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# TECHNICAL REPORT

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## Organization and Financing of Indigent Hospital Care in South Florida

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TR-106-SFHHA

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## **PREFACE**

Hospital care for the uninsured is a county responsibility in Florida. This report compares and contrasts the approaches used by three south Florida counties - Broward, Miami-Dade and Palm Beach - to fund health care for the indigent. Using hospital finance available through the Florida state Agency for Health Care Administration (AHCA), the report examines financing mechanisms and hospital costs and productivity across ownership types and third party payers. Using hospital discharge data from AHCA, hospital patient travel patterns are described to assess geographic access to care by type of patient insurance. Thus, this report addresses two important policy issues - geographic access and costs of hospital care - for the uninsured.

While this report is specific to the context of south Florida, it should be of interest to policy makers and others considering approaches to indigent care financing and provision.

This report was funded by the South Florida Hospital and Healthcare Association, and carried out by RAND Health, a division of the RAND Corporation. RAND Health advances understanding of health and health behaviors and examines how organization and finance of care affect cost, quality and access. The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world.



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## SUMMARY

Over 700,000 persons living in south Florida lack health insurance. When uninsured persons require hospitalization, access to non-emergency care may be difficult. All south Florida hospitals provide care to the uninsured. Federal regulation, specifically the Emergency Medical Treatment and Active Labor Act of 1986 (EMTALA), requires all hospitals to provide emergency care regardless of the patient's ability to pay. Historically, tax-exempt hospitals provide care to the uninsured as a form of reciprocity for their tax exemption. In addition, social mores compel tax-exempt and tax-paying hospitals and community doctors to provide care to uninsured persons as well.

In Florida, local county government is responsible for providing health care services to uninsured, indigent persons. The state allows counties considerable leeway in how services are funded and provided. The three south Florida counties - Broward, Miami-Dade, and Palm Beach - have each established different local funding mechanisms and institutions to provide hospital care to the county's indigent.

The RAND Corporation was commissioned by the South Florida Hospital and Healthcare Association (SFHHA) to compare and contrast the health care systems in the three south Florida counties. The SFHHA was interested in understanding how local tax revenues were used to fund each county's system, identifying the impact each system has on patients' geographic access to hospital care and, to the extent possible, assessing which system is most efficient. In making this request, the SFHHA was motivated by several issues. First, the three counties offered a natural experiment through which to study different approaches to financing and providing health care for the uninsured. Second, the Office of the Florida State Attorney General, while investigating the impact of the sale of two Palm Beach County tax-exempt hospitals to a for-profit chain, authored a report addressing local public funding of care for the indigent in these three south Florida counties. Commonly known as the deGroot report, named for the author John deGroot, the report motivated discussion among hospital managers and others about local policy regarding hospital care for the indigent. Third, SFHHA executive staff were familiar

with a report that RAND had recently published looking at the impact the centralized approach taken by Miami-Dade County had on access to care for the uninsured.<sup>1</sup> That study, they felt, provided a useful framework to examine the systems across the three counties and would provide useful insights for informing local policies concerning the uninsured. Fourth, the SFHHA's board participated in the nationwide "Cover the Uninsured Week" sponsored by 23 national funders and led by The Robert Wood Johnson Foundation. The board felt that a report on south Florida's county systems for providing local tax funding for indigent care would serve as a baseline for that effort. Finally, to maximize the limited resources available in south Florida, the SFHHA believed it important to know how local funds were currently spent on care for the indigent.

In their request for this report, the SFHHA posed five questions. To answer these questions, RAND conducted a variety of analyses using information obtained through interviews with hospital managers and administrators, public records, and hospital finance and hospital discharge data collected and maintained by the State of Florida Agency for Health Care Administration (AHCA). The AHCA data, while they provide the basis of this report, also provide challenges to this analysis. First, the two types of data - finance and discharge data - do not use the same definitions for payment sources and institutional funding mechanisms. For example, hospitals record on their financial reports to AHCA the number of self-pay patients served and the charges associated with self-pay and charity-care patients and bad debt. Thus, from the financial records there is no specific count of charity-care patients.<sup>2</sup> The hospital discharge data, on the other hand, identifies patients by payer category. Patients who cannot pay for their care are categorized as self-pay, charity, or underinsured. In Palm Beach County, persons enrolled in the medical assistance plan are categorized as "other government." Persons whose care is subsidized by local tax revenues in

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<sup>1</sup> See *Hospital Care for the Uninsured in Miami-Dade County* (Jackson et al., 2002).

<sup>2</sup> This is further complicated by there being two types of charity-care patients allowed under state law - those who are uninsured and have incomes below 150 percent of the federal poverty level, and those whose medical care services exceed 25 percent of their annual income, and that income cannot be more than four times the federal poverty limit for a family of four.

Broward and Miami-Dade County are not identified separately. Second, while Broward and Miami-Dade County tax-supported hospitals report unrestricted local tax revenues, it is unclear if these funds are used solely for hospital services or include funds for outpatient services. Third, the patient-level discharge data collected by AHCA represents only inpatient discharges and does not reflect utilization in outpatient or non-hospital settings that may be supported by local tax revenues. Before we address the answers to the specific questions from SFHHA, we provide a summary of our findings.

The three south Florida counties differ in how they use local tax revenues to provide indigent care and along many other dimensions as well. Broward has established two independent taxing districts, North and South Broward Hospital Districts. Each levies their own ad valorem property tax millage,<sup>3</sup> and each operates a network of hospitals and other health care facilities and services. Nearly half of all the hospitals in the county are local-tax supported. The North Broward Hospital District is managed as a quasi-governmental agency, distinct from county government with an independent board of commissioners. South Broward Hospital District does business as the non-profit, tax-exempt Memorial Healthcare System, which manages the South Broward Hospital District facilities and programs. For both the North and South Broward Hospital Districts, the Florida governor appoints district commissioners without any required local input. The two districts levy and direct the spending of local tax revenues, own hospitals and clinics, and employ some physicians and contract with others.

Miami-Dade County has two tax-supported hospitals governed by the Public Health Trust (PHT), which is appointed by and accountable to the Miami-Dade County Board of County Commissioners. General revenues from property taxes, as well as a special sales surtax dedicated to funding Jackson Memorial Hospital, support these two hospitals. PHT board members are nominated through a committee process that seeks to identify appropriate candidates and are approved by the board of county commissioners. The mayor of Miami-Dade County can also appoint several county commissioners to the PHT board.

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<sup>3</sup> The millage rate is a unit of taxation expressed as mills per dollar value. A mill is equivalent to one-tenth of a cent applied to the property value.

In contrast, the Health Care District (HCD) of Palm Beach County does not operate any hospitals, but rather has created a health care assistance program funded by local ad valorem property taxes for eligible low-income county residents. The assistance program is operated similarly to an insurance plan and has an explicit benefit package that includes hospital and doctor reimbursement for covered services. The Florida governor appoints half of the board of the HCD; the other half is appointed by the Palm Beach County Commission. The HCD is also distinct in its autonomy, having no direct management responsibility for the hospitals and doctors receiving reimbursement under its program.

The three counties' sociodemographic characteristics also vary. Miami-Dade County has the youngest and poorest population. It also has the highest percentage of persons without insurance. The majority of the population lives around the urban area of the City of Miami in the northeast of the county, although there is growth in the south county area. The majority of hospitals are located in the urban core. Palm Beach County, on the other hand, has an older population and higher per-capita income. Much of the population hugs the shore, and lies east of Interstate 95. The majority of hospitals are located in this area, but some have followed the population growth to the west. Broward County is situated in the middle, both geographically as well as sociodemographically. Much of the population lives east of Interstate 75 and Sawgrass Expressway (869), although there is new growth west of that interstate. Hospitals are spread throughout the county, including the west.

The interactions between the population and hospital sectors vary across the three counties. We looked at geographic access to hospital care for patients under 65 years of age by type of insurance - commercial, Medicaid, and uninsured. In Broward County, we found few differences in geographic access to care, although uninsured persons tended to travel more than those with private insurance or Medicaid. These few differences could be due to the wide dispersion of private and local publicly funded hospitals in the county. Miami-Dade County showed the greatest differences in geographic access to care, with uninsured persons generally traveling further than those with private insurance or Medicaid. The greater travel seen generally within Miami-Dade County is most likely due to the concentration of hospital



facilities in the northeast part of the county. The differences between uninsured and insured persons' travel patterns are probably due to the concentration of local publicly funded hospital services in just two facilities. We found that persons in Palm Beach County tend not to travel very far for their hospital care. We interpret this as reflecting good geographic access to care, regardless of type of health insurance. This is perhaps the result of a number of factors, including the proximate locations of population concentrations and hospitals. The lack of differences in travel patterns between those with private insurance and those with the county insurance could also be due to the assistance program that reimburses all hospitals in the county for the care they provide to enrolled, otherwise uninsured individuals. Persons enrolled in the assistance program can go to any hospital in the county; thus, the program provides the most choice of hospital providers.

Accountability for local public funding varied among the three counties. Only Palm Beach County, with its managed care assistance program, has clear benefit guidelines for its local publicly funded program. There is a clear link between persons in the program and the amount and types of services reimbursed with local public funds. Anecdotal information for the other two counties suggests there are few limitations in the services provided for uninsured patients. However, there is no specific link between individual persons and the care reimbursed through local public funding in Broward or Miami-Dade Counties. Institutions and programs are funded, not reimbursed for services provided to specific individuals. Because of data limitations we could not explore the extent to which quality of care and patient satisfaction influenced where patients went for hospital care, nor did we have the ability to examine the services available and offered to patients.

Because the systems used in the counties to fund and provide hospital care to uninsured persons and the demographics of the population and geographic dispersion of hospital facilities are so different, we cannot make a definitive statement as to which system is "best." Each county's approach to local public funding of hospital services for the indigent has benefits and drawbacks. Because the Palm Beach County system is run as an insurance plan, all hospitals in the county interact to some degree with HCD. In Broward and

Miami-Dade Counties, non-tax-supported hospitals have no formal relationship with the agencies overseeing local public funds. While the majority of hospitals provide some level of charity care, all charity care provided by tax-exempt and tax-paying hospitals is uncompensated. Although the costs of hospital care within a county were similar across types of hospitals in Broward and Palm Beach, the average cost of hospital care was higher in the local-tax-supported and tax-exempt hospitals in Miami-Dade. Thus, if "best" is interpreted as cheapest, both Broward and Palm Beach Counties' local publicly funded services are provided in low-cost hospitals. Miami-Dade, on the other hand, has the majority of subsidized care for indigent persons being provided at a high cost, teaching hospital.

We now address the five questions from SFHHA and discuss the answers we determined through our analysis.

**1. How are the governmental bodies that levy the taxes used for hospital and medical care services determining the amount of revenue needed?**

Our review of public documents, interviews with representatives of the (HCD) of Palm Beach County, and our previous experience in Miami-Dade County suggest that there is no direct dynamic between anticipated annual levels of uncompensated care provided and budget levels. It appears that historical trends are used in budgeting future revenues and costs. Consequently, there is little flexibility to prepare for increases in the uninsured population due to economic conditions, such as occurred after the 9/11 tragedy.

In Broward and Palm Beach Counties, funding for health care for the uninsured is raised through ad valorem millage to property taxes. The public agencies in these two counties have the power to raise and lower the millage rate within certain state-set limits without referendum. Since the millage rate is applied to property values, constant millage rates result in increased funding as property values increase. The two local-tax-supported hospitals in Miami-Dade County are funded through the board of county commissioners from property tax and a half-penny sales tax approved by public referendum. The agency operating the public facilities, the PHT, cannot by itself raise or lower either funding level. To some extent, funding for indigent care competes with other county funding needs for property tax revenues, while the sales tax is dependent on a volatile economy.

In sum, budgets for publicly provided hospital care for uninsured persons are driven by historical trend. Within limits, the hospital districts in Broward and HCD in Palm Beach can increase their tax revenues as needed. Miami-Dade County's PHT is dependent on the board of county commissioners or the voters for additional funding.

**2. Do the differences in the governmental structures used to assess, spend, and monitor such public health care resources result in different decisions being made about what services to fund and which people are eligible for local government subsidized care?**

Eligibility for county-funded care is driven in large measure by the state's definition of charity care, which uses federal poverty level limits on income and Medicaid guidelines. Officially, local tax support is intended for care for those indigent not otherwise eligible for Medicaid or other government programs. Low-income residents of Palm Beach County can enroll in a county-sponsored program that provides primary and hospital care. In Broward and Miami-Dade Counties, tax-supported facilities determine eligibility for publicly subsidized care provided through their facilities, but frequently that occurs after services are provided. There still remain some persons who are uninsured and not eligible for locally funded subsidized care as defined by the county agencies, and their care is totally uncompensated.

The range of services provided to indigent patients in Miami-Dade and Broward is dependent on the services available where they are treated. Uninsured persons requiring specialty care available only at a specific local-tax-supported facility may be transferred from tax-exempt or tax-paying hospitals, and this care would be subsidized. However, hospitals and doctors report that such transfers are difficult; rather, private hospitals are encouraged to transfer such patients to the closest facility offering the specific service whether or not the closest hospital is public or private. In Palm Beach County, county-funded services are limited to the benefit package determined by the HCD and enrolled persons can access any hospital - tax exempt or tax paying - within the county. Here, too, transfers can occur between hospitals but without the same financial consequences

Recently, the (PHT) limited the discretion that the hospital executive has with respect to permitting out of county uninsured patients to be admitted

or transferred into the public system and receive locally subsidized care (Nieves, 2003b). These limitations were put in place after an out-of-country patient was admitted with the hospital president's approval and accrued over \$2 million in uncompensated charges.

In sum, Palm Beach County can limit the services provided in its assistance program through plan benefit design and has no restrictions on which hospital in the county can be used. The practice of defining an explicit benefit package is comparable to that of other third-party-payer insurance plans. Broward County has implicit service limits on what services are available at individual tax-supported hospitals. However, patients are transferred among facilities when specialty services are needed. Only hospitals owned by the hospital districts receive any local public revenues for the uncompensated care provided. Miami-Dade County has few limitations on services provided to uninsured patients generally, but new admission policies restrict admissions of uninsured foreign nationals. Only hospitals owned and operated by the (PHT) receive local funding to subsidize care provided to uninsured persons.

**3. Does the ownership or tax status of a provider institution/organization influence its relationship with local government funders? With its patient population?**

Only tax-supported facilities in Miami-Dade and Broward Counties are allocated public funds to offset the costs of providing care to the uninsured. All other hospitals in these counties provide "charity" care as a community benefit. The AHCA data limitations, compounded by hospitals varying in their billing and accounting practices, make it difficult to distinguish charity care from uncompensated care or other non-paying patients. The trends in the amount of charity care show that tax-exempt and tax-paying hospitals generally provide low levels of care, while the tax-supported facilities provide more. Of course, the tax-supported hospitals are specifically established in part to provide services to uninsured persons with the support of local tax revenues. The levels of charity care in North Broward and Miami-Dade are the highest across the three counties. As a proportion of total costs, charity-care levels are declining in North Broward Hospital District facilities. All hospitals in Palm Beach County participate in the HCD's assistance program

that reimburses for care provided to enrolled residents. The county's plan reduces the amount of care that is defined as charity. However, care provided to uninsured patients who are not enrolled in the county program is not reimbursed or otherwise subsidized with tax revenue.

In sum, the HCD of Palm Beach County has contractual relationships with all the hospitals in the county and numerous physicians. Tax-exempt and tax-paying hospitals in Broward and Miami-Dade Counties have no formal relationships with the public agencies funding and providing care to the uninsured. Uncompensated care provided to uninsured persons by private hospitals generally gets categorized as charity care, per state definition, or as bad debt.

**4. Do the differences in which people and services are funded in turn make a difference in patient utilization patterns?**

We examined geographic access to care, assuming that once patients go to a hospital, the appropriate care was provided. Using patient travel pattern analysis to look at geographic access, it appears that the county-specific distribution of facilities and resident preferences drive geographic access. While statistically significant differences were found, the magnitude of these differences is small. Variation by insurance coverage was greater across counties than within counties. Earlier work (Jackson et al., 2002) found differences in patient travel patterns attributable to insurance type when smaller geographic areas were studied, such as the western and southern regions of Miami-Dade County.

The analysis also revealed that the percentage of admissions due to emergency conditions for uninsured patients was always greater than that for insured patients. Miami-Dade County's two local-tax-supported facilities have the highest percentages of emergency admissions across all insurance groups, with the uninsured having the highest percentage.

In sum, because the counties vary along numerous demographic dimensions, it is impossible to identify distinct effects of local-county-tax-supported structures for indigent care. However, when locally funded services are available to the uninsured across the county, as is the case in Broward and Palm Beach, there appears to be better geographic access to care and less patient traveling.

**5. Are the differences in local governmental funding mechanisms resulting in differences in other accountability measures, e.g., cost per day or staffing ratios?**

The hospital financial data reveal that all hospitals provide uncompensated care. Local-tax-supported hospitals provide the majority of uncompensated hospital care. Tax-exempt and tax-paying hospitals provide similar levels.

In general, the overall costs of patient care are correlated with the hospital Medicare case mix index; that is, hospitals that have more complex patient populations have higher costs. The average cost of hospital care is highest at the local-tax-supported hospitals in Miami-Dade. Costs are lower and fairly uniform across hospitals of all ownership types in Broward and Palm Beach Counties. The average cost per adjusted uncompensated admission is more variable than the average cost per adjusted admission overall, undoubtedly because of the smaller number of uncompensated admissions. Tax-paying hospitals generally have the lowest average costs per adjusted uncompensated admission. In Palm Beach County, tax-exempt hospitals have higher average uncompensated care costs than tax-paying hospitals. There does not appear to be a clear relationship between cost of care and funding mechanism. However, the data suggest that the cost of care provided is not fully reimbursed in any of the systems used in south Florida.

**LIMITATIONS**

There are several limitations to this study. The principal limitation concerns the data used. The hospital financial data are self-reported to the state, as is the hospital discharge data. While some data checking is done by the state, there can be variation in the interpretation and categorization of information reported by the individual hospitals that can affect this analysis. Moreover, the two data reporting systems - hospital financial and hospital discharge - have inconsistent reporting standards concerning the amount of charity care and uncompensated care provided and the number of charity-care and uncompensated-care patients. These data differences diminish our ability to compare and contrast analyses across hospitals and patients.

Data issues similarly affected the deGroot report (2003). His analysis examined typical hospital productivity measures such as staff-to-bed ratios.

Unfortunately, hospitals report only salaried staff and not contract staff in their annual reports to AHCA. Consequently, comparisons of staffing ratios across hospitals using the AHCA data can be misleading in that they may not include all the staff providing care.

A final limitation to this report is the non-participation of representatives from North and South Broward Hospital Districts. This greatly reduced our understanding of these two locally funded systems.





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**ACRONYMS AND ABBREVIATIONS**

AGO	Florida State Attorney General's Office
AHCA	State of Florida, Agency for Health Care Administration
BCC	Miami-Dade County Board of County Commissioners
BRHPC	Broward Regional Health Planning Council
CCB	Coordinating Council of Broward County
CCP	Coordinated Care Program of the Health Care District of Palm Beach County
CPI	Consumer Price Index
DSP	Disproportionate Share Program
EMTALA	Emergency Medical Treatment and Active Labor Act of 1986
FPL	federal poverty level
HCD	Health Care District of Palm Beach County
HSA	Health Systems Agency
LOS	length of stay
PHT	Miami-Dade County Public Health Trust
SFHHA	South Florida Hospital and Healthcare Association



## 1. INTRODUCTION

Over 2 million persons under age 65 in Florida lack health insurance. Thirty-five percent live in Broward, Miami-Dade and Palm Beach counties.<sup>4</sup> When uninsured persons require hospitalization, access to non-emergency care may be difficult. All south Florida hospitals provide care to the uninsured. Federal regulation, specifically the Emergency Medical Treatment and Active Labor Act of 1986 (EMTALA), requires all hospitals to provide emergency care regardless of the patient's ability to pay. Historically, tax-exempt hospitals provide care to the uninsured as a form of reciprocity for their tax exemption. In addition, social mores compel tax-exempt and tax-paying hospitals and community doctors to provide care to uninsured persons as well.

Florida state statute delegates responsibility for caring for the uninsured to the counties, and consequently it is flexible regarding how counties provide this care.

The state, however, is very specific in defining charity care. Specifically,

(2) "Charity care" or "uncompensated charity care" means that portion of hospital charges reported to the agency for which there is no compensation for care provided to a patient whose family income for the 12 months preceding the determination is less than or equal to 150 percent of the federal poverty level, unless the amount of hospital charges due from the patient exceeds 25 percent of the annual family income. However, in no case shall the hospital charges for a patient whose family income exceeds four times the federal poverty level for a family of four be considered charity."<sup>5</sup>

Thus, a hospital can categorize a patient as one who will receive charity care if on admission he meets this criteria.

While counties in Florida are given autonomy regarding how they structure the funding mechanisms and service provision for indigent care, the segment of the population entitled "charity care" is uniformly defined. However, the uninsured include others who do not satisfy these criteria. These indigent

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<sup>4</sup> Duncan et al., (2000), Florida Health Insurance Survey, 1999.

<sup>5</sup> Florida State Statute, Title XXIX, Public Health, Chapter 395, Hospital Licensing and Regulation at:

[http://www.flsenate.gov/Statutes/index.cfm?App\\_mode=Display\\_Statute&URL=C\\_h0395/ch0395.htm](http://www.flsenate.gov/Statutes/index.cfm?App_mode=Display_Statute&URL=C_h0395/ch0395.htm).

patients contribute to hospital bad debt. In this report, we will use the term uninsured and indigent interchangeably, recognizing that most hospitals are not reimbursed for their care.

The South Florida Hospital and Healthcare Association (SFHHA) commissioned the RAND Corporation to conduct a study to compare and contrast the approaches used to finance charity care in three south Florida counties: Broward, Miami-Dade, and Palm Beach. Their request was motivated by a number of issues. First, the three counties are geographically proximate to each other, yet their approaches to financing care for the indigent are very different. Broward and Palm Beach have special hospital/health care districts that levy ad valorem millage<sup>6</sup> to property taxes to support health programs. Broward County has two separate taxing districts - North and South - each operating their own system of district hospitals and setting their own millage rates. Palm Beach County, in contrast, uses tax funds to support a managed care program for uninsured persons and contracts with physicians and hospitals in the county to provide health care services. Miami-Dade County levies a special surtax to generate funding for two county-owned hospitals that together provide the majority of care to the uninsured. Thus, together they provide a good natural experiment to compare and contrast the effects of the indigent care systems on uninsured patients and hospitals. An examination of these three different approaches to financing health care services for the uninsured can offer some insights into what approach may be the most cost-effective, serve the greatest proportion of uninsured, and provide the best access to uninsured residents. Any information that can be gleaned from such a comparison would be helpful to developing solutions to providing care to the uninsured.

Second, the SFHHA was aware that the Florida State Attorney General's Office (AGO) was conducting a study concerning the recent sale of St. Mary's and Good Samaritan Hospitals in Palm Beach County to the for-profit hospital chain Tenet. The AGO was interested in determining the effect of the sale on the availability of care for the indigent in the county. Part of the AGO

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<sup>6</sup> The millage rate is a unit of taxation expressed as mills per dollar value. A mill is equivalent to one-tenth of a cent applied to the property value.

analysis was a comparison with counties proximate to Palm Beach, i.e., Broward and Miami-Dade Counties. The SFHHA saw this as an opportunity to commission a report explicitly comparing the three counties.

Third, the SFHHA was aware of a RAND report written for Community Voices-Miami, a W.K. Kellogg Foundation initiative that examined how Miami-Dade County provided care to the indigent and the effects on hospitals.<sup>7</sup> While the report only dealt with Miami-Dade County, it addressed many of the issues of concern. In asking RAND to write the report, the SFHHA requested what amounted to an expanded version of the prior report.

The focus of this report is on hospital care. Across the three counties, some primary care is provided to uninsured patients. Unfortunately, the amount of such care, in dollars or services rendered, is not uniformly reported nor publicly available. Thus, for the time being, we are restricted to analyzing inpatient care because of the lack of available data.

In their request to RAND, the SFHHA posed five questions. Below we list the questions and briefly describe how we propose to answer each.

**1. How are the governmental bodies that levy the taxes used for hospital and medical care services determining the amount of revenue needed?**

We interpret this question to mean, how do the governmental bodies build future budgets for providing hospital care to the indigent. Thus, this question is very narrow and focused on the data and methods used for budget projections. To answer this question, we interviewed staff at the Health Plan of Palm Beach County and reviewed public documents describing the plan and its operations. For Miami-Dade County, we relied on our five-year experience studying the public financing of indigent care with the Community Voices-Miami project. Unfortunately, no one from the North Broward Hospital District or the South Broward Hospital District consented to be interviewed. Thus, the information presented is limited to publicly available documents and data.

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<sup>7</sup> See *Hospital Care for the Uninsured in Miami-Dade County* (Jackson et al., 2002).

2. **Do the differences in the governmental structures used to assess, spend, and monitor such public health care resources result in different decisions being made about what services to fund and which people are eligible for local government subsidized care?**

We interpret this question as an attempt to examine the issue of fiscal accountability, and how this information is used to inform decisions about services provided. As with question 1, we sought information through interviews with staff of the governmental structures, public documents, and prior experience.

