

TAKE CHARGE for better health[®] series

REPORT 5:

**Status Report on Efforts to
Understand and Create Awareness of
Potentially Avoidable Hospitalizations
in Memphis and Shelby County, Tennessee**

September 2012

**Healthy
Memphis[®]**

COMMON TABLE

This **Take Charge for Better Health**® report uses 2009 hospital discharge data for Memphis and Shelby County. The cost data is expressed in 2012 dollar equivalents. The intent of this report is to provide transparency of information related to potentially avoidable hospitalizations in Memphis and Shelby County, as it compares to the State of Tennessee, and the U.S.

This report was prepared in collaboration with the Methodist Le Bonheur Center for Healthcare Economics (MLCHE) at the University of Memphis. MLCHE acknowledges data preparation assistance from ACE Health System Research Consultants, LLC.

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We appreciate the hard work and dedication of the contributors of this report.

Cyril Chang, PhD
Lead Author

David Rosenthal, PhD
Assistant Author

HMCT STAFF CONTRIBUTORS:
Reneé S. Frazier, MHSA, FACHE
CEO

Patti Tosti
Project Manager, AF4Q

Katie Dyer, MPH
Data Analyst

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**Aligning Forces
for Quality** | Improving Health & Health Care in
Communities Across Greater Memphis

An initiative of the Healthy Memphis Common Table and the Robert Wood Johnson Foundation.

This report is meant to reach a broad spectrum of individuals, including those with decision making capabilities. Its purpose is to act as a catalyst to bridge the conversation from research to practice.

Copies of this report and additional data are available at:
www.healthymemphis.org



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Tom Lundquist, MD, MMM
Former Vice-President

Performance Measurement and
Improvement of Health Care Services

BlueCross BlueShield of Tennessee

FOREWORD

As the chair of the Healthy Memphis Common Table's Performance Measurement and Public Reporting Steering Committee, it is my pleasure to share this report with the Memphis & Shelby County community. The efforts of this committee are the direct result of funding from the Robert Wood Johnson Foundation's signature Aligning Forces for Quality (AF4Q) projects in 16 communities promoting health care reform through transparency. This important work has opened the door for multi-stakeholder collaboration across the country to promote better health and provide better care at a more affordable cost.

AF4Q has been an integral force in creating opportunities to drive the agenda of more transparency in all aspects of the health care delivery and payment systems. This report is just one example of how quality and cost data can drive a broader community-wide conversation addressing significant variations in cost and quality in Memphis and Shelby County. The level of data offered in this report brings us one step closer to the level of transparency needed to stimulate the generation of solutions which ultimately will help our health care system deliver more timely and efficient care.

Transparency of this kind stimulates local action that can result in the creation of an innovative health care system and payment reform including all stakeholders: patients, hospitals, insurers, businesses, providers, and government agencies. This effort can lead to the identification of new models of cooperation and efficiency that will serve as national examples of innovation. These issues are national in scope, but it is the local stakeholders that will be responsible for the change.

ABOUT HEALTHY MEMPHIS COMMON TABLE

The Healthy Memphis Common Table is a non-profit, 501(c)(3) Regional Health Improvement Collaborative that addresses both the health of everyone in the community and the health care delivery system. HMCT's vision is to support Memphis in becoming 'one of America's healthiest cities' by mobilizing action to achieve excellent health for all. Our commitment to the community includes:

IMPROVE the quality of primary care

EMPOWER patients and caregivers

FIGHT childhood and family obesity

REDUCE diabetes, heart disease and pediatric asthma

ELIMINATE food deserts in low income neighborhoods.

The Healthy Memphis Common Table (HMCT) is the southeast area's only Regional Health Improvement Collaborative (RHIC). There are approximately 50 RHICs in the country that have been developed to address a multi-stakeholder organization committed to improving the health and the healthcare of the entire community. The first RHIC was founded in 1995. The HMCT was organized in 2003 as a combined effort of various organizations to align and create a "common table". The HMCT has been certified by the Department of Health and Human Services as Tennessee's only Chartered Value Exchange, and is seen as a national model of innovation and collaboration.

Currently HMCT operates seven projects which focuses on the five areas noted above and has expanded its management capacity to lead specific community-wide efforts. These efforts involve over 50 partner organizations, 200 organizations that are collaborators, and 25-30 steering committees and workgroups. These 400 plus individuals who serve on these various committees and workgroups represent a cross section of the community to include hospital executives, business leaders, consumers, nurse practitioners, physicians, insurance executives, educators, faith based leaders, and health department officials. The key is the collective impact these individuals are making in framing the work of HMCT and the actions associated with improving the health and health care provided in our community.

The role of HMCT is three fold: serve as a mutli-stakeholder neutral convener, produce community level performance reports and execute on small scale projects which can expand community-wide. The work of HMCT is done through partnership and collaboration and the model of the RHIC has created a new era of change and innovation. The key to the work of HMCT is the alignment of resources and agendas. This is so important to the Memphis region and HMCT is honored to serve in this significant role.



