHCs),[18] and a faith-based clinic system. Table 3 provides the numbers of physicians and dentists per 100,000 patient population in Shelby County. The supply of primary care and specialty physicians is considerably higher in Shelby County than in Tennessee as a whole. In terms of utilization of hospital services, Shelby County has more hospital beds and admissions per 1,000 residents but fewer emergency department visits, compared to statewide rates.

Table 3 Physician and Hospital Supply, Shelby County and Tennessee

	Shelby County	Tennessee
Physician supply *(per 100,000 patient population)**		
Primary care providers	90.9	79.1
Pediatricians	82.7	62.4
OB/GYN	45.2	28.7
Medical specialist	48.8	29.5
Surgical specialist	62.4	43.5
Hospital supply/utilization *(per 1,000 population)*		
Inpatient beds	4.00	3.47
Admissions	165	133
Emergency department visits	432	463

Source: Data are for 1999. Billings and Weinick. 2003. Monitoring the Health Care Safety Net Book II: A Data Book for States and Counties, Agency for Healthcare Research and Quality.

** Figures apply to 100,000 persons who would be the provider's patient population. Adult primary care providers represent the number of providers per 100,000 individuals 18 years of age and older; pediatricians represent the number of providers per 100,000 children age 17 and younger; ob/gyns represent the number of providers per 100,000 adult females.*

Memphis' principal safety net providers include the following organizations:

Hospitals: The Regional Medical Center at Memphis represents the most formally integrated health system in the safety net. It includes The Med hospital, the MedPlex and the Health Loop clinics, all of which are integrated under one large health system that delivers a continuum of care. The MedPlex is the Med's ambulatory care center, which is staffed by physicians from the University of Tennessee Health Sciences Center. The Health Loop is a joint venture between The Med and the Shelby County Department of Health and consists of 10 primary care clinics. Health Loop clinics provide comprehensive primary care services to low-income populations and are staffed by employees of The Med and the Department of Health.

The Med is the primary provider of services to uninsured residents of Shelby County. Although The Med draws patients from five states (Arkansas, Kentucky, Mississippi, Missouri, and Tennessee), 86 percent of its hospital admissions are from Tennessee and 92 percent of these are from Shelby County. The Med operates 347 staffed beds and logged nearly 16,000 inpatient admissions in 2001.[19] This included approximately 4,500 newborn deliveries. The Med also provides a large amount of ambulatory care; in 2001, The Med provided approximately 340,000 outpatient visits at the main campus and at more than a dozen offsite facilities. About 42 percent of outpatient visits were reimbursed by TennCare and 22 percent of the visits were by uninsured patients.[20] In 2001, The Med provided over $50 million in bad debt and charity care;[21] it is expected to provide an even greater amount in the current year.

The Med's percentage of uninsured patients rose from 25 percent to 32 percent during the last six months of 2003.[22] Administrators estimated that this added $12 million to the amount of uncompensated care that the hospital provided. In addition to treating the uninsured from its own state of Tennessee, The Med provides care to a significant number of uninsured from Mississippi and Arkansas as well. In fact, its administrators estimate that The Med has provided over $100 million in uncompensated care to Mississippians during the past 10 years.[23]

Although the Med provides the majority of care for the uninsured, other hospitals in the area also provide uncompensated care. Methodist University Hospital and LeBonheur Hospital for Children are also important sources of care for the uninsured. BOWLD Hospital, which is operated by the University of Tennessee, Methodist Hospital and St. Francis also provide care to uninsured and underserved residents.

There have been significant changes in the landscape of the Memphis safety net over the past three years with the closure of two inner-city hospitals—St. Joseph's in 1998 and Baptist Hospital in 2001. These changes have been felt especially keenly at The Med, where there have been increases in visit volumes in the emergency department.[24]

Health Department: The Shelby County Department of Health (DOH) collaborates with The Med via the Health Loop to provide direct services to patients. Prior to the development of the Health Loop, DOH operated six clinics that provided primary care services as well as traditional public health services such as immunizations and prevention activities. The merger of these DOH clinics with The Med's four primary care clinics was designed to reduce duplication of services and increase coordination between providers who have compatible missions.

The Regional Medical Center at Memphis represents the most formally integrated health system in the safety net.

Community Health Centers: Memphis is home to two FQHCs, Memphis Health Center and Christ Community Clinic. Memphis Health Center has been in operation for decades. The center serves just over 20,000 patients per year, 87 percent of whom have incomes that fall below 100 percent of poverty. It provides over 33,000 medical encounters per year and also runs a small dental program. Sixty percent of its patients are uninsured, 34 percent have Medicaid, 4 percent have Medicare and 2 percent have commercial insurance. Memphis Health Center's patient population is largely African American (95 percent).[25] The health center has a long history in the community and generally works independently of other safety net providers in Memphis. Christ Community Clinic has been in operation for five years and became an FQHC in July 2003.

Other Primary Care Services: Church Health Center, a faith-based private health center, serves the uninsured working poor. Prior to receiving services, patients must show proof that they are employed. Church Health Center provides a wide range of services through private physicians in the community. Volunteers provided over 12,000 hours of service in 2002 to over 35,000 patients.[26] Services are also provided through its Hope and Healing Ministry, a wellness and disease prevention program that served over 7,000 people in 2002. In addition to providing medical services, Church Health Center also operates a health insurance plan called the Memphis Plan, which was started in 1991 as a health care option for lower-wage workers. The plan currently has about 2,300 participants. Other small groups of providers, or individual practitioners, also provide some care to low-income residents.

Some primary care providers offer extended hours in the evening or on weekends. Patients who need care after hours and are unable to access a primary care provider may receive services at The Med's Quick Care Center. The center is open weekday afternoons and evenings and on weekends and operates very much like an urgent care center.

Behavioral Health Services: Uninsured patients with a somatic diagnosis such as HIV/AIDS and who have substance abuse or mental health problems may be referred to community agencies that are reimbursed through targeted programs, such as Ryan White. Patients who are in crisis can usually obtain services. The Med provides a psychiatric triage/emergency area for patients and either refers them to inpatient care or discharges them. The Med does not provide any psychiatric inpatient care at the hospital. In November 2003, The Med outsourced its psychiatric emergency department to Lakeside Behavioral Health System. The arrangement places 13 Lakeside employees at The Med and is expected to expedite placement of patients with providers, while saving The Med several hundred thousand dollars per year. The Med transfers many patients who present to the ED with psychiatric problems to Memphis Mental Health Institute, the state mental hospital.

Dental Care: Some preventive dental services can be accessed through FQHCs and one of the Health Loop clinics; however, only a handful of providers offer care and it is generally reserved for patients who use the facility for non-dental services as well. Complex dental needs for the uninsured are met by the University of Tennessee Dental School, though, as mentioned earlier, patients of the Church Health Center can receive care from private providers. In 2002 TennCare implemented a dental carve-out to Doral Dental of Tennessee. As of January 2003, this carve-out had increased the provider network by 60 percent. TennCare is also working with the Department of Health's Oral Health Services section to provide statewide oral disease prevention.