3. **Does the ownership or tax status of a provider institution/organization influence its relationship with local government funders? With its patient population?**

We interpret this question as asking what types of interactions do local-tax-supported hospital and health care organizations have with private hospitals, and how are patients affected. We answer this question again through interviews and publicly available hospital financial data.

4. **Do the differences in which people and services are funded in turn make a difference in patient utilization patterns?**

We interpret this question as asking if uninsured patients experience differential geographic access to hospital care than insured persons. We answer this question through a patient travel analysis using publicly available hospital discharge data.

5. **Are the differences in local governmental funding mechanisms resulting in differences in other accountability measures, e.g., cost per day or staffing ratios?**

We interpret this question as asking if there are variations in costs and productivity of hospitals across hospital ownership types. We calculate a variety of financial and operational statistics using publicly available hospital financial data and make comparisons across hospital ownership types within and across counties.



This report describes a variety of analyses, both qualitative and quantitative. Our qualitative analyses included literature searches, reviews of public documents, and interviews with hospital representatives and policymakers in Broward and Palm Beach Counties. Our quantitative analyses used financial data for 1998-2001 and hospital discharge data for 2001 - data that are publicly available from the Florida Agency for Health Care Administration (AHCA).

In answering the five questions posed by the SFHHA, we are fundamentally attempting to assess the impact that the different funding and service delivery mechanisms in the three counties have on hospitals and patients. It is important to understand the context in which each county operates in order to interpret the analytic results. Thus, we start with background descriptive information about the three counties in Section 2. Section 3 provides detailed descriptions of the governmental structures in each county and how each funds indigent care, addressing the first two questions. In Section 4, we address question four through a study of patient travel patterns and compare geographic access across insurance types within counties. Section 5 addresses questions three and five with calculations of hospital productivity and financial measures to determine whether or not there are differences across the counties and hospital ownership type.

The report concludes with Section 6 in which we synthesize the descriptive information and quantitative analyses presented in the report and respond to each of the questions asked. We end with observations and lessons learned to assist policymakers, hospital administrators, and others in developing policy and making decisions concerning hospital care for the uninsured.



## 2. SOUTH FLORIDA'S THREE COUNTIES: BROWARD, MIAMI-DADE, AND PALM BEACH

Nearly 5 million people live in Broward, Palm Beach, and Miami-Dade counties, and approximately 18 percent lack health insurance.<sup>8</sup> To better understand the context in which each county operates, we describe the hospitals and the populations they serve. The data used here come from the U.S. Census (1990 and 2000), the Florida Health Insurance Study, and the hospital financial information reported to the Agency for Health Care Administration (AHCA).

All three counties have experienced growth in their populations, increased population density, and change in their population demographics (Table 1). Looking at the three counties' demographic characteristics individually, we see that Palm Beach has experienced the greatest population growth - in absolute numbers and in population density. Miami-Dade County has the youngest population, and Palm Beach County has the oldest. Over half of Miami-Dade's population is foreign born, compared with 25 percent in Broward County and 17 percent in Palm Beach County. Residents of Palm Beach County also have a higher per-capita income than in the other two counties. Miami-Dade County is clearly the largest of the three, in geographic size and population. Among the three counties, its population has the lowest per-capita money income and the highest percentage of persons living in poverty. Broward saw the greatest increase in the percentage of persons below the federal poverty level (FPL). Palm Beach and Broward Counties have similar proportions of their population that are uninsured, approximately 15 percent, and Miami-Dade has the highest at 25 percent.

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<sup>8</sup> Duncan et al., (2000), Florida Health Insurance Study, 1999.

Table 1

County Descriptive Information 2000 and Growth Since 1990 Census Shown in Parentheses

	Population (growth over 1990)	Area in Square Miles	Persons per Square Mile (growth over 1990)	% Persons Under Age 18, 2000	% Persons Age 65 and older, 2000	Per-capita money income, 1999 (growth over 1990)	% persons below poverty, 1999 (growth over 1990)	% Without Health Insurance	Housing ownership rate, 1999 (growth over 1990)
Broward	1,623,018 (29.3%)	1,319.6	1,346.5 (41.5%)	23.6	16.1	\$23,170 (37.2%)	11.5 (12.8%)	14.8	69.5% (2.2%)
Miami- Dade	2,253,362 (16.3%)	2,431.3	1,157.9 (45.3%)	24.8	13.32	\$18,497 (35.2%)	18.0 (0.6%)	24.6	57.8% (6.5%)
Palm Beach	1,131,184 (31.0%)	2,386.3	573.0 (58.3%)	21.3	23.3	\$28,801 (44.4%)	9.9 (6.5%)	15.1	74.7% (3.9%)

SOURCES: Columns 1-7 and 9 from U.S. Census Bureau, State and County QuickFacts, 2000 Census, <http://quickfacts.census.gov>. Column 8 from Duncan et al. (2000), Florida Health Insurance Study, 1999. Growth since 1990 from U.S. Census Bureau, Quick Tables, 1990 Census, <http://factfinder.census.gov>.

To serve this population, there are 53 non-federal, short-term general hospitals in the three-county area. However, in 1998 there were 62 hospitals. Among the nine hospitals that were eliminated, some closed and others merged with existing facilities.<sup>9</sup> Changes also occurred in the ownership and tax status of some hospitals.

Because our report concerns how county agencies finance care for the uninsured, we have defined our hospital ownership categories with relation to their tax status. Thus, not-for-profit hospitals are labeled tax exempt since they do not pay taxes. Analogously, for-profit hospitals are labeled tax paying. Government-owned hospitals are labeled tax supported because tax funds are a significant source of their operational funds.

Table 2 shows the trend in the number of hospitals and beds by county and ownership category. Although the number of hospitals has declined over this four-year period, the overall number of available beds was not affected. Indeed, these hospitals had already contracted their bed supply because the number of licensed beds exceeded the number of available beds in 1998. However, the relative distribution of beds by ownership did change. In Broward County tax-supported beds increased three percent while tax-paying beds decreased three percent. Miami-Dade saw a 13 percent decrease in tax-paying beds and a 23 percent increase in tax-supported beds. In Palm Beach County there was a two percent decrease in tax-exempt beds, a 100 percent decrease in tax-supported beds, and an eight percent increase in tax-paying beds. These data are displayed in Figure 1, which shows the percentage of hospital beds by county and ownership in 2001.

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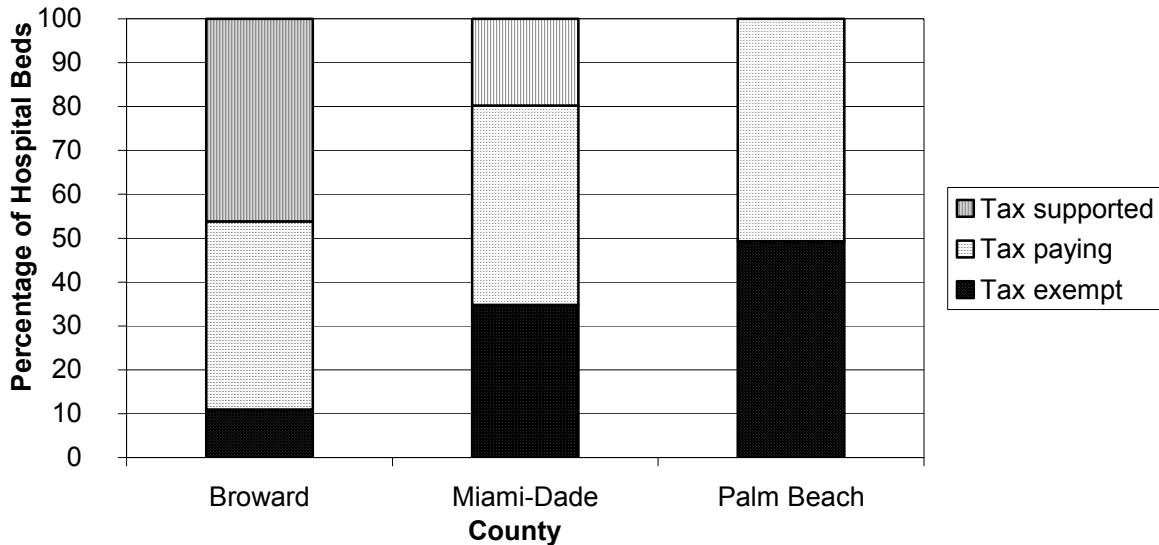
<sup>9</sup> Appendix A lists the hospitals by county and ownership for 1998 and 2001.

**Table 2**

**Trend in Hospital Ownership and Available Beds from 1998 to 2001 by County**

County	1998		2001		1998-2001
	Number of Hospitals	Number of Available Beds	Number of Hospitals	Number of Available Beds	% Change in Available Beds
<b>BROWARD</b>					
Tax exempt	2	603	1	601	-0.33
Tax paying	12	2437	8	2357	-3.28
Tax supported	7	2448	7	2535	3.55
Total	21	5488	16	5493	0.09
<b>MIAMI-DADE</b>					
Tax exempt	10	2921	10	3106	6.33
Tax paying	16	4634	12	4051	-12.58
Tax supported	1	1435	2	1765	23.00
Total	27	8990	24	8922	-0.76
<b>PALM BEACH</b>					
Tax exempt	5	1782	5	1745	-2.08
Tax paying	8	1655	8	1795	8.46
Tax supported	1	80			-100.00
Total	14	3517	13	3540	0.65
<b>GRAND TOTAL</b>	62	17995	53	17955	-0.22

SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 1998 and 2001.



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 2001.

**Figure 1. The Three Counties Vary in the Distribution of Available Hospital Beds Across Ownership Type**

The characteristics of the hospital markets in the three counties are very different. In Broward County, tax-supported beds predominate; in Miami-Dade, tax-paying beds predominate; and in Palm Beach County, tax exempt and tax paying are nearly equal. Traditionally, tax-supported and tax-exempt hospitals provide the bulk of charity care - tax-supported because it is their charge, and tax-exempt to justify their tax-exempt status. Tax-paying hospitals also provide charity care, as part of their community benefits programs, but traditionally the amount of charity care provided is less than that of tax-exempt or tax-supported hospitals.

The ultimate distribution of charity-care provision across hospitals, however, is determined by where hospitals are located.<sup>10</sup> Figures 2 to 7 display maps of each county. The first map for each county displays the location of hospitals and zip-code-level population density. The second map displays hospital locations and the zip-code-level percentage of persons

<sup>10</sup> As will be shown in Section 4, a majority of patients go to hospitals close to their homes.

uninsured. In Miami-Dade County, numerous hospitals are located in high density, high uninsured areas of the urban core. Hospitals in Broward and Palm Beach Counties are more evenly distributed in populated areas.<sup>11</sup>

In Broward only about 1 in 10 hospital beds are tax-exempt; in Miami-Dade, 3.5 in 10; and, in Palm Beach 4.9 in 10. Broward County has only one tax-exempt hospital, resulting in a low proportion of beds in such facilities. Less than half of the hospital beds in the three counties are in tax-exempt hospitals where traditionally, in addition to public hospitals, uninsured persons have sought care. As the number and size of tax-exempt facilities declines, there is less capacity in those facilities to provide uncompensated care, and tax-paying hospitals pick up the slack. In those counties where tax-paying hospitals are more prevalent, tax revenues are higher, allowing tax-supported hospitals to provide more care and more uncompensated care.

Some might argue that the balance also affects the competition among the facilities. It should be noted that in south Florida, national chains such as Tenet and HCA own many of the tax-paying facilities. Because of this chain affiliation, there is probably less independence in the management of individual facilities than one might expect and a concomitant sharing services or cross-institution provision of complementary specialized services.

As stated in the Introduction, charity care is defined by State of Florida statute. For an individual patient, the designation "charity care" must be made on admission. However, it is not uncommon for hospitals to learn post-discharge that the patient cannot pay the bill. Charges for this care often are reported as bad debt. Both charity care and bad debt represent care to patients for which the hospital receives no insurance-based revenue. For this study, we define "charity" care as the sum of charity care and bad debt, and label it uncompensated care.<sup>12</sup> This is the definition that is generally

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<sup>11</sup> It is important to remember that in all three counties, there are areas that are uninhabited because of the prevalence of farmland and swampland.

<sup>12</sup> Some have argued that the level of bad debt is a reflection of poor management, rather than a reflection of the patient population served. We acknowledge this more narrow view. However, since the decision to categorize a patient as a charity-care patient must be made on admission, even facilities with good management will on occasion have some charity patients slip through and ultimately be reflected in bad debt.



used in the literature. It should also be noted that some state hospital associations include the reimbursement shortfall from programs such as Medicare and Medicaid when defining uncompensated care, using the rationale that these shortfalls are also hospital contributions to the community. We do not include contractual shortfalls in uncompensated care in this study.

While the hospital financial data clearly identify the dollars associated with charity care and bad debt, there is considerably more ambiguity regarding the number of patients who received that care. AHCA does not require consistency in counting dollars and patients. We will define the number of uncompensated-care patients as the sum of patients in the self-pay and "other government" categories. We use the number of self-pay patients as a measure of uninsured persons, since most ultimately are reflected in either charity care or bad debt. We include other government because an examination of the financial data indicates that Miami-Dade and Palm Beach County hospitals used this category for patients whose care is paid for by local funds.

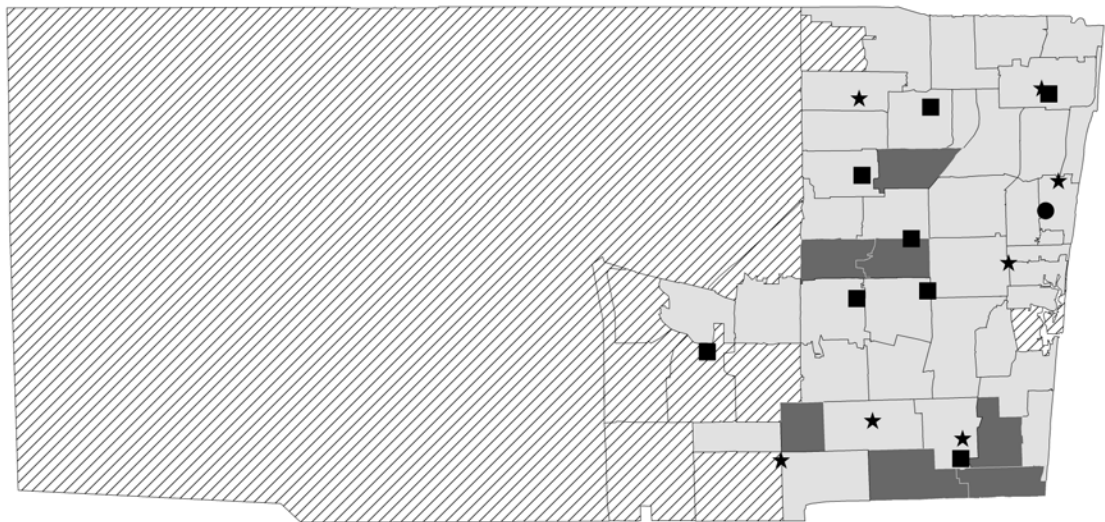
Finally, uncompensated care for those hospitals receiving local tax funds, either directly or through a county program, includes the charges that ultimately are offset by these revenues. Thus, in the aggregate, some hospitals are compensated for this care, but not through commercial, federal, or state insurance programs.

**Hospital Ownership Type**

- Tax Exempt
- Tax Paying
- ★ Tax Supported

**Population Density (persons per square mile)-**

- ▨ Lowest 25% (<=2365)
- Middle 50% (betw. 2366 and 6563)
- Highest 25% (>=6564)



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 2001; and American Hospital Association data, 2000.

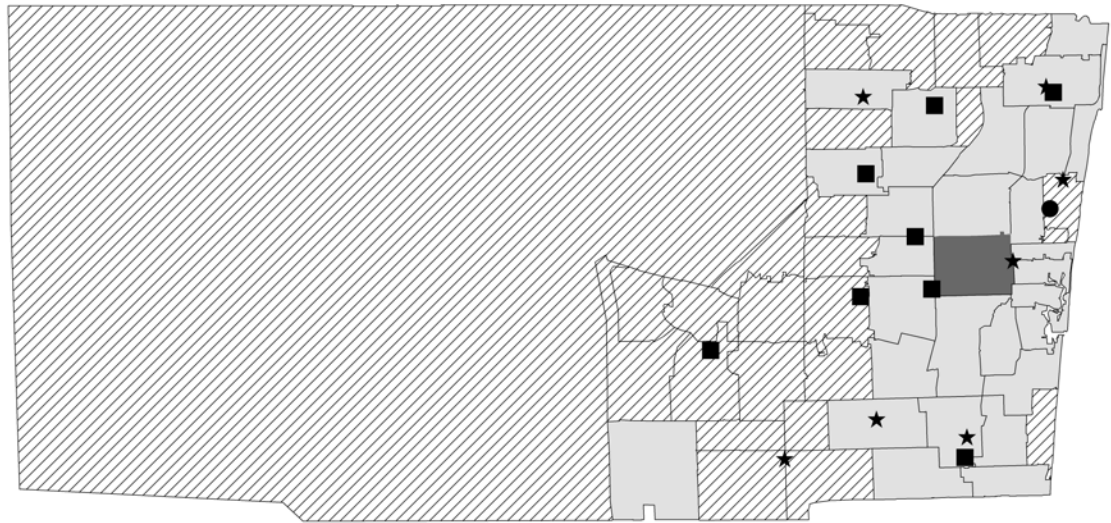
**Figure 2. Map of Broward County Population Density and Hospital Locations**

**Hospital Ownership Type**

- Tax Exempt
- Tax Paying
- ★ Tax Supported

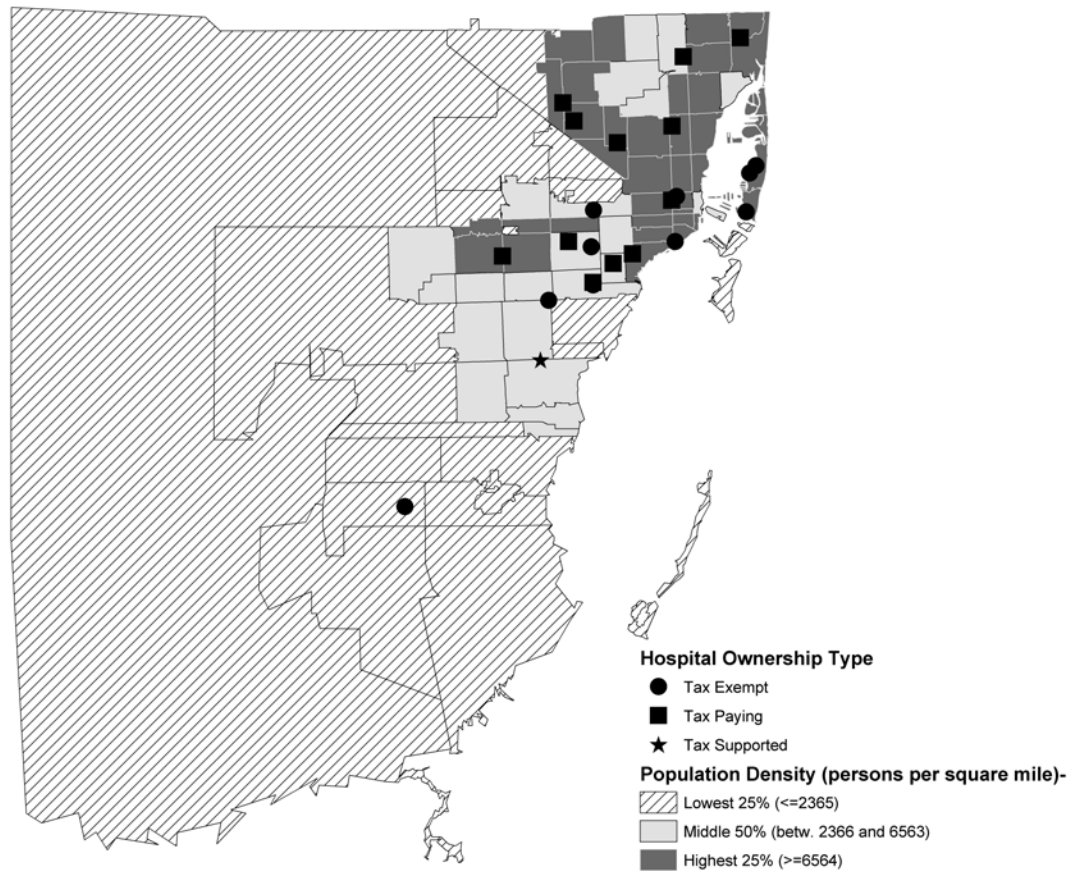
**Percent Uninsured**

- ▨ Lowest 25% (<=11.1%)
- Middle 50% (betw. 11.2 and 23.9)
- Highest 25% (>=24%)



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 2001; and American Hospital Association data, 2000.

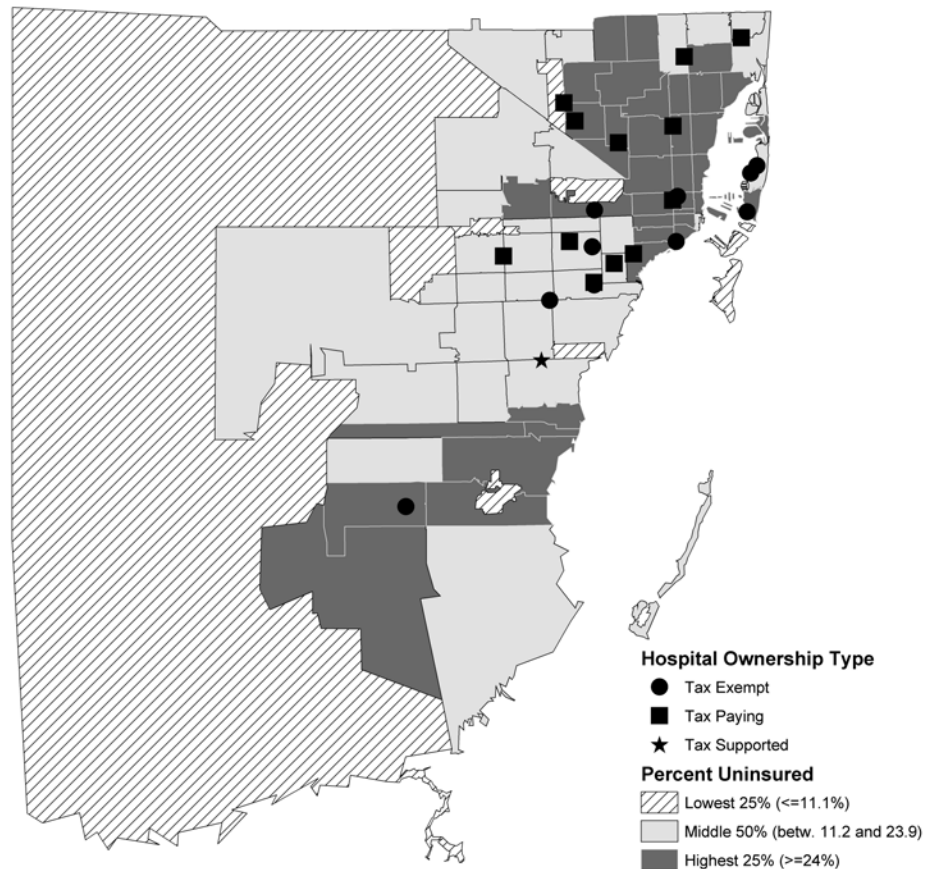
**Figure 3. Map of Broward County Distribution of Uninsured and Hospital Locations**



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 2001; and American Hospital Association data, 2000.

NOTE: Mount Sinai Medical Center and Miami Heart Institution are separately mapped because they are geographically distinct.

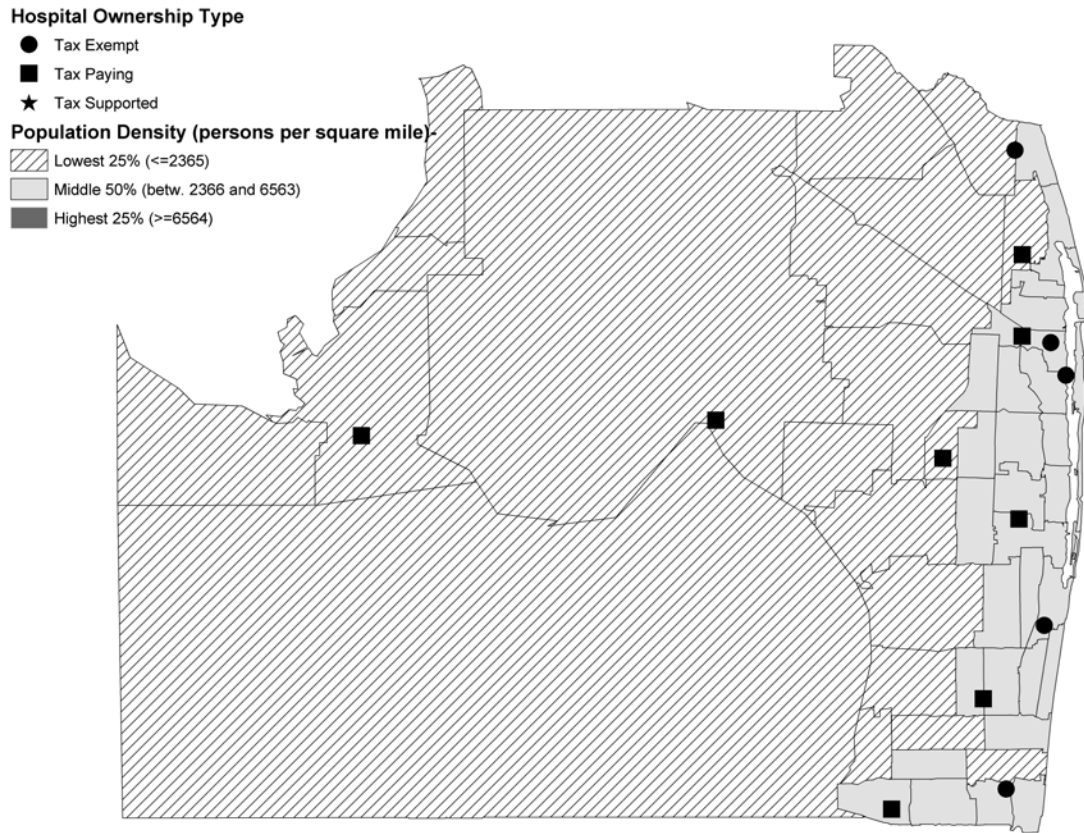
**Figure 4. Map of Miami-Dade County Population Density and Hospital Locations**



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 2001; and American Hospital Association data, 2000.