Thomas Feeney, MBA, CPA
Chair, Board of Directors
Healthy Memphis Common Table

EXECUTIVE SUMMARY



Reneé S. Frazier, MSHA, FACHE
CEO

Healthy Memphis Common Table

The Healthy Memphis Common Table is pleased to share our fifth “Take Charge for Better Health”[®] status report. This report provides an analysis of 2009 hospital discharge data for Memphis and Shelby County and is the most current data for public use. It provides a detailed view of potentially avoidable hospitalizations (PAHs) in Memphis and Shelby County. This report provides a summary view of the cost of PAHs, potential contributing factors, and substantial racial and ethnic differences. Here are some of the key findings:

- The cost of PAHs for the Memphis and Shelby County is noted as \$87 million for the year 2009 in 2012 dollars.
- Communities with poor access to primary care have a higher rate of PAHs.
- There were 12,722 cases of PAHs by residents of Shelby County.
- Chronic disease PAHs such as diabetes, hypertension, and congestive heart failure represented a 7.6% higher rate than the state.
- Racial and ethnic differences exist with the highest rate of PAHs among African Americans and the lowest among the Latino community.

The most important aspect of these “Take Charge for Better Health”[®] reports produced by the Healthy Memphis Common Table is to create increased transparency of cost, equity and quality data. This type of data provides a community-wide call to action, which is noted on page 12 of this report. Those actions include:

- Maximize the provision under the Affordable Care Act to address needed access issues for primary care in underserved communities.
- Focus on providing increased coordinated efforts which improve health literacy community-wide. These efforts should provide education on better management of chronic diseases, obtaining treatment by a primary care physician, and the appropriate use of emergency room services.
- Encourage local innovations in payment and health care delivery.
- Create more transparency of cost and quality data at the provider, insurance, and hospital level.
- Create a more coordinated approach to tracking cost, performance measures, and quality indicators.
- Embrace large-scale community awareness approaches which note system and personal responsibility.

The intent of this status report is to stimulate all stakeholders in various community-wide actions that lead to better health, better quality of care, and more affordable health care services for every man, woman and child. As the area’s Regional Health Improvement Collaborative, the Healthy Memphis Common Table will continue to lead efforts to address cost, quality, and issues of health equity as a major driver of our strategic agenda.

INTRODUCTION

Tennesseans spend more on hospital care than on any other medical treatment, with hospital costs accounting for more than one-third of all dollars spent on health care in 2009¹. In many cases, these costly hospitalizations could have been avoided. The purpose of this status report is to provide an update on the number, rates, and costs of these potentially avoidable hospitalizations in Shelby County, Tennessee, using hospital discharge data for 2009.

This report begins with an overview of the concept of a potentially avoidable hospitalization (PAH) and its significance from a population health perspective. It then examines the observed rates of PAHs by gender, age, and race in Memphis and Shelby County and compares those rates with those of the state of Tennessee and the U.S. It ends with a comparison of hospital charges billed and reimbursements paid for PAHs by different major third-party payers.

For source data and Tennessee state comparisons, this report focuses on adult patients ages 18 and over who were discharged from short-term general and critical-access hospitals in Tennessee in 2009. Of all Tennessee inpatient discharges for non-maternal adults about 11% were for out-of-state patients, mostly from Virginia, Mississippi, and Georgia. These non-Tennessee patients are excluded from this report.

What is a Potentially Avoidable Hospitalization?

Many inpatient hospitalizations are potentially avoidable. These are hospital admissions that could have been prevented if the hospitalized patients had sought primary care earlier and been treated effectively before they became seriously ill. Importantly, a potentially avoidable hospitalization is not the same as an unnecessary hospitalization. A patient's hospitalization is unnecessary if the risks and costs significantly outweigh the expected benefits. A patient with a potentially avoidable hospitalization, in contrast, truly needs hospital care once he or she is so sick that hospitalization is the only viable option.

The number and rates of PAHs for a city or state can now be identified thanks primarily to research led by the Agency for Healthcare Research and Quality (AHRQ), the lead federal agency charged with improving the quality and effectiveness of health care delivery in the U.S. Many state and local health agencies and independent researchers across the country now use a set of measures called Prevention Quality Indicators (PQIs) that can be obtained from AHRQ and applied to hospital inpatient discharge data to identify hospitalizations that are potentially avoidable². The current PQIs can trace their origin to a set of software programs developed by the University of California, San Francisco-Stanford University Evidence-based Practice Center and the University of California, Davis under a contract with AHRQ.