Financing the Safety Net

The safety net in Memphis is funded through multiple sources including federal, state, and local dollars.

TennCare

The TennCare program has had a complex and contentious history, and has experienced frequent criticism, financial difficulties and significant legal challenges since its inception in January 1994.[27,28] TennCare was an ambitious Medicaid reform program that shifted the state's entire Medicaid population into health plans administered by private managed care organizations (MCOs). Policymakers had hoped to parlay savings from this shift into coverage expansions that would include the majority of Tennessee's previously uninsured low-income population as well as those individuals who did not qualify for private insurance because of preexisting medical conditions. Some of the challenges faced by TennCare have included soaring program costs, provider reluctance to participate in the program, underpayment of MCOs, and limited behavioral health services. Rapidly rising costs in recent years have brought the program's long-term viability into question.[29]

As of November 2003, there were 1.3 million TennCare enrollees in the state. Expenditures for TennCare during the second quarter of FY 2003 totaled nearly $1.2 billion, and were directed primarily to payments to managed care and behavioral health organizations.[30] Although it is expected to meet its budget this year, TennCare required an extra $194,000 from the state budget to remain in operation during 2002.[31] This relatively small infusion followed a large, one-time payment of $175 million in federal funds paid in April 2003. This funding was the result of the governor's renegotiation of a TennCare federal match funding cap that the state agreed to in 2002.[32]

The state also operates a State Children's Health Insurance Program (SCHIP)[33] that is a Medicaid expansion. In 2000, there were nearly 15,000 children enrolled in the state's SCHIP program at a cost of $39.7 million.[34,35]

In recent years TennCare has undergone significant changes. In response to chronic budget shortfalls, many changes were made to limit enrollment, redetermine participants' eligibility and disenroll those found to be ineligible. In 2002, the state received federal approval to divide its Medicaid program into several products.

TennCare Medicaid is a continuation of the federal Medicaid program with a few minor changes in benefits, such as the addition of coverage for women with breast or cervical cancer and a three-tiered pharmacy co-payment structure that began in January 2003. Financial eligibility for individuals in this program varies by age and disability, but follows a traditional Medicaid stairstep eligibility structure. For example, pregnant women and children under age one whose incomes fall below 185 percent of the federal poverty level (FPL)[36] are eligible; children 1-5 are eligible with incomes up to 133 percent of the FPL and children 6-17 are eligible with incomes up to 100 percent of the FPL.

TennCare Standard covers adults below 100 percent of the FPL and children below 200 percent of the FPL who are uninsured because they do not have employer-based insurance or are ineligible for TennCare Medicaid. TennCare Standard also covers adults and children who are "medically eligible," a new term used to describe what the state previously referred to as "uninsurable." This refers to individuals who are unable to purchase health insurance in the individual market because of pre-existing health conditions. Individuals with incomes over 99 percent of the FPL are subject to premiums and coinsurance.

TennCare Assist,[37] which is in the process of being developed, will subsidize health insurance premiums for working residents and their families.

A pharmacy-only program is available for low-income Medicare beneficiaries who were enrolled at the end of 2001 but who are not eligible for Medicaid.[38]

In August 2003, the state reached a settlement agreement with the Tennessee Justice Center on four class action lawsuits brought by enrollees. The lawsuits were filed in response to TennCare's lack of a timely appeals process after prescription drugs were denied; re-enrollment of wrongfully disenrolled eligible beneficiaries; and

denials of home health services for people with disabilities and of appropriate screening and treatment services for children under the age of 21.[39] Many of TennCare's woes are related to its structure, which was designed to cover a significant portion of the state's uninsured population. In fact, the Governor has stated that he may terminate the TennCare program and return to a traditional Medicaid program that serves fewer people if the state cannot control enrollment or contain prescription drug costs.[40]

Beyond its coverage of a group of individuals who would otherwise not be eligible for Medicaid, pharmaceutical use is the key driver of TennCare's rising costs. Prescription drug spending in TennCare for the dual-eligible carve-out, the behavioral health carve-out, and managed care organizations (MCO) has surpassed national rates in recent years. This rapid increase in spending resulted from increases in the number of prescriptions dispensed, price increases for many prescription drugs, and customer movement from lower-cost to higher-cost medications. Pharmacy costs for TennCare MCOs was nearly $500 million, 11.4 percent above their projected costs; dual medical and behavioral drugs cost the program nearly $400 million, 17.2 percent above projected estimates; and behavioral pharmaceuticals cost the state just over $300 million, nearly 27 percent above projections. Total pharmaceutical costs in fiscal year 2002 were over $1.1 billion. Had costs in these areas grown at projected rates, TennCare prescription drug costs would have been over $200 million less in fiscal year 2002.[41]

Despite TennCare's initial promise as a vehicle that would move toward universal coverage, the number of uninsured in Tennessee has continued to rise. In response to chronic shortfalls in TennCare's budget, the state overhauled the program. Changes included redetermining eligibility for those in the expanded group and subsequent disenrollments. The state has been accused of unfairly disenrolling over 190,000 Medicaid enrollees through a faulty reverification process, and is now giving these enrollees one year to reapply and prove eligibility.[42] As of January 2003, about 240,000 individuals fully completed the redetermination process; almost 80,000 were found eligible for TennCare Medicaid while 135,000 were eligible for TennCare Standard. In addition to these issues, there is concern that TennCare's network of primary care physicians is shrinking, thereby increasing pressure not only on emergency departments to provide basic services, but also on those providers who are still willing to treat TennCare patients.

All services for TennCare are delivered through managed care arrangements, which generally require enrollment during a specified period. While enrollment in TennCare Standard has fluctuated, the current fiscal year's budget did not allow for an enrollment period. As of March 2003, Medicaid eligibles represented 72.4 percent of TennCare enrollees, while the uninsured or medically eligible group represented 27.6 percent of enrollees. Of the 366,397 medical eligible, 17.5 percent were children under age 14.[43]

Essential Access Hospital Program (EAH)

As part of the Medicaid waiver that created TennCare, Tennessee does not participate in the Disproportionate Share Hospital Funding (DSH)[44] program. In place of DSH, safety net hospitals such as The Med receive Essential Access Hospital (EAH) funds. Tennessee operates an EAH fund that is currently set at $100 million. Hospitals that treat TennCare patients receive monies from this fund, which are wrapped into per-member, per-month fees associated with treatment for TennCare enrollees. The switch from DSH to EAH had broad implications because EAH compensation is based only on the number of Medicaid patients seen, rather than on a formula that also takes into account a hospital's uninsured burden. EAH pays hospitals with high Medicaid volumes a portion of the difference between regular Medicaid payments and the actual costs of treatment.[45] Thus, the EAH program has not been as beneficial to hospitals as were traditional DSH payments which did take into account costs associated with care to the uninsured.[46] The amount of money forgone as a result of the switch to EAH is significant, given increasingly high uncompensated care burdens experienced by hospitals in the state.[47] Since 70 percent of its patients are TennCare enrollees, The Med

receives $25 million from the EAH, the largest single share of the state's EAH program payments.