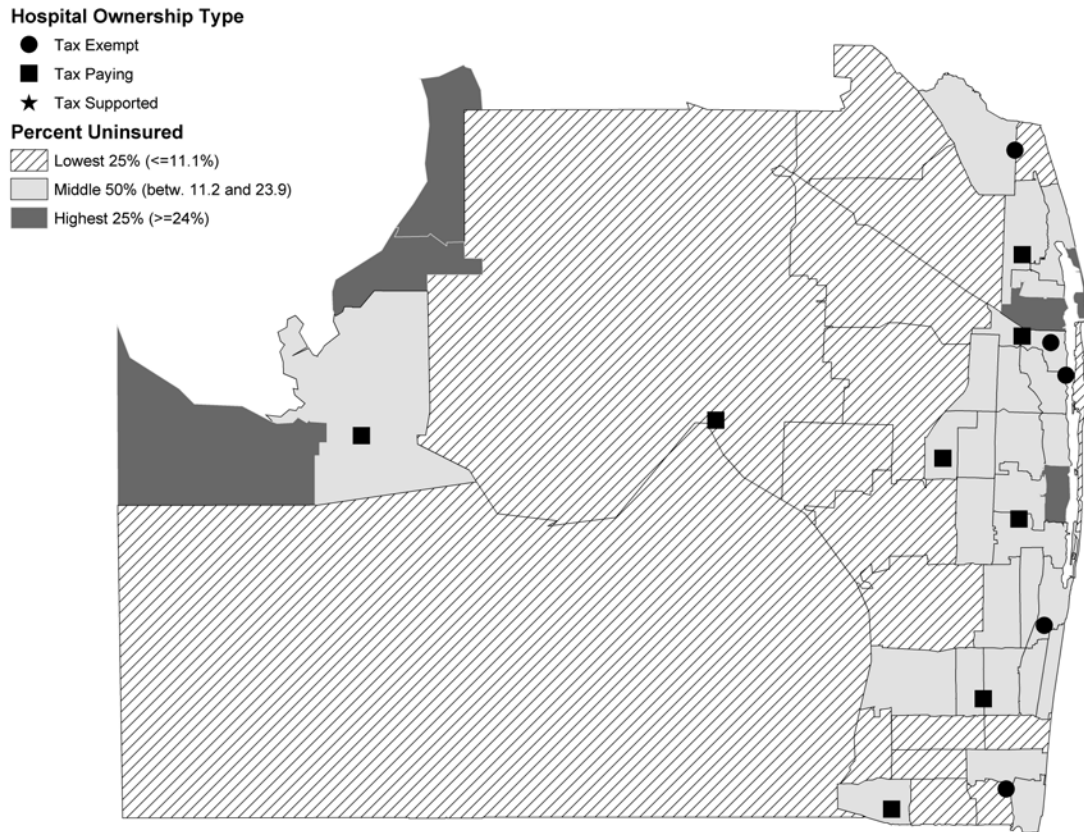
NOTE: Mount Sinai Medical Center and Miami Heart Institution are separately mapped because they are geographically distinct.

**Figure 5. Map of Miami-Dade County Distribution of Uninsured and Hospital Locations**



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 2001; and American Hospital Association data, 2000.

**Figure 6. Map of Palm Beach County Population Density and Hospital Locations**

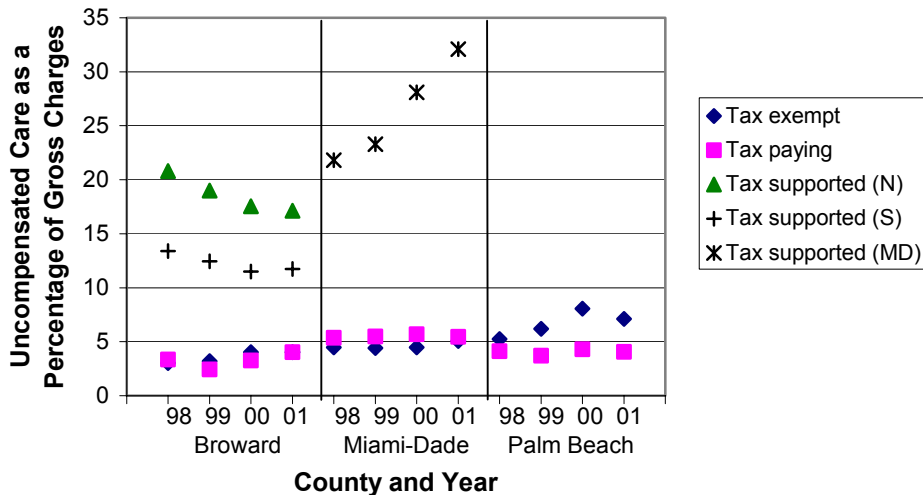


SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 2001; and American Hospital Association data, 2000.

**Figure 7. Map of Palm Beach County Distribution of Uninsured and Hospital Location**

Figure 8 displays uncompensated care as a percentage of total hospital revenues. Here we include only those hospitals, and their merged components, that existed in 2001. Hospital ownership is categorized using ownership status in 2001 to avoid differing samples across time. We also display data for the North (N) and South (S) Broward Hospital Districts separately because each district maintains their own facilities and management structures. These differences might affect both hospitals and patients. Miami-Dade's tax-supported facilities are identified as (MD). The data presented are from the State of Florida Hospital Uniform Reporting System, where admissions, and not discharges, are reported.

Tax-exempt and tax-paying hospitals have similar trends in the percentage of revenues accounted for by uncompensated care. Their average percentage is between 3 and 7 percent. Tax-supported hospitals in Broward County have larger percentages of uncompensated care, with the North having more than the South. However, there is a clear trend that percentage of uncompensated care



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 1998-2001.

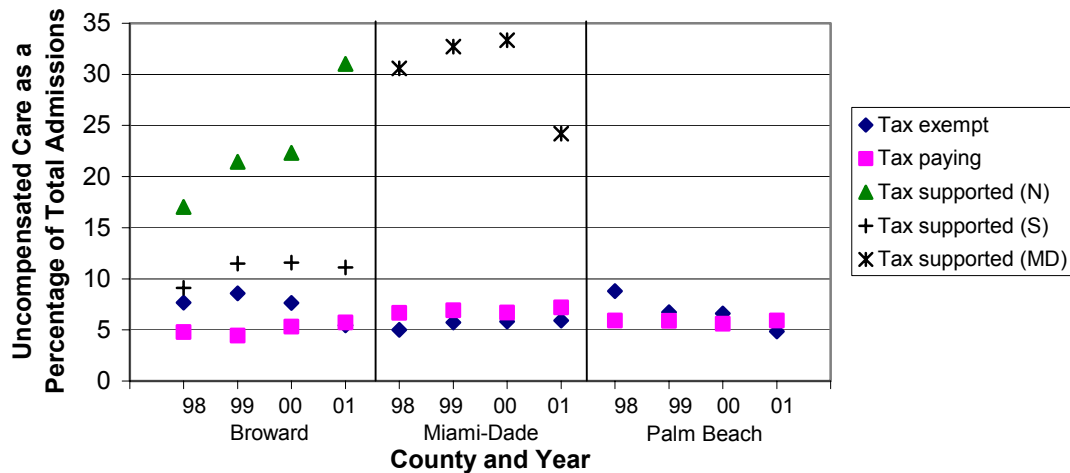
NOTE: N = North Broward Hospital District, S = South Broward Hospital District, and MD = Miami-Dade County.

**Figure 8. Tax-Paying and Tax-Exempt Hospitals Have Similar Levels of Uncompensated Care as a Percentage of Gross Patient Care Revenues; Tax-Supported Hospitals Have Higher Levels**



in Broward County is falling. In Miami-Dade, the trend is not only increasing across these four years, but the percentage of uncompensated care in tax-supported hospitals is significantly higher than that of other hospitals within and across counties.

Another way to look at the uncompensated care load of hospitals is to determine the percentage of admissions attributed to patients whose care is uncompensated. As Figure 9 shows this measure of uncompensated care is less consistent over time. Tax-exempt and tax-paying hospitals have similar patterns across the three counties. North Broward and Miami-Dade have considerable percentages of uncompensated patients. However, unlike the decreasing trend in uncompensated-care patients as a proportion of revenues, North Broward experienced a large increase over time, while Miami-Dade experienced a decrease in 2001 after consistently high levels. South Broward had a slightly higher percentage of uncompensated patients than that found in the tax-exempt and tax-paying hospitals in Broward County.



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 1998-2001.

NOTE: N = North Broward Hospital District, S = South Broward Hospital District, and MD = Miami-Dade County.

**Figure 9. More Variation in Uncompensated Care as a Percentage of Hospital Admissions, Especially in Broward County**

A final way to look at uncompensated care at the county level compares the percentage of uncompensated patients to county-level statistics on the percentage of the population in poverty and the percentage uninsured (Table 3). While persons below the poverty level are often covered by Medicaid, large subgroups are not, including men and undocumented immigrants.

In Broward County, the percentage of uncompensated admissions is very similar to the percentage of the population without health insurance. In both Miami-Dade and Palm Beach Counties, however, the percentage of uncompensated care admissions is half the percentage of the uninsured population. We hypothesize two divergent explanations. The first is that the persons without health insurance in Miami-Dade and Palm Beach counties are healthier. This is plausible since Miami-Dade's population is relatively young (25 percent are under 18 years of age and 13 percent are over age 65), and Palm Beach County provides primary care and preventive services to the uninsured through their county program. The second interpretation is that uninsured persons in Miami-Dade and Palm Beach Counties are not getting the hospital care that they need.<sup>13</sup> Ultimately, the data do not indicate which interpretation is correct.

**Table 3**  
**Hospital Utilization of Medicaid and Uninsured Persons, Compared with County Population Demographics**

South Florida County of Residence	% Uncompensated Discharges, 2000	% persons below poverty, 1999	% persons Without Health Insurance, 1999
Broward	11.6	11.5	14.8
Miami-Dade	11.4	18.0	24.6
Palm Beach	6.1	9.9	15.1

SOURCE: State of Florida Agency for Health Care Administration, hospital discharge data, 2000; U.S. Census Bureau; and Florida Health Insurance Study, 1999 (Duncan et al., 2000).

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<sup>13</sup> There is of course a third explanation - Broward County has excess hospital utilization among the uninsured population.

## SUMMARY

Several trends can be seen in the descriptive data.

- The three counties have different demographics and socioeconomic status characteristics of their populations.
  - Miami-Dade is the largest (in population and area) and poorest county in south Florida.
- The three counties have very different hospital markets.
  - Broward has the most tax-supported hospitals and the fewest tax-exempt hospitals.
  - Palm Beach County hospital bed supply is split fairly evenly between tax-paying and tax-exempt hospitals.
- Uncompensated care, as measured as the percentage of total revenues, has remained fairly constant for tax-exempt and tax-paying hospitals. North and South Broward Hospital Districts have higher percentages of uncompensated care; however, the levels have been decreasing. Miami-Dade tax-supported hospitals have an increasing percentage of uncompensated revenues.<sup>14</sup>
- Uncompensated care, measured as the percentage of hospital admissions, is also fairly stable for tax-exempt and tax-paying hospitals. South Broward saw a slight increase in 1998. North Broward experienced an increase across the four years. Miami-Dade saw an increase from 1998-2000, and a decrease in 2001.
- Broward provides uncompensated care at levels comparable to the prevalence of uninsured persons in the county. Miami-Dade and Palm Beach provide levels that are half the prevalence of uninsured persons in the counties.

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<sup>14</sup> The increases seen in uncompensated care at tax-supported hospitals could be a result of changes in Medicaid that have caused previously insured persons to become uninsured.



### 3. STRUCTURES FOR GOVERNMENTAL FINANCING OF INDIGENT CARE

*How are the governmental bodies that levy the taxes used for hospital and medical care services determining the amount of revenue needed?*

*Do the differences in governmental structures used to assess, spend, and monitor such public health care resources result in different decisions being made about what services to fund and which people are eligible for local government subsidized care?*

*Does the ownership or tax status of a provider institution/organization influence its relationship with local government funders or with its patient population?*

In this section we highlight how these three South Florida counties support and provide care for the medically indigent, and how funds devoted to this purpose are collected, governed, and distributed. These counties all operate under the same Florida legislative regime, yet given the degree of county autonomy granted by the state, they have implemented varied approaches to raising and utilizing tax dollars for the uninsured.

The fundamental difference among the three counties is the manner in which public funds are used to provide care to the uninsured. Broward County has two hospital districts that operate networks of hospitals and clinics that are geographically dispersed throughout the county. Only these district facilities receive public funds for the care of the indigent. Palm Beach County health care district operates no facilities, but rather uses public funds to reimburse hospitals for the care of indigent persons qualifying for the county program. Broward and Palm Beach Counties have hospital/health districts that levy taxes to support health services for county residents including the uninsured.<sup>15</sup> Miami-Dade County has a public agency, the Public Health Trust (PHT), that operates two hospitals and numerous clinics in the county. Public funds for the care of the indigent are only available to PHT facilities. Until 2001, the PHT operated only one hospital in the urban center of the county. The second hospital added to the PHT is in the northern part of what is known as "Deep South Dade." Thus, the Miami-Dade system is more centralized than that found in Broward. The Trust is funded through

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<sup>15</sup>Florida State legislation, Title XIV, Taxation and Finance, Chapter 212, Sales, Use and Other Transactions.

property taxes and a dedicated half-penny surtax. Below we describe these approaches and their governance structures. Table 4 provides descriptive information.

**Table 4**  
**Summary of Governance and Funding Across Counties**

	North Broward	South Broward	Miami-Dade	Palm Beach
Name of agency charged with responsibility for health care for the uninsured	North Broward Hospital District	Memorial Healthcare System	Public Health Trust	Health Care District of Palm Beach County
Facilities	Owns 4 hospitals, numerous clinics, etc.	Owns 3 hospitals, numerous clinics, etc.	Owns 2 hospitals, numerous clinics, etc.	Owns no facilities
Number of persons served with tax funds	Unknown <sup>a</sup>	Unknown <sup>a</sup>	Unknown <sup>b</sup>	Approximately 25,000
<b>Board Characteristics</b>				
Number of members	7 members	7 members	21 voting	7 members
Selection of members	Governor appointed	Governor appointed	BCC <sup>c</sup> appointed from nominees	3 governor appointed 3 county commissioners appointed
Tenure	3-year terms, maximum 2 terms	4-year terms, no maximum	3-year term, maximum 3 terms	4-year term, max 2 consecutive terms
Primary funding source	Millage on property tax	Millage on property tax	Millage on property tax Half-penny surtax	Millage on property tax
Property tax millage rate	2.4083	1.7336	N/A	1.13
Total annual funding	\$118 million in 2000	\$45 million in 2000	\$147 million in 2001	\$100 million in 2000

<sup>a</sup> We were unable to speak with representatives from the Broward County Hospital Districts.

<sup>b</sup> The PHT does not report unduplicated numbers of uninsured treated.

<sup>c</sup> Miami-Dade Board of County Commissioners.

#### **BROWARD COUNTY**

Broward County has two hospital taxing districts - North Broward and South Broward - that operate multiple facilities. In addition to operating four hospitals,<sup>16</sup> North Broward Hospital District administers primary health care centers, home health services and hospice care, physician practices, specialty care services, and community services and programs.<sup>17</sup> The district's four hospitals are geographically dispersed across the county, providing access to all county residents, and compete for insured patients with the nine other non-profit and for-profit hospitals in the district. In South Broward, Memorial Healthcare System, a public, nonprofit health care provider, operates three hospitals, a nursing home, and several subsidiary health care facilities.<sup>18</sup> With just one other acute care hospital aside from the three Memorial facilities, Memorial has a near monopoly in the South.

In both districts, indigent care is supported primarily by property taxes and general revenue.<sup>19</sup> Each hospital district sets its own millage rate imposed through property taxes. However, under Florida statute, special district millage rates cannot exceed 10 mills without approval by the electorate.<sup>20</sup> In 2000, the North Broward Hospital District's millage rate was 2.4083, and it collected approximately \$118 million. This figure for the south district was 1.9938, and it collected approximately \$38 million (deGroot, 2003, p. 24). In fiscal year 2003, the millage rate in the south district was 1.7336, which is expected to generate approximately \$45

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<sup>16</sup> These include Broward General Medical Center, North Broward Medical Center, Imperial Point Medical Center, and Coral Springs Medical Center.

<sup>17</sup> See <http://www.nbhd.org/aboutnb/howeare.htm>.

<sup>18</sup> Hospitals include Memorial Regional Hospital, Joe DiMaggio Children's Hospital (essentially a part of Memorial Regional), Memorial Hospital West, and Memorial Hospital Pembroke. Memorial is also planning a facility in Miramar. Memorial administers four primary care clinic sites, a children's mobile health van, and a mobile mammography van.

<sup>19</sup> See <http://www.healthcouncil.org/publications/south/sdfrforw.pdf>, pp. 2-6.

<sup>20</sup> Constitution of the State of Florida, Section 9 Local Taxes, (b) ad valorem tax millage rate limits. Florida Statute, Title XIV, Taxation and Finance, Chapter 212, Tax on Sales, Use and Other Transactions, (5).

million.<sup>21</sup> These revenues will amount to approximately four percent of Memorial Healthcare System's total operating budget.<sup>22</sup>

Both the North and South Broward Hospital Districts can set their millage rates. We contacted representatives from the North Broward Hospital District multiple times between January and May 2003. Representatives were not available to discuss how the millage rates were set. Thus, we can only assume that the districts use historical trends when developing their future budgets.

In both North and South Broward Hospital Districts, health care providers that are part of the district get reimbursed for the care provided to county-eligible indigent patients. Within the district, patients with incomes less than or equal to 150 percent of the federal poverty level (FPL) are eligible for free services, while patients with incomes less than or equal to 300 percent of the FPL are eligible for services based on a sliding scale basis.<sup>23</sup> Non-profits compete with private and public hospitals in North Broward Hospital District. However, the district does not reimburse non-district hospitals for any of the care they may provide indigent patients.

In South Broward Hospital District, Memorial Healthcare System provides 97.5 percent of all uncompensated care in the district, which amounts to approximately \$100 million in uncompensated care annually.<sup>24</sup> In addition to supporting uncompensated care at three hospitals, Memorial uses tax revenues to administer three primary care clinics, one homeless shelter, two school-based health clinics, and one mobile van. Patient bills are adjusted based on a sliding scale in accordance with federal poverty income guidelines. Tax revenues also go toward matching state Medicaid funds that are returned to community redevelopment agencies in the municipalities.<sup>25</sup>

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<sup>21</sup> Budget Summary, South Broward Hospital District, Fiscal Year 2002-2003.

<sup>22</sup> Personal communication with Frank Sacco, CEO, Memorial Healthcare System, January 14, 2003.

<sup>23</sup> See <http://www.healthcouncil.org/publications/south/sdfrforw.pdf>, pp. 2-6.

<sup>24</sup> Personal communication with Frank Sacco, CEO, Memorial Healthcare System, January 14, 2003.

<sup>25</sup> "South Broward Hospital district reduces tax millage rate - new rate is the lowest in 14 years," September 24, 2001,



To coordinate services for the uninsured, the North and South Broward Hospital Districts support the "Medivan," a non-profit mobile health clinic that operates throughout the county and is staffed in part by volunteer physicians. The majority of patients receiving treatment at the Medivan do not qualify for Medicare or Medicaid because they are not U.S. citizens or do not have private insurance. The Coordinating Council of Broward (CCB) also facilitates common administrative procedures. For example, the two districts have developed common eligibility criteria for classifying patients as medically indigent. Currently, the CCB is developing a countywide patient database.<sup>26</sup>

In the interest of facilitating cooperation among the districts and public agencies within the county, the North and South Hospital Districts participate in the CCB. Members include state and county executives, from the public and private sector, involved in a variety of human services, such as health, public safety, and education. The CCB board and steering committee meet monthly.<sup>27</sup>

In 1998, the CCB convened stakeholder groups in four main areas, including health care access, and it established the Broward Regional Health Planning Council (BRHPC). The BRHPC is a private, non-profit organization, involved in planning efforts, research, and projects that "advance the quality of life of its population."<sup>28</sup> BRHPC board members represent consumers and health providers. Examples of BRHPC initiatives include a study on "Responsible Fatherhood" (in conjunction with the Healthy Start Coalition), an analysis of teen pregnancy prevention used to reduce teen pregnancy in the district, assisting mental health service consumers "navigate through the system," and administering the local Healthy Kids program.<sup>29</sup>

Finally, in our interviews, we heard that the emergency rooms at the tax-supported facilities were often on diversion, that is, the emergency rooms

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<http://www.mhs.net/body.cfm?id=61&action=detail&ref=56>, accessed January 15, 2003.

<sup>26</sup> Personal communication with Linda Quick, December 9, 2002.

<sup>27</sup> See <http://www.sfrpc.com/ccb/ccbintro.htm>.

<sup>28</sup> Broward Regional Health Planning Council, Inc., Broward District Health Plan, 2000, Fort Lauderdale, Florida, pp. ii-iii.

<sup>29</sup> Broward Regional Health Planning Council, Inc., Broward District Health Plan, 2000, Fort Lauderdale, Florida, pp. ii-iii.

were temporarily closed and ambulances were directed to other facilities. Emergency rooms go on diversion when emergency room staffing and beds are fully occupied, but also when ancillary services are backed up and cannot provide the quick turnaround required in emergency situations. Thus, during these times, all patients including those with and without insurance go to nearby tax-paying or tax-exempt hospitals.

### **Governance**

The mission of the North Broward Hospital District is to be a regional leader in providing integrated health care services "in partnership with and for the benefit of [the] community."<sup>30</sup> Memorial's mission is to provide "quality, cost-effective, customer-focused healthcare services to its patients regardless of their ability to pay, with the goal of improving the health status of the community it serves."<sup>31</sup>

In North and South Broward Hospital Districts, district board members are political appointees, named by the governor, rather than through a local nomination/appointment process. There appear to be no written policies regarding the qualifications and expertise required for board membership. Other than permitting community input at district board meetings, there is little local public oversight of the districts' activities.

The North Broward Hospital District is organized into seven sub-districts. The district's board of commissioners has seven members each representing a subdistrict. One commissioner may be part of the medical profession. The district's executive staff has 14 members, which include the CEOs and vice presidents from each of the district's four hospitals.<sup>32</sup> Executive staff members attend and participate in board meetings, but since they are not part of the district's board, they do not vote. The four district hospitals do not have their own individual boards, other than medical staff boards.

The district's board's responsibilities include operating, maintaining, and establishing hospitals. As to be expected, the board sets policy, including ad valorem millage rates. The executive staff implement policy and

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<sup>30</sup> See <http://www.nbhd.org/aboutnb/mission.htm>.

<sup>31</sup> See <http://www.mhs.net/body.cfm?id=204>.

<sup>32</sup> See <http://www.nbhd.org/aboutnb/execs.htm>.

bring policy issues to the board. Board membership is voluntary, although the district pays for travel and participation in community events. Terms of board members are three years, with a maximum of two consecutive terms.<sup>33</sup>

South Broward Hospital District and Memorial Healthcare System are independent of the county governmental structure. The state of Florida grants the South Broward Hospital District board its charter, and the board has no relationship to Broward County government. Memorial Healthcare System's Board has seven members appointed by the governor. Voluntary board membership terms are for four years, and there is no limit to the number of terms a member can serve.<sup>34</sup>

Although both hospital districts are not, strictly speaking, governmental agencies, they do follow Florida's sunshine laws and conduct all meetings in public.

#### **PALM BEACH COUNTY**

The Health Care District (HCD) of Palm Beach County is a countywide special taxing district.<sup>35</sup> The State of Florida permits HCD to levy up to two mills on all taxable property in the county.<sup>36</sup> Currently the HCD's millage rate is 1.13 and yields over \$100 million annually.