POTENTIALLY AVOIDABLE HOSPITALIZATIONS

**ARE HOSPITAL ADMISSIONS
THAT COULD HAVE BEEN
PREVENTED IF PATIENTS
SOUGHT TREATMENT THROUGH
PRIMARY CARE BEFORE THEY
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THE POINT OF NEEDING TO BE
HOSPITALIZED.**

THE SIGNIFICANCE OF PAHS

According to the Centers for Disease Control and Prevention (CDC), rates of potentially avoidable hospitalizations vary from community to community. Communities with poorer access to coordinated primary care tend to have higher rates of PAHs. Therefore, the prevalence and variations of PAHs have been recommended by AHRQ as a tool for state and local health authorities to assess the adequacy and effectiveness of primary care at the community level⁵.

Because hospitalizations tend to be more costly than outpatient primary care, potentially avoidable hospitalizations are used often as markers of the efficiency of the health care system. The number and cost of excess potentially avoidable hospitalizations can be calculated by comparing rates for a group with an ideal rate. These estimates can help communities identify potential cost savings associated with improving the structure of primary care and reducing potentially avoidable hospitalizations.

It is important to note that while PAHs suggest a lack of access to effective primary care in the outpatient setting, many other factors can also contribute to the rate of PAHs in a community. These include structural shortcomings of the existing primary care network such as a lack of electronic health record capability and ineffective care coordination. They also include individuals' health status, when they seek treatment, and individuals' willingness and ability to engage in health promoting behaviors.

It is also important to note that the terms "ambulatory care sensitive condition," "potentially avoidable hospitalization," and "prevention quality indicator" (PQI) are related, but they should not be used interchangeably. An ambulatory care sensitive condition (ACSC) refers specifically to the principal diagnosis of a PAH, while PAH, by contrast, refers to the hospitalization resulting from the ACSC. Finally, a PQI is the community-wide rate of PAHs, generally measured per 100,000 people.

TYPES OF PAHS

5 PAHs can occur for either a chronic or acute ambulatory care sensitive condition (ACSC). Chronic ACSCs require certain preventive health services and regular maintenance visits to a primary care physician. By contrast, acute ACSCs are those not requiring ongoing management but are still sensitive to (or treatable by) primary care treatment.

Chronic ACSCs are short and long-term diabetes complications, hypertension, congestive heart failure (CHF), angina (if no cardiac procedure is performed), asthma, and chronic obstructive pulmonary disease (COPD).

The Prevention Quality Indicators (PQIs) for Adult Population

PQI No.	Prevention Quality Indicator (PQI)
CHRONIC	
1	Short-term Diabetes Complications
3	Long-term Diabetes Complications
5	Chronic Obstructive Pulmonary Disease (COPD)
7	Hypertension
8	Congestive Heart Failure (CHF)
13	Angina Admission without Procedure
14	Uncontrolled Diabetes
15	Adult Asthma
16	Lower-Extremity Amputation in Diabetics
ACUTE	
2	Perforated Appendix
10	Dehydration
11	Bacterial Pneumonia
12	Urinary Tract Infection

Source: The Agency for Healthcare Research and Quality.
Available at http://qualityindicators.ahrq.gov/Modules/pqi_overview.aspx

Chronic ACSC: Illnesses with a long duration that have progressed over time. They can typically be prevented with adequate primary care. The symptoms are fairly intense and with treatment they can be controlled but not cured. If left untreated they could result in death of the patient. Chronic illnesses include diabetes, pulmonary disease, hypertension, angina, and adult asthma.

Acute ACSC: Illnesses that occur during a rapid onset. They typically cannot be prevented with adequate primary care. The symptoms are fairly intense and can be resolved in a short period of time as either cure or death of the patient. Acute illnesses include colds, flu, bronchitis, childhood illnesses, tonsillitis, ear aches, and most headaches; however, there are a few acute illness exceptions that can be prevented with adequate primary care such as perforated (burst) appendix, dehydration, bacterial pneumonia, and urinary tract infection.

According to AHRQ, acute PQIs are measured using hospitalizations for the following ACSCs: dehydration, bacterial pneumonia, urinary tract infection, and perforated appendix. The perforated appendix PQI is measured differently from all of the others. It is calculated per appendicitis admission rather than at the population level. It has a different denominator in calculating the PAH rates, therefore, the perforated appendix PQI is treated separately and not included in summary rates for this report.

FINDINGS

How many cases of potentially avoidable hospitalizations (PAHs) occurred in Shelby County, Tennessee, each year? Table 1 provides the numbers of PAHs of male and female Shelby County residents in 2009. This is the latest year that hospital discharge data are available. Also provided are the proportions of male and female Shelby County residents in the general population (last column of Table 1) for purpose of comparison.