Payments from Other States

The Med's geographic location results in uninsured patients from neighboring states crossing state borders to seek care in Tennessee. In fact, The Med is considered the third largest safety net hospital in both Mississippi and Arkansas and is known to provide major trauma and burn care for western Tennessee, eastern Arkansas, and northern Mississippi.[48]

These border crossings pose financial challenges for The Med, as it struggles to provide services to its own resident population. One option would be to create a mechanism for The Med to receive a portion of Mississippi's and Arkansas' state DSH funding to offset the costs of providing care to uninsured populations from those states. Adjusting DSH rules would likely bring in about $5 million from Arkansas and Mississippi.[49] The federal government, however, has prohibited DSH funds from being distributed across state lines. Mississippi recently gave The Med $10 million from its tobacco fund in recognition of the care delivered to its residents. The Med officials previously argued that the facility should receive funding from Mississippi's trauma fund because it is the only Level I trauma center that serves northern Mississippi and because it spends as much as $9 million annually treating uninsured trauma and ED patients from that state.[50] Mississippi Medicaid paid almost $8 million to the Med in 2002; however, regulators determined that the payment did not comply with guidelines concerning federal Medicaid matching grants and the federal portion of the payment was withdrawn.[51]

Direct Funding to Safety Net Providers

Some safety net providers receive direct federal, state, or local funding for the services they provide. For example, The Med receives $30 million from Shelby County to defray the costs of uncompensated care. Even after this funding, however, a significant amount of bad debt still remains for the health system. The Tennessee Department of Public Health has seen its funding decrease for the last few years. In 2003-4, the Department of Public Health lost over $500,000 in state funding, $300,000 in federal funding and $2.5 million in local funding. This has resulted in scaling back staff and programs, including closing two school-based health centers. FQHCs are able to benefit directly from grants from the federal Health Resources and Services Administration Bureau of Primary Health Care (BPHC) to offset the costs of uncompensated care. In 2002, Memphis Health Center received over $2.7 million in BPHC grants, nearly $500,000 in other federal grants and $100,000 in state funds.[52] The Church Health Center has also received funding from the Robert Wood Johnson Foundation and the National Institutes of Health for its Health and Wellness Center.

The state's budget crisis is jeopardizing the viability of the Med. The Med has a $271 million dollar budget, which includes a projected loss of $7.6 million in FY 2004.[53] This projection is slightly better than the $9.8 million loss recorded for FY 2003. Most threatening to its financial situation are state budget cuts that affect TennCare, and delays in direct payments from the state to help The Med offset the costs of caring for a high proportion of Medicaid patients.

Community Access Program (CAP)

CAP grants are awarded by the federal Health Resources and Services Administration to help health care providers coordinate safety net services for uninsured and underserved populations. Communities have used CAP funds to create networks to distribute uncompensated care among local health providers, to link hospital and clinic services through data systems, and to more effectively manage patients with chronic conditions.[54] Organizations in Shelby County were granted, and subsequently lost, funding for several CAP initiatives. In 1998, The Med, the Health Loop and Memphis Health Center were awarded a $998,000 grant, and in 2000, Shelby County Health Care Corporation received a grant of $885,992 to locate medical homes and develop a case management model for the uninsured in Memphis. The Med was also awarded a CAP grant, which it used to conduct an outreach program.

The safety net assessment team conducted interviews with key stakeholders in the Metropolitan Memphis health care community and visited safety net facilities between September 22 and 24, 2003. Our analysis of the Memphis safety net was greatly informed by the interviews with safety net providers and other local stakeholders. Informants discussed important changes in local health policy and programs, emergency department use and crowding, issues relating to access to care, and significant barriers that patients face.[55]

Overview

Access to primary care appears to be adequate in the Metropolitan Memphis area. Care is available at several venues in the community, and primary care sites are located in, or adjacent to, low-income neighborhoods, making access more convenient for residents. These sites include The Med's 10 Health Loop clinics, federally funded community health centers and Church Health Center. In fact, many of these providers indicated that they had additional capacity and could increase patient volume.[56] For example, the Health Loop's utilization numbers indicate that it has capacity for an additional 34,000 community-based primary care visits per year.[57] Nonetheless, gaps in the availability of certain services, lack of coordination among providers, ED crowding and language and transportation barriers impede access to care for the underserved and uninsured.

Shortages of Specialty Care, Behavioral Health Services and Dental Care

Access to specialty care for the uninsured is uneven and depends largely on where the patient obtains primary care. Most uninsured and low-income residents who receive their primary care from The Med's Health Loop Clinics, community health centers, or other sites get their specialty services from the MedPlex. However, a shortage of physicians at the MedPlex has led to long wait times for certain services such as neurology and general difficulties with scheduling appointments.

Care is available at several venues in the community, and primary care sites are located in, or adjacent to, low-income neighborhoods, making access more convenient for residents.

Some specialty care is also available through the resident program at Methodist Hospital, although Methodist restricts the services it provides through its educational program to patients who are already in the Methodist system. As is the case at the MedPlex, wait times for specialty appointments at Methodist can be as long as six months for certain services, particularly orthopedics and rheumatology. For Medicaid enrollees, choice of providers varies by managed care plan.

Church Health Center patients have relatively easy access to specialty care through community providers connected with the Center. These patients can receive inpatient care at Methodist Hospital and diagnostic tests and x-rays at Baptist Hospital. Other uninsured patients rely on charity care from various providers in the community.

For many uninsured patients specialty care is out of reach. Unless they access services through one of the systems mentioned above, patients must generally provide payment before they can receive care. Payment requirements typically range from one-third to one-half of the cost of care from providers who offer discounted services for uninsured patients, but even these discounts are often too high for the low-income uninsured.

Mental health care for uninsured or underserved residents of Memphis is in extremely short supply. According to state figures, there are about 40,000 seriously mentally ill people in Tennessee who get no treatment.[58] The lack of mental health care affects both those enrolled in TennCare as well as the uninsured. Community mental health services are very limited, largely as a result of extremely low TennCare reimbursement rates. TennCare providers are overwhelmed with patients, many of whom delay care until they are in crisis.

Uninsured and low-income Memphis residents find it very difficult to access dental care, as well. While TennCare enrollees are better off than the uninsured, many continue to delay or forgo dental care until the situation becomes emergent, which can often result in the extraction of one or more teeth.

Fragmentation of Services

Generally, Memphis' safety net providers operate independently of one another, with little formal collaboration or communication occurring among them. As a result, safety net providers are unable to track patients and provide important follow-up services across the many sites at which patients can seek care. Even providers within a single health system lack the ability to communicate with each other. For example, while The Med's inpatient departments, the MedPlex and the Health Loop clinics are all part of one large health system, they lack the ability to track patient visits or services provided, or to make formal referrals across sites of care. This is primarily due to a lack of compatible information systems, a situation that The Med is now taking steps to correct with the implementation of a new system that will connect primary care, specialty care and hospital providers. In the absence of such a system, providers must depend on the patients themselves to remember when and where they have been seen as they travel among safety net sites, which can result in a duplication of services. Links are also lacking on the administrative and patient registration sides, with patients sometimes getting several bills for the same episode of care.