The HCD provides funding, planning, and coordination of health care for the medically needy by administering Coordinated Care, a local assistance program for the medically indigent, and an HMO for Medicaid and Florida KidCare<sup>37</sup> recipients, providing local match funding for the Florida KidCare program, operating a school health program,<sup>38</sup> and administering a rehabilitation and nursing center. Additionally, the HCD funds two level II trauma centers,<sup>39</sup> physician and rehabilitation services, and an aeromedical

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<sup>33</sup> Personal communication with Linda Quick, December 9, 2002.

<sup>34</sup> Personal communication with Frank Sacco, CEO, Memorial Healthcare System, January 14, 2002.

<sup>35</sup> See the 1988 Palm Beach County Health Care Act special statute, chapter 87-450, Laws of Florida.

<sup>36</sup> See <http://www.hcdpbc.org/>.

<sup>37</sup> Florida KidCare is Florida's health insurance program for children.

<sup>38</sup> This includes a school behavioral health program in select sites.

<sup>39</sup> Trauma centers include Delrey Medical Center in the south and St. Mary's Medical Center in the north. HCD contracts with both centers and provides financial support for the trauma centers, trauma physicians, and specialists. See [http://www.hcdpbc.org/trauma\\_services/index.html](http://www.hcdpbc.org/trauma_services/index.html).

program ("TraumaHawk"), costing approximately \$25 million annually. Across HCD programs in 2002, 35,000 residents had access to health care that they otherwise could not have afforded, and 89,000 children were insured.<sup>40</sup>

HCD's Coordinated Care Program (CCP) provides hospital (inpatient, outpatient, and emergency), primary, and specialty care services; dental and vision services; and prescription drugs. This program is available to medically needy residents who do not qualify for Medicare, Medicaid, or any other entitlement program. Residents with incomes at or below 150 percent of the FPL (pregnant women may have incomes up to 200 percent of the FPL), with assets below \$10,000 for individuals or couples (house and car not included), qualify for the plan. Upon application, residents are asked to provide verification of income, assets, identification, and residency, which presents problems for some residents, especially recent immigrants. The HCD tries to accommodate their needs and accepts items such as utility bills and letters from a landlord as residency verification. Membership is renewed annually, and members must reapply.

Members can be approved for three different options within CCP based on income and proof of residency. Option one includes full benefits; option two offers clinics (for primary care only) and pharmacy; and option three is pharmacy only for Medicare recipients. The per-member per-month cost, including pharmacy, for CCP was \$289.50 for option one in fiscal year 2003.<sup>41</sup> Members can choose from any participating primary care provider, and there is no limit on doctor's visits; although, according to one HCD representative, overutilization is insignificant compared with the problem of underutilization.<sup>42</sup> If members do not choose a primary care doctor, one is assigned to them based on proximity to their residence.

The program has a budget of approximately \$35 million, or 45 percent of the HCD total budget.<sup>43</sup> The HCD contracts with a network of providers who are reimbursed on a fee-for-service basis. CCP is associated with the five county

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<sup>40</sup> See <http://www.hcdpbc.org/>.

<sup>41</sup> Personal communication with Debi Gavras, Administrator of Risk Operations, Health Care District of Palm Beach County, February 26, 2003.

<sup>42</sup> Personal communication with representatives from HCD, February 26, 2003.

<sup>43</sup> Health Care District of Palm Beach County, Annual Report 2000-2001, p. 6.

health department clinics, nearly 40 private primary care clinics, and all hospitals in the county. Hospitals are reimbursed on a per diem basis.<sup>44</sup> When hospitals agree to participate, in addition to providing emergency care (which they are obliged to do by state law), they also agree to provide non-emergency services. That is, a hospital cannot agree to participate in CCP for emergency services only.

Approximately 1,000 physicians provide primary and specialty care. Most specialties are covered by the plan, except for substance abuse and mental health services. Physicians participating in the CCP are reimbursed at 80 percent of Medicare rates, while non-participating physicians are reimbursed at 60 percent. All Medicaid and Medicare providers are eligible to participate in the plan.

Over the past year, the HCD has seen a significant increase in the number of applications per month. The HCD received between 9,000 and 10,000 applications in January 2003, of which, approximately 20 percent were approved for enrollment.<sup>45</sup> HCD employees attribute this growth in applications to increases in unemployment, decreases in employer-sponsored health programs, changes in Medicaid eligibility rules, simplified HCD application processes, and heightened public awareness about the HCD through its interaction with community partners.<sup>46</sup> In 2002, approximately 25,000 Palm Beach residents were served by CCP through the various plan options.

Along with CCP, the HCD also administers another HMO, Healthy Palm Beaches, Inc., that serves approximately 1,500 Medicaid recipients and children enrolled in Florida Healthy Kids,<sup>47</sup> a title XXI expansion program.

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<sup>44</sup> Per diem rates for emergency room and outpatient services are approximately 50 percent of charges up to a capitated rate. For inpatient services, there is a set per diem rate.

<sup>45</sup> Personal communication with representatives from HCD, February 26, 2003.

<sup>46</sup> Personal communication with representatives from HCD, February 26, 2003.

<sup>47</sup> Healthy Palm Beaches is one of three HMOs that serve Florida Healthy Kids recipients in Palm Beach County. HCD also supports Florida KidCare through Palm Beach County outreach funded by Florida Department of Health, The Robert Wood Johnson foundation, and local matching funds (\$2.3 million in 2001).

The HCD employs standard health insurance principles in setting its benefit structure and budget. The balance between the number of patients served and cost is evident in its three-tiered benefit structure. If required, the HCD can raise the millage rate in order to obtain additional funding. This has not happened, although funding levels have increased because of increases in property values.

The HCD participates in the upper payment limit Disproportionate Share Program (DSH); yet it does not use the money for its own services. The HCD has a contract with the state and all hospitals in the county to distribute upper-payment-limit DSH<sup>48</sup> funding to hospitals based on their utilization during the previous year.

### **Governance**

HCD's mission is to "maximize the health and well being of Palm Beach County residents by addressing their health care needs and planning for the access and delivery of services."<sup>49</sup>

Because the HCD is an independent taxing district, it has no direct fiduciary responsibility to the county commission. HCD has a seven-member, voluntary board of commissioners with three members appointed by the Palm Beach Board of Commissioners, three by the governor of Florida, and one by the director of the Palm Beach County Health Department. Commission terms are for four years, and commissioners are permitted to hold appointments for up to eight consecutive years.<sup>50</sup> This board sets general policy and amends the budget; there is no year-to-year carryover of district finds. The HCD invites public input at every board meeting, where any resident can make comments or requests simply by filling out a brief identification card. The HCD board also hosts public hearings about the millage rate, but one HCD official

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<sup>48</sup> Under federal and state law, hospitals that serve a disproportionate share of low-income patients are entitled to an increase in the Medicaid per diem rate. Florida requires counties to "match" state funds to fulfill the federal matching requirement for the Medicaid program. Thus, county agencies determine how the disproportionate share allocation is distributed among hospitals in the county.

<sup>49</sup> Health Care District of Palm Beach County, "Background Information," February 2003, p. 2.

<sup>50</sup> See <http://www.hcdpbc.org/>.

mentioned that the millage rate has not been a topic of public interest over the last four years because the rate has been declining.<sup>51</sup>

#### **MIAMI-DADE COUNTY**

In Miami-Dade County, health care for the medically uninsured is predominantly provided by the county-run system, the Public Health Trust (PHT). The PHT reports directly to the Miami-Dade County Board of County Commissioners (BCC). The PHT operates a number of facilities including the prestigious Jackson Memorial Hospital and a network of 12 primary care clinics. Given the location of PHT facilities and the population distribution in the county, the centralized source for inpatient care funded by local tax revenues has led to uninsured patients having less convenient access than insured county residents (Jackson et al., 2002). Uninsured patients are also treated by non-PHT hospitals without reimbursement. PHT facilities compete with the other 22 non-federal, short-term general hospitals in the county for insured patients.

In 1991, the county passed a special half-penny surtax to provide funds to support Jackson Memorial Hospital. Specifically, these funds were earmarked "for the operation, maintenance and administration of Jackson Memorial Hospital to improve health care services."<sup>52</sup> The infusion of funds financially stabilized the institution, but also broke the clear accountability and reporting mechanism that had been in place because the surtax revenues were treated like a block grant. The infusion of surtax funds also provided the opportunity for the BCC to move other health related programs into the PHT budget, giving the PHT more significant oversight of the health care for the entire county. In 2001, the surtax raised over \$140 million.

Public funding for the PHT is provided through the BCC. By statute, the BCC must provide property tax funds up to 80 percent of the maintenance of effort, that is, the BCC must continue to fund the PHT up to 80 percent of the pre-surtax level of funding. All surtax funds revert to the PHT. None of the funding is directly tied to providing indigent care.

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<sup>51</sup> Personal communication with representatives from HCD, February 26, 2003.

<sup>52</sup> This language comes from a referendum ballot measure.

## Governance

The PHT and Jackson Memorial Hospital have a complex mission statement that reflects its broad responsibilities in the Miami-Dade community. Of particular interest for this report are the following components:

To provide a single high standard of health care for those we serve . . . the newborn . . . the sick and injured . . . the critically ill . . . the needy of our community; to foster a coordinated system of health care for our community . . . to promote healthy lifestyles with programs in health education and disease prevention to decrease illnesses and injuries; and to utilize the resources of the medical center in the most appropriate and cost-effective manner while maintaining quality of service.<sup>53</sup>

PHT trustees are appointed by the BCC after being recommended by a nominating council appointed by the mayor and ratified by the BCC. The current PHT board consists of 21 voting member trustees and 8 *ex officio* non-voting members designated as: three county commissioners; the county manager or his/her designee; the president of the Public Health Trust; the senior vice president of Medical Affairs, the University of Miami; the president of the Jackson Memorial Hospital medical staff; and the dean of the University of Miami School of Medicine. The total number of members on the Trust Board is 29.<sup>54</sup> Trustees serve three-year terms that can be renewed three times for a total of nine years. Terms of individual trustees are staggered to allow for continuity. Trustees may be removed by a majority vote of the BCC.

The PHT conducts business under bylaws that specify responsibilities and structure. The board can modify the bylaws, but the BCC must approve changes before they become final. Since 1973, the bylaws have been modified 25 times. In addition, the BCC can modify the role of the PHT through the board's ordinance-writing authority.

When the PHT was first created by the BCC in 1973, there was a clear accountability reporting mechanism to permit the county important oversight of how public funds were spent. Hospital management submitted detailed billing statements for all indigent care patients treated at the facility to county management. While the county often did not reimburse the hospital fully for

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<sup>53</sup> See <http://um-jmh.org/JHS/MissionVision.html>.

<sup>54</sup> Note that this composition of the board differs from a previous structure whereby the 21 trustee positions were designated by specific demographic characteristics.



the care provided, there was a clear accounting for care provided an indigent patient and for the public dollars used to pay for that care.

In addition to reporting accountability, the BCC was actively involved in the selection of PHT board members. The then extant Health Systems Agency (HSA) identified three nominees for each vacancy, and the BCC made the final selection.

In a separate report, *Governance for What and Whom: Principles to Guide Health Policy in Miami-Dade County*,<sup>55</sup> we discuss how, over the years, the reporting link between public funding and indigent care has been lost. Moreover, the PHT is charged with operating numerous health care facilities and with developing and implementing plans for the countywide provision of health care services to the uninsured. Thus, the PHT has a dual mission – service provision and countywide planning – that inherently introduces a conflict of interest. The potential for conflict arises because the best governance structure – and board decisions – for the PHT may not be the best governance structure for an organization that is responsible for health care policy planning for the entire county.

Miami-Dade County Mayor Alex Penelas convened a health care task force in February 2002 and charged it to examine governance, planning, and organization for the locally funded health care programs in the county. As of May 2003, the new board of county commissioners has not taken action.

#### **SUMMARY**

Funding for indigent care in the three counties varies. In Broward and Palm Beach Counties, the hospital/health districts can modify their millage rates when needed. Thus, it is unclear to what extent the revenue budget is deemed fixed. In preparing future budgets, Palm Beach uses the number of program enrollments from the previous year. We assume that Broward uses past expenses and extrapolates to the future. In Miami-Dade, the Public Health Trust does not have any say in the tax rate because it is at a constant half-penny. Variations in annual allocations can occur with the property-tax-based revenue. Budgets tend to be based on historical information and anticipated future costs.

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<sup>55</sup> Jackson, Derose, and Beatty, 2003.

The three counties vary in how they can determine what services to provide. In all cases, however, each board has considerable input. Perhaps the most straightforward example is in Palm Beach County. Since Palm Beach does not operate facilities but rather reimburses providers, the district sets a benefit structure and uses insurance principles to estimate the costs of providing a those benefits to an enrolled population. Costs can be controlled through utilization review, provider contracting, or benefit design. Broward and Miami-Dade, however, operate facilities that can provide an array of services available to public and private patients. Without the structure of a fixed benefit package as is found in Palm Beach County, the availability of particular services is a function of what is provided at a given facility.

The three counties vary in the type of relationship a hospital has with local government funders, and to some extent its patient population. When all tax funds go to district hospitals, as in Broward, or to two public hospitals, as in Miami-Dade, only those district/public hospitals have a fiduciary relationship with the local government funding organization. Non-profit and for-profit hospitals in these counties provide care to the uninsured but receive no reimbursement. At a minimum, by federal statute, hospitals must provide care to those who present in an emergency. Thus, they have no formal relationship with the districts in Broward or with the PHT in Miami-Dade.

As discussed, all three counties use similar criteria to determine eligibility for charity care, as stipulated by Florida statute. In Palm Beach County these criteria are used for enrollment into the locally funded medical assistance program. However, some residents are ineligible, and their hospitalizations generally go uncompensated.

In Broward and Miami-Dade, only the tax-supported hospitals treating charity patients are subsidized by county funds. Tax-exempt and tax-paying hospitals receive no public funding at all.<sup>56</sup> There is very little transferring of charity patients from non-public to public facilities unless the services needed by the patient are only available in the public facility.

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<sup>56</sup> As will be shown, there is a modest amount of public funding provided to tax-exempt hospitals in Miami-Dade for special entitlement programs, such as children's services.

In contrast, the Health Care District of Palm Beach has a relationship with all hospitals in the county, irrespective of their tax status. When hospitals are contracted with the HCD, they agree to treat HCD Coordinated Care patients (i.e., the uninsured) for inpatient and outpatient services. For those low-income persons who do not qualify for the program, hospital care is provided without compensation

In sum, "dollars follow the patient" throughout all facilities in Palm Beach, while in Broward and Miami-Dade Counties, public tax funds are allocated to select facilities affiliated with the county or hospital districts to subsidize care for the indigent, but there is no clear link between indigent patients and public funds expended.

We explore further the amount of hospital care provided to the uninsured in Section 4 through patient travel patterns and the financial impacts in Section 5.



#### 4. HOSPITAL PATIENT TRAVEL PATTERNS IN SOUTH FLORIDA

*Do the differences in which people and services are funded in turn make a difference in patient utilization patterns?*

In this section, we present the findings of our analyses of geographic access to care as measured through patient travel patterns within and among the three South Florida counties. Two different analyses are discussed. The first is a patient level analysis to determine where the patient was admitted in relationship to his or her residence. The second uses the same information but examines the patient population by hospital. Both analyses provide information about geographic access to hospital care services. Both analyses use the patient-level hospital discharge data for 2000 from Florida State's Agency for Health Care Administration (AHCA). All Florida hospitals are required to report this information annually.

##### **PATIENT-LEVEL TRAVEL PATTERNS**

Good geographic access is defined through convenient access to care. When care is difficult to obtain because it is geographically distant, poor geographic access results. Conventional wisdom states that patients go to hospitals that are close to their homes, and this behavior is common among persons living in the same area regardless of insurance status.<sup>57</sup> The extent to which the travel patterns vary among persons living in the same area can tell us something about barriers to care. In this section, we present a brief narrative discussion of the analytic methodology; a more complete discussion is included as Appendix B.

##### **Analytic Methodology**

To measure travel patterns, we employ a proximity metric that measures the relative straight-line distance from the center of the patient's residential zip code to the center of the zip code of the hospital where admitted. Specifically, this metric counts the number of hospitals that the patient skipped before admission. Because there are areas of high hospital

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<sup>57</sup> We later show that this conventional wisdom holds in south Florida.

concentration and because this measure of distance is only relative, we focus on the extremes - those persons hospitalized close to their homes, that is, they went to the first or second hospital closest to their homes, and those hospitalized far from their homes, that is, they skipped nine or more hospitals.

We compare travel patterns of patients who have commercial insurance, who have Medicaid, or who are uninsured.<sup>58</sup> Commercially insured and Medicaid insured patients should have good financial access to care because hospitals know they will be reimbursed. Patients without health insurance may face or perceive financial barriers to getting hospital care. Moreover, they may feel constrained to use only tax-supported hospitals. Thus, their travel patterns may be different from those of insured persons living in the same area. To the extent that the patterns are similar, we conclude that the geographic access to care is similar across insurance types. Some differences in travel patterns will accrue to differences in patient preferences, availability of specific services needed, or insurance-specific constraints. However, in examining the extremes of the travel patterns such minor effects should be diminished. Thus, where there are differences in travel patterns by insurance category, we explore whether the organization and financing of indigent care in the county could affect care seeking. If patients without insurance differentially travel further from their homes than those who have insurance, we may conclude that the organization and financing of indigent care is affecting where patients are hospitalized.

We structure the comparisons so that similar groups of patients are being compared. We compare adults with adults,<sup>59</sup> and children with children. We further separate patients into those with emergency conditions, and those with elective or urgent conditions. Finally, we construct a very narrow comparison among adults with cardiac conditions other than heart attack (i.e., acute myocardial infarction). With each level of disaggregation and comparison, the patients become more similar, and we have a greater likelihood of finding

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<sup>58</sup> We exclude Medicare patients from the travel analysis because they are generally older than the uninsured. Including Medicare patients would confound the effects of age and insurance.

<sup>59</sup> We exclude all admissions for normal delivery because Medicaid covers pregnant women generally, hence lowering the financial barrier for women.

differences if differences exist.

**Overview of Hospital Use**

Before we constructed our patient subgroups, we looked at the insurance distribution by county among children and adults. Over one-half-million hospital discharges were reported in the AHCA hospital discharge data from the three counties in 2000 (Tables 5 and 6). Sixteen percent of the discharges

**Table 5**

**All Hospitalized Pediatric Patients, Birth to Age 17, by Insurance Type and County, 2000**

South Florida County of Residence	Number and Percentage of Admissions Within County					Total
	Medicare	Medicaid	Commercial	Other	Uninsured	
Broward	42 (0.1%)	9,911 (27.8%)	20,914 (58.6%)	24 (0.1%)	4,783 (13.4%)	36,674
Miami-Dade	373 (0.7%)	25,019 (44.4%)	25,951 (46.0%)	107 (0.2%)	4,952 (8.8%)	56,402
Palm Beach	43 (0.2%)	8,657 (38.1%)	8,657 (38.1%)	41 (0.2%)	2,192 (9.7%)	22,711

SOURCE: State of Florida Agency for Health Care Administration, hospital discharge data, 2000.

are children; 84 percent are adults. Of the three counties, Broward has the highest percentage of hospitalized persons covered by commercial insurance: 58.6 percent of children and 35.2 percent of adults. Palm Beach County has the greatest proportion of Medicare covered discharges - over 50 percent of all adult discharges are covered by Medicare. Miami-Dade County has the greatest proportion of discharges covered by Medicaid - 44.4 percent of pediatric discharges and 16.1 percent of adult discharges. Broward County also has the greatest proportion of discharges of uninsured person - 13.4 percent of children and 11 percent of adults.

**Table 6**

**All Hospitalized Adult Patients, Ages 18 and older, by Insurance Type and County, 2000**

South Florida County of Residence	Number and Percentage of Admissions Within County					Total
	Medicare	Medicaid	Commercial	Other	Uninsured	
Broward	84,912 (45.7%)	13,840 (7.5%)	65,431 (35.2%)	1,195 (0.6%)	20,434 (11.1%)	185,812
Miami-Dade	101,926 (39.0%)	42,035 (16.1%)	87,890 (33.7%)	1,904 (0.7%)	27,297 (10.5%)	261,052
Palm Beach	73,682 (52.1%)	10,503 (7.4%)	44,403 (31.4%)	964 (0.7%)	11,886 (8.4%)	141,438

SOURCE: State of Florida Agency for Health Care Administration, hospital discharge data, 2000.

**Adult Patient Travel Patterns**

Our analysis of hospital patient travel patterns uses subsets of discharges, and here we focus on those patients who have commercial insurance, who have Medicaid, or who are uninsured. A first look at these data shows that the overwhelming majority of patients receive hospital care in their home counties (Table 7). As one might expect, Broward County, which is geographically situated between Miami-Dade and Palm Beach counties, has the greatest percentage of adult patients traveling outside the county for hospital care.

**Table 7**

**Inter-County Travel Among Adult Hospitalized Patients, 2000**

South Florida County	Percentage of Patients Traveling Among Counties				Total
	Broward	Miami-Dade	Palm Beach	Other	
Broward	88.9	7.3	3.9	< 1	78,893
Miami-Dade	3.5	96.4	< 1	< 1	113,146
Palm Beach	3.5	2.0	94.3	< 1	50,372

SOURCE: State of Florida Agency for Health Care Administration, hospital discharge data, 2000.



Over 7 percent of Broward residents receive care in Miami-Dade, while approximately half of this proportion of Miami-Dade residents receive care in Broward.

Tables displaying the detailed information for the travel pattern analysis can be found in Appendix C. For adult and pediatric patients and hospitalization type, Appendix C tables display the number of hospitals between each patient's home and the hospital where admitted by insurance category and county of residence, along with distribution of inter- and intra-county hospital care.<sup>60</sup> Numbers in the "1&2" column indicate the proportion of patients receiving care at either the closest or second-closest hospital, by insurance type and county of residence. Similarly, numbers in the "10+" column indicate the proportion of patients receiving care at a hospital that is ranked tenth or higher in terms of distance. The right three columns portray proportions of inter- and intra-county travel, also by insurance status and county of residence.

A review of Appendix C tables suggests several general themes common to all adults and subgroups of adults. First, patients in Palm Beach are most likely, compared with patients in Broward and Miami-Dade, to travel to nearby hospitals. In Palm Beach, hospitals are located primarily in two clusters of greater population density - along the coast and in the northwest portion of the county. Large portions of the population do not live far from these two clusters and, thus, are close to hospitals in the county.

Second, within Palm Beach, commercially insured patients are less likely than Medicaid and uninsured patients to travel to nearby hospitals. Not surprisingly, Palm Beach also has the lowest proportion of hospital "skippers." That is, compared with Broward and Miami-Dade counties, the lowest proportion of patients traveling to faraway hospitals is found in Palm Beach. This likely indicates that the commercially insured in Palm Beach travel to hospitals that are between three and nine in proximity ranking.

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<sup>60</sup> We compared proportional differences for statistical significance for numbers in Tables C.3-C.9. Significance is reported in the tables presented in Appendix C. An overwhelming majority of proportional differences are statistically significant. In this analysis, we focus on differences relevant from a policy perspective, not simply those with statistical significance. All differences discussed in the following analysis are statistically significant at the 5 percent level or lower.

Third, in contrast to little skipping in Palm Beach, we see the greatest hospital skipping or greatest travel in Miami-Dade, especially by the uninsured. Overall, we find a gradient across counties in the tendency of patients to seek care at faraway hospitals. Most skipping occurs in Miami-Dade, followed by Broward and finally Palm Beach. Looking at hospital and population density in Miami-Dade, we see a great concentration of hospitals in the urban center. Yet significant portions of the population live in the south and west parts of the county, which are home to fewer hospitals. Moreover, as mentioned in Section 2, the system in Miami-Dade is such that one hospital, Jackson Memorial, located in the urban center, treats the greatest proportion of the medically indigent. This location prompts the medically indigent living throughout the county to travel to Jackson Memorial Hospital for care. The recent acquisition of Deering Hospital, now called Jackson South Community Hospital, may change the travel patterns; the expectation being that the uninsured will travel a bit less than before.

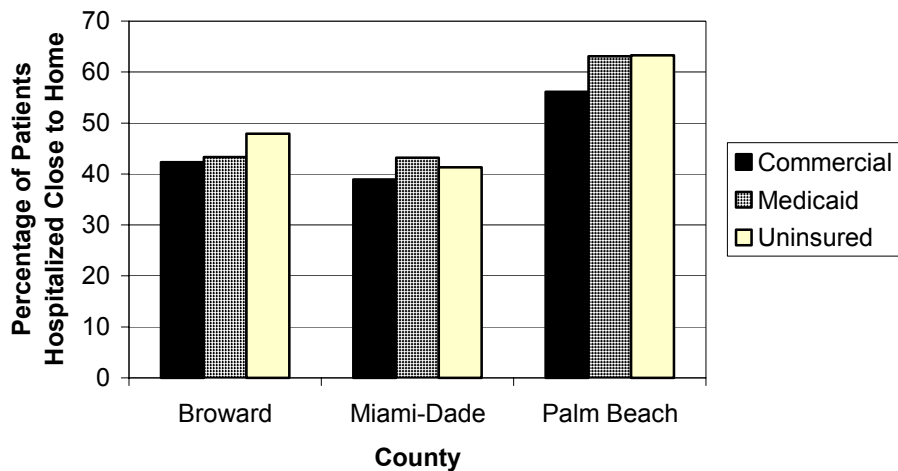
Fourth, the commercially insured in all counties are more likely than Medicaid and uninsured patients to seek care outside the county. This may be because the commercially insured have better access to transportation, making it easier to travel to a hospital of their choice. Broward County patients, particularly the commercially insured, exhibit the greatest tendency to travel outside the county for hospital care. We hypothesize that this may be a result of the larger population masses located near the Miami-Dade, and to a lesser extent, Palm Beach County borders. Broward residents may actually live closer to hospitals in Miami-Dade.<sup>61</sup> Southern parts of Broward County serve as a bedroom community to people who work in Miami-Dade. Broward residents who work across the border may see physicians in Miami-Dade who have admitting privileges at hospitals in that county.