TABLE 1

PAHs at a Glance, Shelby County, Tennessee, 2009

	Number	Percent	County Population*
Male	5,261	41%	48%
Female	7,461	59%	52%
Total	12,722	100%	100%

Data source: Tennessee Hospital Discharge Data Set, 2009

***U.S. Census 2010**

MAJOR POINTS

- In 2009, there were 12,722 cases of potentially avoidable hospitalizations (PAHs) of residents of Shelby County, Tennessee.
- Of this total, 41% involved adult men while 59% involved adult women.
- With men representing 48% of Shelby County’s general population and females the other 52% according to the latest Census data available⁴, female Shelby County residents seem to be more likely than male residents to be hospitalized for a PAH.

DO WE HAVE AN EXTRAORDINARILY HIGH LEVEL OF PAHS IN SHELBY COUNTY, TENNESSEE?

In order to tell if the 12,722 cases of PAHs are too many or about as expected for a community the size of Shelby County, Tennessee, which has a total population of close to one million and a heavy concentration of poverty and health outcome problems, we must separate the population into segments. A typical way to compare PAH cases is to convert the actual PAH numbers into rates per 100,000 population so that our rates can be compared with those of a state such as Tennessee, on an equal basis. Table 2 gives us the PAH rates per 100,000 adult population for both acute and chronic PAHs for Shelby County, the state as a whole, and the entire U.S. It also provides, in the last two columns, the Shelby County’s rates versus those of the state of Tennessee and of the U.S., respectively.

TABLE 2

Table 2 - Acute and Chronic Adult Potentially Avoidable Hospitalizations (PAHs) per 100,000 Adults, 2009

Potentially Avoidable Hospitalizations (PAHs)	Shelby County	Tennessee	United States*	Shelby Co. vs. Tennessee	Shelby Co. vs. U. S.
Acute	638	838	744	24.0% lower	14.3% lower
Chronic	1,262	1,173	1,086	7.6% higher	16.2% higher
Overall	1,900	2,011	1,830	5.5% lower	3.8% higher

*Data for the U.S. were for 2008, the latest year that national data are available.

MAJOR POINTS

- In terms of Acute PAHs which include dehydration, bacterial pneumonia, and urinary tract infection, Shelby County's rate was about 24% lower than the Tennessee rate and it was 14.3% lower than the U.S. rate. Shelby County's lower acute PAH rate suggests that residents here were less likely to be admitted for an acute PAH than residents of both Tennessee (in 2009) and the U.S. (in 2008)
- However, the reverse is true for chronic PAHs which include diabetes, hypertension, congestive heart failure, and a few other conditions. Shelby County residents' chronic PAH rates were 7.6% higher on average than those for residents of Tennessee as a whole in 2009, and they were 16.2% higher than the 2008 chronic PAH rates for the rest of the country.
- When acute and chronic PAHs are combined, Shelby County's overall rate was slightly (5.5%) lower than that of Tennessee but was slightly (3.8%) higher than that of the U.S.

7

“ SHELBY COUNTY RESIDENTS ARE MORE LIKELY TO BE HOSPITALIZED FOR CHRONIC DISEASES SUCH AS DIABETES, HYPERTENSION, AND CONGESTIVE HEART FAILURE. THIS COULD POSSIBLY HAVE BEEN PREVENTED IF THEY HAD SEEN THEIR PRIMARY CARE PROVIDERS EARLIER.

ARE THERE DIFFERENCES IN THE PAH RATES AMONG THE MAJOR RACIAL AND ETHNIC GROUPS IN SHELBY COUNTY, TENNESSEE?

Table 3 shows the acute and chronic PAH rates for the major racial and ethnic groups for Shelby County, Tennessee, and compares them with the rates for Tennessee. The U.S. rates for the different racial and ethnic groups are not available from the federal government for this comparison.

TABLE 3

Acute and Chronic Adult PAHs per 100,000 Adults by Race, Shelby County, Tennessee, 2009¹

Potentially Avoidable Hospitalizations (PAHs)	Black	White	Hispanic	Asian	All Races
SHELBY COUNTY RATE PER 100,000 POPULATION					
Acute	630	656	168	99	638
Chronic	1,689	800	130	99	1,262
Overall	2,319	1,456	298	199	1,900
TENNESSEE RATE PER 100,000 POPULATION					
Acute	588	727	256	79	838
Chronic	1,499	915	333	93	1,173
Overall	2,088	1,643	590	173	2,011

¹The individual numbers may not add up to the "Overall" total due to rounding.

MAJOR POINTS

- Substantial racial differences in PAH rates existed in 2009 among the major racial and ethnic groups in Shelby County and Tennessee, with black (African Americans) having the highest PAH rates per 100,000 people and Asians the lowest. This was true for both overall and chronic PAHs but not for acute PAHs.
- Table 3 also compares Shelby County with Tennessee for each of the major racial and ethnic groups. For both acute and chronic PAHs, black Shelby County residents' rates were higher than the rates for black residents in Tennessee. In contrast, white Shelby County residents' PAH rates were lower than the white rates for Tennessee as a whole.
- Hispanics' rates in Shelby County were lower than the Hispanic rates in Tennessee whereas the Asians rates in Shelby County were slightly higher than the Asian rates in the state.

