A REPORT BY THE HOUSTON HEALTH SERVICES RESEARCH COLLABORATIVE FOR THE HEALTH OF HOUSTON INITIATIVE

HARRIS COUNTY HEALTH CARE SAFETY NET:

WHERE WE STAND 2010

HOUSTON ENDOWMENT INC.
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UTHealth
The University of Texas
Health Science Center at Houston
School of Public Health

Harris County Health Care Safety Net:
Where We Stand 2010

A Report by the Houston Health Services Research Collaborative for the Health of Houston Initiative

Research Team

Charles Begley, Negin Fouladi, Patrick Courtney, David Lairson, James Langabeer, Paul Rowan, Michael Swint, Thomas Reynolds, Jeanne Hanks,* Meg Gu, Jeffrey Helton, Bumyang Kim, Phuc Le, Sharanya Murty

University of Texas School of Public Health
***St. Luke's Episcopal Health Charities**

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INTRODUCTION

Harris County is a large metropolitan area with a major tertiary medical center, many hospitals, specialty clinics, physicians, and other health care resources. Two-thirds of the population has public or private health insurance that enables them to access these resources when needed. The other third of the population who are uninsured or underinsured rely heavily on the local health care safety net for health care. Two recent reports have documented the inadequacy of the safety net to deal with the rising number of uninsured in the area and the problems that this situation creates for all residents.[1, 2] The purpose of this report is to extend that analysis by assessing recent trends in the broad indicators of safety net performance in Harris County and the factors that affect performance. The intent of this report is not to evaluate the performance of any organizations or individuals involved in the safety net but to provide a big picture overview of where we stand as a community in terms of achieving our safety net goals. It is timely given the recent passage of national health reform and the current debate over the role of the health care safety net going forward.

Framework

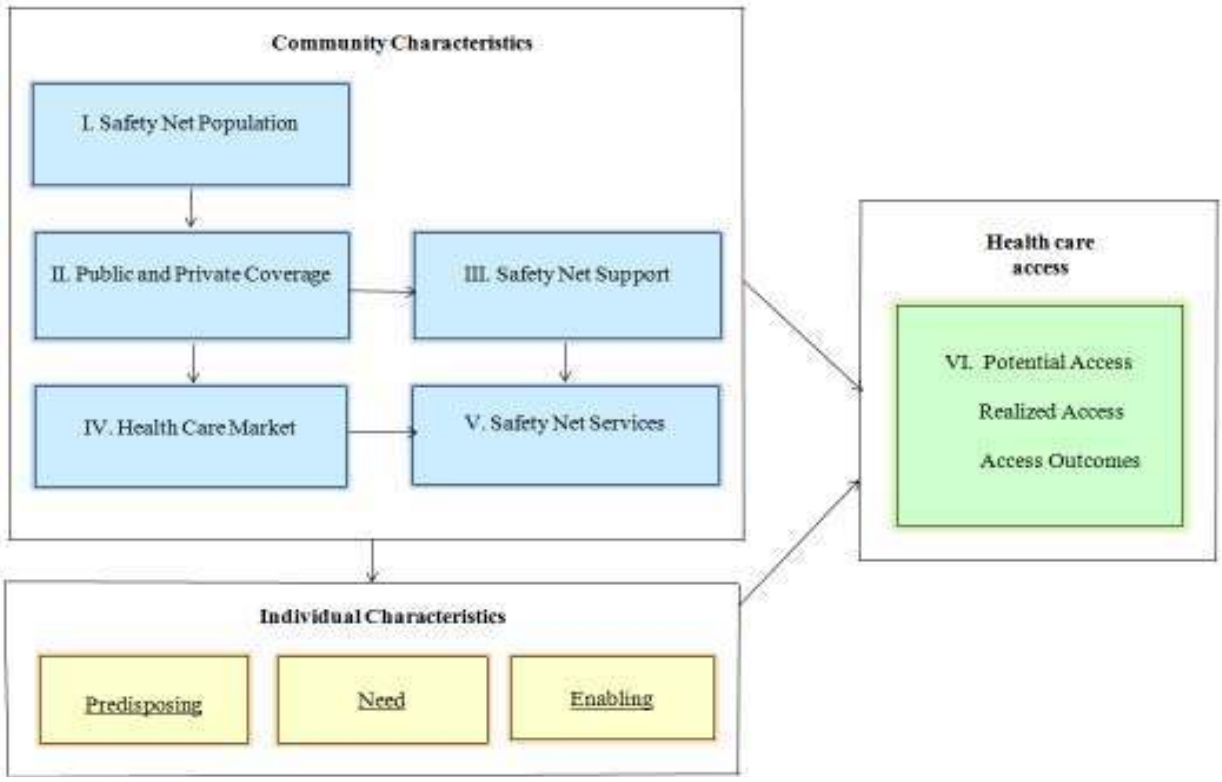
The framework for the report is a model of safety net performance from the health services research literature that identifies personal and community factors that contribute to access to health care for safety net populations (Figure 1).[3, 4] Personal characteristics are the predisposing, enabling, and need factors that cause an individual to seek medical care.[5, 6, 7] Predisposing characteristics include age, gender, race/ethnicity, marital status, education, occupation, and attitudes and beliefs about health and health care. Enabling factors which facilitate the use of care include characteristics like income, health insurance coverage, transportation, and language proficiency. A person's perception of need is influenced by such factors as their overall health status, presence of disease and disabilities, and perceptions of quality of life.

Community characteristics represent the resources, organization, and funding aspects of the health care safety net that influence its capacity to meet the demand of persons that rely on it for care. Such characteristics include the overall size of the safety net population, Medicaid and CHIP policies, the available resources and competitive conditions in the general medical care marketplace, local funding, resource support, and productivity of the health care safety net.

The community characteristics determine the total amount of safety net services that are provided by the safety net system (hospital care, physician services, medications, etc.). The interaction between the supply of safety net services and individual demand lead to more or less health care access for the safety net population and ultimately determine outcomes. Indicators of access include potential access measured by the presence of enabling factors such as having a regular source of care or being insured, realized access measured by the actual use of services, and access outcomes such as preventable hospitalizations.

Based on this framework (Figure 1), we have collected and analyzed publicly available data on various indicators of community characteristics (I, II, III, IV, V) in Harris County that interact with individual characteristics to determine access. We have also examined associated measures of health care access (VI) for the safety net population. Each section of the report presents the data on a relevant set of indicators and discusses its implications for understanding the safety net problem.

Figure 1. Healthcare Safety Net Framework



Adapted from Davidsen, Anderson, Wyn, & Brown (2004).

Harris County Health Care Safety Net

The health care safety net is the loosely organized system of public and private health care providers that either voluntarily or because of circumstances provide medical care services at discounted prices to the uninsured, underinsured, Medicaid, and/or indigent patients. At the center of the healthcare safety net (Figure 2) is the tax-supported Harris County Hospital District (HCHD) which operates three public hospitals, twelve community health clinics, eight school-based clinics, one dental center, a program of health care for the homeless, a specialty center for people with HIV/AIDS, and five mobile health units. HCHD provides care for over 300,000 individuals a year charging limited copayments to those with incomes up to 200% of the federal poverty level (FPL), 50% of billed charges to those between 201% and 250% of FPL, and full charges to those above 250% of FPL.

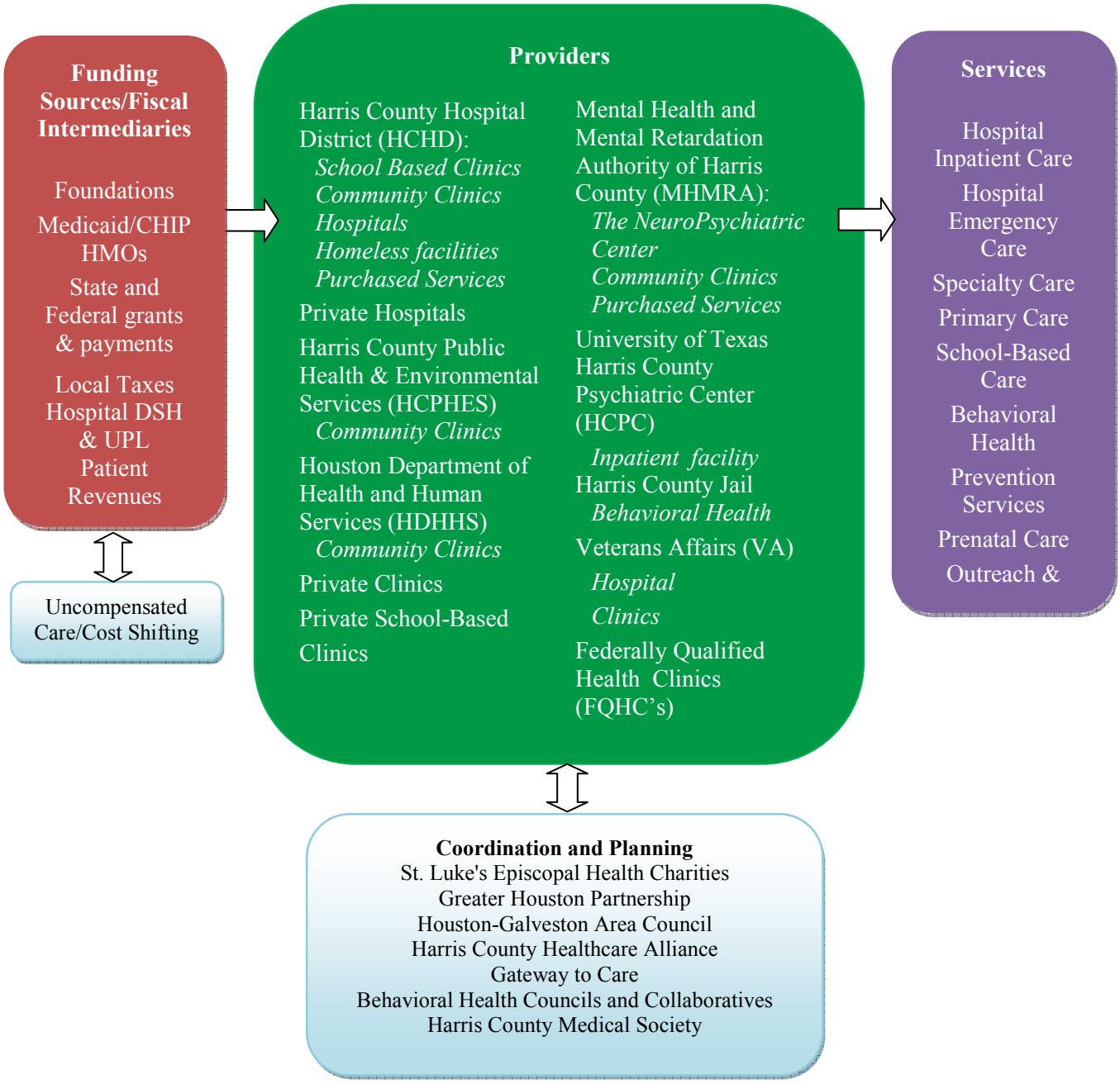
There are over a hundred public and private organizations other than the HCHD that have a primary mission of serving as safety net providers. Most operate private non-profit, federally funded, or public clinics that charge insured patients for services and use sliding-scale collections for the uninsured. They meet budget requirements from a variety of sources including patient fees, grants from state and federal governments, Medicaid and CHIP, and contributions from philanthropic organizations. The clinics keep costs low by negotiating discounted rates for support services and relying on clinical and administrative staff that work on a volunteer or low-cost basis. To stay in business, they must balance their volume of non-paying and paying patients.