These general observations are seen in the summary information that is charted for adult hospital discharges. These are discussed below.

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<sup>61</sup> For this analysis, we only measured skipping behavior within counties. That is, we calculated the distance between a resident's zip code and hospital zip code within the resident's home county. We did not look at how far residents travel to hospitals across county lines.

**All Adult Discharges.** Travel patterns for all adult hospital discharges reveal that there is more variation in geographic access across counties than within counties. This point is illustrated in Figures 10 and 11. In Figure 10, we see that the differences in travel patterns across insurance types for patients hospitalized close to home are within 10 percentage points. In Figure 11, we see that the differences in travel patterns across insurance types for patients hospitalized far from home are within 5 percentage points. Thus, when we look at a very aggregate level - all adult discharges - we see very little difference in geographic access to care by insurance type within each county.



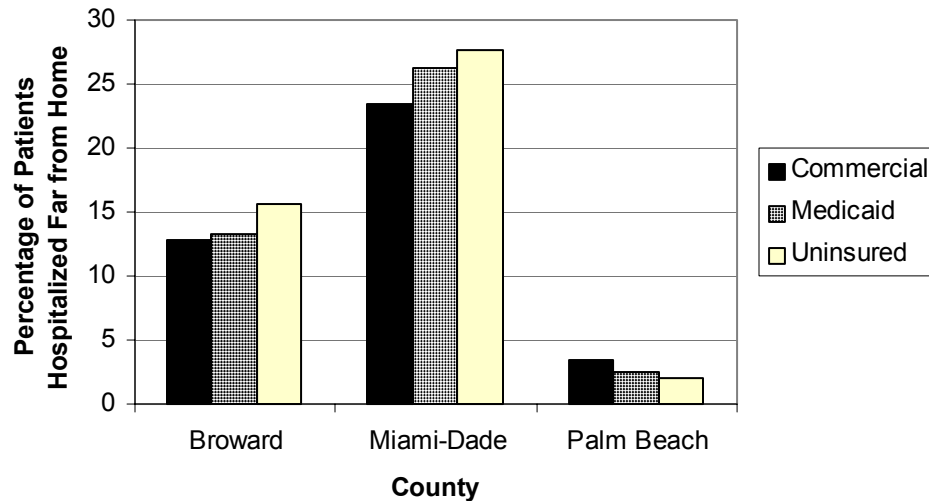
SOURCE: State of Florida Agency for Health Care Administration, hospital discharge data, 2000.

**Figure 10. Commercially Insured Adults Are Less Likely to Be Hospitalized Close to Their Homes Than Adults Covered by Medicaid and Uninsured Persons**

However, geographic access varies across the counties. Adult residents of Palm Beach County are more likely to be hospitalized close to their homes than are adults in Broward or Miami-Dade counties. Adults in Miami-Dade County are more likely to travel beyond the hospitals close to their homes. Interestingly, commercially insured adult patients are relatively more likely to be hospitalized in hospitals that rank three through nine. This pattern suggests commercially insured patients are not compelled to be hospitalized at the closest hospital to their home, but do not choose to travel to hospitals that are farther than nine hospitals away. This pattern is suggestive of

patients exercising preference for certain hospital characteristics, but the preferences are not strong enough to warrant travel.

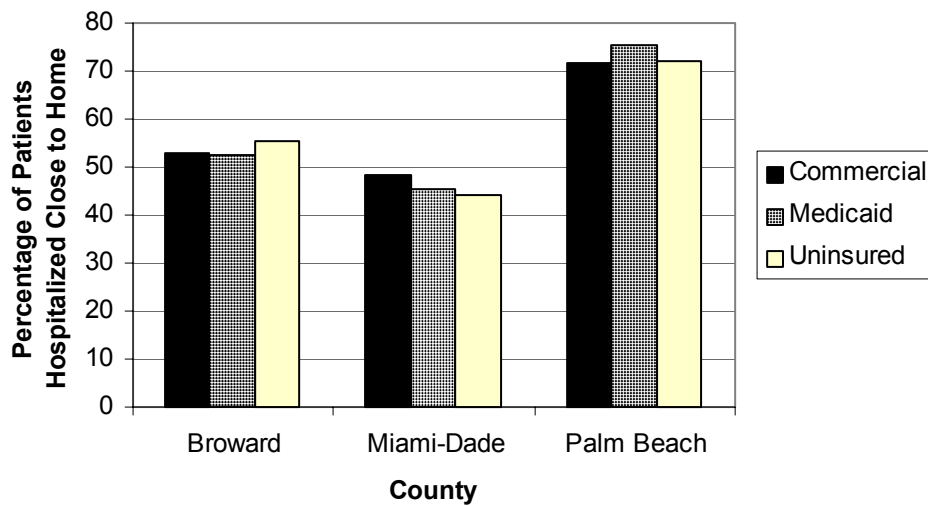
We see a gradient from greatest to least proportion of patients skipping more than nine hospitals in Miami-Dade, followed by Broward and Palm Beach. Between Miami-Dade and Broward counties, the differences are between 12 and 13 percentage points; between Broward and Palm Beach, the differences are between 9 and 13 percentage points. These between-county differences are all statistically significant (see Appendix C for pair-wise significance tests).



SOURCE: State of Florida Agency for Health Care Administration, hospital discharge data, 2000.

**Figure 11. Uninsured Adults in Broward and Miami-Dade Counties Are Hospitalized Further from Their Homes Than Those with Commercial or Medicaid Insurance; Few Adults Are Hospitalized Far from Home in Palm Beach County**

**Adult Emergency Admissions.** We compare the travel patterns for adults admitted to hospitals for emergency conditions. Generally, even very restrictive insurance plans permit out-of-plan use for emergency care. Moreover, in certain situations, such as being transported in an ambulance, emergency admissions have little or no choice regarding where they receive hospital care because they are taken to the nearest hospital. Given this lack of choice, we would expect that access would be similar across insurance types. Differences would reflect a pure measure of access. Results are shown in Figure 12.

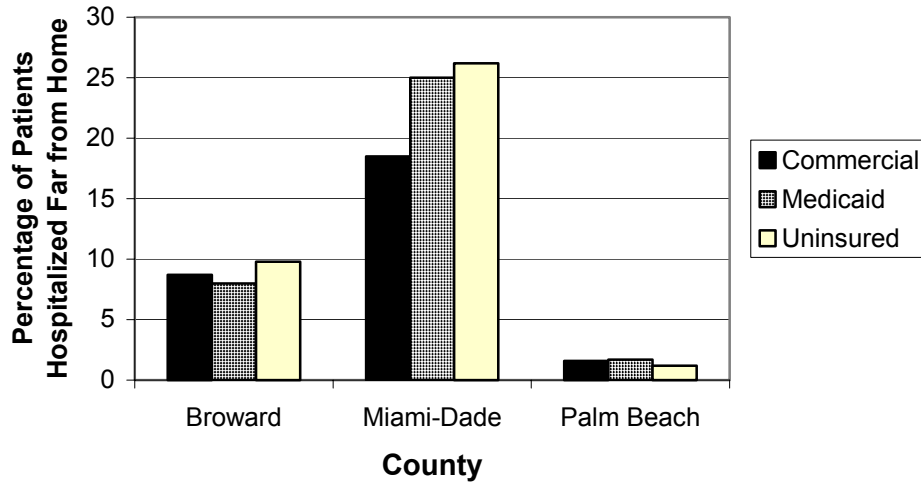


SOURCE: State of Florida Agency for Health Care Administration, hospital discharge data, 2000.

**Figure 12. Adults Are Hospitalized Close to Their Homes for Emergency Conditions**

For emergency admissions, we see parity across insurance types in proportions of patients traveling to nearby hospitals. Over half of adult emergency admissions are made to hospitals close to the patients' homes. In Miami-Dade over 40 percent of adult emergency admissions are made close to home.

Figure 13 shows the proportions of patients admitted for emergency conditions receiving care in faraway hospitals. Both Broward and Miami-Dade County adult emergency admissions travel more than those in Palm Beach County. Adults who lack insurance in these two counties travel further than those with Medicaid or commercial insurance. In Miami-Dade there is a difference in travel patterns between those with public versus private insurance - those with commercial insurance exhibit less of a tendency to travel than Medicaid and uninsured patients (a 6.5-7.7 percentage point difference). This difference is statistically significant.

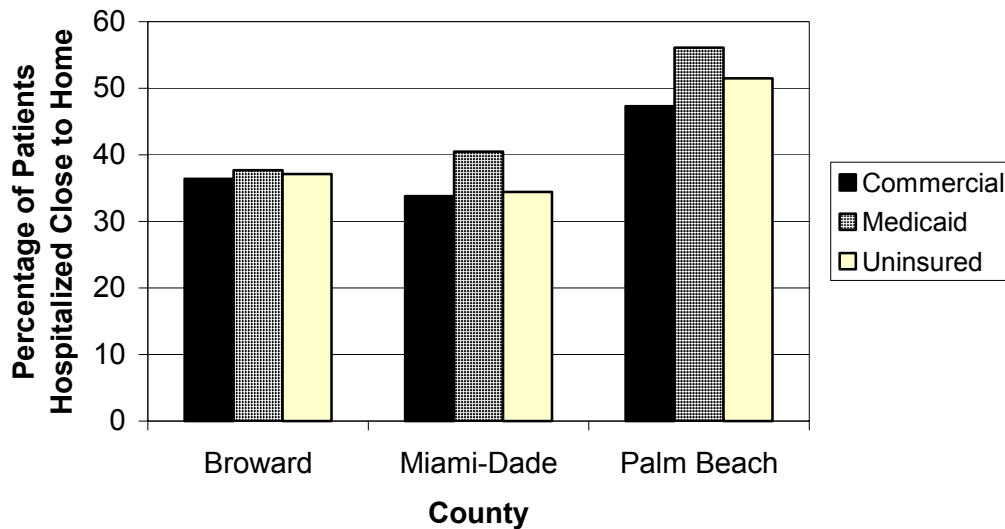


SOURCE: State of Florida Agency for Health Care Administration, hospital discharge data, 2000.

**Figure 13. Medicaid and Uninsured Adults with Emergency Conditions in Miami-Dade Are More Likely to Be Hospitalized Far from Home Than Adults in Broward or Palm Beach Counties**

As before, there is more variation in the travel patterns across counties than within counties. Patients residing in Palm Beach are the most likely to receive care at nearby hospitals, followed by Broward and finally Miami-Dade. We see an approximately 10 percentage point difference between Broward and Miami-Dade, and an approximately 20 percentage point difference between Broward and Palm Beach. Similarly, Miami-Dade has the highest proportion of patients traveling to farthest hospitals, followed by Broward and then Palm Beach.

**Adult Urgent/Elective Admissions.** Urgent and elective admissions generally do not require the immediate treatment that emergency admissions require. Because these types of admission can be planned, we might expect that the travel patterns for urgent and elective conditions will be different than those for emergency conditions because of insurance-driven hospital choice or strong personal preference.



SOURCE: State of Florida Agency for Health Care Administration, hospital discharge data, 2000.

**Figure 14. For Elective and Urgent Conditions, Most Adults Are Likely to Be Hospitalized Close to Home**

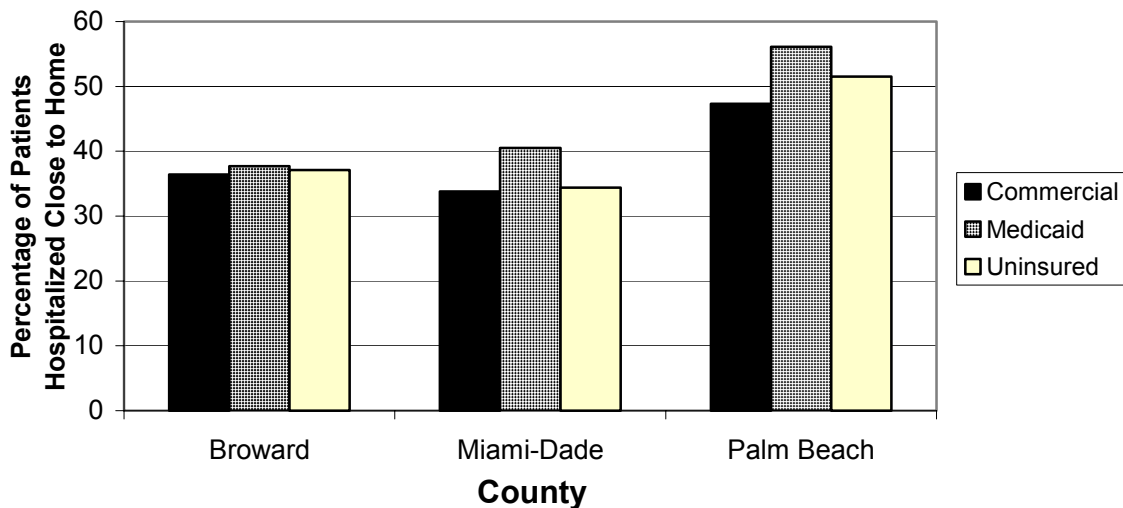
For urgent and elective admissions, we do not find large differences across payers (Figure 14). Instead, we see nearly identical proportions of payers receiving care at nearby hospitals in Broward. In Miami-Dade and Palm Beach, differences between payers are relatively small. The uninsured and commercially insured patients in Miami-Dade are less likely than Medicaid insured to receive care at nearby hospitals, an approximate 6.0 percentage point difference. In Palm Beach, Medicaid patients are most likely to travel to nearby hospitals, which differs from travel by the uninsured by 4.6 percentage points, and from travel by the commercially insured by 8.8 percentage points. While these differences are statistically significant, they are not as large as the differences seen in the patterns for emergency admissions.

Among those patients who travel further from their homes for care, we do not see big differences between payers within counties (we did not chart these differences). As before, Palm Beach County adults are less likely to be hospitalized far from their homes, and Miami-Dade County adults are more

likely. However, the differences across payers within counties is always less than 10 percent. Persons lacking health insurance have a higher likelihood of being admitted to a hospital that is the tenth or further from their homes.

**Adult Cardiac Patients.** We examine the travel patterns of adult cardiac patients because in contrast to the previous adult patient categories, this patient group is homogeneous with respect to diagnosis. Thus, differences in travel patterns between insurance groups cannot be attributed to diagnosis-specific reasons for traveling to a particular hospital. Results for cardiac patients are shown in Figure 15.

Uninsured patients in Broward and Miami-Dade counties are less likely to be admitted to hospitals close to their homes, and more likely to be admitted to hospitals far from home. The uninsured in Palm Beach County are less likely to be hospitalized close to their homes, but are not compelled to travel to hospitals far from home.



SOURCE: State of Florida Agency for Health Care Administration, hospital discharge data, 2000.

**Figure 15. Medicaid Adult Cardiac Patients Are More Likely to Be Hospitalized Close to Their Homes Than Commercially Insured and Uninsured Adults**

Unlike results for all adults, we see larger differences across payers in patients' tendencies to receive care at nearby hospitals. In Miami-Dade, Medicaid patients are approximately 8-9 percent more likely than commercially



insured and uninsured patients to receive care at nearby hospitals. In Palm Beach, this difference is 18.8 percentage points between commercially insured and Medicaid, and 14.3 percentage points between commercially insured and uninsured. Across the three counties, commercially insured cardiac patients are less likely to receive care at nearby hospitals but chose hospitals that rank between three and nine in proximity.

In Broward, the uninsured are more likely, by approximately 5 percentage points, than commercially insured and Medicaid patients to receive care within the county. In Miami-Dade, Medicaid patients are most likely (compared with commercially insured and uninsured patients) to stay in the county. Commercially insured cardiac patients in Palm Beach County are least likely (approximately 6-7 percentage points) to receive care within the county.

#### **Pediatric Patient Travel Patterns**

While the majority of hospitals can stabilize pediatric patients, hospital treatment of pediatric patients often requires special instrumentation and equipment, leading hospitals to specialize in pediatric care. For the analysis of pediatric travel patterns, we analyze only the hospital discharge data from hospitals that accounted for at least one percent of pediatric discharges in the county. There are 36 hospitals that meet this criterion and are in this analysis.

The overall travel patterns for pediatric patients mirror the patterns seen for adult admissions, with a slight shift in scale. Specifically, across the three counties, all children in Palm Beach County are more likely to be hospitalized close to home than children in Broward or Miami-Dade Counties. Across counties, children with commercial insurance are less likely to be hospitalized close to home. Looking at those children who skip nine or more hospitals, overall, and those hospitalized for urgent or elective conditions, we find that Broward and Miami-Dade County uninsured children travel further than those with Medicaid. Differences among insurance categories are much smaller for emergency conditions in which children skip 10 or more hospitals. Children with commercial insurance go to hospitals 3 to 9 in distance rank from their homes.

#### **HOSPITAL PATIENT POPULATION PERSPECTIVE**

Using the same calendar year 2000 patient travel data described above, we examined those patients who live close to a specific hospital. Specifically, we looked at the first or second closest hospitals to the patient and identified these as the hospital(s) in the neighborhood.

From this analysis we see that most hospitals treat patients that are geographically close. This is the corollary to the finding from the patient-level analysis that showed that most patients are hospitalized near their homes.

Not all hospitals, however, had the majority of their patients from their "neighborhood." Some hospitals draw patients from a wider area, such as those hospitals that have specialized treatment facilities, e.g., trauma centers or tertiary services, or have characteristics that are specifically valued by patients, e.g., a particular religious affiliation. As would be expected, only 3 of 13 hospitals in Palm Beach County draw patients from a broader area, in Broward County 6 of 16 hospitals, and in Miami-Dade 17 of 24 hospitals.<sup>62</sup>

These data also suggest that the patient insurance distribution among those living in the hospital "neighborhood" mirrors that of the total patient population. However, there are some interesting patterns. Given that the capacity of a hospital is fairly fixed, variation in the insurance distribution of those living close versus those not living close occurs in the proportion of commercially and Medicare insured patients. The proportions of these two patient groups are inversely related, when one goes up, the other goes down. There is also some suggestion that hospitals within the same system may specialize. For example, Broward General sees more uninsured patients than might be expected while Imperial Point sees fewer.

Given that most patients are hospitalized close to their homes and that for the typical community hospital, the majority of the patient population comes from the community in which it is located, the socioeconomic status of the population living in the area surrounding the hospital will determine the

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<sup>62</sup> A quarter of Aventura Hospital's patients come from Broward County, and the hospital is on the Broward/Miami-Dade County border. In this analysis, Miami Heart Institute is a separate and distinct facility from Mt. Sinai Medical Center.

patient population. Using data from the census, Table 8 shows the percentage of households with incomes below the FPL in the zip code of the hospital.

Broward County has the lowest and the most variation in the levels of poverty surrounding its hospitals. Tax-supported hospitals in the North Broward Hospital District are in areas that have a higher percentage of households in poverty than the facilities in the south district. Tax-exempt hospitals are in the least poor areas, and the tax-paying hospitals are in areas with poverty levels between the north district facilities and the south district facilities. In Miami-Dade there is less variation in poverty levels - tax-exempt hospitals are in the poorest areas, followed by tax-supported hospitals and tax-paying hospitals. In Palm Beach County, hospitals are located in areas of similar poverty levels - tax-exempt hospitals are in areas that have a slightly higher poverty level than those of tax-paying hospitals.

**Table 8**  
**Average Percentage of Households Under Federal Poverty Level in Hospital-Specific Zip Codes, by County and Ownership, 2000**

County	Tax Exempt	Tax Paying	Tax supported	Total
Broward	7.9	10.5	12.1 (N) 8.9 (S)	10.4
Miami-Dade	18.4	15.5	16.6	16.8
Palm Beach	14.7	11.3		12.6
Total	16.8	13.0	12.1 (N) 8.9 (S) 16.6 (MD)	13.8

SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 2000, and U.S. Census Bureau.

NOTE: N = North Broward Hospital District, S = South Broward Hospital District, and MD = Miami-Dade County.

A strong caveat should be stated regarding this analysis: These poverty levels are for the particular zip code where the hospital is located. Even those hospitals that serve patient populations living close to them may draw patients from more than one zip code and thus have a different poverty profile among their patient population.

**TYPE OF ADMISSION, INSURANCE, AND HOSPITAL TAX STATUS**

A final question we can ask is whether or not there are differences in types of admissions, emergency and elective/urgent, among insurance groups and whether or not this varies by hospital tax status. Using all patient discharges, except newborns, we calculated the percentage of discharges that were for emergency conditions. For comparability, we report the percentages for commercially and Medicaid insured persons, and the uninsured (Table 9).

**Table 9**  
**Percentage of Discharges That Are for Emergency Conditions**

Tax Status of Hospital and Patients' Insurance Status	Broward County	Miami-Dade County	Palm Beach County
<b>Tax exempt</b>			
Commercial	32.5	37.4	43.5
Medicaid	32.8	45.3	43.4
Uninsured	47.3	51.7	66.6
<b>Tax paying</b>			
Commercial	49.4	41.3	35.4
Medicaid	37.7	39.1	35.3
Uninsured	64.3	59.0	49.7
<b>Tax supported</b>			
Commercial	33.5	58.8	
Medicaid	42.4	77.9	
Uninsured	53.6	79.2	
<b>Total</b>			
Commercial	40.3	40.7	39.1
Medicaid	40.4	54.2	40.0
Uninsured	55.5	67.4	55.9

SOURCE: State of Florida Agency for Health Care Administration, hospital discharge data, 2000.

All but two hospitals in the three county area have an emergency room thus reducing any bias that admission through the emergency room would have on categorizing type of admission.<sup>63</sup>

Across the three counties, the uninsured always have a higher incidence of admission for emergent conditions than do commercially and Medicaid insured patients. The commercially insured have similar incidence of admission for emergent conditions. Medicaid insured patients appear to have a more stable admission profile in tax-exempt and tax-paying hospitals across the counties, but they have higher rates in tax-supported hospitals. Miami-Dade County's type of admission profile is different from those of Broward and Palm Beach Counties, showing higher percentages of Medicaid and uninsured emergency admissions.

Recall that in the geographic access analysis, we found that travel patterns for adult and child emergency conditions showed little difference among payers in Broward and Palm Beach Counties; a minority of patients traveled to faraway hospitals for emergent condition admissions. Miami-Dade, however, displayed more variation, with the uninsured having the greater likelihood of travel than those with insurance. Combining that finding with the information presented here for Miami-Dade County's tax-supported facility suggests that geographic access is a problem for the uninsured. Given that a higher proportion of uninsured are admitted for emergent conditions at Miami-Dade County's tax-supported facility *and* they are more likely to travel further than persons insured commercially or by Medicaid suggests that poor geographic access is a problem for the uninsured in this county, and worse compared with the uninsured living elsewhere in south Florida.

#### **SUMMARY**

We have identified several characteristics of the travel patterns of adult and pediatric patients across the three counties. These patterns are consistent with what we would expect given the structure of the public

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<sup>63</sup> University of Miami Hospital and Clinics and South Shore Hospital and Medical Center do not have emergency rooms. The first because it is associated with Jackson Memorial Hospital, which has a large trauma unit, and the second because of its focus on chronic conditions. Both hospitals are located in Miami-Dade County.

financing of care for the uninsured. Those systems that are more centralized compel patients to travel further than those with more decentralized care. When there is a mechanism to reimburse hospitals for care for the uninsured, the uninsured are more likely to receive care at hospitals near their homes. However, we cannot definitely say that there is a cause and effect.

Other observations regarding the travel pattern analysis include the following:

- The majority of patients are treated in hospital facilities that are located in their county of residence. There is a modest amount of inter-county travel.
- There are greater differences in geographic access to care across counties than within counties. This suggests there are strong inter-county differences affecting patient travel patterns. These differences include population density and hospital locations. Because we saw smaller differences within county, there is some homogeneity of county-specific effects on all residents, regardless of insurance status.
- Palm Beach County patients are more likely to be hospitalized close to their homes than patients living in Broward or Miami-Dade County.
- Commercially insured patients are less likely to be hospitalized close to or distant from their homes. This suggests that they exercise the most discretion in their choice of hospital.
- Those children who travel across county lines for care travel more often to Miami-Dade County regardless of their county of residence.

5. HOSPITAL FUNDING OF INDIGENT CARE IN SOUTH FLORIDA

*Are the differences in local governmental funding mechanisms resulting in differences in other accountability measures, e.g., cost per day or staffing ratios?*

To understand local public funding of care for the uninsured and its effect on hospitals, we analyzed the hospital financial data compiled and maintained by AHCA. Hospital management report these data according to detailed reporting instructions stipulated by the state (State of Florida, 1992). While hospitals report data according to their own fiscal years, we examine the data by calendar year. To smooth the effects of different reporting periods, we examine the trends in the financial information from 1998 through 2001.<sup>64</sup>

To facilitate the cross time comparisons, we made several adjustments to the data. First, we categorize the ownership of the hospital according to the ownership status in 2001. Two hospitals are affected by this decision - Deering Hospital and Cleveland Clinic Hospital. Deering Hospital, previously a tax-paying hospital, was purchased by the Public Health Trust in 2000 and became tax supported. It is identified as tax supported across the four years. Cleveland Clinic Hospital was initially tax exempt but changed ownership status to tax paying. For this analysis, it is identified as tax paying across the four years.