SHELBY COUNTY RATE PER 100,000 POPULATION

Table 4 shows the rates for individual PAHs for Shelby County, the state of Tennessee, and the United States.

TABLE 4

Table 4 - Individual Potentially Avoidable Hospitalizations (PAHs) per 100,000 Adults¹, 2009

Potentially Avoidable Hospitalization (PAH)	Shelby County	Tennessee	United States ²	Shelby Co. vs. Tennessee	Shelby Co. vs. U. S.
ACUTE					
Dehydration	152	163	187	6.7% lower	18.7% lower
Bacterial Pneumonia	288	437	386	34.1% lower	25.4% lower
Urinary Track Infection	198	239	220	17.2% lower	10.1% lower
CHRONIC					
All Diabetes	328	225	236	46.0% higher	39.2% higher
Chronic Obstructive Pulmonary Disease (COPD)	505	713	596	29.1% lower	15.1% lower
Asthma in Younger Adults	72	58	60	23.1% higher	19.6% higher
Hypertension	108	70	64	55.3% higher	68.4% higher
Congestive Heart Failure (CHF)	498	412	433	20.9% higher	14.9% higher
Angina without Procedure	13	16	26	20.3% lower	51.7% lower

¹The rates for Perforated Appendix are not included in the Acute PAHs because they are not based on the general adult population.

²Data for the U.S. were for 2008, the latest year that national data are available.

MAJOR POINTS

- Shelby County's PAH rates for all three of the acute PAHs were lower than those reported for Tennessee and the United States.
- Among the three acute PAHs, Shelby County's rate was the lowest for Bacteria Pneumonia, which was 34.1% lower than that of Tennessee and about 25.4% lower than the average rate of the United States.
- Among the chronic PAHs, Shelby County's rates were higher than those of Tennessee and the United States except for COPD and Angina without Procedure.

Below is the table that explains the amount of dollars involved in treating Shelby County patients who were admitted for a PAH in 2009. The dollar amounts are total and average reimbursements estimated from the charges reported by individual hospitals that have been adjusted to reflect 2012 inflation.

TABLE 5

Hospital Charges and Reimbursements by Third-Party Payer in Shelby County, Tennessee, 2009¹

Potentially Avoidable Hospitalizations (PAHs)	No. of Discharges	Avg. Hosp. Charges	Avg. Amt. Reimbursed	Total Hosp. Charges	Total Reimbursement
Commercial Insurance	2,182	\$26,927	\$9,543	\$58,753,915	\$20,822,655
Medicare	7,126	\$30,975	\$7,585	\$220,725,811	\$54,048,218
TennCare/Medicaid	1,711	\$28,135	\$4,950	\$48,138,621	\$8,469,208
Self Pay/Uninsured/Charity	1,492	\$25,845	\$2,180	\$38,560,084	\$3,252,972
Other	211	\$28,274	\$6,101	\$5,965,730	\$1,287,399
Total	12,722	\$29,252	\$6,908	\$372,144,161	\$87,880,452

¹Tennessee Hospital Discharge Data for 2009, with hospital charges and reimbursements expressed in 2011 dollars.



INSURANCE COMPANIES AND OTHER PAYERS PAID A TOTAL OF \$87.9 MILLION IN MEDICAL EXPENSES FOR POTENTIALLY AVOIDABLE HOSPITALIZATIONS.

MAJOR POINTS

- Insurance companies and other payers paid a total of \$87.9 million in medical expenses for the 12,722 cases of PAHs involving Shelby County residents in 2009. This was about \$6,908 of payments for inpatient services for each PAH admission.
- Medicare paid for the largest share (56%) of the total number of PAHs in 2009 in Shelby County, Tennessee. In dollars, Medicare paid \$54 million or 62% of the total reimbursements in Shelby County, Tennessee. This suggests that Medicare subsidized the PAH care for patients insured by other third-party payers such as TennCare and for patients who had no insurance.
- Commercial insurers also subsidized the care for PAH cases to a lesser degree, paying close to \$21 million in 2009 or 24% of the total reimbursement in Shelby County while responsible for only 2,182 or 17% of the total PAH cases.
- TennCare was responsible for 13% of the total PAH cases but paid \$8.5 million or about 10% of the total reimbursements for PAH cases in Shelby County.
- Uninsured and self-pay patients accounted for 1,492 cases of PAHs or 12% of the total PAHs. They paid hospitals close to \$3.3 million for the care they received. This amount was about 4% of total reimbursements for PAHs in Shelby County in 2009.

WHAT DOES IT ALL MEAN TO OUR COMMUNITY?