Due to capacity limitations for hospital inpatient and outpatient specialty care within HCHD, most of the specialty care for the safety net population is provided by private hospitals and physicians who offer charity care programs either on a voluntary basis in the case of for-profit hospitals or required for tax exempt status in the case of non-profits facilities. Private hospital systems in the Houston area including the Memorial Herman Health System and the Hospital Corporation of America hospital system bear the majority of the financial burden of these costs.

Houston also has a substantial mental health safety net that includes the Mental Health and Mental Retardation Authority of Harris County (MHMRA), the University of Texas Harris County Psychiatric Center, (HCPC), the HCHD, the Michael E. DeBakey Veteran's Affairs Medical Center (VA), the Harris County Jail, and the mental health resources in public schools. The primary funding sources for these public agencies are state and county subsidies, and Medicaid reimbursement. The vast majority of Harris County's (non-jail based) inpatient psychiatric capacity resides in seven private, free-standing psychiatric hospitals. The availability of services in these facilities depends upon their willingness and capacity to provide charity care. Eligibility for services can be severely restricted based on income or type of diagnosis.

In addition to these providers, a variety of public and private entities such as St. Luke's Episcopal Health Charities, Gateway to Care, and the Harris County Healthcare Alliance have been developed to facilitate coordination and planning within the health care safety net. These organizations have been instrumental in obtaining additional funding to increase capacity or fill service gaps, by working on strategies to expand coverage, and by assisting providers in working together more effectively and efficiently to meet service needs.

Figure 2. Harris County Health Care Safety Net

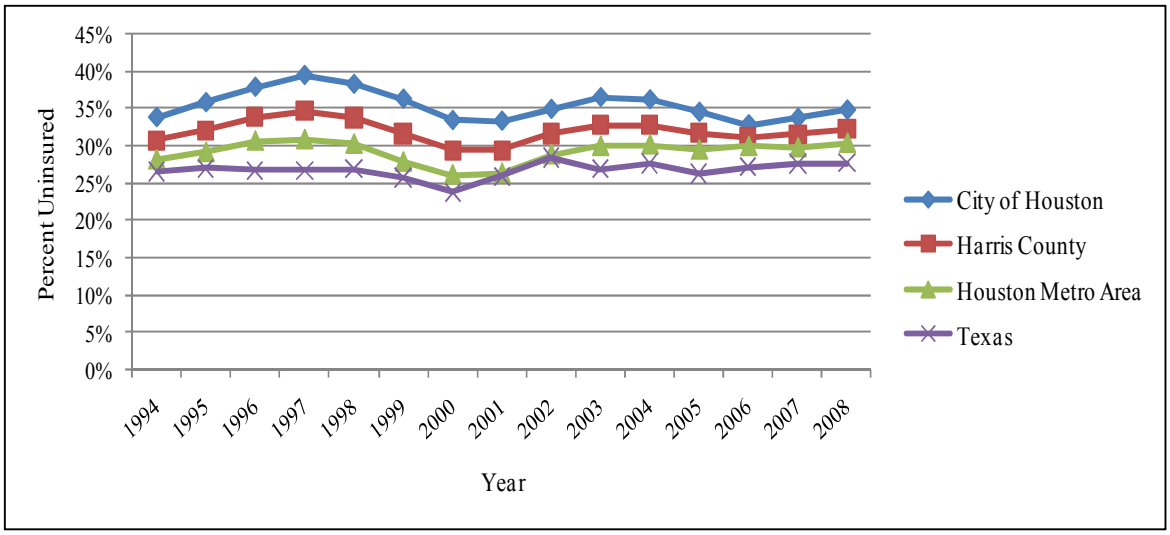


I. SAFETY NET POPULATION

1. The number of residents who rely on the safety net is rising faster than the general population.

Over the past 15 years the percentage of uninsured residents in the area has been relatively constant with short-term fluctuations associated with economic conditions and a recent upward trend (Figure 1). The City of Houston has consistently outranked Harris County, the Houston Metro area (Harris, Montgomery, Liberty, Chambers, Galveston, Brazoria, Fort Bend, Waller, Austin , San Jacinto), and the state of Texas in the percentage of residents that are uninsured. For example, 35% of people under age 65 in Houston indicated they had no health insurance in 2008 versus 32% for Harris County, 30% for the Metro area, and 27% for the state.

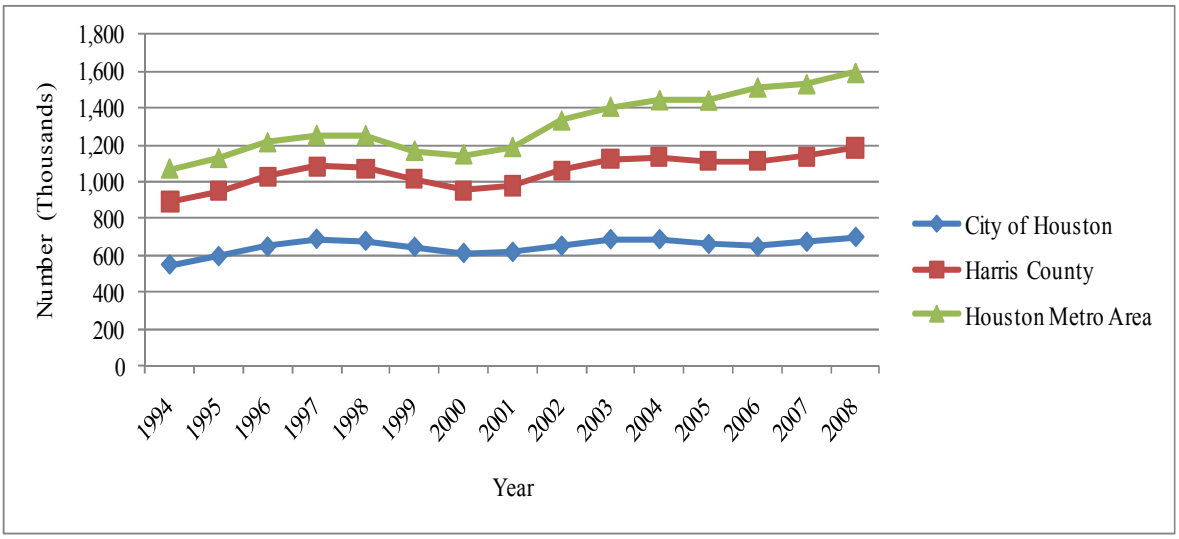
Figure 1. Percent Under Age 65 Who are Uninsured



Source: Current Population Survey, Annual Social and Economic Supplement.[1]

While the total number and percentage of uninsured residents is highest in Houston, growth in the number of uninsured residents is faster in the suburbs (Figure 2). In 1994, the Houston Metro area had 1.05 million uninsured persons (all ages), with the city of Houston accounting for 52% (550 million) uninsured. In 2008, the Houston Metro area had 1.6 million uninsured persons, with the city of Houston accounting for 44% (701,000 uninsured). The number of uninsured residents in the Metro area outside of Harris County has grown by 25,000 per year over the last five years while the number in Harris County went up 12,250 per year and the number of uninsured residents in Houston rose 3,000 per year.

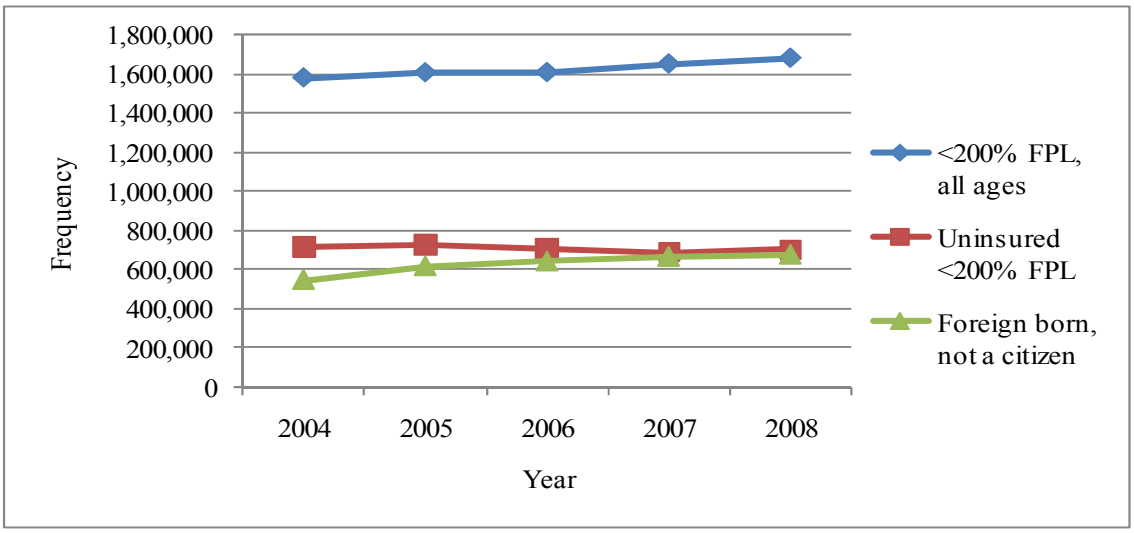
Figure 2. Number Uninsured All Ages



Source: Current Population Survey, Annual Social and Economic Supplement.[1]

There has been rapid growth in the number of low income and foreign born non-citizen residents in Harris County who also have relatively high rates of uninsurance and rely on the safety net. The number of residents below 200% of the FPL has increased about 25,000 per year from 2004 to 2008 (Figure 3). The number of persons who are foreign born non-citizens, both documented and undocumented, has risen 32,000 per year. The number both uninsured and low income (below 200% FPL) grew about 5,900 per year. In 2008, nearly 1.7 million people in Harris County, about half of the population were low income, 730,000 low income persons were uninsured, and more than 670,000 (almost 20% of the population) were foreign born non-citizens.