Second, two "mergers" affecting four facilities occurred during this period of time. We have combined their information: Mount Sinai Medical Center includes the Miami Heart Institute, and Delray Medical Center includes Delray Medical Center - Fair Oaks Pavilion. These four facilities are identified as two throughout the analysis.

**SOME BASIC DESCRIPTIVE MEASURES**

Using these data, we calculated various metrics of productivity that could be used for accountability and reporting purposes. We calculated these measures at the hospital level and then aggregated by ownership type by

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<sup>64</sup> The pre-1998 data are in a different computer format.

county. We analyze the North and South Broward District hospitals separately and compare each to the full county complement of tax-paying and tax-exempt hospitals because there is only one tax-exempt hospital in the entire county and only one non-tax-supported hospital in the South Broward Hospital District. In looking at hospitals by county and ownership, we can make comparisons across different types of reimbursement regimes. It should be noted that the metric's denominator weights the averages computed. For example, the aggregate occupancy rate is not the simple average of individual hospital occupancy rates, but it is calculated as the ratio of total patient days to total available patient bed days for each county-ownership group. Weighting in this manner gives larger hospitals more influence since they have more beds available than smaller hospitals.

Table 10 displays descriptive information for the hospitals by county and ownership for 2001. Eight different hospital characteristics are presented: total number of beds available, total number of admissions, total number of adjusted admissions, average occupancy rate, the average number of physicians per bed, average length of stay, average Medicare case mix index value, and average gross revenue per adjusted admission.

**Beds Available:** Across the three counties and hospital ownership, Miami-Dade has the greatest number of hospital beds, and the majority of beds are in the tax-paying sector. Broward County is second, with the majority of beds in the tax-supported sector, although tax-paying hospitals nearly match those in the tax-supported sector. Palm Beach County has hospital beds fairly evenly split between the tax-exempt and tax-paying sectors.

**Actual Admissions:** This is the number of admissions to the hospital.

**Adjusted Admissions:** A standard measure of overall hospital productivity that combines inpatient admissions with admission-equivalent outpatient services. Thus, those hospitals with large outpatient services will have adjusted admissions much larger than their actual admissions. The adjustment factor defines the relative size of outpatient services as a residual. The adjustment factor is calculated as follows: [Total Patient Care Services Inpatient Revenue - Skilled Nursing Facility Revenue - Psychiatric Long-Term Care Revenue - Intermediate Care Revenue - Residential Care Revenue - Home



Health Services Revenue Residential Care] / [Total Patient Care Services Total Revenue + Total Other Operating Revenue].

**Occupancy Rates:** The tax-supported hospitals in Broward and Miami-Dade have the highest occupancy rates within their counties. In Broward County, tax-exempt and tax-paying hospitals are, on average, half full. Occupancy rates are higher in tax-paying hospitals in Palm Beach County. While occupancy rates are common metrics used to compare hospital performance, in south Florida they are problematic because of the seasonal change in population. During the winter, the south Florida population increases considerably. Thus, these average rates do not reveal the occupancy rate spikes that occur during the winter.

**Average number of doctors per bed.** Tax-exempt and tax-supported hospitals have similar salaried physician staffing ratios - 1.2 physicians per bed. Tax-paying hospitals, however, have fewer salaried physicians. Miami-Dade tax-supported hospitals, however, present an exception to these observations. Physicians practicing at Jackson Memorial Hospital are contracted through an arrangement between the University of Miami and the Public Health Trust, and are thus not reported. Contracted staff are not included in the reporting of personnel to the state. Because contracted nursing staff are similarly not reported, we did not make nurse-staffing comparisons across hospital types and counties.

**Average length of stay.** Tax-supported hospitals have the longest average length of stay (LOS). The tax-paying and tax-exempt hospitals have similar lengths of stay within counties.

**Table 10**  
**Basic Measures of Hospital Structure and Activity, 2001**

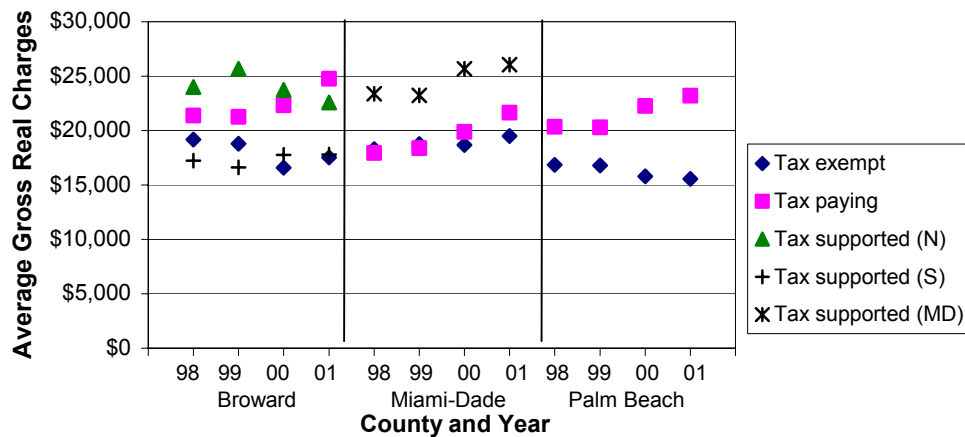
County	Measure	TaxExempt	Tax Paying	Tax Supported	Total
Broward	Total beds	601	2,357	2,535	5,493
	Actual admissions	19,332	76,028	54,831 (N) 52,834 (S)	203,025
	Total adjusted admissions	28,543	103,089	81,221 (N) 84,559 (S)	297,412
	Avg occupancy	46.8	46.4	65.5	55.4
	Physicians/bed	1.1	1.0	1.6	1.3
	Avg LOS (in days)	5.3	5.1	5.5	5.3
	Avg case mix	1.7	1.5	1.5	1.5
	Gross charges per adjusted admission	\$17,522	\$24,760	\$22,586 (N) \$17,783 (S)	\$21,488
Miami-Dade	Total beds	3,106	4,051	1,765	8,922
	Actual admissions	128,313	133,993	57,906	320,212
	Total adjusted admissions	199,956	185,573	74,540	460,069
	Avg occupancy	65.8	53.7	75.5	61.9
	Physicians/bed	1.3	0.7	0.4	0.8
	Avg LOS (in days)	5.8	5.9	7.5	6.1
	Avg case mix	1.5 <sup>a</sup>	1.3	1.7	1.5
	Gross charges per adjusted admission	\$19,514	\$21,633	\$26,068	\$21,431
Palm Beach	Total beds	1,795	1,745		3540
	Actual admissions	61,831	94,154		155,985
	Total adjusted admissions	98,907	131,269		230,176
	Avg occupancy	62.0	71.4		67.3
	Physicians/bed	1.4	1.2		1.3
	Avg LOS (in days)	5.0	4.9		4.9
	Avg case mix	1.3	1.5		1.4
	Gross charges per adjusted admission	\$15,550	\$23,193		\$19,909

SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 2001.

NOTES: Weighted averages are displayed, weights for occupancy - bed days; physicians per bed - available beds; length of stay - actual admissions; case mix index - actual admissions; average charges - adjusted admissions. N = North Broward Hospital District; S = South Broward Hospital District.

<sup>a</sup> Miami Children's Hospital, because of the patient population it serves, does not have a Medicare case mix index.

**Average case mix.** We use the Medicare case mix index as a measure of overall hospital patient complexity. The higher the case mix index, the sicker the patients. The index reflects only Medicare patients. To the extent that the hospital's Medicare patients' complexity reflects that of the entire hospital's patient population, the index provides some information



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 1998-2001.

NOTE: N = North Broward Hospital District, S = South Broward Hospital District, and MD = Miami-Dade County.

**Figure 16. Average Real Gross Charges at Tax-Paying Hospitals in All Three Counties Have Increased**

concerning the hospital's patient population. It should be noted that all the hospitals in the three counties have case mix indices at or above the national average of 1.2 (range is 0.4-2.9).

**Average gross charges per adjusted admission.** Gross charges reflect the retail prices hospitals can charge. Figure 16 displays the time trend in real (consumer price index adjusted) gross charges per adjusted admission.<sup>65</sup> The

<sup>65</sup>National medical care price annual indices from CMS/OACT and U.S. Department of labor, Bureau of Labor Statistics, Consumer Price Index, Medical Care, Hospital and Related Services. Index for 2001: 1.0. 2000 = 1.0653. 1999 = 1.1236. 1998 = 1.1665.

chart has three panels; each represents a county and the data points refer to the average gross charges in a year-ownership combination. Thus, for Broward County, there are four different types of points reflecting tax-exempt, tax-paying, and two types of tax-supported hospitals reflecting the north and south separately. Miami-Dade has three different types of hospital ownership, and Palm Beach County has only two since there are no county-government-owned hospitals.

Average real charges increased in tax-paying hospitals across the period and in all three counties. Average real charges were flat or decreased in tax-exempt hospitals. South Broward's tax-supported hospitals' average moved to match the charges of Broward tax-exempt hospitals. North Broward's tax-supported adjusted charges increased early in the period, then decreased. In Miami-Dade, adjusted charges increased between 1999 and 2000, and they remained flat before and after the increase.

As shown in Figure 16, the two hospital districts in Broward have very different charge profiles. North Broward Hospital District hospitals had higher charges than South Broward Hospital District hospitals, with the average charges of tax-paying and tax-exempt hospitals being generally between the two.

Overall, average charges are less in tax-exempt hospitals, higher in tax-paying hospitals, and higher still in the North Broward and Miami-Dade tax-supported hospitals. South Broward tax-supported hospitals have charge profiles more similar to tax-exempt hospitals in the county.

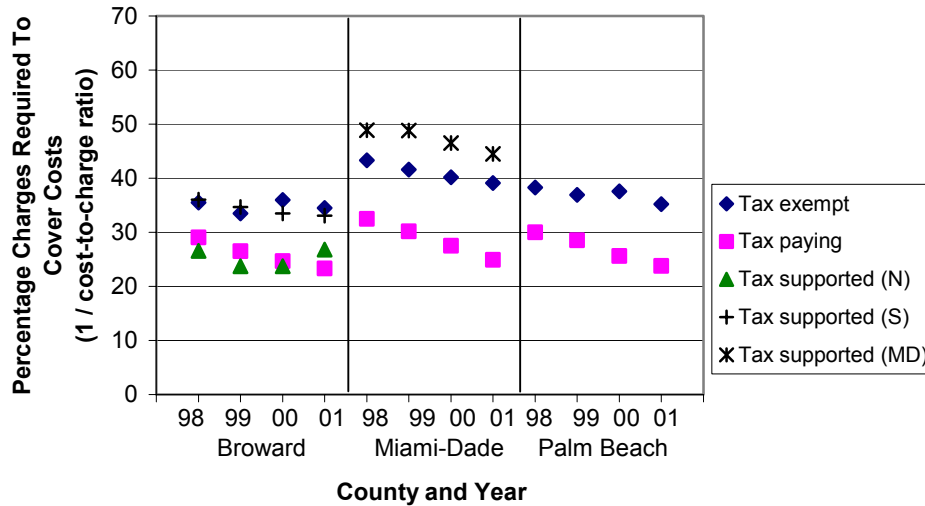
#### **HOW MUCH DOES HOSPITAL CARE ACTUALLY COST?**

Gross charges, however, do not reflect the actual cost of care nor do they reflect what amount was actually paid. To translate charges into costs, we calculate percentage of charges that equal costs.<sup>66</sup> The ratio can be interpreted as the multiplier for costs to determine prices (i.e., charges). However, for the discussion here, we compare the inverse of the cost-to-charge

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<sup>66</sup> The cost to charge ratio is calculated as the ratio of total gross charges divided by total operating expenses. Here we plot 1 - cost-to-charge ratio with averages weighted by total gross charges.

ratio or the overall percentage of charges required to cover hospital costs.<sup>67</sup> Figure 17 displays these percentages for hospitals by ownership and county for 1998-2001.



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 1998-2001.

NOTE: N = North Broward Hospital District, S = South Broward Hospital District, and MD = Miami-Dade County.

**Figure 17: Tax-Paying Hospitals Generally Have Higher Prices and Lower Costs and Are Thus Reimbursed at Rates Lower Than Tax-Exempt and Most Tax-Supported Hospitals**

Several observations can be made from looking at this figure. First, across all three counties, tax-paying hospitals generally need to recover a smaller percentage of charges than other hospitals. Put another way, the charges at tax-paying hospitals are higher, relative to their costs, than the charges at other types of hospitals. Second, tax-exempt hospitals need to recover a higher percentage of their charges. Third, the levels and trends over time are fairly comparable among tax-paying and tax-exempt hospitals. Fourth, the percentage of charges needed has decreased over time for all hospitals across the counties.

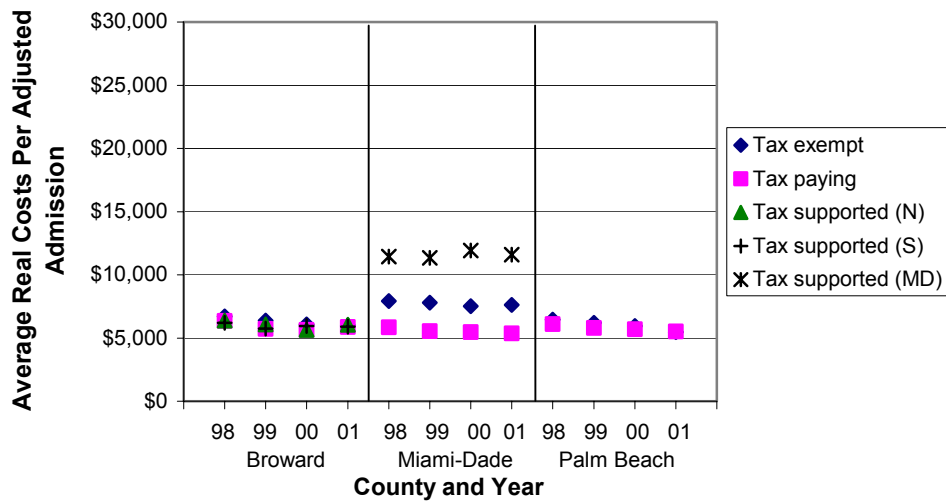
<sup>67</sup> As is discussed later in the section, this measure is comparable to the measures used to examine discounts hospitals negotiate with third-party payers.

Tax-supported hospitals show a slightly different pattern. Tax-supported hospitals in Miami-Dade have a small cost-to-charge ratio, that is, their charges are lower relative to their costs. Indeed, they need to recover more of their charges than tax-exempt or tax-paying hospitals across all counties. In Broward County, the two districts follow very different trajectories. North Broward Hospital District has a pattern similar to the tax-paying hospitals in the county, while the South Broward District has a pattern more similar to the exempt hospital in the county. Miami-Dade hospitals need to recover a higher percentage of their charges to cover costs than hospitals in either Broward or Palm Beach County.

Converting average charges to real costs reveals a slightly different picture (Figure 18).<sup>68</sup> Once adjusted to costs, hospitals of all ownership types in Broward have similar cost profiles. Similarly, tax-exempt and tax-supported hospitals in Palm Beach County have similar cost profiles. Moreover, hospital costs are similar across Broward and Palm Beach counties. Miami-Dade County, however, shows real differences in hospital costs across hospital ownership. Here tax-paying hospitals have the lowest costs, tax-exempt hospitals the next highest, and tax-supported hospitals the highest costs. The adjusted average costs of tax-exempt and tax-supported hospitals in Miami-Dade exceed those of the hospitals in the other counties. This is not surprising since the major tax-supported hospital in Miami-Dade is Jackson Memorial Hospital, a large tertiary and quaternary academic medical center. Such facilities are known to have higher costs due to the advanced technology available, both in capital equipment and personnel. In addition, many of the tax-exempt hospitals in Miami-Dade also have specialized services that increase costs.

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<sup>68</sup> Real costs are calculated as average real charge divided by the cost-to-charge ratio. Averages are weighted by adjusted admissions.



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 1998-2001.

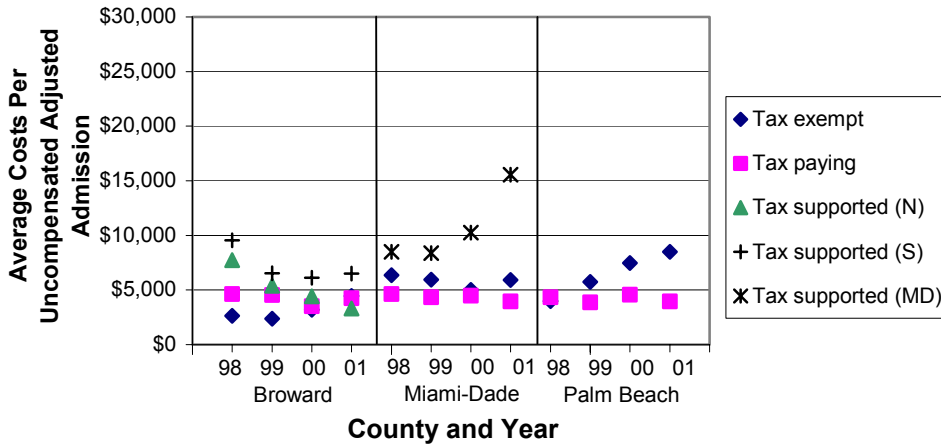
NOTE: N = North Broward Hospital District, S = South Broward Hospital District, and MD = Miami-Dade County.

**Figure 18. Average Costs Per Adjusted Hospital Admission Show Less Variability Than Average Charges; Miami-Dade Displays a Cost Gradient: Tax-Paying Hospitals Are Less Costly and Tax-Supported Hospitals Have the Highest Costs**

To what extent are the costs of uncompensated care patients similar to those of all patients? Figure 19 displays the trend in adjusted cost per charity case by county, year, and hospital ownership.<sup>69</sup> The first observation from the figure is that there is considerably much more variation in the average cost for uncompensated hospitalizations. The second observation we have seen before - tax-paying hospitals have similar patterns and generally lower cost levels across the three counties. The average cost of an uncompensated admission at tax-exempt hospitals is increasing in Broward and Palm Beach Counties. In Miami-Dade the trend has remained fairly flat. Tax-supported hospitals in the three counties have very different average costs

<sup>69</sup> Real adjusted cost per uncompensated-care patient is calculated as the average Consumer Price Index (CPI)-adjusted charge per uncompensated adjusted admission divided by the cost-to-charge ratio. Averages are weighted by adjusted uncompensated care admissions.

patterns. In Broward County, the average cost for an uncompensated admission is decreasing, and North Broward has much lower costs than South Broward, approximately \$2,000 per uncompensated admission. In Miami-Dade, the costs in tax-supported hospitals have increased, especially in the last years. The average cost per uncompensated case increased nearly \$15,000 between the years 2000 and 2001.



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 1998-2001.

NOTE: N = North Broward Hospital District, S = South Broward Hospital District, and MD = Miami-Dade County.

**Figure 19: Average Costs Per Adjusted Uncompensated Admission Are More Variable Than Average Adjusted Admission Costs**

In calculating the costs of uncompensated care patients, we made two assumptions. The first is that the cost-to-charge ratio for uncompensated cases is similar to that for all admissions of the hospital. We feel this is a reasonable assumption; we have adopted the Medicare calculation. The second assumption is that the adjustment factor used to calculate adjusted admissions is the same for uncompensated care patients as it is for all patients. The underlying issue here is that for a given hospital, the amount of uncompensated outpatient care is in the same proportion as inpatient care. Unfortunately, the hospital financial data have no information concerning outpatient use by uncompensated care patients.

**DOES CASE MIX ACCOUNT FOR THE DIFFERENCE IN COSTS?**

The challenge in using aggregate data such as that reported to AHCA is that it is difficult to fully discern whether higher costs are the result of a



more intensively ill (and hence, more intensively treated) patient population. One way to crudely adjust for the patient population is to use the case mix index and correlate cost with the index. We found that both charges and costs are correlated with the hospital-specific Medicare case mix indices.<sup>70</sup> We also see that the case mix indices are more similar among hospital types in Broward and Palm Beach Counties, and this similarity is reflected in the similar average costs. Miami-Dade hospitals generally have higher case mix indices compared with hospitals in the other two counties. A case mix gradient can be seen, with the tax-paying and tax-exempt hospitals having less complex cases compared with tax-supported hospitals, which have the most complex cases. Thus, we can conclude that some of the differences in costs by hospital ownership across counties can be attributed to differences in the patient population treated.

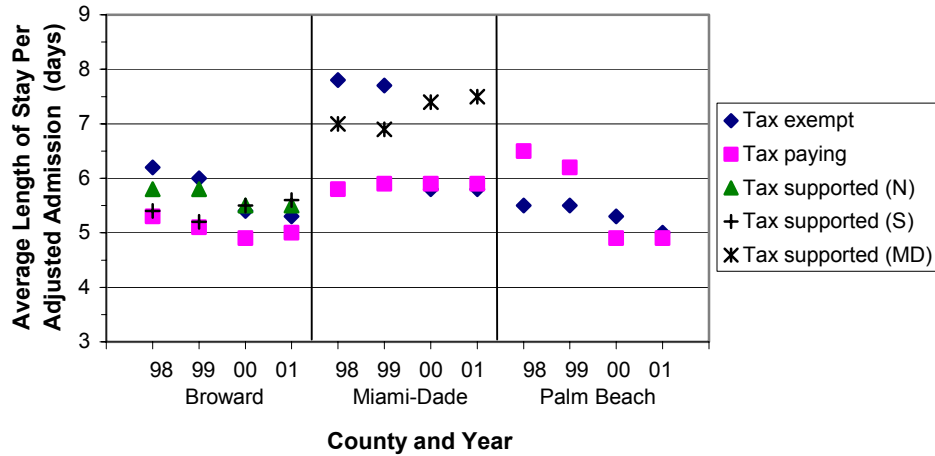
#### **ARE COSTS DRIVEN BY LENGTH OF STAY?**

A large component of hospital costs are the costs for "hotelng," that is, the costs associated with providing room and board for patients. In Figure 20, we see that in the three south Florida counties, the length of stay has generally decreased over this period, but the decrease is not uniform across counties or hospital ownership.<sup>71</sup> Indeed, the length of stay patterns show more variation than seen in Figure 18 of average cost per adjusted admission.

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<sup>70</sup> Medicare case mix indices are posted on the Centers for Medicare and Medicaid Services web site, <http://cms.hhs.gov/> (cmiv18.txt from cmiv18xls.zip).

<sup>71</sup> Length of stay is calculated as the total number of days divided by the actual admissions. Averages are weighted by actual admissions.



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 1998-2001.

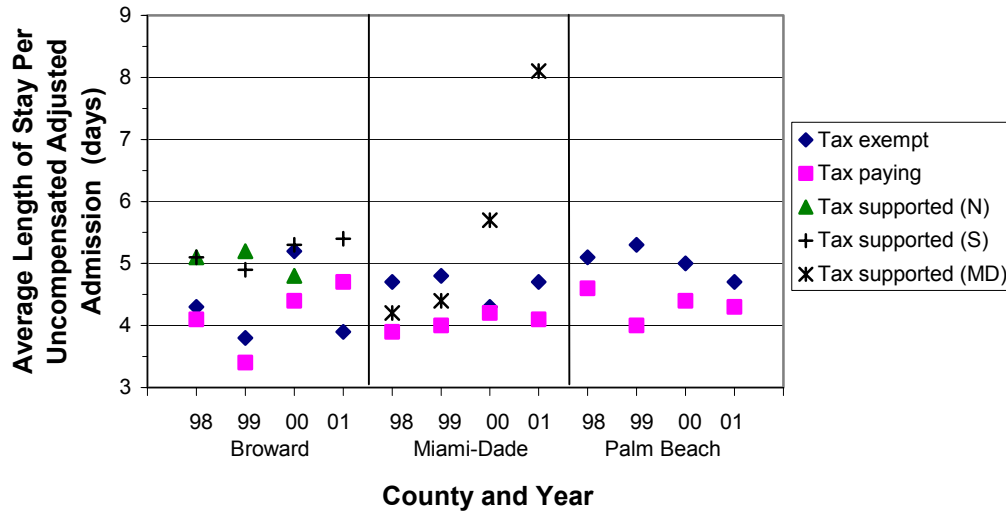
NOTE: N = North Broward Hospital District, S = South Broward Hospital District, and MD = Miami-Dade County.

**Figure 20. Average Length of Stay Is Highest in Tax-Exempt and Tax-Supported Hospitals**

There is even more variation in the patterns of length of stay when we look at those patients whose care is uncompensated.<sup>72</sup> Figure 21 shows that in general, the length of stay of uncompensated-care patients is often less than that for all patients and is lowest in the tax-paying hospitals. This is true even in Palm Beach County where all hospitals receive some level of reimbursement for many traditionally uninsured persons through the county-run managed care plan.