1 HIGH PAH RATES ARE LINKED TO PROBLEMS WITH ACCESS TO PRIMARY CARE.

Based on many years of scientific research, health care experts now believe that high rates of potentially avoidable hospitalizations indicate the existence of problems with access to primary care services or with deficiencies in outpatient management and follow-up^{5,6,7}. The higher chronic PAH rates for Shelby County shown in Table 2 and other places within this report suggest that many Shelby County residents with chronic medical problems do not have adequate and timely access to effective primary care to meet their health care needs. This lack of adequate access to effective primary care is particularly significant for African Americans based on the differences in the data between the racial and ethnic groups presented in Table 3.



2 UNIDENTIFIED RACIAL DIFFERENCES EXIST.

A significant finding in Table 3 references substantial racial and ethnic differences in the rate of PAHs in Shelby County, especially for chronic conditions. The acute PAH rates for African Americans and Caucasians (the two main racial groups in Shelby County) were actually similar in 2009, but African Americans' chronic PAH rate was more than twice as high as that of Caucasians. The Healthy Memphis Common Table's "Take Charge Report 4: Status Report on Efforts to Advance Health Equity", released in 2011, references a trend of racial inequities regarding potentially avoidable hospitalizations. The specific driving forces and reasons behind the observed inequalities remain unclear but additional research is currently being conducted to identify them.

3 THE SIMULTANEOUS EXISTENCE OF HIGH CHRONIC RATES AND LOW ACUTE RATES IS A PUZZLE.

Shelby County's acute PAH rate was about 24% lower than the Tennessee rate in 2009, and it was 14.3% lower than the comparable U.S. rate. However, our County's chronic PAH rate was 7.6% and 16.2% higher than those of Tennessee and the U.S., respectively. Shelby County's higher chronic PAH rates are consistent with the health status and sociodemographic background of an urban county with a concentration of poverty and a host of health behavior issues such as obesity and lack of access to healthy foods in many of the poorer neighborhoods. The Centers for Disease Control and Prevention (CDC) has recently reported that 32% of the adult residents in Shelby County, Tennessee, are obese⁸. Obesity increases the risk for health conditions such as coronary heart disease, type 2 diabetes, cancer, hypertension, and stroke. Data from CDC also shows that 29% of Shelby County's children are considered poor or "living in poverty" as compared to the state average of 26% of children in poverty and the national benchmark of 13%. Poverty has long been found to be associated with poor health and the tendency of developing chronic medical problems⁹.

A plausible explanation for the lower than average acute rates is the historical patterns of low health care utilization in West Tennessee as compared to the utilization rates of health care in other parts of the state. Health care costs and service use rates have consistently been lower in the Western part of Tennessee than the rest of the state which has led to several unintended public health consequences that have yet to be resolved. For example, the lower historical utilization rates exhibited by TennCare enrollees in West Tennessee have led

the Bureau of TennCare in recent years to reduce the capitation rates paid to private managed care organizations (MCOs) to take care of the health care needs of TennCare enrollees in West Tennessee. This reduced support reflects a simplistic belief, at least implicitly, that people don't use health services because they have little need for them. In our view, the research community has not fully understood why people with high health care needs do not take full advantage of the services available to them. It is prudent at this point to not interpret the observed lower rates for the three individual acute PAHs to mean that our community somehow has sufficient primary care which prevents residents from going to the hospital for acute potentially avoidable hospitalizations.

4 HOW CAN SHELBY COUNTY'S HIGHER RATES FOR CHRONIC PAHS AND THE ASSOCIATED RACIAL DISPARITIES BE EXPLAINED?

The higher PAH rates and the implied barriers to primary care have been found to be associated with a wide range of health care quality issues outside of the hospital according to research studies published in reputable medical journals.

- Some of the quality issues are related to an inadequate supply of primary care providers in a community or in certain parts of a community¹⁰. In some communities, the supply issues are exacerbated by providers' reluctance to accept patients without insurance or with certain types of insurance such as Medicaid (TennCare) or Medicare.
- Other quality issues are related to the demand for primary care and these include such demand-side factors as individuals' health status, when they seek treatment, availability of transportation, their willingness and ability to engage in health promoting behaviors, and patients' compliance to prescribed treatment regimens¹¹.

5 THE PATTERNS FOR 2009 ARE CONSISTENT WITH EARLIER FINDINGS AND USEFUL FOR FUTURE PLANNING.

The results presented in this report were based on the hospital discharge data for a single calendar year - 2009. However, the levels of PAHs for both acute and chronic conditions and the associated patterns of variations among the different population subgroups are consistent with the findings of earlier PAH studies released by the Methodist LeBonheur Center for Healthcare Economics at The University of Memphis¹². Given the consistency of findings over time, the 2009 results are not only relevant to the current situation in Memphis and Shelby County but also useful in guiding health care planning and public health decision making for the future.