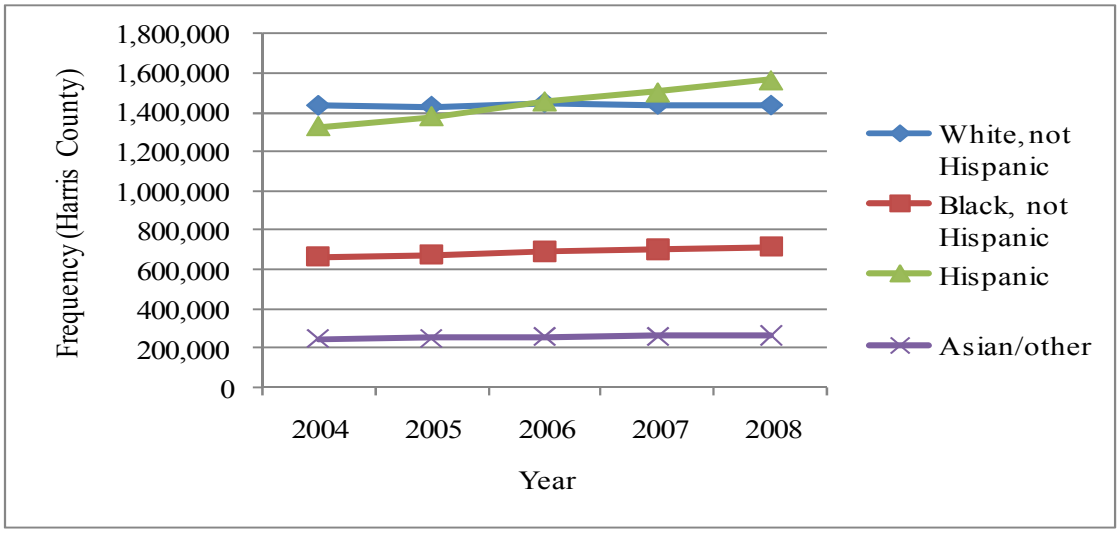
Figure 3. Number of Low Income, Low Income Uninsured, and Foreign Born Non-citizens in Harris County



Source: Current Population Survey, Annual Social and Economic Supplement. [1]

There has been a steady rise in race/ethnicity groups in Harris County who tend to have high rates of uninsurance and rely on the safety net. As a percentage of the population, Hispanics have grown from 35% in 2004 to 38% in 2008, blacks from 19 to 21% (Figure 4). In 2008 about 1.6 million people in Harris County were Hispanic, 1.4 million white, more than 750,000 black, and 250,000 Asian.

Figure 4. Number of Hispanics, African Americans, Whites, Asians/Others



Source: Current Population Survey, Annual Social and Economic Supplement. [1]

II. PUBLIC AND PRIVATE COVERAGE

1. Medicaid and CHIP eligibility has become more restrictive and the number covered is rising at about the same rate as the population.

Medicaid and CHIP are joint federal/state coverage programs for low income populations including parents and children, the elderly, and people with disabilities. Eligibility is based on income level and other rules and administrative requirements which affect how many residents qualify, get enrolled, and stay enrolled over time. Statewide, about two-thirds of all eligible children are enrolled in Medicaid and CHIP at any given time. Medicaid eligibility levels, which historically have been among the lowest in the country, became slightly more restrictive overall in recent years (Table 1). The number of people in Harris County with Medicaid coverage has grown by 17,311 per year over the last five years and the percent of the population enrolled has remained about 12% over this period (Figure 1).

CHIP eligibility became more restrictive in 2003 with changes in recertification and other requirements. These changes led to declines in enrollment of approximately 210,000 children throughout Texas and 38,000 in Harris County from 2003 to 2006. The recertification period was lengthened in 2007, leading to an increase of nearly 189,000 children statewide and 43,000 in Harris County by 2009 (Figure 2). After falling in 2003-2005, the total number of CHIP enrollees in Harris County rose by 7,637 per year from 2005-2009. Although lengthened recertification led to an overall increase in enrollment, the percent of the population covered by CHIP decreased from 2.3% to 2% in Texas and 2.6% to 2.4% in Harris County from 2003-2009.

New CHIP and Medicaid programs have been recently introduced including the CHIP Perinatal Program and the Medicaid Women's Health Program. CHIP Perinatal was created in 2005 and provides prenatal and delivery services for women with incomes up to 185% of FPL who do not qualify for Medicaid maternity coverage but whose babies will qualify for CHIP or Medicaid. From 2007-2009, total enrollment (women and children) in the CHIP Perinatal program steadily increased from approximately 35,000 to 66,000 in Texas, and roughly 8,000 to 17,000 in Harris County. [1, 2] The Women's Health Program, also created in 2005, provides coverage for family planning check-ups and preventive services for women ages 18-45 with incomes up to 185% FPL. From 2007 to 2009, enrollment in the Women's Health Program increased from approximately 64,500 to 94,000 in Texas, with nearly 23,700 enrolled in Harris County in 2009. [1, 3]

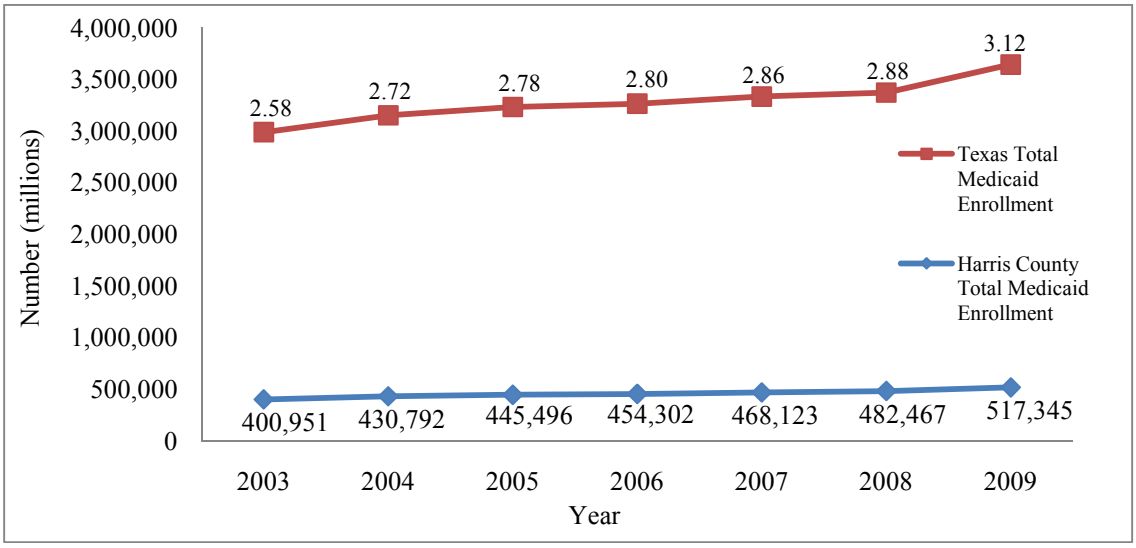
Another major Medicaid policy change was the elimination of the Medically Needy Spend-Down Program for parents in 2003. This program offered Medicaid coverage for working poor parents with high medical bills while ill or injured, who had incomes slightly higher than regular Medicaid limits. [1, 4]

Table 1. Texas Medicaid and CHIP Eligibility and Re-Enrollment

	2003	2004	2005	2006	2007	2008	2009	Trend Over Time
Medicaid: Non-disabled childless adults	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible	Remained the same
Medicaid: TANF, non-working parent of 2	15%	14%	14%	13.6%	13.6%	12.8%	12.3%	More restrictive
Medicaid: TANF, working parent of 2	24%	24%	24%	22.3%	22.3%	21%	20.2%	More restrictive
Medicaid: Social Security Income, aged or disabled	74%	73%	74%	74%	74%	74%	74%	Remained the same
Medicaid: Pregnant women	158%	158%	185%	185%	185%	185%	185%	Less restrictive
Medicaid: Newborns	185%	185%	185%	185%	185%	185%	185%	Remained the same
Medicaid: Children ages 1-5	133%	133%	133%	133%	133%	133%	133%	Remained the same
Medicaid: Children ages 6-18	100%	100%	100%	100%	100%	100%	100%	Remained the same
CHIP: Children ages 1-18	200%	200%	200%	200%	200%	200%	200%	Remained the same
Long Term Care	221%	218%	221%	222%	222%	222%	222%	Remained the same
Recent Immigrant Resident: < 5yrs	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible	Remained the same
Medicaid re-enrollment (months)	12	6	6	6	6	6	6	More restrictive
CHIP re-enrollment (months)	12	6	6	6	12	12	12	Mixed

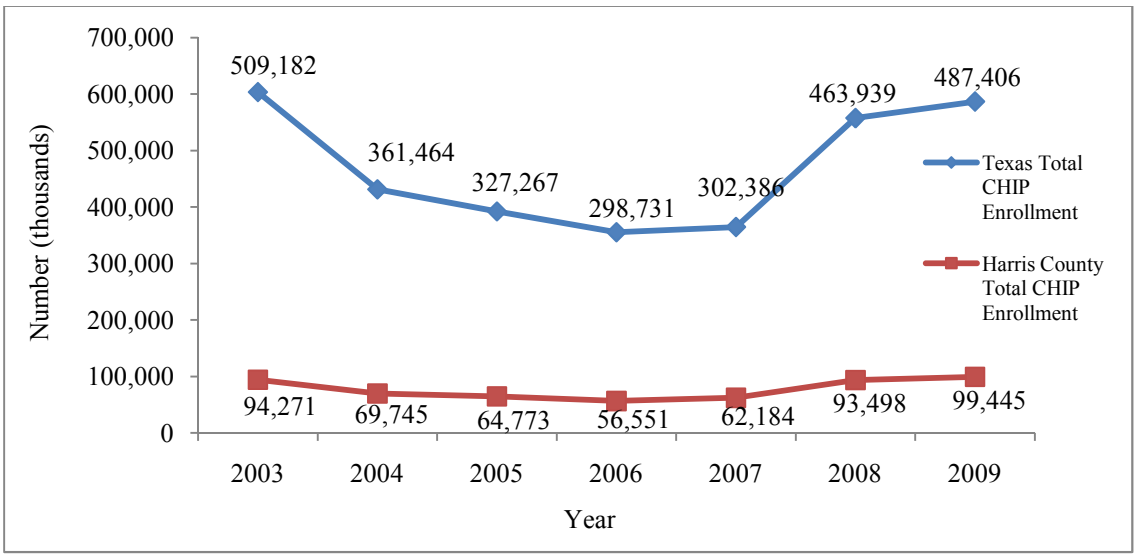
Sources: Center for Public Policy Priorities, Texas Healthcare Primer, 2003, 2007, 2009 [1, 5, 6]; Texas poverty 101, 2004, 2005 [7, 8]; Texas Healthcare: What has Happened and What Work Remains, 2006 [9]; CHIP Medicaid and Texas Kids, 2009. [10]

Figure1. Medicaid Enrollment Trends for Harris County and Texas



Source: Texas Health and Human Services Commission. [11]

Figure 2. CHIP Enrollment Trends for Harris County and Texas



Source: Texas Health and Human Services Commission. [12]

2. Employer-sponsored insurance is declining and out-of-pocket and premium costs are rising.

Since 2003, the number and percentage of businesses in the area providing employer sponsored insurance (ESI) has been declining, and the out-of-pocket, and premium costs of ESI have been rising. From 2003-2006, there were approximately 114,000 private businesses in the Houston Metro area (75 percent in Harris County), of which nearly 107,000 employed less than 50 employees (small firms) (Table 2). The percent of small firms offering ESI rose from 31% to 42%, from 2003-2006 but declined to 32% in 2008. The percent of medium and large businesses (employing more than 50 employees) offering ESI has slipped from 97% in 2003 to 90% in 2008. The percentage of employees enrolled in health insurance who work for businesses that offer ESI has increased 3-5% in small firms and 5-10% in medium and large businesses. The cost of single and family premiums increased from 2003-2008 in both the small and large employer markets by an average of 27% ($3,339 to $4,234) and 16% ($10,204 to $11,828), respectively. Employer costs for ESI increased by 51% for single coverage ($549- $831) and 64% for family ($2,665- $4,392). Increases in premiums and contributions were highest among small firms.