It is important to note that some formal links do exist, and occasionally organizations that have a history of collaborating, or who discover a financial incentive to collaborate, will come together informally. The Med and the Shelby County and City Health Department jointly administer the Health Loop clinic system. Prior to this arrangement, both The Med and the Health Department operated their own primary care clinics. This partnership has helped to reduce duplication of primary care services and conserve resources, allowing the Health Department to focus its efforts on core public health functions. A more informal arrangement is held between Methodist Hospital and Church Health Center. A history of close ties there yielded an informal agreement through which Methodist provides direct access to inpatient care for Church Health Center's primary care patients. Finally, economic conditions have encouraged Methodist and The Med to merge their obstetrical and neonatal centers into one Level 4 center.

ED crowding

The Med operates a very busy and often crowded emergency department. Many physicians have attempted to develop ways to decrease crowding and cycle patients with relatively minor needs through the ED more quickly. However, a decline in provider capacity has taken its toll on these efforts. When the Department of Internal Medicine at the Med, for example, shrank from a clinical staff of 125 to 88 over a two-year period, the institution had to find ways to use manpower and clinical resources more efficiently. As a result, it has had to shut down its Fast Track department—designed to relieve the ED of primary care treatable and non-emergent conditions—for extended periods of time.

Other Barriers to Care

Transportation: While some primary care sites are conveniently located to low-income neighborhoods, for many patients in the Memphis area, transportation remains a significant barrier to accessing safety net services.[59] Patients who do not have a car face major obstacles in getting to their health care appointments. Public transportation in Memphis is unreliable and bus stops are not conveniently located. Most individuals use private transportation to get to their medical appointments. Residents without access to their own cars can take a bus, use a taxi service (which is too costly for low-income populations), or arrange non-emergency transportation through TennCare—a service that must be scheduled several days in advance and is considered by many to be unreliable.

Availability of Bilingual Providers or Interpreter Services: The scarcity of bilingual providers is an issue for the county's growing Spanish and Vietnamese speaking

populations. There are very few providers who speak Spanish or Vietnamese and interpreter services for these populations are limited or not advertised. Providers at The Med have access to interpreter services via a telephone language line, but many clinicians and staff at The Med do not take advantage of this service.

Fees: All of the primary care sites charge upfront fees for uninsured patients. These fees are relatively low (generally in the range of $20 to $30 per visit), and clinic staff are instructed to lower the fee or waive it completely if the patient is unable to cover the payment prior to the visit. In these cases, clinic staff work with the patient to establish a payment plan. Nonetheless, policies requiring upfront payment can deter patients from seeking care, especially for preventive services.

Hours of Operation: Business hours can be an impediment to care for many patients. Most sites are not open for extended hours, although some provide a 24-hour toll-free line that patients can call when the site is closed. The Med's Quick Care Center and Church Health Center are the only sites that offer evening and weekend hours. One of the Health Loop clinics stays open late one night a week. All other community sites have made a business decision not to offer extended hours, viewing it as unprofitable due to low volume during those periods. Several sites also had concerns about security if they remain open after dark.

The safety net assessment team conducted focus groups

with residents who receive their care from safety net providers in the Memphis area. The focus groups were held on September 22 and 23, 2003. One was held at the Christ Community Clinic and two were conducted at Sacred Heart Parish in Memphis. Focus group participation was voluntary. Participants were recruited with the help of the local community partner, the University of Tennessee Health Sciences Center, which displayed flyers announcing the sessions and their schedules. Participants received $25 each in appreciation of their time and candor. A total of 28 individuals participated in the focus groups. One group was conducted in English and was comprised primarily of African American residents, one group was conducted in Spanish and the third focus group was conducted in Vietnamese.

The focus group discussions highlighted the difficulties that many uninsured and underserved residents have in accessing timely and affordable health services in Memphis. Participants addressed issues such as primary care and prevention, access to specialty and inpatient services, their use of the ED for emergent as well as non-emergent care, their understanding of the health care system and the opportunities that are available to them, and their feelings about the provider community.

Accessing Primary Care

Focus group participants reported going to several hospitals for care, including The Med, Methodist, Baptist (before it closed its downtown facility) and St. Francis. Although none of the hospitals turned patients away, all of our focus group participants agreed that if someone was sick and had no insurance, most providers would send the patient to The Med. According to one participant, "*If you don't have any insurance, you come here to The Med.*"

Although they knew that they could be seen at The Med regardless of their ability to pay, some participants were wary of The Med's motives. Several focus group participants reported their belief that The Med works closely with law enforcement to identify patients with outstanding warrants (including traffic tickets).

All focus group participants reported dissatisfaction with the way they were treated at all of the hospitals. Many attributed rudeness from staff to the fact that they were uninsured or were on Medicaid. All of the focus group participants reported being seen in a hospital emergency room. Most understood that they could not be turned away if they needed care. In the words of one participant, "*I tell people who need health care to go to the ER if you don't have insurance.*"

All participants were able to name at least one place at which they could receive primary care. Those in the English-speaking group knew about Christ Community or one of the Health Loop clinics. However, access to care for Spanish-speaking participants was more limited because of language barriers. Spanish-speaking participants reported receiving primary care at one of the Health Loop clinics—either St. Francis or LeBonheurs, a children's hospital. Latino participants stated that they frequently delay or forgo care since their income is often too high for free or subsidized services and so must pay upfront for services and medications.

"I have a problem right now and I was supposed to have a referral to see a GI but when I called to get a referral they told me I had 500 patients ahead of me."

Those in the Vietnamese group primarily utilized a Vietnamese private provider who charged them a nominal fee equal to the lowest fees charged at the community health centers and clinics. They saw this doctor because he speaks their language and understands their culture. Most of the Vietnamese participants used St. Francis for specialty and acute services.

Most participants reported that they used their primary care provider's toll-free line for after-hours care. Some participants said that if they get sick over the weekend or after hours, they go to the emergency department.

Accessing Specialty Care

The participants described much greater difficulty accessing specialty care. According to one participant, "*I have a problem right now and I was supposed to have a referral to see a GI but when I called to get a referral they told me I had 500 patients ahead of me.*" Another participant stated, "*I go to St. Francis. They charge me $80, then $75 more to check my breast and cholesterol. When I had insurance I usually went to St. Francis so I kept going there.*"

Participants who had TennCare also reported difficulty in accessing specialty care, including care at the MedPlex. They noted that providers at many organizations only accept certain TennCare managed care products. The following statements reflect much of the sentiment in the groups: "*I'm coming here because my doctor at the MedPlex wasn't taking TennCare anymore.*" "*Same thing happened to me at the MedPlex, that's how I ended up at Baptist East.*" "*Baptist East only takes certain kinds of TennCare, Omni Care…. I had to leave there and go to St. Francis…I was in the ambulance having chest pains.*"

Transportation

Transportation was reported by many participants to be a problem. Most people had private vehicles or arranged rides to their medical appointments from family or friends. All reported that TennCare did not provide reliable transportation.