6 MILLIONS OF DOLLARS CAN BE SAVED WHILE IMPROVING THE QUALITY OF CARE.

Our finding of as much as \$87.9 million worth of potentially avoidable hospitalizations suggests a weakness in our health care system. Scarce health care resources have not been put to their best use because of the fragmentation of our delivery system and an underutilization of prevention-centered primary care. Potentially avoidable hospitalizations do not imply that hospitals have delivered unnecessary care. They simply suggest that some of the inpatient care used by the hospitalized patients could have been avoided if effective primary care had been sought and delivered earlier. Our results also suggest that opportunities exist to save millions of dollars while improving the quality of care. In health care, an ounce of prevention is worth a pound of cure. Our community can improve the quality of health care and health outcomes by strengthening the primary care system and by improving communication and care coordination between hospitals and community primary care providers.

WHAT CAN WE DO AS A COMMUNITY?

1 OPPORTUNITIES UNDER THE AFFORDABLE CARE ACT

The health care reform, signed into law by President Barack Obama in March 2010 and upheld by the United States Supreme Court in July of 2012, supports the growth and development of patient-centered and prevention-oriented primary care. A concrete example of this hopeful development is the increase in reimbursement for primary care services for Medicaid patients to the level of Medicare. Another example is the establishment of a new federal agency, the Center for Medicare & Medicaid Innovation, to make plans and take concrete actions to encourage the growth of a new form of health care delivery organization called the Accountable Care Organization (ACO). The many reform measures that aim at improving the effectiveness of primary care offer opportunities to local communities such as Shelby County in the form of financial support and technical assistance for improving the structure and payment methods of community primary care network in underserved parts of a community.

2 EDUCATION AND HEALTH LITERACY

Also needed are coordinated efforts at improving health education and health literacy at the local level. Healthy Memphis Common Table (HMCT) was established as a multi-stakeholder regional health and health care improvement collaborative. It is a catalyst for change and one of the leading voices of the community. Another major role HMCT continues to fill is in the development of consumer-friendly, low literacy materials, which provides insight into quality and performance measures. We are fully committed to our mission, and we work with an ever-increasing large group of community partners to improve the health and health care of our community.

3 LOCAL INNOVATION

Even with the Supreme Court ruling on the health care reform law, it is still the local health plans, physicians, and medical practices that will make a real difference in how health care is delivered. There are many good examples of local innovations for improving the effectiveness of primary care in Memphis and Shelby County including:

- **Project Better Care (PBC)** – PBC is an initiative engaging primary care practices, health plans, physician-hospital organizations and their patients in improving the care they provide outside of local hospitals. The overarching goals are to assist small primary practices in transforming their office through improved patient outcomes, development of better tools and resources, and improved payment systems to help reduce primary care related ER visits. The project currently targets three key chronic disease areas: diabetes, cardiac disease, and pediatric asthma. To date, five small practices have signed up to participate. The project has designed shared savings models to provide incentives to patients and providers who participate in various activities.
- **Medical Home and Accountable Care Organization Projects** - Many Memphis area health plans and medical practice groups, such as BlueCross BlueShield of Tennessee, Cigna, and HealthChoice, have launched their own innovation projects. They are in various stages of transforming their primary care delivery into patient centered medical homes and accountable care organization models to improve quality, efficiency, and reduce potentially avoidable hospitalizations and non-urgent ED visits.
- **The Healthy Shelby Project** – As the latest addition to the Memphis Fast Forward family of initiatives, this community health project, initiated by the Shelby County Mayor's Office, focuses on three areas of emphases: infant mortality, chronic diseases, and end-of-life care. It has established a partnership with the nationally renowned Institute for Health Improvement (IHI), and has adopted its "Triple Aim" methodology to advance its work. The initiative is guided by a multi-sector Governing Council and has contracted with the Healthy Memphis Common Table to serve as the administrative entity for the effort.