Table 2. Employer-Based Health Insurance in the Houston Metro Area

	2003	2004	2005	2006	2007	2008
Number of establishments in Houston and surrounding areas						
Total	111,409	113,154	114,708	117,776	*	*
Less than 50 employees	104,304	106,022	107,523	110,232	*	*
50 or more employees	7,105	7,132	7,185	7,544	*	*
Percent of establishments that offer health insurance						
Total	47%	50%	53%	57%	*	48%
Less than 50 employees	31%	32%	36%	42%	*	32%
50 or more employees	97%	95%	96%	90%	*	90%
Percent of employees eligible for health insurance in establishments that offer health insurance						
Total	73%	76%	86%	85%	*	82%
Less than 50 employees	84%	85%	87%	83%	*	92%
50 or more employees	72%	75%	85%	85%	*	81%
Percent of employees that are enrolled in health insurance at establishments that offer health insurance						
Total	62%	63%	62%	67%	*	70%
Less than 50 employees	72%	70%	69%	70%	*	75%
50 or more employees	60%	62%	60%	66%	*	69%

Sources: MEPS-IC 2003-2008, US Census Bureau MBS 2003-2006. [13, 14]

III. SAFETY NET SUPPORT

1. With the exception of the HCHD, budgets of public safety net providers are static or declining.

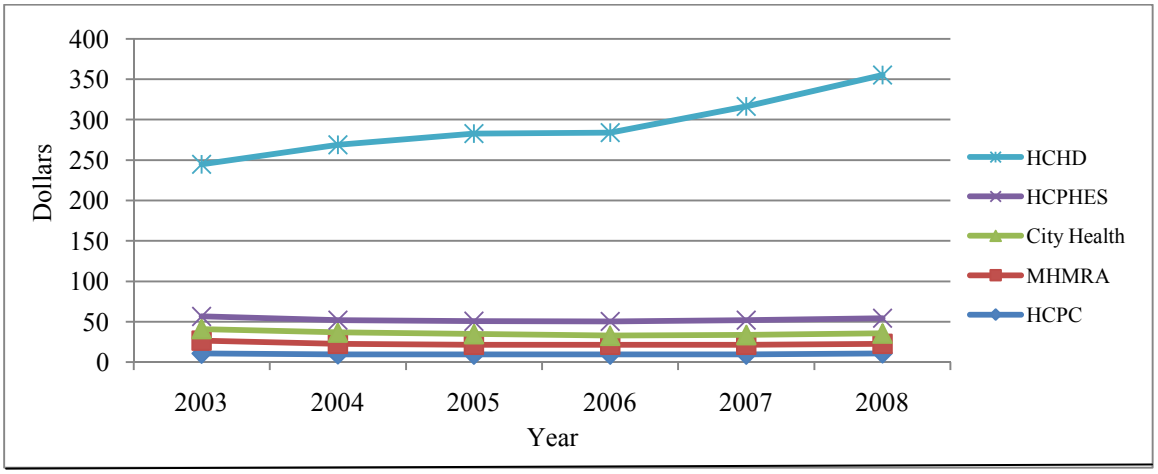
Five public providers supply a large portion of total safety net care: Harris County Hospital District (HCHD), Harris County Public Health and Environmental Services (HCPHES), City of Houston Department of Health and Human Services (HDHHS), Mental Health and Mental Retardation Authority of Harris County (MHMRA), and University of Texas Harris County Psychiatric Center (HCPC). In recent years, except for the HCHD, the budgets of these agencies has remained relatively flat (Table 1). Spending per capita has risen only for HCHD (Figure 1), from approximately $250 per person in 2003 to $350 per person in 2008.

Table 1. Expenditures of Harris County Safety Net Agencies

	2003	2004	2005	2006	2007	2008
HCHD	666,064,000	786,654,000	871,953,000	901,466,000	1,034,690,000	1,198,676,000
HCPHES	54,955,335	55,252,218	58,823,212	67,984,127	71,117,165	74,954,908
HDHHS	51,413,000	51,121,000	50,311,000	43,851,000	47,248,000	50,903,000
MHMRA	56,279,293	47,037,997	44,715,277	45,845,484	47,167,144	47,167,144
HCPC	37,424,135	35,076,429	34,924,542	3,6557,687	37,049,121	43,287,706
Total	866,135,763	97,5141,644	1,060,727,031	1,095,704298	1,237,271,430	1,414,988,758

Sources: Annual reports of HCHD [1], HCPHES [2], HDHHS [3]; Nguyen, 2006 [4]; HCPC, 2009. [5]

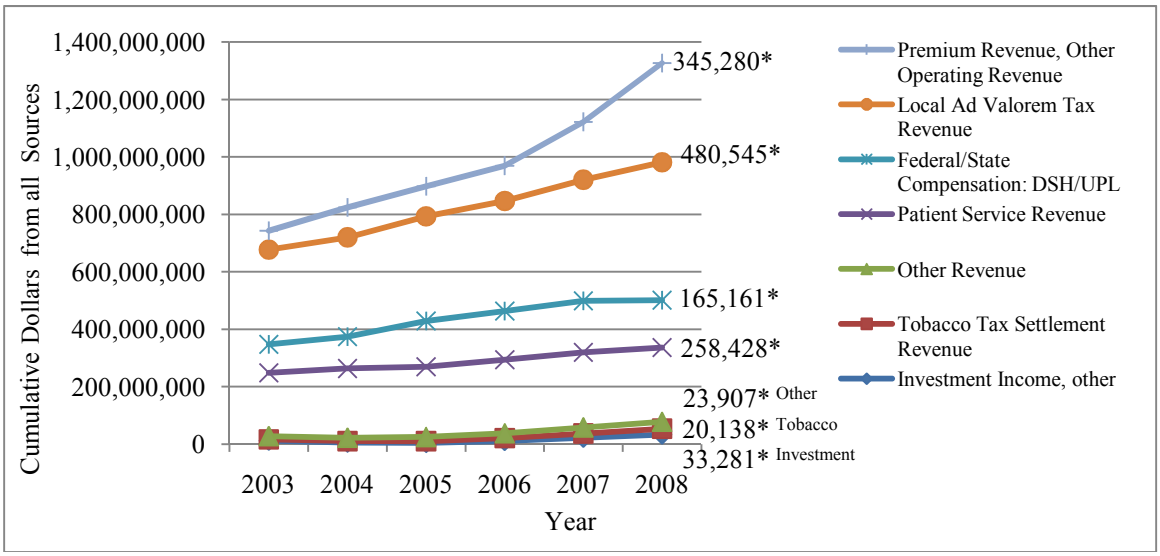
Figure 1. Per Capita Budgets of Harris County Safety Net Agencies



Sources: Annual reports of HCHD [1], HCPHES [2], HDHHS [3]; Nguyen, 2006 [4]; HCPC, 2009. [5]

Growth of the HCHD budget has been financed primarily from increased county tax revenues although the hospital district's tax rate did not change and remains one of the lowest in the state. Other sources of increased funding have been the rise in premium revenue from health insurance products, including HCHD's Community Health Choice Medicaid/CHIP HMO plan, and modest growth from Disproportionate Share and Upper Payment Limit program payments, the federal/state funding mechanism designed to compensate public hospitals for Medicaid under-payment and charity care. The upward trend for the HCHD may be changing as ad valorem tax revenue has been projected to decline in 2010 and 2011.

Figure 2. HCHD Revenue Sources



* Specific amount from each source stated in thousands.
Note: HCHD revenues exceeded expenditures in 2008 by approximately $128 million.

Source: HCHD Annual Reports. [1]

MHMRA funding in Harris County has been receiving a below average per capita rate of state funding for years. If funded at the state average, Harris County MHMRA would have received approximately 80 percent more state general revenue funding during the period (Table 2).

Table 2. State General Revenue Funding for MHMRA of Harris County

	1995	2003	2004	2005	2006	2007
Assuming State Average per Capita	33,451,291	46,589,265	48,319,725	50,801,956	55,580,014	58,674,222
Actual Harris County General Revenue Funding	29,132,927	35,866,362	33,262,969	33,438,800	34,669,659	35,214,044

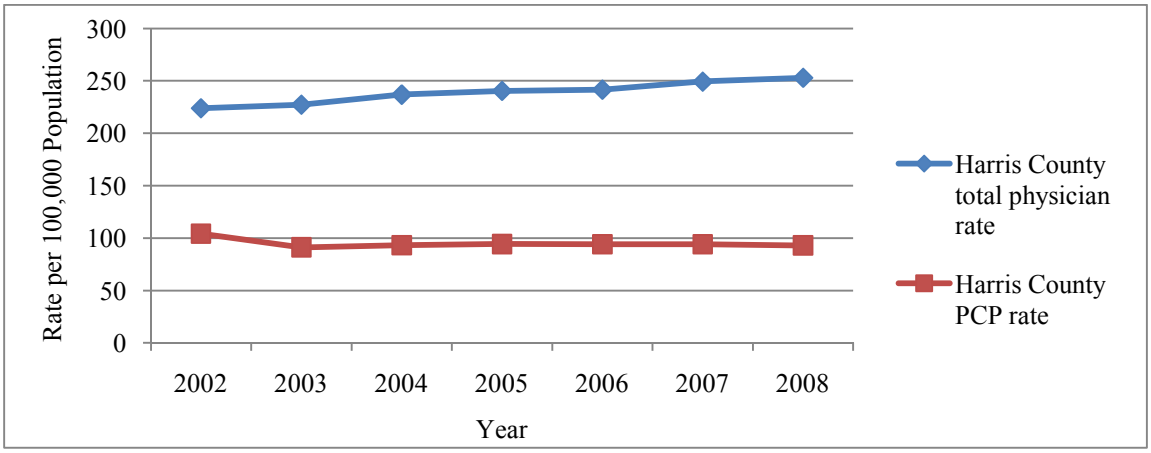
Source: Nguyen, 2006. [4]

IV. HEALTH CARE MARKET

1. The number of primary care physicians per capita is static although the rate of total physicians is rising.

There has been no growth in the per capita rate of primary care physicians (family practice/family medicine, internal medicine, general practice, obstetrics and gynecology, and pediatrics) for several years although the rate of total physicians has increased from 225 to 250 per 100,000 (Figure 1). According to the Texas Department of State Health Services[2], the rate of primary care physicians in Texas has ranged between 65 and 71 per 100,000 between 1998 and 2007. The Harris County rate is higher than the state average reflecting the higher rate of physicians in metropolitan areas compared to non metropolitan areas.