Overview

The emergency department plays a critical role in the safety net of every community. It frequently serves as the safety net's "safety net," serving residents who have nowhere else to go for timely care. Residents often choose the ED as their primary source of care, knowing they will receive comprehensive, quality care in a single visit. When and why residents use the emergency department depends largely on patients' perceptions of the quality of care in hospital EDs, primary care providers' willingness to see low-income, uninsured populations, and accessibility of timely care outside of the ED. Whether it serves as a first choice or last chance source of care, the ED provides a valuable and irreplaceable service for all community residents, including low-income underserved populations.

Problems arise, however, when using the ED leads to crowding and ambulance diversion. When the ED is too crowded, quality of care and patient safety can be compromised. Many factors cause crowding, including limited inpatient capacity, staff shortages, physicians' unwillingness to take call, and increased demand for services from uninsured as well as insured patients. It is important to focus on all these issues when trying to address the problem.

In this section of the report, we provide an analysis of ED use at The Med. Using a profiling algorithm,[60] we were able to classify visits as either emergent or non-emergent. We were able to further allocate these visits to determine whether the emergent visit was primary care treatable, preventable/avoidable or non-preventable/non-avoidable. Communities should use this information to further understand the dynamics of health care delivery. These data, however, do not tell the whole story and should not be viewed as a comprehensive analysis of emergency department use in the community.

The ED Use Profiling Algorithm

In 1999, John Billings and his colleagues at New York University developed an *emergency department use profiling algorithm* that creates an opportunity to analyze ED visits according to several important categories.[61] The algorithm was developed after reviewing thousands of ED records and uses a patient's primary diagnosis at the time of discharge from the ED to apportion visits to five distinct categories. These categories are:

1) Non-emergent, primary care treatable
2) Emergent, primary care treatable
3) Emergent, preventable/avoidable
4) Emergent, non-preventable/non-avoidable
5) Other visits not classified according to emergent or non-emergent status

According to the algorithm, ED visits are classified as either emergent or non-emergent. Emergent visits are ones that require contact with the medical system within 12 hours.

Emergent visits are further classified as either needing ED care or treatable in a primary care setting. Visits classified as "primary care treatable" are ones that could have been safely provided in a setting other than an ED. These types of visits are ones that generally do not require sophisticated or high-tech procedures or resources (such as CAT scans or certain laboratory tests).

When and why residents use the emergency department depends largely on patients' perceptions of the quality of care in hospital EDs, primary care providers' willingness to see low-income, uninsured populations and accessibility of timely care outside of the ED.

Visits that are classified as needing ED care are classified as either non-preventable/non-avoidable or preventable/avoidable. The ability to identify visits that would fall in the latter category may offer opportunities to reduce costs and improve health outcomes: patients who present with emergent but preventable/avoidable conditions should be treated earlier and in settings other than the ED.

A significant percentage of visits remain unclassified by the algorithm in terms of emergent status. Visits with a primary ED discharge diagnosis of injury, mental health and substance abuse, certain pregnancy-related visits and other smaller incidence categories are not assigned to algorithm classifications of interest.

The data from the ED utilization category must be interpreted cautiously and are best viewed as an indication of utilization rather than a definitive assessment. This is because the algorithm categorizes only a portion of visits and does not include any visits that result in an inpatient admission. For many hospitals, visits that result in an inpatient admission are not available in ED electronic databases. Presumably, since these visits warrant inpatient treatment, none would fall into the non-emergent category. Excluding these visits may inflate the primary care treatable (both emergent and non-emergent) categories. However, ED visits that result in an inpatient admission generally do not comprise more then 10-20 percent of total ED visits and would likely have a relatively small effect on the overall findings. A larger effect could occur if more visits were categorized by the algorithm. Since a sizeable percentage of ED visits remain unclassified, percentages or visits that are classified as falling into one of the four emergent or non-emergent categories should be interpreted as a conservative estimate and may understate the true values in the population.

ED Use at The Regional Medical Center at Memphis (The Med)

As part of the *Urgent Matters* safety net assessment process, we collected information on ED visits at The Med for the period July 1 through December 31, 2002. There were 30,528 ED visits for the six-month period that did not result in an inpatient admission. Table 4 provides information on these visits by race, coverage, age and gender.

Table 4 Demographic Characteristics of ED Visits

Race		Coverage		Age		Gender	
Black	76.5%	Commercial	8.2%	0-17	3.9%	Female	54.1%
White	17.8%	Medicaid[62]	48.1%	18-64	91.4%	Male	45.9%
Latino	3.1%	Medicare	9.9%	65+	4.7%		
Other/unknown	2.7%	Uninsured	33.7%				

Source: The George Washington University Medical Center, School of Public Health and Health Services, Department of Health Policy analysis of ED data provided by The Regional Medical Center at Memphis emergency department.

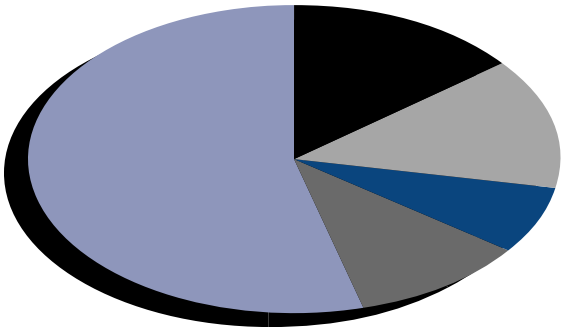
Key Demographic Characteristics of ED Visits

Over three-quarters of ED visits at The Med were for patients who were black. Only about 3 percent of visits were for patients who were Latino. White patients accounted for 17.8 percent of visits.

One-third of visits to The Med were for patients who were uninsured and nearly one-half were for patients on TennCare (Medicaid).

Fewer than 4 percent of ED visits were for patients under age 18

Figure 1 Visits by Emergent and Non-Emergent Categories



Non-Emergent	14.3%
Emergent, PC Treatable	13.7%
Emergent, Preventable	7.1%
Emergent, Not Preventable	10.7%
Other Visits	54.2%

Source: The George Washington University Medical Center, School of Public Health and Health Services, Department of Health Policy application of the ED use profiling algorithm to data provided by The Regional Medical Center at Memphis emergency department.

A significant percentage of visits to The Med's ED could have been treated in settings other than the ED. As Figure 1 demonstrates, 14.3 percent of ED visits at The Med were non-emergent and another 13.7 percent were emergent but primary care treatable. Thus, more than one-quarter of all ED visits that did not result in an inpatient admission could have been safely treated outside of the ED.[63]

Table 5 compares the rate of visits that were emergent, that required ED care, and that were not preventable or avoidable against rates for other categories of visits. For every visit that was in the emergent, not preventable category, there were approximately 1.3 non-emergent visits and 1.3 emergent but primary care treatable visits.