4 HEALTH CARE TRANSPARENCY

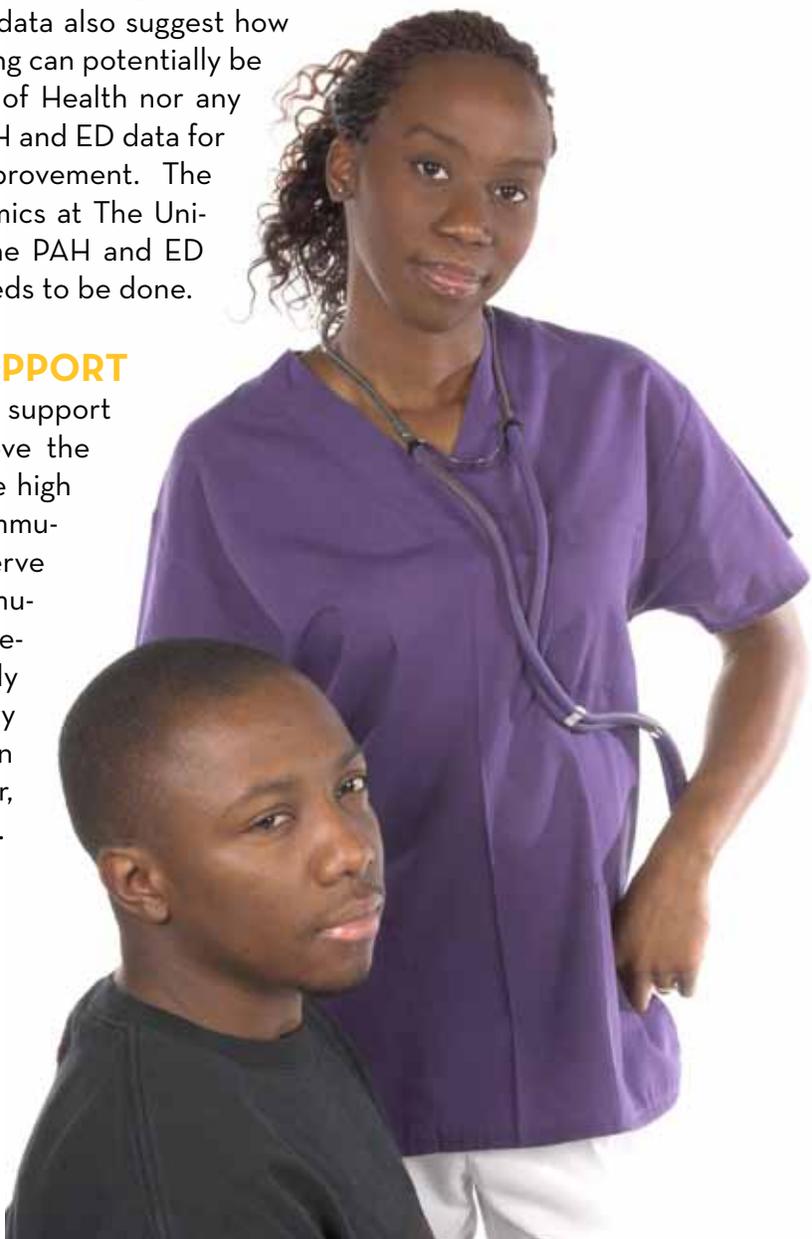
Consumers need to know the quality and cost of their health care to take an active role in managing their own health and health care needs. Health care transparency requires the availability of up-to-date and user-friendly information on quality and prices to provide consumers with the information necessary and the incentives to choose health care providers. HMCT's funding through AF4Q, has led efforts on quality interventions, public reporting and provider performance measures. Health care transparency is also useful to health care providers who can use the quality and cost information to compare their practices to others. Employers, insurance companies and health plans can also use the available information to reward quality and efficiency. However, health care information is often scarce when compared to the markets for other consumer services and our community is not immune to this challenge. The time has come to embrace health care transparency for the good of the whole community and this PAH report represents a small, yet concrete, step in this direction.

5 DATA TRACKING AND ANALYSIS

Our community needs a coordinated system of gathering and tracking health status and health care utilization data. Of particular interest, from the perspective of population health is the tracking and analysis of critical utilization data such as potentially avoidable hospitalizations (PAH) and non-urgent ED visits. The value of these utilization data lies with the ability of data to tell whether Shelby County residents are getting effective primary care services outside of the hospital which reduces the likelihood of being hospitalized for medical problems that should have been dealt with earlier. These utilization data also suggest how much of the scarce resources that we are currently using can potentially be saved. Currently, neither the Tennessee Department of Health nor any local health authorities are gathering and analyzing PAH and ED data for the purpose of prevention and community health improvement. The Methodist Le Bonheur Center for Healthcare Economics at The University of Memphis has a small project that tracks the PAH and ED trends for Shelby County and Tennessee but more needs to be done.

6 COMMUNITY AWARENESS AND SUPPORT

Community health efforts are worthy of the support of the entire community because they improve the health of the entire community, and typically generate high rates of returns for the investment. However, most community health efforts do not get the support that they deserve because it takes a long time to produce results. Community health is not as popular as personal health care delivered to families and individuals. We need to greatly expand the commitment of all people to improve every resident's health - to make lasting positive changes in each person's quality of life, productivity, and behavior, and for superior health systems in the Memphis region.



THE HEALTH OF
OUR RESIDENTS IS
DETERMINED BY
WHERE WE LIVE,
WORK, LEARN,
PLAY, AND HEAL.
WE BELIEVE IT IS
TIME FOR A NEW
VISION FOR OUR
COMMUNITY, AND
WE ASK YOU TO
JOIN US IN OUR
QUEST TO MAKE
MEMPHIS
“ ONE OF
AMERICA’S
HEALTHIEST
CITIES.

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NOTES



COMMON TABLE

MAIN OFFICE
6027 Walnut Grove Rd., Ste. 215
Memphis, TN 38120
901.684.6011
www.healthymemphis.org