Figure 1. Rate of Physicians by Year

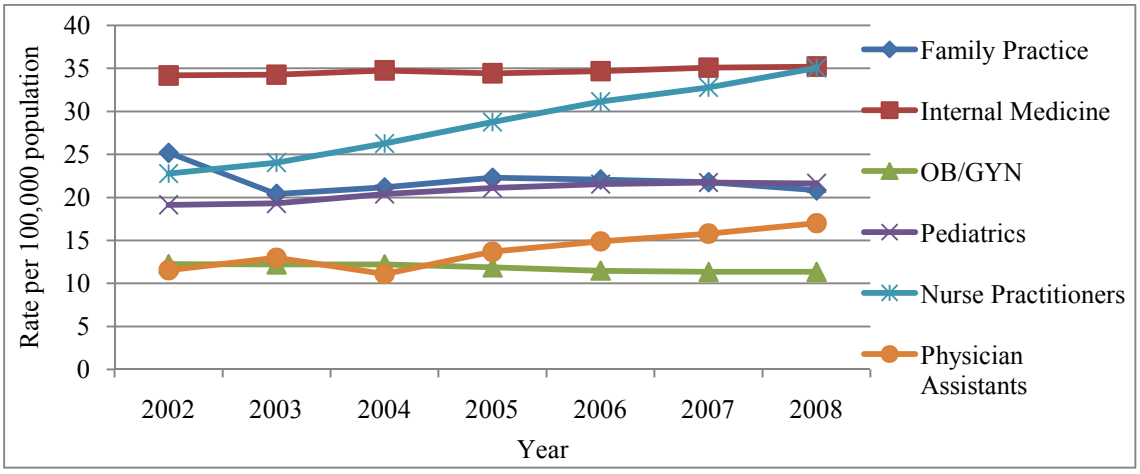


Source: Texas Medical Board. [1]

2. The number of mid-level practitioners in the area is rising.

In settings such as safety net clinics, mid-level practitioners such as nurse practitioners and physician assistants are major providers of primary care. Figure 2 show the frequency and rate of nurse practitioners and physician's assistants has been rising rapidly in recent years relative to the population.

Figure 2. Rate of Primary Care Providers by Type



Sources: Texas Medical Board, Texas Board of Nursing. [3]

3. Physician participation in the safety net is declining.

The percentage of physicians willing to treat the Medicaid population is declining (Table 1). The Texas Medical Association (TMA) reports that in 2000, 67% of all physicians in Texas accepted new Medicaid patients but by 2008 the rate dropped to 42%.[4] The TMA surveys found that acceptance of new Medicaid patients varies by specialty. The percentages declined for all specialties except OB/GYN doctors. Pediatricians and OB/GYN doctors had the highest percentages compared to other specialties. The 2008 survey also indicated that physicians receive 13% of their revenues from Medicaid patients, 3% from CHIP, and 12% from the uninsured. Most physicians support initiatives to increase access to the health care safety net (e.g. enrollment in Medicaid and CHIP, physician tax credits for charity care, funding for safety net clinics). Physicians also spoke of decreased reimbursement from private insurance carriers as a detriment to seeing safety net patients.

Table 1. Primary Care Physicians in Harris County Accepting New Medicaid Patients

PCP type	2002	Percent accepting new Medicaid patients	Number of doctors accepting new Medicaid patients	2008	Percent accepting new Medicaid patients	Number of doctors accepting new Medicaid patients
FP/GP	896	46%	412	990	30%	297
IM	1,216	28%	340	1,403	23%	323
OB/GYN	436	32%	140	452	42%	190
Pediatrics	681	45%	306	862	42%	362
Total	3,229		1,199	3,707		1,172
Average percent			37.12%			31.60%

Sources: Texas Medical Board and TMA surveys.[2, 5]

V. SAFETY NET SERVICES

1. Primary care provided by safety net clinics is growing.

The number of primary care visits provided by Harris County safety net clinics approached one million in 2008. Table 1 shows an increase in total visits of 9.1% from 2007 to 2008. The majority of visits (58% in 2008) were provided by HCHD clinics followed by private non-profit clinics with 22%, and FQHCs with 15%. The most rapidly growing part of the primary care safety net was among FQHCs whose visits grew by over 30%.

Table 1. Number of Primary Care Visits* Provided by Safety Net Clinics

Year	FQHCs (n=22)	Private Nonprofit Clinics (n=31)	HCHD Clinics (n=20)	City-County Health Dept Clinics (n=12)	Year total (n=85)
2007	110,797 (12.8)	176,967 (20.5)	534,472 (61.8)	42,100 (4.9)	864,336 (100)
2008	145,361 (15.4)	208,116 (22.0)	546,329 (58.0)	43,272 (4.6)	943,078 (100)
Percent increase	31.20	17.60	2.22	2.78	9.11

*Note: A primary care visit was defined as any visit made to a physician or mid-level provider in Harris County's safety net clinics. The visits could be made by the insured or uninsured, and/or by low income people including those for well-child, family planning, Early Periodic Screening, Diagnosis, and Treatment (EPSDT) program and prenatal care.
Source: Project Safety Net Clinic Survey 2009.[1]

2. The number of primary care visits provided by safety net clinics and private practice physicians is not adequate to meet demand.

To determine the demand for primary care of the safety net population, a primary care demand model was developed for low income uninsured and insured adults and children based on 2007 California Health Interview Survey data.[2] The model was applied to Harris County using the Current Population Survey-Annual Social and Economic (CPS-ASEC) Supplement data for Harris County to estimate local demand.[3] Based on the model, the low income uninsured demand 0.91 primary care visits per year on average, whereas the low income insured demand 2.65 visits per year. The model predicts that total primary care demand among low income people in Harris County was almost 3.2 million visits in 2008 (Table 2).

Table 2. Primary Care Visit Demand by Population below 200% FPL in Harris County

Harris County	Total population		Average visits per person [1]	Total visits[2]	
	2007	2008		2007	2008
Low income <200% FPL	1,651,520	1,681,874	1.87	3,153,070	3,184,338
<200% FPL and uninsured	703,137	731,395	0.91	639,855	665,569
<200% FPL and insured	948,383	950,479	2.65	2,513,215	2,518,769

Note: [1] Estimates were based on applying the demand model to Harris County using data of the CPS-ASEC Supplement 2008 and 2009
[2] Total number of visits = Average number of visits x Total population. Estimates for total population were from the US Census Bureau, CPS-ASEC Supplement 2008 and 2009

Survey data on the amount of primary care provided by safety net clinics is available from the Project Safety Net Clinic Survey as reported in the previous section. Survey data on the amount of primary care provided by private practice physicians to safety net populations in Harris County is not available. An estimate was developed as shown below based on statewide data from the TMA Survey and national data from HRSA on physician practice. The number of primary care physicians in practice in the county is multiplied by the percentage accepting Medicaid and/or uninsured patients. This total is then multiplied by the average number of visits per year times the percent of visits provided to Medicaid/CHIP and low income uninsured.

Uninsured	**Medicaid/CHIP**
3,707 2008 number of practicing primary care physicians in Harris County	3,707 2008 number of practicing primary care physicians in Harris County
x 0.65 Percent physicians in Harris County accept uninsured (TMA survey)	x 0.42 Percent physicians accept Medicaid (TMA survey)
2,410 Total physicians serving low income	1,557 Total physicians serving low income
x 3,846 National mean # visits per primary care physician per year (HRSA)	x 3,846 National mean # visits per primary care physician per year (HRSA)
x 0.07 Percent of physician visits for self pay/uninsured patients [0.12 (% self pay revenue from TMA survey) x 0.60 (% of uninsured who are low income)]	x 0.16 Percent of physician visits for Medicaid/CHIP [0.13 (% Medicaid revenue from TMA survey) + 0.03 (% CHIP revenue from TMA survey)]
648,820 Total physician visits low income	958,116 Total physician visits low income
1,606,936 Grand Total	

Assumptions: 1) National mean number of visits applies to Houston physicians
2) The % revenue by payor source reflects the % visits provided to patients
3) Analysis doesn't include the low income privately insured or Medicare
Sources: TMA Survey [4], HRSA Department of Primary Care. [5]

Comparing the total visits demanded by the low income population from Table 2 for 2008 to the number of visits supplied to the low income uninsured and Medicaid/CHIP populations (Table 1 plus the estimate for private practice physicians) indicates that about 80% of current demand is being met (Table 3, Standard 1). If demand by the uninsured were increased to that of low income insured (as a result of national health reform) the proportion of demand met would fall to 60% (Table 3, Standard 2).

Table 3. Gap Between Primary Care Visit Demand and Supply of the Low Income and Low Income Uninsured in Harris County

Harris County	2008
Standard 1 – Uninsured 0.91 visits per year	
Demand (visits)	3,184,338
Supply (visits)	2,550,014
Safety Net Clinics	943,078
Private Practice Physicians	1,606,936
Percent of met demand (%)	80.0%
Standard 2 – Uninsured 2.65 visits per year	
Demand (visits)	4,282,527
Supply (visits)	2,550,014
Safety Net Clinics	943,078
Private Practice Physicians	1,606,936
Percent of met demand (%)	59.5%

Note: In Standard 1: Demand = Low income uninsured population x Average number of visits per low income uninsured person. In Standard 2: Demand = Low income uninsured population x Average number of visits per low income insured person.

3. The amount of hospital care being provided to the safety net population is declining and the burden is shifting to private hospitals.

Whereas most safety net primary care is provided by HCHD, most safety net hospital care is provided by local private hospitals. Hospital safety net care, defined as discharges of patients with a primary payment source of Medicaid, indigent, charity, or self-pay, declined 1.2% from 2004 to 2007. HCHD hospital volume decreased by 10.9%, while private hospital volumes increased by 1.2% (Table 4). The overall share of these patients in private hospitals rose from 80.4% in 2004 to 82.4% in 2007 (Table 5).

Table 4. Medicaid/Self-Pay/Charity Discharges of Harris County Residents from Harris County Hospitals

Medicaid/Self-Pay/ Charity Discharges	2004	2005	2006	2007
HCHD	24,844	24,861	22,901	22,126
Private	102,185	99,528	106,389	103,375
Total	127,029	124,389	129,290	125,501

Source: Texas Hospital Inpatient Discharge Public Use Data File, 2004-2007.[6]

Table 5. Proportion of Medicaid/Self-Pay/Charity Discharges of Harris County Residents from Harris County Hospitals

Percent Medicaid/Self-Pay/ Charity Discharges	2004	2005	2006	2007
Public	19.6%	20.0%	17.7%	17.6%
Private	80.4%	80.0%	82.3%	82.4%
Total	100.0%	100.0%	100.0%	100.0%

Source: Texas Hospital Inpatient Discharge Public Use Data File, 2004-2007. [6]

The Centers for Medicare and Medicaid Services (CMS) has developed a severity measure for hospital admissions based on the Diagnosis Related Group (DRG) assigned to each discharge. Applying the case mix weighting to the Medicaid/Self Pay/Indigent/Charity discharges shows that the case mix adjusted market share is similar for HCHD and private hospitals (Table 6).