These findings differ to some extent across various categories. Patients on Medicare were less likely to seek treatment in the ED for non-emergent conditions than were patients in other insurance categories. Commercial patients had the highest relative rates of ED use for non-emergent conditions (1.77) compared to uninsured patients or patients covered by Medicaid or Medicare (1.49, 1.30, and .89 respectively).[64,65] The uninsured, however, had higher rates of ED use for emergent, primary care treatable conditions and those on Medicaid had lower relative rates (1.73 compared to 1.05) for these conditions.

Table 5 Relative Rates for ED Visits at The Med

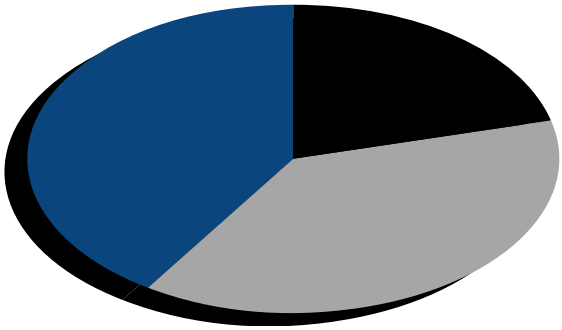
	Non-Emergent	Emergent, Primary Care Treatable	Emergent, ED Care Needed Preventable/ Avoidable	Emergent, ED Care Needed Not Preventable/ Not Avoidable
Total	**1.34**	**1.28**	**0.66**	**1.00**
Insurance status				
Commercial	1.77	1.48	0.64	1.00
Medicaid	1.30	1.05	0.47	1.00
Medicare	0.89	1.32	1.28	1.00
Uninsured	1.49	1.73	0.87	1.00
Age				
0-17	1.32	0.70	0.09	1.00
18-64	1.33	1.30	0.64	1.00
65+	0.85	1.30	1.45	1.00
Race				
Black	1.37	1.32	0.72	1.00
Latino	0.70	0.82	0.11	1.00
White	1.30	1.13	0.48	1.00
Other/unknown	1.27	1.07	0.58	1.00
Sex				
Female	1.38	1.07	0.47	1.00
Male	1.23	1.76	1.10	1.00

Source: The George Washington University Medical Center, School of Public Health and Health Services, Department of Health Policy application of the ED use profiling algorithm to data provided by The Regional Medical Center at Memphis emergency department.

Overall, patients at the Med tended to use the emergency department for non-emergent conditions at only slightly higher rates than they did for emergent, non-preventable conditions. Relative rates of use of the ED were very similar across most demographic categories. Black and white patients had similar rates of use of the ED for primary care and emergent, primary care treatable conditions. Latino patients had lower rates, although there were relatively few Latino patients and the sample may not be sufficient to draw conclusions. Some differences were also seen across age groups. Seniors were less likely to use the ED for non-emergent conditions than were other patients. Fewer than 4 percent of The Med's ED visits were for children and so variations in the child category may not reflect activity at other hospitals with much larger pediatric populations.

Most ED visits at The Med occurred during the hours of 8:00 am to midnight. As Figure 2 illustrates, only about 21 percent of visits that did not result in an inpatient admission occurred between midnight and 8:00 am.

Figure 2 ED Visits by Admit Time



Midnight – 8 am	21.0%
8 am – 4 pm	38.2%
4 pm – midnight	40.8%

Source: The George Washington University Medical Center, School of Public Health and Health Services, Department of Health Policy analysis of ED data provided by The Regional Medical Center at Memphis emergency department.

Interestingly, many visits to the ED for primary care treatable conditions occurred during business hours that commonly coincide with physician and clinic availability. Table 6 illustrates the rates of use of the ED for emergent and non-emergent conditions according to three time periods—8:00 am to 4:00 pm; 4:00 pm to midnight; and midnight to 8:00 am. Patients used the ED for primary care treatable conditions at relatively similar rates during "regular business hours" and the hours of 4:00 pm to midnight.

Table 6 Relative Rates for ED Visits at The Med, by Admit Time to the ED

	Non-Emergent	Emergent, Primary Care Treatable	Emergent, ED Care Needed Preventable/ Avoidable	Emergent, ED Care Needed Not Preventable/ Not Avoidable
Total	**1.34**	**1.28**	**0.66**	**1.00**
Admit time				
8 am – 4 pm	1.35	1.33	0.70	1.00
4 pm – midnight	1.40	1.24	0.64	1.00
Midnight – 8 am	1.13	1.22	0.62	1.00

Source: The George Washington University Medical Center, School of Public Health and Health Services, Department of Health Policy application of the ED use profiling algorithm to data provided by The Regional Medical Center at Memphis emergency department.

These data support the assertion that patients are using the ED at The Med for conditions that could be treated by primary care providers, at times during the day when primary care providers are likely to be available. This suggests that there are opportunities to improve care for patients in Memphis while also addressing crowding in the ED at The Med. While this analysis does not address ED utilization at other Memphis hospitals, these findings are similar to other analyses of large urban ED populations and are likely to be similar to patterns at other hospitals in the area.

Key Findings

After examining important components of the Memphis safety net, the assessment team identified the following key findings:

The Regional Medical Center at Memphis has taken important steps to improve continuity and coordination of services by partnering with the Memphis and Shelby County Health Department to jointly run the Health Loop clinics. This partnership has helped to reduce duplication of services and conserve resources, allowing the Health Department to focus its efforts on core public health functions.

Aside from these partnerships, Memphis' safety net providers generally do not collaborate or coordinate services. Long-standing turf issues, competition for patients and feelings of distrust among members of the safety net inhibit efforts to coordinate care and to exchange information across sites.

While there is a general sense that sufficient primary care capacity exists to meet the needs of Memphis residents, this is not the case for specialty care. Uninsured and low-income patients have very poor access to specialty physicians, and there are reports that many providers are no longer willing to treat TennCare patients.

Access to behavioral health and dental care services are extremely limited for both uninsured and TennCare populations. Community behavioral health centers offer a subsidy for outpatient services (up to 50 percent), but the price of care is still beyond the reach of most uninsured patients. TennCare beneficiaries have slightly more access, since they technically are covered for services. Payment rates for providers are so low, however, that behavioral health care centers limit the amount of care they deliver at any one visit to whatever is most necessary at the time. Similarly, very few dental providers will treat uninsured or TennCare patients. Those safety net facilities that do provide dental care deliver mostly preventive services.

A significant percentage of emergency department visits at The Med are for patients whose conditions are non-emergent. About 14 percent of all emergency department encounters that did not result in an admission were for patients who presented with non-emergent conditions. Another 14 percent were for patients whose conditions were emergent but could have been treated in a primary care setting.

Interpreter services are inadequate to serve non-English speaking populations. The rapid growth of the Latino community in Memphis has challenged providers' abilities to accommodate their needs. While clinics and hospitals attempt to hire bilingual and bicultural staff when possible, more interpreters are necessary to assist medical providers in delivering health care to Spanish speaking patients and others with limited English proficiency.