A final comment regarding average length of stay and average cost per patient: As shown in the figures, there is considerably more variation in average costs. However, the trends are similar within counties.

<sup>72</sup> Length of stay for uncompensated-care patients is the total number of days for uncompensated-care patients (self-pay and other government) divided by the number of uncompensated care admissions. Averages are weighted by the number of uncompensated care admissions.



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 1998-2001.

NOTE: N = North Broward Hospital District, S = South Broward Hospital District, and MD = Miami-Dade County.

**Figure 21. Average Length of Stay for Uncompensated Patients Displays Considerable Variation**

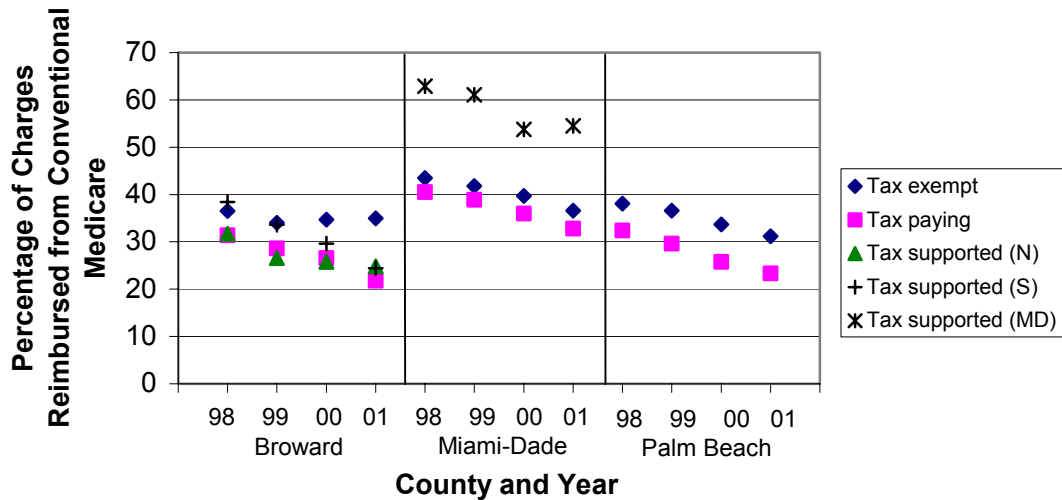
**HOSPITAL COMPETITION - DISCOUNTING CHARGES**

Hospitals set their prices in such a way to ensure that the actual level of reimbursement covers costs. Competition for large insured groups is fierce, and many hospitals negotiate discounts separately with each third-party insurer. Discounts are often negotiated by the hospital's parent company, although sometimes they are negotiated by the hospital itself. There can be considerable variation in the level of discounts negotiated.

Discounts are important to this analysis because they are implicit measures of competition and reflect financial viability of hospitals. We are interested to see if the discounts negotiated by hospitals are different by ownership, and whether they cover the costs of care. In our interviews with administrators in the tax-paying hospitals in Broward County, we heard concern about the discounts negotiated by the tax-supported facilities. This analysis clarifies the negotiated price patterns.

First, we calculate the percentage of charges paid, or alternatively the amount recovered for every dollar charged, to examine the discounts hospitals negotiate with third-party payers. Algebraically, this is:

$$\text{Discount} = 1 - (\text{deductions}/\text{gross charges})$$



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 1998-2001.

NOTE: N = North Broward Hospital District, S = South Broward Hospital District, and MD = Miami-Dade County.

**Figure 22. Tax-Paying Hospitals Are Reimbursed at Lower Rates for Conventional Medicare Patients Than Other Hospitals Are; Miami-Dade Tax-Supported Hospitals Negotiate the Smallest Discounts**

Figure 22 shows the percentage of charges (i.e., prices) reimbursed by the conventional, fee-for-service Medicare program.<sup>73</sup> As shown, conventional Medicare pays much less than full price and usually at rates significantly less than charges. These rates have decreased over time. In Broward and Palm Beach Counties, hospitals receive less than 40 cents for every dollar of charges; tax-paying hospitals have deeper discounts and are reimbursed at a rate less than tax-exempt hospitals and tax-supported hospitals. South Broward Hospital District is reimbursed at a higher rate than North Broward. Miami-Dade hospitals have negotiated discounts that reimburse at higher rates than hospitals in the other counties. Tax-exempt hospitals receive slightly

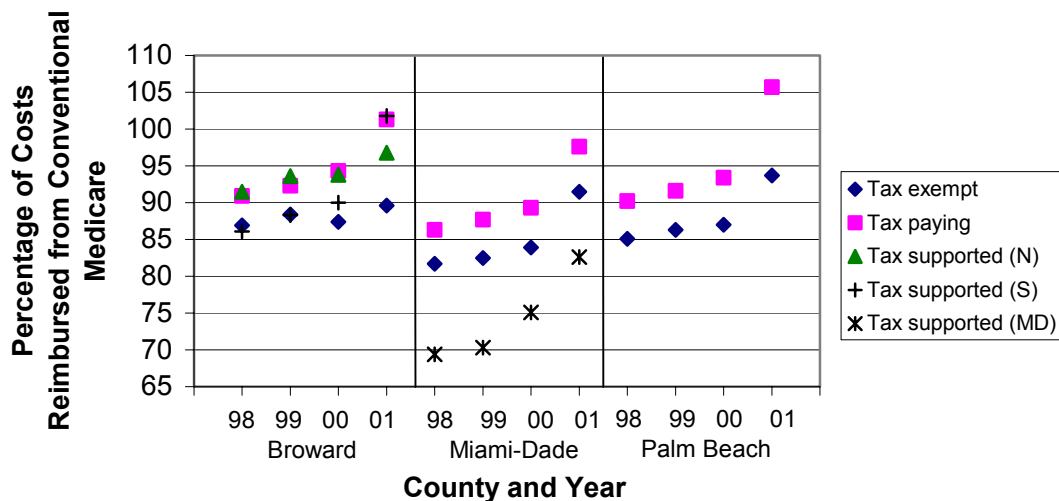
<sup>73</sup> Averages are weighted by total conventional Medicare charges.

more than tax-paying hospitals, and the tax-supported hospitals receive the most, although it has decreased over time.

An alternative way to look at discounts is to calculate the percentage of costs that are recovered for a specific payer group, that is, the difference between the cost of care and the discounted price. As we saw earlier, hospitals have different cost-to-charge ratios, which can affect the final relationship between negotiated prices and cost recovery. Thus, we calculate:

$$\begin{aligned} \text{Cost Recovery} &= \text{Cost} - \text{Discounted Price} \\ &= (\text{Charges} * \text{Cost-to-Charge Ratio}) - (\text{Charges} - \text{Deductions}) \\ &= 1 - (\text{Charges} - \text{Deductions} / \text{Charges} * \text{Cost-to-Charge Ratio}) \end{aligned}$$

Figure 23 displays the percentage of costs recovered under conventional Medicare negotiated prices.



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 1998-2001.

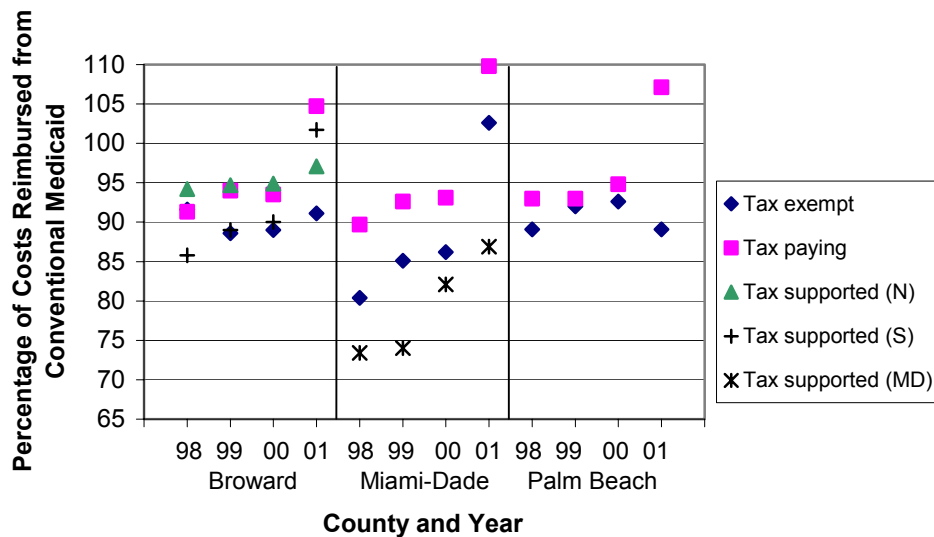
NOTE: N = North Broward Hospital District, S = South Broward Hospital District, and MD = Miami-Dade County.

**Figure 23. Cost Recovery Under Conventional Medicare Has Improved over Time**

The figure shows that over this four-year period, conventional Medicare rates did not cover the costs of care provided for the majority of hospitals. However, the final year in the series shows that some hospitals fully recovered their costs. South Broward Hospital District hospitals generally

lagged behind their contemporaries in the North Hospital District, but closed the gap in cost recovery. By 2001, most hospitals fully recouped their costs. The one exception is Miami-Dade County's tax-supported hospitals – according to this calculation, the PHT never recouped the costs of care for conventional Medicare admissions.

Figure 24 shows the percentage of costs recovered under conventional Medicaid.<sup>74</sup> We see that the pattern of cost recovery is more volatile than that for conventional Medicare; however, the cost-recovery patterns persist. As with conventional Medicare, tax-supported hospitals in Miami-Dade have had a lower cost-recovery compared with tax-supported hospitals in Broward. Also as before, South Broward Hospital District hospitals negotiated better rates in 2001 to permit total cost recovery. Tax-paying hospitals in the three counties also negotiated such rates in 2001.



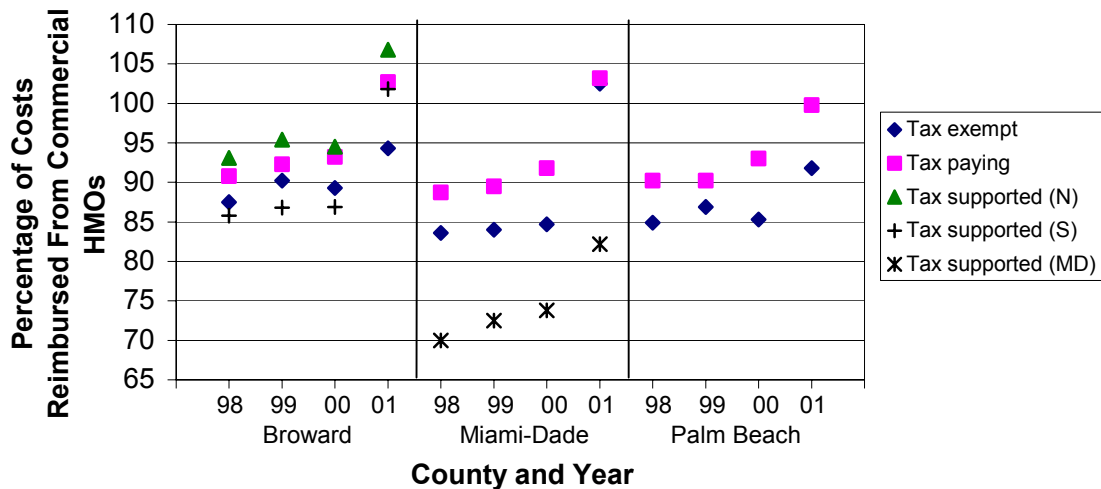
SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 1998-2001.

NOTE: N = North Broward Hospital District, S = South Broward Hospital District, and MD = Miami-Dade County.

**Figure 24. Cost Recovery Under Conventional Medicaid Has Also Improved, Most Hospitals, except Tax-Supported Hospitals in Miami-Dade County Appear to Recover the Costs of Care**

<sup>74</sup> Averages are weighted by total conventional Medicaid charges.

The pattern of cost recovery is similar for commercial HMOs (Figure 25).<sup>75</sup> Again, at the end of the four-year period, tax-paying hospitals had rates that covered costs. South Broward hospitals increased their reimbursement, and by the end of the period all tax-supported hospitals in Broward County recouped costs associated with the care of commercial HMO patients.



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 1998-2001.

NOTE: N = North Broward Hospital District, S = South Broward Hospital District, and MD = Miami-Dade County.

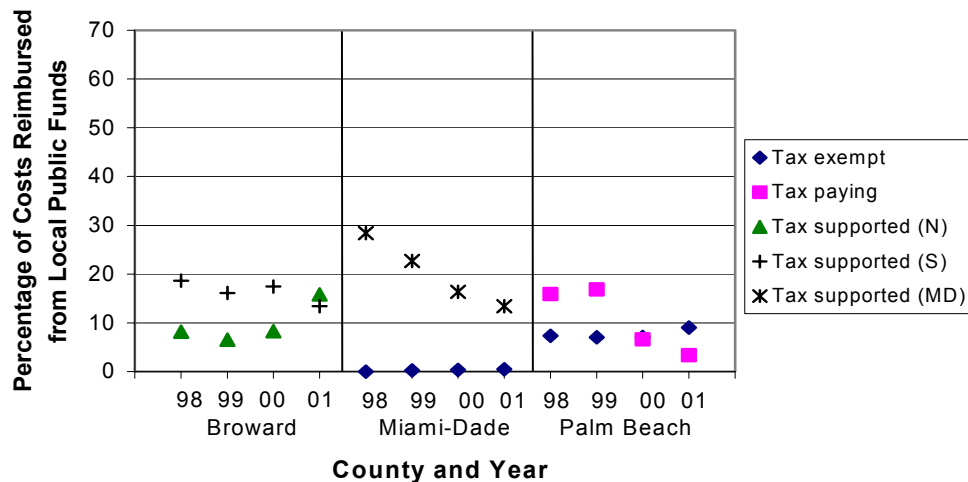
**Figure 25. Hospitals Have Improved Their Cost Recovery for Commercial HMO Plans over the Four-Year Period; However, Miami-Dade Tax-Supported Facilities Continue to Lag**

We have shown that hospitals in the three counties negotiated discounted rates with third-party payers that generally did not cover the costs of care. Among hospital types, tax-paying hospitals recovered more of the costs than other hospital types. At the start of the four-year period, the two hospital districts in Broward differed considerably in their cost recovery patterns. However, by 2001, the North and South Hospital Districts had similar rates of cost recovery.

<sup>75</sup> Averages are weighted by total commercial HMO charges.

Thus, while hospitals of various types were able to negotiate competitively discounted rates with third-party payers, the cost recovery patterns suggest that tax-supported hospitals in this regard are not at an advantage. The figures suggest that hospitals of all types better aligned their reimbursement with their costs.

We use a similar approach to examine the cost recovery for indigent patients. Because of data restrictions, we define charity care narrowly; that is, the charges assigned to charity patients. While hospitals generally did not recoup their costs under the rates negotiated with the third-party payers discussed earlier, this is more starkly apparent when looking at cost recovery for charity care resulting from receipt of local public funds.



SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 1998-2001.

NOTES: N = North Broward Hospital District, S = South Broward Hospital District, and MD = Miami-Dade County. Two Miami-Dade County tax-paying hospitals, Healthsouth Doctors' Hospital and Larkin Community Hospital, did not report providing charity care and are therefore not included in this analysis.

**Figure 26. Tax-Supported Hospitals Reimburse Their Uncompensated Care Admissions at Higher Rates Than Palm Beach County Hospitals**

The cost recovery for locally funded indigent care is generally less than 20 percent according to our calculations (Figure 26). In Broward County, only district hospitals receive any public funds for indigent care. Over the four-year period, local public funding for tax-supported facilities converged to



approximately 16 cents on the dollar for charity-care costs. The percentage of charity-care costs reimbursed to Palm Beach County hospitals, on the other hand, has moved to less than 10 cents on the dollar of costs. The trend in Palm Beach County may reflect a reporting anomaly in that the costs of care for patients covered by the locally funded medical assistance program and those that have no insurance may have been combined, making it impossible to disentangle the actual reimbursement rates for locally insured patients.

Making comparisons of negotiated reimbursement rates across counties and hospital types is somewhat problematic. Hospitals do not negotiate rates in a vacuum. They may negotiate more aggressively with a third-party insurer that covers patients treated by their medical staff in their private practices. A good rate will attract both patients and physicians to the facility. Moreover, in all likelihood rates are negotiated with an eye to the future; comparing annual rates as we have done may not be part of the negotiation calculus that is done between hospital and insurer.

However, the analysis of cost recovery for indigent care by tax-supported hospitals shows that the amount of local public funds received does not cover the costs of providing that care. Unfortunately, we do not have the data available to compare cost recovery resulting from various tax exemptions or tax write-offs. Such a comparison would be of interest.

Finally, across many of the financial measures we calculated, there are differences between the two hospital districts in Broward County, with North Broward often appearing more similar to tax-paying hospitals in the county than with South Broward. However, many of these differences disappear by 2001. Because we were unable to speak to representatives from the North or South Broward Hospital Districts, we do not have any information to clarify these observations.

#### **SUMMARY**

- The vast majority of hospitals, regardless of their ownership, provide some level of uncompensated care.
- Cost of hospital care is similar for hospitals of all types in Broward and Palm Beach Counties. In Miami-Dade, care in tax-

supported hospitals costs the most, followed by tax exempt, and tax paying.

- Cost for charity-care patients is, on average, less than the overall average cost of care. The cost of care for charity-care patients is lowest in tax-paying hospitals; the cost of care for uncompensated-care patients in tax-supported hospitals costs the most. However, because of the smaller numbers of such patients, there is more variation over time in the costs across hospital ownership types.
- Case mix accounts for some of the overall cost differences across counties and hospital ownership. Case mix is similar for all hospitals in Broward and Palm Beach Counties, and the average cost is also similar. In Miami-Dade, the case mix at the tax-supported hospitals is more complex, as is reflected in their higher costs.
- Average length of stay for uncompensated care patients is generally 1-2 days shorter than that of insured patients across counties and hospital ownership types.
- Tax-paying hospitals tend to have shorter lengths of stay for all patients.
- All hospitals have discounted their charges for third-party insurers. These discounts distort the total gross revenue figures used to reflect hospital business practice. Comparisons of cost-recovery rates provided more information.
- North Broward Hospital District cost recovery for third-party payers was more similar to that of tax-paying hospitals in the county than it was to South Broward Hospital District. However, by 2001 Broward County tax-supported hospitals had similar rates of cost recovery for third-party payers. During this four year period, Miami-Dade County's tax-supported hospitals appear to not have had third-party payer reimbursement rates that covered the costs of care provided.
- Charity care is reimbursed to some degree at all tax-supported hospitals and at hospitals in Palm Beach County. Across all counties, the local revenue-funded reimbursement of care for indigent

patients is significantly less than the cost of providing that care.<sup>76</sup>

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<sup>76</sup> This assumes that the overall cost-to-charge ratio is appropriate for the indigent patient population. We do not have sufficient data to calculate payer-specific cost-to-charge ratios.



## 6. SUMMARY AND CONCLUSIONS

Among the three south Florida counties - Broward, Miami-Dade, and Palm Beach - a range of approaches is seen in the structure and financing of care for the indigent. Miami-Dade has a centralized local publicly funded system and many uninsured patients go to the county's principal facility even when there are hospitals closer to their homes. Broward, both the North and South Districts, has a network of locally funded facilities throughout the county providing geographically convenient options for the uninsured. Palm Beach County uses its public funds to operate a managed care program for persons who would be otherwise uninsured. These different approaches to the financing and structures for indigent care provide a good opportunity to explore the effects on patients and hospitals.

In this report, we look at these issues from numerous perspectives, using several different sources of information. We conducted interviews and analyzed data that are reported to the state. Each information source provides a unique perspective and also bears its own limitations. For this reason, we are particularly interested in those results that are consistent across analyses. This section provides an overview of the findings as they relate to the initial questions motivating the report and identifies policy issues worthy of further consideration.

Before we review the specific findings, we want to set the context for interpretation. The three counties in south Florida that are the subject of this study - Broward, Miami-Dade, and Palm Beach - are different from one another along a number of dimensions: demographic, socioeconomic, and hospital-market.

Miami-Dade is the largest (in population and area), has the youngest population, and is the poorest county in south Florida. Palm Beach has an older population and is considerably wealthier. Broward County is between the two, both in its demographics and geographically.

The mix of tax-exempt, tax-paying, and tax-supported hospitals in the three counties affects the distribution of hospital bed resources. Broward County has nearly half of the hospital bed supply in tax-supported hospitals

that are geographically dispersed throughout the county. The other half is found mostly among the tax-paying hospitals, because there is only one tax-exempt hospital in the county. The Palm Beach County hospital bed supply is split fairly evenly between tax-paying and tax-exempt hospitals. Miami-Dade has nearly 45 percent of its hospital bed supply in tax-paying hospitals and 35 percent in tax-exempt hospitals. The rest is in two tax-supported facilities.

The makeup of the hospital sector is important because it affects the amount of local and state taxes received from tax-paying hospitals and the amount of public funds spent at tax-supported hospitals. Moreover, in addition to those hospitals funded by local tax revenues, tax-exempt hospitals play an important traditional role in the provision of indigent care. To the extent their numbers are limited the amount of indigent care that can be provided by them is limited by capacity and geographic distribution.

We discuss the findings for each of the motivating questions below, pulling in data and observations from our work. For the most part, there is consistency in the findings from our various analyses.

**1. How are the governmental bodies that levy the taxes used for hospital and medical care services determining the amount of revenue needed?**

Budgets for indigent care tend to be based on historical information and anticipated future costs. In Broward and Miami-Dade, the tax-supported facilities have considerable experience and historical data to support their budget projections. Palm Beach County's HCA has a structured managed care plan with defined benefits which facilitates more specificity in their budget calculations. Specifically, they forecast future costs by estimating the number of program enrollments and applying insurance principles, such as per-member-per-month calculations.

Both Broward and Palm Beach County hospital and health districts can modify their millage rates if needed, although past experience reveals that the millage rates have remained stable or decreased. Because the millage is applied to property values, the property tax revenue going to these public agencies has experienced a natural escalation.

Miami-Dade's funding for indigent care appears to be less stable and certainly not controlled by the agency providing the care. The Miami-Dade Board of County Commissioners allocates some property tax receipts to the Public Health Trust, which operates the two hospitals that are supported in part by local tax revenues. In addition, a fully dedicated half-penny surtax is used to support service provision and quality improvement at Jackson Memorial Hospital. The surtax funds fluctuate with the economy. Thus, funding is less secure in Miami-Dade, where the need is relatively greater.

**2. Do the differences in the governmental structures used to assess, spend, and monitor such public health care resources result in different decisions being made about what services to fund and which people are eligible for local government subsidized care?**

The four public hospital agencies operating the tax-supported facilities vary in their governance structure and the level of oversight provided to the operations. Moreover, reporting and measures of accountability vary across the counties.

Perhaps the most straightforward example is Palm Beach County. Since it does not operate facilities but rather reimburses providers, the district can use insurance principles to estimate the costs of providing a given set of benefits to an enrolled population. Costs can be controlled through utilization review, provider contracting, or benefit design. The reporting relationship between those managing the program and those on the governing board is specific to the number of persons served by the plan and the amount of other services provided.

Broward and Miami-Dade, however, operate facilities that provide an array of services available to public and private patients. Thus, the decision to have particular services at a hospital is based on business decisions. Once the service is in place at tax-supported hospitals, there appear to be no limitations on their use by patients whose care is supported by local tax revenues. Reporting of activity follows traditional hospital operations statistics, without a link between the public funds expended and particular

patients served. Thus, we do not know to what extent charity-care patients use certain specialized services or treatments.

All three counties use the FPL and Medicaid assets criteria to determine eligibility for charity care, as stipulated in Florida statute. Thus, there should be consistency in the identification of charity-care patients. However, hospitals cannot perfectly identify all appropriate charity patients; some are admitted as self-pay but ultimately default on their accounts. Anecdotal information also suggests there are differences in hospital's proclivity to identify medically indigent patients, which requires at admission not only information about the patient's income but also an estimate of the costs of care to be provided.

All counties attempt to limit their charity-care services to residents of their county. In Miami-Dade there was considerable discretion on the part of hospital executives to accept out-of-county uninsured persons (Nieves, 2003a). Services provided to these patients are not to be covered under programs directed toward local county residents and come out of operating surplus revenues. The Public Health Trust recently limited the executive discretion in such cases (Nieves, 2003b).

**3. Does the ownership or tax status of a provider institution/organization influence its relationship with local government funders? With its patient population?**

The three counties vary in the types of relationships that hospitals have with local government funders and in the provision of services supported by local tax revenue funds. When all tax funds go to district hospitals, as in Broward, or to two public hospitals, as in Miami-Dade, only those district/public hospitals have a fiduciary relationship with the local government funding organization. Nonprofit and for-profit hospitals in these counties provide care to the uninsured but receive no reimbursement. At a minimum, by federal statute, hospitals must provide care to those who present in an emergency. Thus, they have no formal relationship with the districts in Broward or with the PHT in Miami-Dade.



In Broward and Miami-Dade, public hospitals are funded to provide health care services to those who cannot pay. Tax-exempt and tax-paying hospitals are not reimbursed at all. There is very little transferring of charity patients from non-public to public facilities unless the services needed by the patient are only available in the public facility.