Table 6. Proportion of Case Mix Adjusted Medicaid/Self-Pay/Charity Discharges of Harris County Residents from Harris County Hospitals by Hospital Type

Percent Case Mix Adjusted Medicaid/Self-Pay/ Charity Discharges	2004	2005	2006	2007
HCHD	18.0%	17.6%	15.4%	15.6%
Private	82.0%	82.4%	84.6%	84.4%
Total	100.0%	100.0%	100.0%	100.0%

Source: Texas Hospital Inpatient Discharge Public Use Data File, 2004-2007. [6]

Although the optimal distribution of the safety net burden between public and private hospitals is debatable, when compared to other large metropolitan areas in Texas (Dallas and San Antonio), the public hospital system in Harris County is serving a lower percentage (Table 7).

Table 7. Proportion of Case Mix Adjusted Medicaid/Self-Pay/Charity Discharges in Harris, Dallas, and Bexar Counties by Hospital Type

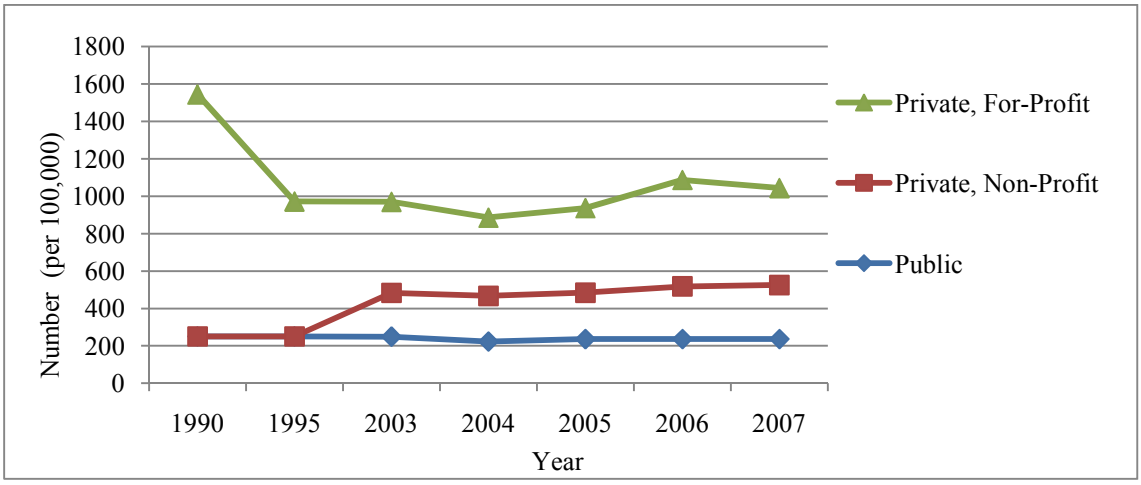
Percent Case Mix Adjusted Medicaid/Self-Pay/Charity Discharges		2004	2005	2006	2007
Houston (Harris County)	Public	18.0%	17.6%	15.4%	15.6%
	Private	82.0%	82.4%	84.6%	84.4%
	Total	100.0%	100.0%	100.0%	100.0%
Dallas (Dallas County)	Public	57.4%	55.5%	48.7%	47.4%
	Private	42.6%	44.5%	51.3%	52.6%
	Total	100.0%	100.0%	100.0%	100.0%
San Antonio (Bexar County)	Public	23.6%	26.4%	26.2%	27.7%
	Private	76.4%	73.6%	73.8%	72.3%
	Total	100.0%	100.0%	100.0%	100.0%

Source: Texas Hospital Inpatient Discharge Public Use Data File, 2004-2007. [6]

4. Inpatient psychiatric care capacity in the safety net is well below national norms.

The number of licensed psychiatric beds indicates a community's behavioral health inpatient care capacity. The quantity of licensed psychiatric beds in Harris County followed the nation-wide pattern, with a substantial decline in the 1990s and static in the 2000s (Figure 1). On a per capita basis, Harris County has a fairly stable level of approximately 26 beds per 100,000 population.[7] This level is far below the 2004 national average of 42.5 per 100,000 population[8] and well below estimates of a generally adequate community level, recognized to be at least 40 beds per 100,000 population. [9]

Figure 1. Harris County Licensed Psychiatric Beds per 100,000 Population



Source: American Hospital Association. [10]

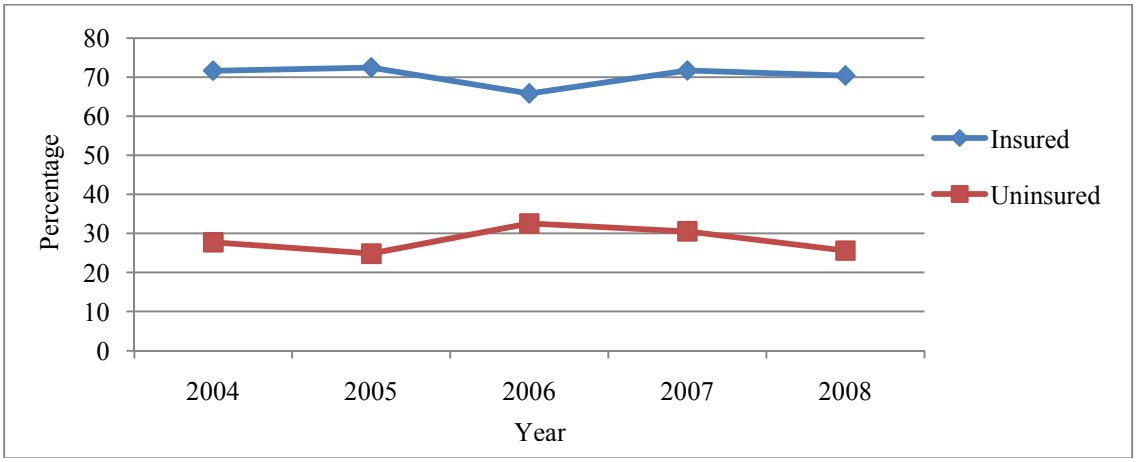
VI. HEALTH CARE ACCESS

The health care safety net system has been developed to provide timely and good quality health care to patients who face barriers to care due to their health insurance or income status. [1] Therefore, in the presence of a the safety net system, the safety net population should have the same access to care as the general population, i.e. there should be no disparity in the use of care once adjustments are made for age, gender, and other factors that affect needs.

1. Compared to the insured, a lower percentage of uninsured residents report having a regular source of care.

From 2004 to 2008, the percent of the insured population indicating they have a personal doctor or health care provider fluctuated around 70%, while the percent of uninsured with a personal doctor of health care provider was closer to 30% (Figure 1).

Figure 1. Percent with Personal Doctor or Health Care Provider in Harris County

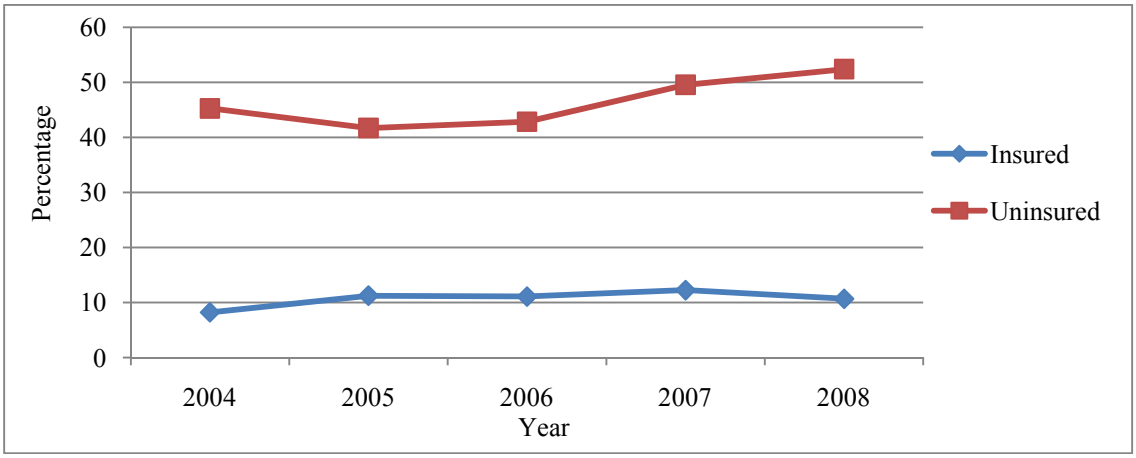


Source: Behavioral Risk Factor Surveillance System 2004- 2008. [2]

2. Compared to the insured, a higher percentage of uninsured residents report having to delay care due to cost.

The percent of insured people who delayed a doctor visit in the last 12 months due to cost fluctuated between 9-11% from 2004 to 2008. The same percentage fluctuated between 41-52% among the uninsured and the gap between the insured and uninsured has widened over the last three years (Figure 2).

Figure 2. Percent Delayed a Doctor Visit in Last 12 Months Due to Cost in Harris County

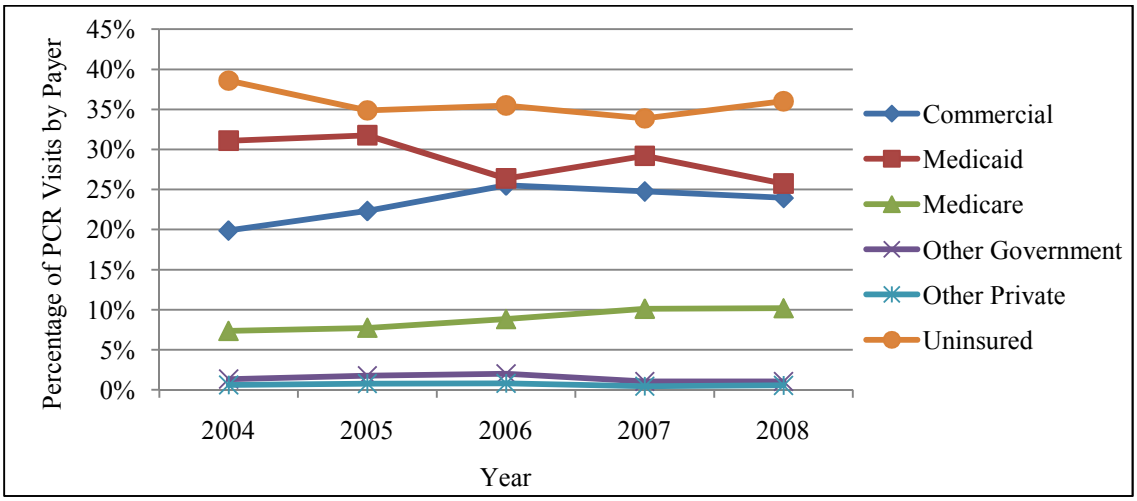


Source: Behavioral Risk Factor Surveillance System 2004- 2008. [2]

3. The uninsured have consistently made up the greatest percentage of primary care related and behavioral health related hospital emergency department visits.