Some low-income residents distrust safety net providers and efforts to serve the uninsured and underserved populations of Memphis. To strengthen relationships between providers and patients, low-income populations and recent immigrants need information about how to use the health care system more effectively.

Issues for Consideration

The *Urgent Matters* safety net assessment team offers the following issues for consideration:

The Memphis safety net would benefit from a comprehensive study examining available services and capacity issues to develop a more complete understanding of gaps in care. This process could also serve as a starting point for bringing individual components of the safety net together to discuss methods of coordinating services and maximizing capacity.

The Health Loop clinics should consider conversion to FQHC status to enable them to apply for federal funding from the Health Resources and Services Administration. The Med's primary care system could be restructured to meet the governance requirements of FQHCs (i.e., to meet the requirement for a community board). This move would create an important source of revenue for the uninsured and would enable the clinics to qualify for enhanced Medicaid reimbursements.

Safety net providers should consider instituting an information system that would allow providers across sites to share patient files and help streamline eligibility processes when patients apply for publicly sponsored services.

Hospitals and other safety net providers should institute a formal referral network to ensure that patients who present at the ED with a non-emergent condition and no medical home are given information on where they should seek care in the future. This referral system could also benefit patients who have medical homes, such as community health centers, but whose clinical information does not flow back to their primary care physician. Currently, patients are sent home with written discharge directions, but they frequently fall through the cracks with little or no follow-up care.

Community-based organizations and faith-based groups should work with safety net providers to develop outreach programs explaining how to use the health care system, stressing the importance of preventive care, and encouraging acceptance of the use of mental health and substance abuse services. These programs should use community health workers as their outreach workers to better connect with underserved populations.

The effectiveness of bus routes and the transportation systems in serving low-income, underserved populations should be evaluated. Consideration should be given to changing routes to increase their accessibility to and from health care sites. A transportation voucher system for low-income populations should also be considered.

Representation of ethnic/racial minorities on committees and decision-making boards of health care providers and other organizations should be increased. While the Latino population has grown rapidly over the past decade, their inclusion in these groups has not.

1 Institute of Medicine, *America's Health Care Safety Net: Intact but Endangered*, (Washington, DC: National Academy Press, 2000): 21.

2 U.S. Census Bureau, State and County QuickFacts, 2000, http://quickfacts.census.gov

3 It is likely that many of these foreign-born residents are ineligible for public insurance programs in Tennessee. Personal communication with interviewees. Interviews were held between summer 2003 and winter 2004.

4 Prior to 1999, the county did not report estimates of its Latino population due to the unreliability of the data.

5 Shelby County Department of Public Health, www.co.shelby.tn

6 Ibid.

7 National Association of Community Health Centers. Resources to Expand Access to Community Health (REACH) Data 2002, (Bethesda, MD: NACHC, 2002). The REACH data are based on Census Bureau data and provide estimates on the number of persons by poverty level, age, gender, race, and primary sources of health insurance for each county in the U.S. in 2000. Estimates are based on the 2000-2002 pooled data from the Census Population Survey and the 2000 Census of the United States which are provided by the Bureau of Census.

8 Personal communication with interviewees. Interviews were held between summer 2003 and winter 2004.

9 U.S. Census Bureau, QuickFacts, 2000.

10 National Association of Community Health Centers, REACH Data 2002.

11 County, state and federal agencies combined are the second largest employer in Shelby County.

12 "Tax revenue on upswing; collections exceed FY04 projections, showing state economy may be picking up," *Knoxville News-Sentinel Nashville Bureau*, 13 September 2003.

13 "Memphis braces for layoffs," *Memphis Business Journal*, 12 February 2003.

14 September 2003 is the most recent month for which data are available for both the state of Tennessee and the metropolitan area of Memphis. Memphis area includes TN-AR-MS. Data are not seasonally adjusted. See U.S. Department of Labor, Bureau of Labor Statistics, www.bls.gov

15 Shelby County Regional Health Council, *Community Diagnosis: Shelby County, Tennessee, a report on the health status of the state's largest and most populous county*, (Memphis, TN: Shelby County Regional Health Council, 1998), www.Hitspot.utk.edu

16 Health Management Associates (HMA), *Shelby County Health Care System: Assuring the Health of the Public*, (May 2003), AND Health Resources and Services Administration (HRSA), Community Profiles, 1998.

17 HMA, *Shelby County Health Care System*, 2003.

18 FQHCs are federally funded health centers that are designated to serve medically underserved populations. FQHCs are eligible for Section 330 grants from the Health Resources and Services Administration to offset the costs of care to uninsured patients. They also are eligible for enhanced Medicaid reimbursements.

19 I. Singer, L. Davison, L. Fagnani, *America's Safety Net Hospitals and Health Systems, 2001. Results of the 2001 Annual NAPH Member Survey* (Washington, DC: National Association of Public Hospitals and Health Systems, September 2003).

20 Ibid.

21 Singer, et al.

22 M. Powers, "2003 Hospitals feel financial pain as TennCare, Economy Lag," *The Commercial Appeal,* 22 January 2003.

23 The Med recently received $10 million in Mississippi state funding for the treatment of Mississippi accident and trauma victims. See Advisory Board Daily Briefing, 9 October 2003, www.advisory.com

24 Personal communication with interviewees. Interviews were held between summer 2003 and winter 2004.

25 These data come from the Uniform Data System (UDS), a national database of patient and health center characteristics managed by the Health Resources and Services Administration. Data are from 2002.

26 Personal communication with interviewees. Interviews were held between summer 2003 and winter 2004.

27 J. Commins, "TennCare managers hope to save program," *Chattanooga Times Free Press*, 31 August 2003.

28 Summary of court cases, see Grier, Rosen, Newberry and John B. Case, www.state.tn.us/tenncare

29 R. Gurley, *TennCare Prescription Drug Costs*, *Report of the Comptroller of the Treasury*, (TN: Office of Research, December 2002), http://www.comptroller.state.tn.us/orea/reports/tenncaredrug1202.pdf

30 State of Tennessee Bureau of TennCare, "Number of Recipients on TennCare and Costs to the State," January 2003, www.state.tn.us/tenncare/report01-15-03. html (November 2003).

31 "TennCare expected to meet budget this year," *The Commercial Appeal,* 15 October 2003, Metro-B6.

32 A. Paine, "Federal dollars to fund TennCare shortfall," *The Tennessean*, 30 April 2003, www.tennessean.com/government/archives/03/05/23193216.shtml

33 The State Children's Health Insurance Program (SCHIP), also known as Title XXI, was passed as part of the Balanced Budget Act of 1997. SCHIP provides $40 billion in Federal matching funds over 10 years to help states expand health care coverage to uninsured children.

34 National Center for Children in Poverty, "Public Health Insurance for Children: State Profiles," May 2003, http://nccp.org/state_detail_TN_policy_23.html (November 2003).

35 Affordable Care USA, "Health Care Costs, State by State Data: Tennessee," 2003, www.affordablecareusa.org/statestatsdata/TN.htm (November 2003).