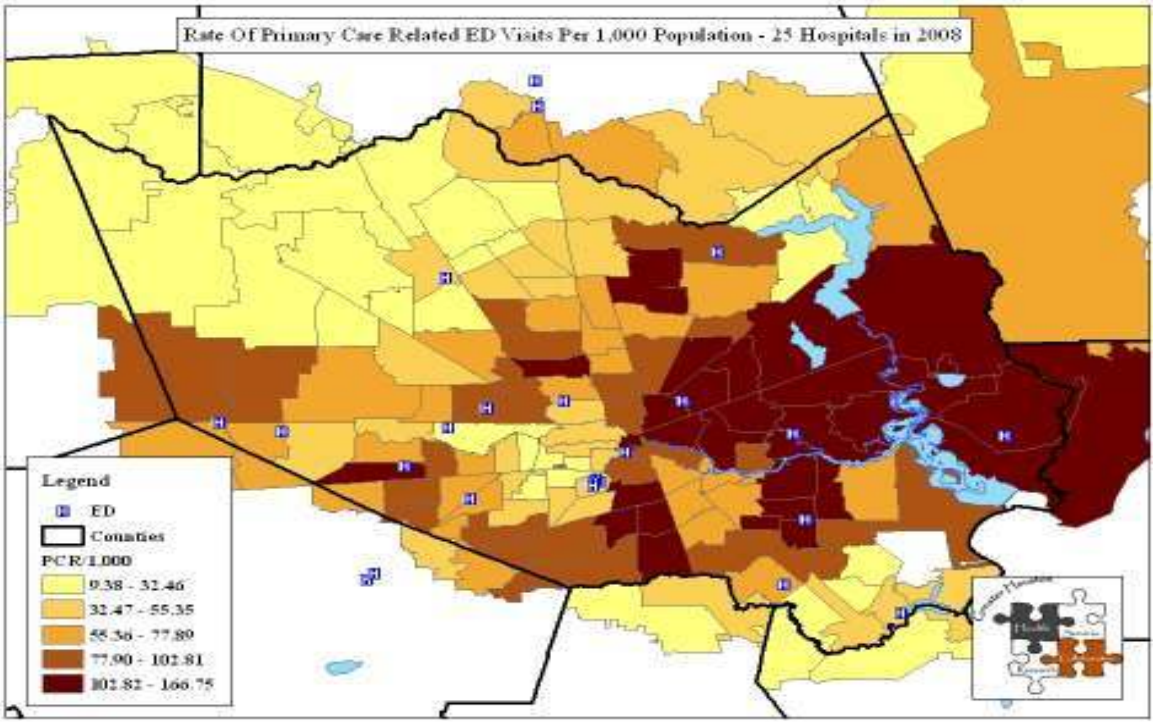
A primary care related emergency department (ED) visit is for a medical condition that in all likelihood could have been treated in a physician's office or prevented by adequate primary care. Primary care related ED (PCRED) visits are often seen as a measure of access to care. For 16 Harris County hospitals whose ED visits have been studied continuously since 2004, the uninsured have consistently made up the greatest percentage of PCRED visits, followed by persons enrolled in Medicaid (Figure 3). The highest rate of PCRED visits is found among residents of the northeast section of Harris County and the south central section of Harris County (Figure 4).

Figure 3. Percentage of primary care related ED visits by payer source



Source: Houston Hospitals Emergency Department Use Study 2008. [3]

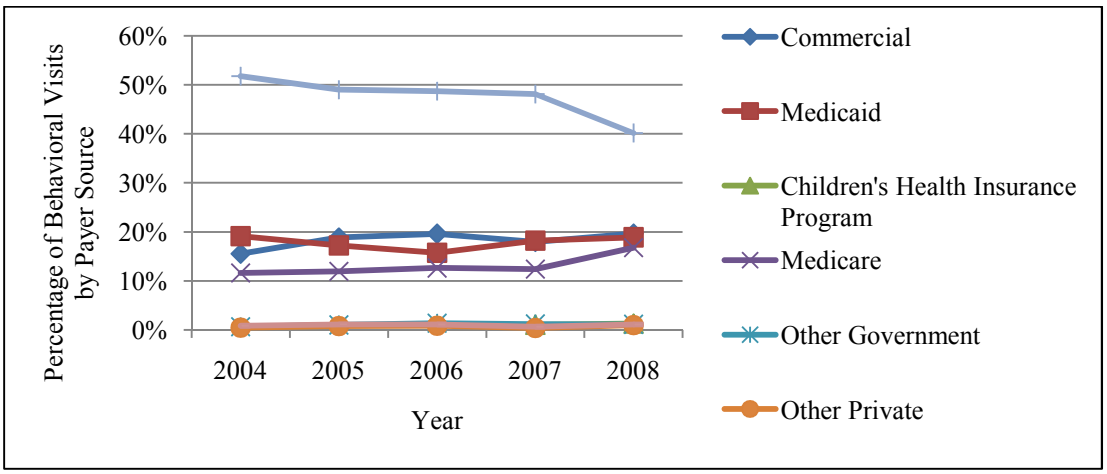
Figure 4. Rate of Primary Care Related ED Visits in 2008 Based on Residence of ED User



Source: Houston Hospitals Emergency Department Use Study 2008. [3]

Behavioral health visits to the hospital ED are an indicator of lack of access to outpatient resources for behavioral health. There has been a decline in the percentage of behavioral health ED (BHED) visits by the uninsured, but the uninsured continue to account for 40% of all BHED visits in Harris County (Figure 5).

Figure 5. Percentage of behavioral health ED visits by payer source



Source: Emergency Department Visits for Behavioral Health Conditions in Harris County, Texas 2004-2008. [4]

4. Compared to the insured, uninsured residents have a higher percentage of preventable hospitalizations.

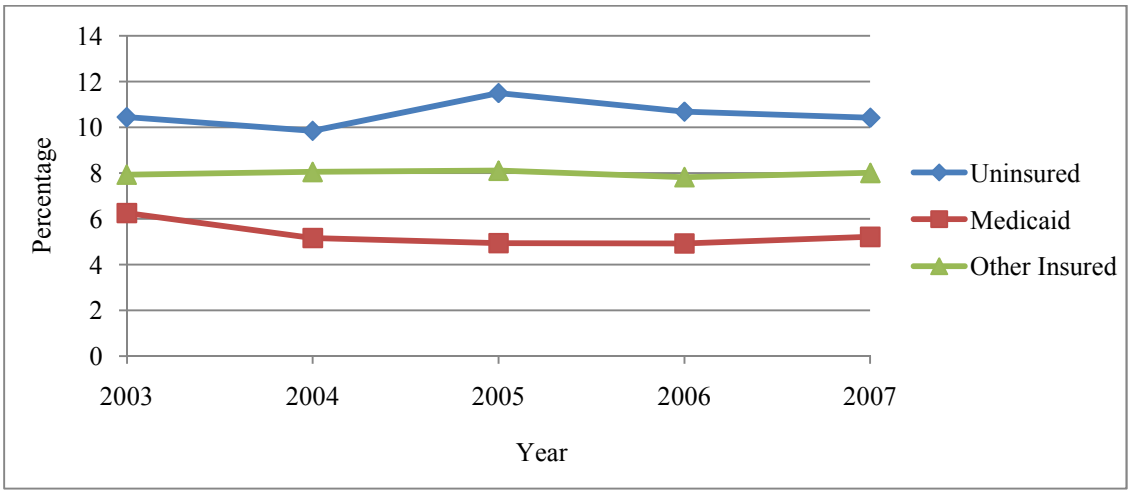
Preventable hospitalizations, i.e. hospitalizations for ambulatory care sensitive conditions (ACSCs), are used as a measure of access in the primary care setting. When rates of preventable hospitalizations were compared among non-elderly adults residing in Harris County according to their insurance status, the uninsured had the highest rate of preventable hospitalizations with more than 10% of their hospitalizations being preventable in 2003 (Table 1, Figure 5). On the other hand, the Medicaid-insured had the lowest rates, with only about 6.25% preventable hospitalizations. All other insured individuals lay somewhere in the middle with 8% of their hospitalizations categorized as preventable. These differences do not change much over time, indicating that the uninsured in Harris County face a persistent lack of access despite the presence of a safety net system.

Table 1. Preventable Hospitalizations by Insurance Status

Hospitalizations among the Uninsured					
	2003	**2004**	**2005**	**2006**	**2007**
Number of Hospitalizations	39,370	46,918	38,603	35,190	36,561
Number of Preventable Hospitalizations	4,111	4,619	4,438	3,759	3,810
Percent Preventable Hospitalizations	10.44	9.84	11.50	10.68	10.42
Hospitalizations among the Medicaid-Insured					
	2003	**2004**	**2005**	**2006**	**2007**
Number of Hospitalizations	41,878	44,030	46,163	48,248	45,691
Number of Preventable Hospitalizations	2,617	2,272	2,276	2,373	2,379
Percent Preventable Hospitalizations	6.25	5.16	4.93	4.92	5.21
Hospitalizations among all Other Insured					
	2003	**2004**	**2005**	**2006**	**2007**
Number of Hospitalalizations	149,615	137,156	139,325	143,831	145,147
Number of Preventable Hospitalizations	11,860	11,039	11,289	11,249	11,621
Percent Preventable Hospitalizations	7.93	8.05	8.10	7.82	8.01

Sources: Texas Health Care Information Collection 2003- 2007 [5]; Current Population Survey Annual Social and Economic Supplement 2003- 2007. [6]

Figure 5. Preventable Hospitalizations as a Percentage of All Hospitalizations



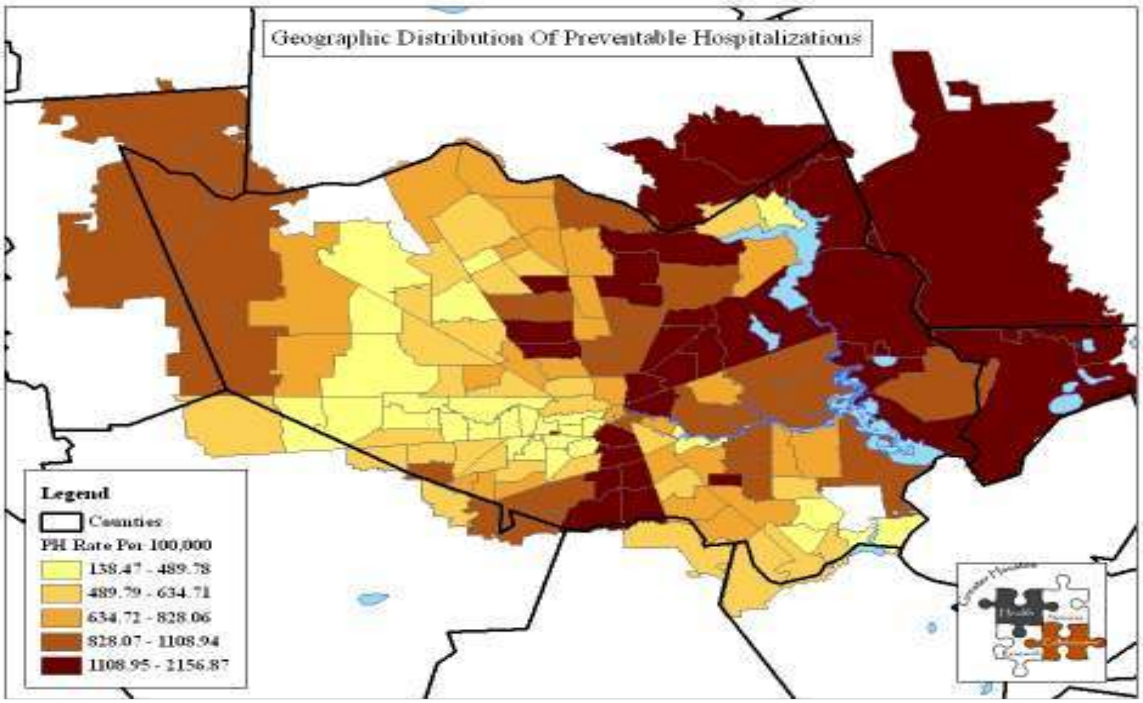
Sources: Texas Health Care Information Collection 2003- 2007 [5]; Current Population Survey Annual Social and Economic Supplement 2003- 2007. [6]

The overall trends showed that the proportion of preventable hospitalizations among all hospitalizations in the uninsured was about 1.75 times higher than the Medicaid-insured and about 1.25 times higher than other insured. The proportions differed by condition. Preventable hospitalizations for short-term complications of diabetes and perforated appendicitis were almost 3 times higher among the uninsured as compared to the other two groups. On the other hand, the uninsured, Medicaid-insured and other insured had almost equivalent proportions of hospitalizations for chronic obstructive pulmonary disorder, congestive heart failure and bacterial pneumonia, indicating no disparities by insurance status in hospitalization for these conditions. The insured had a slightly higher proportion of preventable hospitalizations for dehydration as compared to the uninsured and the Medicaid-insured.