36 In 2003, the FPL was $8,980 for an individual and $18,400 for a family of four (U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, 2003).

37 TennCare Assist will be created and detailed sometime this year. See www.state.tn.us/tenncare/whatis.html

38 Centers for Medicare and Medicaid Services, "Tennessee Statewide Health Reform Demonstration," 1 July 2002, http://www.cms.hhs.gov/medicaid/1115/tnfact.pdf

39 Tennessee Justice Center, www.tnjustice.org/Links/Summary%20of%20Settlement.doc

40 J. Commins, "TennCare managers hope to save program," *Chattanooga Times Free Press*, 31 August 2003.

41 R. Gurley, "TennCare Prescription Drug Costs: Report of the Comptroller of the Treasury, Office of Research," December 2002, www.comptroller.state.tn.us/orea/reports/tenncaredrug1202.pdf

42 J. Commins, "TennCare managers hope to save program," 31 August 2003.

43 Tennessee Department of Health and the Community Health Research Group, The University of Tennessee, "Tennessee Health Status Report, 2001-2002," June 2003, http://www2.state.tn.us/health/statistics/PdfFiles/thsr01_02.pdf

44 Disproportionate Share Hospital payments provide additional funding to hospitals that provide a disproportionate amount of care to Medicaid and uninsured populations.

45 HMA, *Shelby County Health Care System*, 2003.

46 HMA found that there was a net loss of over $300 million to TennCare hospitals for trading EAH for DSH.

47 M. Powers, "Hospitals feel financial pain as TennCare, Economy Lag," *The Commercial Appeal*, 22 January 2003.

48 Personal communication with interviewees AND *The Advisory Board Daily Briefing*, (Washington, DC: 9 October 2003), www.advisory.com

49 Personal communication with interviewees. Interviews were held between summer 2003 and winter 2004.

50 *The Advisory Board Daily Briefing*, 9 October 2003, www.advisory.com

51 The federal government determined that this payment violated rules for Medicaid matching payments and subsequently withdrew its match since Memphis city government, and not the State of Mississippi, covered Mississippi's $1.8 million matching portion of payment.

52 Uniform Data System, 2002.

53 M. Watson, "Mississipi pays the Med $10 million—'a lot of money' for indigent care," *The Commercial Appeal,* 7 October 2003, AND "Payment to the MED makes a statement," *Viewpoint*, 16 October 2003.

54 Community Access Program, see http://bphc.hrsa.gov/cap/Default.htm

55 All information derived through interviews with informants was kept confidential. Many of the same questions were asked throughout the interview process. Opinions are included in the report only when they were voiced by several informants.

56 The study commissioned by the Shelby County Regional Health Council in 1998 determined that when provider availability and willingness to treat low-income patients is considered, primary care in Shelby County is insufficient. Shelby County Regional Health Council, "Community Diagnosis: Shelby County, Tennessee, a report on the health status of the state's largest and most populous county."

57 HMA, *Shelby County Health Care System,* 2003.

58 W. Morris, "Group Mental health services overwhelmed," *Chattanooga Times Free Press*, 15 November 2003.

59 Personal communication with interviewees. Interviews were held between summer 2003 and winter 2004.

60 The algorithm presented here uses a methodology that has been replicated in numerous communities in the country to categorize emergency department visit data. The algorithm does not address the issue of appropriate use of the ED for non-emergent and/or primary care treatable conditions. This issue has been discussed extensively in the peer-reviewed literature. For a summary of these discussions see: L. Richardson and U. Hwang, "Access to Care: A Review of the Emergency Medicine Literature," *Academic Emergency Medicine 8, no. 11* (2001) 1030-1036.

61 For a discussion of the development of the algorithm and the potential implications of its findings, see: J. Billings, N. Parikh and T. Mijanovich, Emergency *Room Use: The New York Story*, (New York, NY: The Commonwealth Fund, November 2000).

62 Includes patients enrolled in TennCare.

63 These figures are relatively small compared to findings from analyses of other *Urgent Matters* grantee hospitals' data. The Med has a very high percent of visits that are not included in the algorithm. Thus, the findings may indicate that there is lower use of the ED for non-emergent or primary care treatable conditions; in the alternative, the data could reflect the limitations of the method of analysis and understate the amount of primary care conditions that are being treated in the ED.

64 It is important to note that these findings refer to the allocation of visits across emergent and non-emergent categories and do not address whether uninsured patients use the ED, per se, in greater numbers than insured patients. This assessment would not be possible in the absence of better data on ED use across many more hospitals in the Tennessee area to determine whether uninsured patients were using ED care at higher rates than insured patients.

65 This finding is consistent with recent research showing increases in the numbers of commercially insured patients relying on emergency departments for care. See: P.J. Cunningham and J.H. May, *Insured Americans Drive Surge in Emergency Department Visits, Issue Brief 70* (Washington, DC: Center for Studying Health Systems Change, October 2003).

Urgent Matters Grantee Hospitals and Community Partners

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Community Partner: National Center for Primary Care, Morehouse School of Medicine
Project Director: George Rust, MD, MPH FAAFP
Grantee Hospital: Grady Health System
Project Director: Leon Haley, Jr., MD, MHSA, FACEP

Boston, Massachusetts
Community Partner: Health Care for All
Project Director: Marcia Hams
Grantee Hospital: Boston Medical Center
Project Director: John Chessare, MD, MPH

Detroit, Michigan
Community Partner: Voices of Detroit Initiative
Project Director: Lucille Smith
Grantee Hospital: Henry Ford Health System
Project Director: William Schramm

Fairfax County, Virginia
Community Partner: Fairfax County Community Access Program
Project Director: Elita Christiansen
Grantee Hospital: Inova Fairfax Hospital
Project Director: Thom Mayer, MD, FACEP, FAAP

Lincoln, Nebraska
Community Partner: Community Health Endowment of Lincoln
Project Director: Lori Seibel
Grantee Hospital: BryanLGH Medical Center
Project Director: Ruth Radenslaben, RN

Memphis, Tennessee
Community Partner: University of Tennessee Health Sciences Center
Project Director: Alicia M. McClary, EdD
Grantee Hospital: The Regional Medical Center at Memphis
Project Director: Rhonda Nelson, RN

Phoenix, Arizona
Community Partner: St. Luke's Health Initiatives
Project Director: Jill Rissi
Grantee Hospital: St. Joseph's Hospital and Medical Center
Project Director: Julie Ward, RN, MSN

Queens, New York
Community Partner: Northern Queens Health Coalition
Project Director: Mala Desai
Grantee Hospital: Elmhurst Hospital Center
Project Director: Stuart Kessler, MD

San Antonio, Texas
Community Partner: Greater San Antonio Hospital Council
Project Director: William Rasco
Grantee Hospital: University Health System
Project Director: David Hnatow, MD

San Diego, California
Community Partner: Community Health Improvement Partners
Project Director: Kristin Garrett, MPH
Grantee Hospital: University of California at San Diego
Project Director: Theodore C. Chan, MD