5. Preventable hospitalization rates vary by geographic location similarly to primary care related hospital ED visits.

When rates of these hospitalizations were examined by the resident ZIP codes of patients, an almost 10 fold difference was found between ZIP codes with the lowest and highest rates (Figure 6). The ZIP codes in Harris County were divided into quintiles based on their preventable hospitalization rates and mapped. The map indicates that ZIP codes with low or high preventable hospitalization rates tend to cluster together, suggesting broad geographical regions of health care access shortage. The highest rates of preventable hospitalizations are seen in the eastern and northeastern region of the County.

Figure 6. Preventable Hospitalizations Rate in 2003-2007 Based on Residence of Patient



Source: Texas Health Care Information Collection 2003- 2007. [5]

SUMMARY AND CONCLUSIONS

Recent trends in the indicators of safety net performance in Harris County provide mostly bad news. Eight out of eleven indicators of community characteristics have been moving in the wrong direction in recent years, two in a positive direction, and one is mixed. In addition, all of the access indicators suggest significant disparities exist in access to care between the third of the population that has no insurance and the two-thirds that are covered. Despite the tireless efforts of many dedicated providers and a number of recent initiatives to improve the performance of the safety net, these indicators suggest little progress is being made in ensuring access to all.

Perhaps most challenging are the rapid and persistent increases in the size of the population that relies on the safety net, particularly in the suburbs of Houston and adjacent counties. Medicaid and CHIP enrollment is keeping up with overall population growth but not with the growth in the number of uninsured or with the growth in other low income populations needing assistance in accessing medical care. The proportion of private businesses providing employer sponsored coverage has declined and premiums and co-payments are rising rapidly. Overall growth in primary care physicians is limited and the percentage of physicians who accept Medicaid is low and declining. Private hospitals are providing more safety net care while the portion being supplied by HCHD hospitals has declined. The only bright spots among recent safety net trends for the area are the growth in primary care services, particularly among FQHCs, the increase in the HCHD budget, which unfortunately is not likely to continue given current economic conditions, and the growth in mid-level providers. The mostly worsening trends point to a continuation of the excess demand situation for safety net care and poor access for a substantial portion of the population.

The recent passage of national health care reform and the prospect of expanded coverage of the safety net population may provide the impetus for reforming the local safety net. The Medicaid expansions and Exchange coverage that will begin in 2014 are projected to reduce the total number of uninsured nationwide by about 60%.[1] This raises questions about whether there will be a reduction in the demand for safety net care. Is there enough capacity in the private sector to accommodate this increase in demand? How much demand will continue to be met by the safety net?

It is not certain how many people will actually take advantage of the new coverage opportunities even under the mandates, or how long it will take for enrollment to occur. The combined CHIP-Medicaid enrollment in Texas on average for 2008 was 66.5% of all eligibles based on Medicaid point-in-time enrollment. [2] It is reasonable to project that 65-85% of eligibles will enroll and it would take about two years to achieve peak enrollment. Also, an estimated 1 million of Texas' uninsured are undocumented and this population will not be eligible for the Medicaid expansions and Exchange coverage.

The passage of health care reform puts the spot light on coverage and access to care issues for the safety net population. This has led some to call for reducing the size of the safety net. But this perspective fails to recognize that the safety net does not adequately serve its target population now and that there are uncertainties about who will be covered and when. A more appropriate question is how much does the safety net need to be redirected to more adequately

meet the need for care of low- and middle-income populations that have traditionally been underserved but will have coverage for services. In addition, how can the safety net take advantage of the expanded coverage to increase its capacity to serve those who may continue to fall through the cracks after health reform is implemented. These questions and others will hopefully lead to changes that improve the performance of the health care safety net in the future.

GLOSSARY

SAFETY NET POPULATION

Houston Metro Area: Houston-Baytown-Sugarland metropolitan statistical area (MSA), which includes the counties of Harris, Montgomery, Liberty, Chambers, Galveston, Brazoria, Fort Bend, Waller, Austin , and San Jacinto.

PUBLIC & PRIVATE SECTOR COVERAGE

Establishment: A single physical location where business is conducted, or where services are performed.

Firm: A business entity consisting of one or more establishments under common ownership or control. A firm represents the entire organization, including the company headquarters and all divisions, subsidiaries and branches. A firm may consist of a single-location establishment or multiple establishments. In the case of a single-location firm, the firm and establishment are identical. Firm size is the total number of employees for the entire firm as reported on the sample frame.

Small Firms: Establishments comprised of less than 50 employees.

Medium and Large Businesses (Firms): Establishments with 50 or more employees.

Houston Metro Area: Houston-Baytown-Sugarland metropolitan statistical area (MSA), which includes the counties of Harris, Montgomery, Liberty, Chambers, Galveston, Brazoria, Fort Bend, Waller, Austin , and San Jacinto.

Metropolitan Statistical Areas (MSA): Areas that have at least one urbanized area of 50,000 or more population, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties.

Health insurance offer: To make available or contribute to the cost of any health insurance plan for active employees.

Eligible employee: Not all employees may be eligible to enroll in health insurance coverage at those establishments where it is offered. Common eligibility criteria include a minimum number of hours worked per pay period or a minimum length of service with the employer. An employee that is eligible to enroll during the plan enrollment period is considered eligible even if the employer is surveyed at other times of the year.

Single coverage: Health insurance that covers the employee only. This is also known as employee-only coverage.

Family coverage: Health insurance that covers the employee and one or more members of his/her immediate family (spouse and/or children as defined by the plan). For the MEPS IC survey, "family coverage" is any coverage other than single and employee-plus-one. Some plans offer more than one rate for family coverage, depending on family size and composition. If more than one rate is offered, survey respondents are asked to report costs for a family of four.

Premium: Agreed upon fees paid for coverage of medical benefits for a defined benefit period. Premiums can be paid by employers, unions, employees, or split between the insured individual and the plan sponsor.

SAFETY NET SUPPORT

Disproportionate Share Hospital (DSH) payments: provide additional help to those hospitals that serve a disproportionate number of low-income patients. States receive an annual DSH allotment to cover the costs of DSH hospitals that provide care to low-income patients that are not paid by other payers, such as Medicare, Medicaid, the Children's Health Insurance Program (CHIP) or other health insurance. This annual allotment is calculated by law and includes requirements to ensure that the DSH payments to individual DSH hospitals are not higher than these actual uncompensated costs (HHS.gov).

Medicaid Upper Payment Limit (UPL): aggregate limits on what Medicaid will pay to a group of facilities based on estimates of the amounts that would be paid for similar services using Medicare payment rules.

Quad Agencies: an unofficial, but well-recognized, term for the four largest agencies in Harris County providing a range of public health services for the population generally, and for those in need of help from the healthcare safety-net. The quad agencies include: Harris County Hospital District (HCHD); Harris County Public Health and Environmental Services (HCPHES); City of Houston Department of Health and Human Services; Mental Health and Mental Retardation Authority of Harris County.

Ad Valorem Tax Revenue: Harris County revenue gained from a range of taxes, including homeowner property taxes, where the value of the tax is based upon a portion of the total value of the property, hence the label "ad valorem," or "according to value." Ad valorem revenue source accounts for up to one-third of the county's annual revenue source.

SAFETY NET SERVICES

Behavioral Healthcare: a general term describing diagnosable, recognizable emotional, cognitive, and behavioral difficulties. This term includes treatment for both mental health and substance abuse problems. This range of diverse problems are often diagnosed and treated in separate, specialized sectors of the healthcare system, such as psychiatric hospitals and substance abuse treatment centers. Funding sources are often separate from traditional medical care.

Psychiatric Bed: The term, referring to the dedicated bed in which a patient would rest, used to describe the capacity of any health care facility to provide psychiatric inpatient care. This term is analogous to the term "hospital bed."

Case Mix Index (CMI): relative severity measures based on the Diagnosis Related Group (DRG) assigned to each discharge, published by the Centers for Medicare and Medicaid Services (CMS).

Case Mix Adjusted Discharge: weighting of an inpatient discharge using the case mix index published by CMS to assign a value of the relative severity of the illness or injury treated during that hospitalization.

Charity Care: free or highly discounted care provided to persons who cannot pay for services. Differentiated from bad debt, charity care is determined based on policies established by the provider that define financial circumstances under which collection of fees for service will not be collected due to inability to pay.

Private Hospital: a hospital operated by a non-governmental entity, either as a for-profit or non-profit organization.

Public Hospital: a hospital operated by a federal, state, county, or local government entity.

Self-Pay: patients without insurance that do not qualify for a provider's charity care program and must pay fees out of pocket.

HEALTH CARE ACCESS

Primary care related ED visit: an ED visit that could have been or should have been seen in an outpatient setting. The classification is based on an estimation or likelihood that a certain percentage of visits with a given diagnosis could have been treated elsewhere. The remainder were appropriate for the ED.

Ambulatory Care Sensitive Conditions (ACSCs): ACSCs are conditions for which a hospitalization can be avoided with timely and appropriate care in the ambulatory setting.[6]

Preventable Hospitalizations: Hospitalizations that can be avoided with timely and appropriate out-patient care i.e. hospitalizations for ACSCs. The Agency of Healthcare Research and Quality (AHRQ) identifies 14 conditions as ACSCs in adults.[7]

Rate of Preventable Hospitalizations: The rate of preventable hospitalizations is the percentage of preventable hospitalizations among all hospitalizations for non-elderly adults in Harris County.

Rate of Preventable Hospitalizations: $\frac{\text{Number of Preventable Hospitalizations}}{\text{Number of all Hospitalizations}} \times 100$

Insurance Status: Insurance status was classified into 3 independent and non-overlapping categories – uninsured, Medicare

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The University of Texas
Health Science Center at Houston
School of Public Health

1200 Hermann Pressler Drive
Houston, TX 77030
www.sph.uth.tmc.edu/hsrc/

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