In contrast, the Health Care District of Palm Beach has a relationship with all hospitals in the county, irrespective of their tax status. When hospitals are contracted with the HCD, they agree to treat HCD Coordinated Care patients (i.e., the uninsured) for inpatient and outpatient services. For low income persons who do not qualify for the program, the county Health Department has negotiated with hospitals to provide a modest level of "elective" charity hospital care. All persons presenting to a hospital under emergency conditions are treated, regardless of their ability to pay, under federal statute. In sum, in Palm Beach County public dollars follow the patient throughout all facilities, while in Broward and Miami-Dade Counties, funds are channeled to select facilities affiliated with the county or hospital district.

Given the centralized nature of the Miami-Dade County system, there have been attempts by tax-exempt hospitals to contract with the county to provide services to the uninsured. The Public Health Trust, maintaining tight control of any public funds for health care, rebuffed such efforts.

In sum, the funding mechanism defines the relationship that a hospital will have with the local funding authority. If there is reimbursement available for services provided to the uninsured, then non-tax-supported hospitals may have a relationship. This is seen in Palm Beach County. But in Broward and Miami-Dade, non-tax-supported hospitals do not regularly interact with the local funding agencies.

**4. Do the differences in which people and services are funded in turn make a difference in patient utilization patterns?**

The travel patterns of adult and pediatric patients across the three counties are consistent with what we would expect given the structure of the public financing of care for the uninsured. Those systems that are more

centralized compel patients to travel further than those with more decentralized care. When there is a mechanism to reimburse hospitals for care for the uninsured, the uninsured are more likely to receive care at hospitals near their homes.

The differences in travel patterns were greater when looking across the three counties, than when looking within a given county. There is only a modest amount of inter-county travel. This suggests there are strong differences affecting patient travel patterns in the three counties. This also suggests that within a county, there is some homogeneity of county-specific effects that exceeds any structure effect of publicly financed hospital services. We suspect that hospital concentration, that is, the geographic location of hospital facilities with respect to where patients live affects travel patterns more than particular financing mechanisms. Thus, we see that Palm Beach County patients are more likely to be hospitalized close to their homes than patients living in Broward or Miami-Dade County. Commercially insured patients are less likely to be hospitalized close to or distant from their homes. This suggests that they exercise the most discretion in their choice of hospital.

However, the three counties are very different in their demography and geographic development. All patients travel further in Miami-Dade than in the other counties, and the uninsured are more likely to travel further than persons with other insurance. Because the travel pattern is different for the uninsured when compared to those with insurance, we can say there is some likelihood that the centralized system affects the uninsureds' travel patterns. However, we cannot definitively say that the "dollar following the patient" in Palm Beach County is the cause of uninsured patients not traveling far for care. Indeed, patients of all insurance types travel less in Palm Beach than in other counties.

**5. Are the differences in local governmental funding mechanisms resulting in differences in other accountability measures, e.g., cost per day or staffing ratios?**

The cost of hospital care is similar for hospitals of all types in Broward and Palm Beach Counties. However, hospitals in Miami-Dade show differences in the cost of care by ownership; care in tax-supported hospitals costs the most, followed by tax exempt and tax paying.

The cost of charity-care patients is, on average, less than the overall average cost of care. Across the counties, the cost of care for charity-care patients is lowest in tax-paying hospitals, and highest in tax-supported hospitals. However, perhaps due to the smaller numbers of charity-care patients, there is more variation over time in the costs across hospital ownership types.

Case mix accounts for some of the overall cost differences across counties and hospital ownership. Case mix is similar for all hospitals in Broward and Palm Beach Counties, and the average cost is also similar. In Miami-Dade, the case mix at the tax-supported hospitals is more complex as is reflected in their higher costs.

Length of stay is generally 1-2 days shorter for charity-care patients across counties and hospital ownership types. Tax-paying hospitals tend to have shorter lengths of stay for all patients.

A definitive finding is that all hospitals provide some level of uncompensated care. Tax-exempt and tax-paying hospitals in all three counties provide similar amounts of uncompensated care, and this level of care has remained fairly stable over the four-year period, 1998-2001. Measured either as the percentage of total revenues attributed to uncompensated care or the percentage of admissions of indigent patients, uncompensated care represents between 2 and 9 percent.

Among the tax-supported hospitals, there is considerable variation between the two measures of uncompensated care. In North Broward, uncompensated care has decreased as a percentage of total revenues but has increased as a percentage of admissions. South Broward, in contrast, has maintained a fairly level provision of uncompensated care as measured in both ways. Uncompensated care accounts for 10 to 15 percent of the business of these hospitals. Miami-Dade's tax-supported facilities have seen a considerable increase in the amount of uncompensated care provided, with care measured as a percentage of revenues. Interestingly, uncompensated care

measured as a percentage of admissions is more stable, although there was a steep drop in patients in 2001.

Tax-supported hospitals provide higher levels of uncompensated care. Moreover, the correspondence between the proportion of uncompensated charges and uncompensated admissions is not as clear, probably reflecting a heterogeneity in the illness levels, and ultimate cost of care, of indigent patients. This heterogeneity is also seen in the patterns of length of stay. This is particularly striking for North Broward and Miami-Dade tax-supported hospitals in 2001. North Broward appears to be treating more uncompensated patients who are relatively less costly, and Miami-Dade appears to be treating more costly. Relatively speaking, Miami-Dade tax-supported hospitals provide more indigent care than Broward County tax-supported hospitals.

From a population perspective, Broward provides uncompensated care at levels comparable to the prevalence of uninsured persons in the county. Miami-Dade and Palm Beach provide levels that are half the prevalence of uninsured persons in the counties. One could suggest that these differences reflect a healthier uninsured population or poor access to care for uninsured patients. Miami-Dade's population is younger; hence, the need for hospitalization may be less. Palm Beach County's local, publicly funded managed care program covers hospital care as well as primary and preventive care. It could be that the provision of these services decreases the need for hospitalization.

Given the differences in the hospital markets, we looked at crude measures of competition among hospitals of different ownership types. All hospitals have discounted their charges for third-party insurers. To better understand the impact of discounted charges on hospitals, we calculated the percentage of costs recovered under the various negotiated rates. On average, tax-paying hospitals had the highest levels of cost recovery. Over the four-year period, all hospitals improved their cost recovery. However, tax-paying and Broward County tax-supported hospitals only attained full cost recovery in 2001. Miami-Dade lagged behind all hospitals in the level of cost recovery from third-party insurers.

We examined cost-recovery for charity-care patients through local public funding. Uniformly, no hospitals came close to cost recovery for charity-care

patients. Miami-Dade tax-supported hospitals experienced the lowest rate of cost recovery in the three counties.

The trend in charity care and third-party payer reimbursement reflects what we heard in our interviews. That is, managers in tax-paying hospitals in Broward County felt considerable pressure from the tax-supported hospitals in the competition for paying patients. These data suggest that in the north district, at least, there is fierce competition, and the North Broward Hospital District negotiates rates that provide similar levels of cost recovery as do their competitor tax-paying hospitals.

Moreover, the impression that the tax-supported hospitals are well funded to provide care to indigent patients does not hold true. All tax-supported hospitals are funded at levels that do not cover the costs of care provided to indigent patients.

#### **COMPARISON OF THESE FINDINGS WITH THE STATE ATTORNEY GENERAL'S REPORT**

The Florida State Attorney General's Office recently distributed a report, *Florida Hospital Financial Trends, Public Policy Issues*, written by John deGroot. Much of the focus of the deGroot report is on south Florida counties and the provision of charity care. The motivation behind the report was the recent sale of St. Mary's and Good Samaritan Hospitals in Palm Beach County to the for-profit hospital chain Tenant. Upon its release, the report received considerable press (Dorschner, 2003), and interpretations of the findings continue to be fodder for discussion among hospital managers.

The deGroot report used the same hospital financial data as was used in this report, but it did not include an analysis of the context of the hospital markets and patient travel patterns. In large measure, the characteristics of the south Florida counties can explain some of the extreme findings. In addition, there are several differences in variable definition that affect the results.

As we discussed in this report, charity care can be measured in many ways. The deGroot report defined charity care as those patient charges reported as charity care and the number of patients labeled self-pay. This is a very narrow definition and does not include the broader population of persons whose care is ultimately uncompensated. We use a broader definition given that officially a charity-care patient must be identified on admission.

The deGroot report finds that tax-paying hospitals in Miami-Dade and Broward Counties provide more charity care than the tax-exempt hospitals in the same county, as measured as the percentage of total patient charges. Our analysis shows that the level of uncompensated care is similar, and there are small fluctuations across the years. These fluctuations certainly can cause the less than 1 percent difference reported in deGroot. But perhaps more important, the number of tax-exempt hospitals in Broward has been reduced to one. As we have shown, patients tend to go to hospitals near where they live; the amount of uncompensated care that can be provided as measured at an aggregate level may indeed decline because of a hospital's geographic location. Finally, tax-paying hospitals have a significant presence in the three counties, and the beds available in these hospitals exceed those available in tax-exempt hospitals. It is natural that the tax-paying hospitals will provide a significant amount of uncompensated care.

Another observation made in the deGroot report concerns the declining number of charity-care patients treated in tax-exempt and tax-supported hospitals in Florida counties from 1990 to 2001. Our report focuses solely on the three south Florida counties, and we found that there is more variation in the number of uncompensated patients treated than in uncompensated revenues. This difference is undoubtedly a result of the difference in medical complexity that uncompensated care patients face, and the relatively fewer numbers of cases will also produce more variation. But there are other issues to consider. From 1990 to 2001, there has been a general decline in the use of hospitalization nationally. This decline is due to innovations in moving care from inpatient settings to outpatient settings. In addition, to some extent in all three counties, there have been increases in the availability of access to primary care services for uninsured persons.<sup>77</sup>

As deGroot found in his report, there are significant differences in the gross charges or prices among the three south Florida counties and hospital ownership types. Even adjusting for inflation, many hospitals, especially tax-paying hospitals, saw an increase in average patient charges. However,

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<sup>77</sup> The Public Health Trust has affiliations with several community health clinics, both Broward County hospital districts have outpatient clinics, and Palm Beach County includes primary and preventive services in their public medical assistance managed care program.

when charges are converted to costs, there is much less variation. In Broward and Palm Beach Counties, average hospital costs are almost identical. In Miami-Dade, there is a clear cost gradient, with the tax-paying hospitals having the lowest average cost per adjusted admission, tax-exempt hospitals higher, and tax-supported hospitals the most costly. There was more variation in the average cost of uncompensated admissions. We explored the reasons for the differences in cost and found that case mix and length of stay may explain some of these differences.

Similar to deGroot, we also found differences in the effective rate at which tax-supported hospitals reimbursed themselves for uncompensated care. Across the three counties, tax-supported hospitals in Broward appear to be the most generously reimbursed, followed by Miami-Dade. The differences found between the two Broward hospital districts are puzzling since both districts should be operating under similar circumstances with respect to patient population and system financial goals and incentives. Indeed, they are more different from one another than they are different from tax-paying hospitals in the county. These differences merit further study.

As discussed, our report did not explore the issues related to staffing in the manner of the deGroot report. Because contract staff are not included in the personnel figures reported in the hospital financial data, there are limitations to what staffing ratios can actually reveal.

In sum, our report identified many of the same issues as the deGroot report. However, when the findings are interpreted in the proper context, the findings are not as sensational

#### **LIMITATIONS**

It is important to remember that the data used in these analyses are reported by the hospitals to the state. Thus, our analyses can be only as accurate as the data used. It should be noted that the hospital discharge data may not accurately reflect actual insurance status or reimbursement. Generally, what is reported is the expected source of payment. It often takes months before hospitals receive information about the actual reimbursement for services. The discharge data are rarely updated with this new information.

In addition, we did not have information available concerning the quality of care received. Such information may have been useful in interpreting the patient travel patterns. This could be a major issue given the greater differences we found within counties, rather than across counties. We hope that such information will be available in the future to enhance similar analyses.

We were not able to talk with managers in the Broward County Hospital Districts. The report and the interpretations have not benefited from their input.

Finally, the multiplicity of differences among the counties ultimately affects the types of conclusions that we can make. We are only able to describe associations between the organization and financing of indigent care and the care received by indigent patients. The limited number of observations (three counties) and the interaction among the population characteristics, hospital markets, and public financing for indigent care make causal interpretation impossible.



**APPENDIX A  
HOSPITALS BY COUNTY AND OWNERSHIP, 1998 AND 2001**

**Table A.1  
Hospitals by County and Ownership, 1998 and 2001**

County	Hospital Name	Ownership 1998	Ownership 2001
Broward	Cleveland Clinic Hospital	Tax exempt	Tax paying
	Holy Cross Hospital	Tax exempt	Tax exempt
	Florida Medical Center	Tax paying	Tax paying
	Florida Medical Center South	Tax paying	Closed
	Fort Lauderdale Hospital	Tax paying	Closed
	Hollywood Medical Center	Tax paying	Tax paying
	North Ridge Medical Center	Tax paying	Tax paying
	Northwest Medical Center	Tax paying	Tax paying
	Plantation General Hospital	Tax paying	Tax paying
	Sunrise Regional Medical Center	Tax paying	Closed
	University Hospital and Medical Center	Tax paying	Tax paying
	Vencor Hospital Hollywood	Tax paying	Closed
	Vencor Hospital Fort Lauderdale	Tax paying	Closed
	Westside Regional Medical Center	Tax paying	Tax paying
	Broward General Medical Center	Tax supported	Tax supported
	Coral Springs Medical Center	Tax supported	Tax supported
	Imperial Point Medical Center	Tax supported	Tax supported
	Memorial Hospital Pembroke	Tax supported	Tax supported
	Memorial Hospital West	Tax supported	Tax supported
	Memorial Regional Hospital	Tax supported	Tax supported
North Broward Medical Center	Tax supported	Tax supported	
Miami-Dade	Anne Bates Leach Eye Hospital	Tax exempt	Tax exempt
	Baptist Hospital of Miami	Tax exempt	Tax exempt
	Homestead Hospital	Tax exempt	Tax exempt
	Miami Children's Hospital	Tax exempt	Tax exempt
	Mount Sinai Medical Center	Tax exempt	Tax exempt
	Pan American Hospital	Tax exempt	Tax exempt
	South Miami Hospital	Tax exempt	Tax exempt
South Shore Hospital and Medical	Tax exempt	Tax exempt	

	Center		
County	Hospital Name	Ownership 1998	Ownership 2001
	University of Miami Hospital and Clinics	Tax exempt	Tax exempt
	Mercy Hospital Inc.	Tax exempt	Tax exempt
	Aventura Hospital and Medical Center	Tax paying	Tax paying
	Cedars Medical Center	Tax paying	Tax paying
	Coral Gables Hospital	Tax paying	Tax paying
	Doral Palms Hospital	Tax paying	Closed
	HealthSouth Doctors' Hospital	Tax paying	Tax paying
	Hialeah Hospital	Tax paying	Tax paying
	Jackson South Community Hospital, formerly Deering Community Hospital	Tax paying	Tax supported
	Kendall Medical Center	Tax paying	Tax paying
	Larkin Community Hospital	Tax paying	Tax paying
	Miami Heart Institute	Tax paying	Merged with Mount Sinai Medical Center
	North Shore Medical Center	Tax paying	Tax paying
	Palm Springs General Hospital	Tax paying	Tax paying
	Palmetto General Hospital	Tax paying	Tax paying
	Parkway Regional Medical Center	Tax paying	Tax paying
	Vencor Hospital-Coral Gables	Tax paying	Closed
	Westchester	Tax paying	Tax paying
	Jackson Memorial Hospital	Tax supported	Tax supported
<b>Palm Beach</b>	Bethesda Memorial Hospital	Tax exempt	Tax exempt
	Boca Raton Community Hospital	Tax exempt	Tax exempt
	Good Samaritan Hospital	Tax exempt	Tax exempt
	Jupiter Medical Center	Tax exempt	Tax exempt
	Saint Mary's Hospital	Tax exempt	Tax exempt
	Columbia Hospital	Tax paying	Tax paying
	Delray Medical Center	Tax paying	Tax paying
	Delray Medical Center - Fair Oaks Pavilion	Tax paying	Merged with Delray Medical Center
	JFK Medical Center	Tax paying	Tax paying
	Palm Beach Gardens Medical Center	Tax paying	Tax paying
	Palms West Hospital	Tax paying	Tax paying
	Wellington Regional Medical Center	Tax paying	Tax paying
	West Boca Medical Center	Tax paying	Tax paying

	Glades General Hospital	Tax supported	Tax paying
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SOURCE: State of Florida Agency for Health Care Administration, hospital financial data, 1998 and 2001.



**APPENDIX B  
PATIENT TRAVEL PATTERN ANALYSIS**

We examine the travel patterns of uninsured patients with those of Medicaid and commercially insured persons to determine whether or not geographic access to care is similar across payers.<sup>78</sup> In interpreting the results, we pay particular attention to those differences that may reflect the influence of a particular approach to the organization and financing of indigent care in a given county.

Patient hospital choice is a result of numerous factors including convenience, preference, quality, insurance plan, etc. Research has shown that patients tend to be admitted to hospitals that are close to their homes.<sup>79</sup> Patients also choose hospitals because of recommendations by friends and family, reputation, or where a particular physician has admitting privileges.<sup>80</sup>

Among the reasons a patient may select a particular hospital, only two can be addressed in the Florida hospital discharge data: place or residence and insurance. Our analytic approach depends on comparisons of travel patterns between patient groups to see if there are differences that could be attributable to insurance, assuming the other factors determining hospital choice are averaged out. One comparison is between uninsured and Medicaid patients, two typically low-income populations. We assume that the similarity in income reflects similarity in other characteristics, such as education, that may affect patient hospital choice. The second comparison is between uninsured and commercially insured patients, where we assume that those with insurance can obtain care with the greatest degree of choice. Access to care for commercially insured persons is considered in this analysis as the "gold standard." If access to care for the uninsured is not limited, their travel

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<sup>78</sup> While the research focus is broader, the analytic methodology of the analysis seen here is similar to that used in *Hospital Care for the Uninsured in Miami-Dade County: Hospital Finance and Patient Travel Patterns*, Jackson et al., 2002.

<sup>79</sup> Adams et al. (1991), Garnick et al. (1989), Luft et al. (1990), and Phibbs et al. (1993).

<sup>80</sup> Burns and Wholey (1992).

patterns should resemble those of patients with health insurance.

Finally, to increase the validity of the comparisons, we construct patient subgroups that are similar with respect to their need for hospitalization. Two characteristics define these subgroups: age and type of hospitalization. We compare pediatric and adult travel patterns separately because different hospitals may specialize in children's health care, which would affect the choice of hospital. We also separate emergency hospitalizations from those due to urgent or elective conditions. By law, all hospitals are required to treat patients who present with emergency conditions regardless of insurance status. However, selection of hospitals for elective or urgent conditions may be affected by insurance proscriptions, physician and hospital admissions policies, etc. A final comparison is among adult patients with cardiac conditions, a group that is homogeneous in diagnosis.

#### **PATIENT TRAVEL PATTERN ANALYSIS METHODOLOGY**

We calculate a distance proximity rank to measure geographic access. For each patient discharge, we determine how many hospitals are closer to his or her home than the one to which he or she is admitted. We use the zip codes of patient residence and the hospital as our measures of location. Cartesian distance is determined from the geographic center of one zip code to another to facilitate distance ranking.<sup>81</sup> If a patient is admitted to the hospital closest to his or her home - the hospital that is ranked 1 in distance - we say that this patient skipped no hospitals. If he or she is admitted to a hospital just beyond the closest, we say the patient skipped one hospital. We continue "ranking" the hospitals from the patient's residence as needed. The ranking of the discharge hospital measures the relative proximity of the hospital to the patient's home.<sup>82</sup>

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<sup>81</sup> Hospital zip codes were obtained from a variety of sources, including American Hospital Association (AHA) directories, and were merged with the Florida hospital data. This required a manual match of hospitals by hospital name, because the AHA and AHCA Florida data use different hospital identifiers. All Florida hospitals were matched in preparation for intra-state analyses. Appendix A lists the south Florida hospitals by county included in the analysis.

<sup>82</sup> Because our distance measure is crude, there were ties in the ranking of hospitals. When there were ties, we used the lowest ranking. For example, if two hospitals were close to a patient's zip code, they were both ranked 1;

In our analysis of geographic access, we are interested in identifying those with immediate access and those with more distant access. We compare the extremes of the skipping distribution and focus on those who are hospitalized close (1-2 hospitals) to home, and those who are hospitalized far (> 9 hospitals) from their homes. In looking at the extremes, we implicitly control for differences in local hospital density. By comparing the travel patterns of patients living in similar neighborhoods (and thus having the same proximity rank for their hospital selection), we have some statistical control for unobserved socioeconomic characteristics that might affect hospital choice.

### **Data**

We use the patient-level hospital discharge data for 2000 from Florida State's AHCA. All Florida hospitals annually report information on the patients treated at their facility. Included in the data reported is patient-specific information such as age, gender, expected source of payment (payer), zip code of residence, type of admission, discharge diagnoses, and length of stay.<sup>83</sup>

### **Exclusions**

Only residents of Miami-Dade, Broward, and Palm Beach Counties are included. Patient records that did not have valid zip code of residence were excluded from the analysis.<sup>84</sup> We exclude several categories of patients that might confound the analysis:

- Patients who received care very far from their homes, that is, over 75 miles away.<sup>85</sup>

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the third hospital would then be ranked 3. In our analysis, we focus on the extremes of the rankings.

<sup>83</sup> For our analyses, these publicly available data were "de-identified," so that it was impossible to identify an individual patient.

<sup>84</sup> This analysis also excludes foreign residents.

<sup>85</sup> We felt that these patients had unusual reasons for their hospital choice and thus would not reflect typical admission patterns. One obvious situation in which this might happen is for those persons involved in traffic accidents where ambulance services proceed to the nearest hospital, without regard to where the patient lives. Obviously, in such situations hospital choice is determined by other concerns, rather than patient preference.

- Patients over the age of 65 and those for whom their hospital care was paid by Medicare, Medicare health maintenance organizations, Workers' Compensation, or the Veterans Administration.
- Hospitalizations associated with normal childbirth (those with a principal diagnosis code of 650) because Medicaid routinely covers deliveries for women without health insurance.
- Admissions that were transferred from another hospital.

Again, the purpose of these exclusions is to remove patients from the travel pattern analysis that would induce "more noise than signal." Our goal is to be able to create patient groupings that are homogenous to their needs for hospitalization and are representative of hospital care generally. Patients hospitalized far from their homes may reflect very strong preferences or random events such as accidents while traveling. Medicare patients are generally older; most uninsured people are less than 65 years of age. Those hospitalizations covered by the Veterans Administration (VA) or Workers' Compensation also differ from the average. Veterans hospitalized in non-VA facilities but covered by VA benefits generally require very specialized care not otherwise available to them at VA facilities. Workers' Compensation hospitalizations are the result of accidents on the job. Childbirth is a common reason for hospitalization, and the absolute numbers mask any differences there may be for other types of hospitalizations. Finally, we exclude patients who have been transferred from other facilities, because they generally have severe conditions that require specialized services that may not be available at all hospitals.

### **Insurance Groups Defined**

We create three different patient groupings:

1. Commercial (commercial insurance, commercial HMO, commercial PPO).
2. Medicaid (Medicaid, Medicaid HMO).
3. Uninsured (other state/local government, self-pay/charity/uninsured, other, charity).<sup>86</sup>

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<sup>86</sup> Within this group, the majority of patients are categorized on the AHCA tape as self-pay/charity/underinsured or charity. The percentages of UNINSURED from local government and other categories vary by county: Broward <5%, Miami-Dade <9%, and Palm Beach 15%.



### **Hospitalization Groups**

We create two subgroups based on the recorded type of hospitalization: emergency or urgent and elective. Since the objective of creating patient subgroups is to create more homogeneous groups for comparison, we examined the diagnostic codes listed emergent, urgent, and elective admissions. We found little overlap between diagnoses for emergency admissions versus those for urgent or elective admissions, indicating that the two groups are different from one another. To further reduce the differences in diagnoses and services received, we identified all adult patients who had cardiac diagnoses excluding heart attack. This group of cardiac patients is homogeneous with respect to their medical condition and should result in similar travel patterns, assuming patient preferences are shared across insurance groups.



APPENDIX C  
PATIENT TRAVEL PATTERN ANALYSIS,  
BROWARD, MIAMI-DADE, AND PALM BEACH COUNTIES, 2000

Table C.1

Adult Hospital Patient Travel Patterns by Insurance Type and by County of Residence, 2000

Payer/County	Total Patients	1&2	10+	Broward	Miami-Dade	Palm Beach
<b>Commercial</b>						
Broward	49,514	42.3 <sup>a3,b3 d1,e3</sup>	12.8 <sup>a3,b3 e3</sup>	86.0 <sup>a3,b3 d3,e3</sup>	8.8	5.2
Miami-Dade	57,233	38.9 <sup>a3,c3 d3,e3</sup>	23.4 <sup>a3,c3 d3,e3</sup>	5.2	94.6 <sup>a3,c3 d3,e3</sup>	<1
Palm Beach	32,746	56.1 <sup>b3,c3 d3,e3</sup>	3.5 <sup>b3,c3 d3,e3</sup>	4.4	2.5	92.9 <sup>b3,c3 d3,e3</sup>
<b>Medicaid</b>						
Broward	12,054	43.3 <sup>b3 d1,f3</sup>	13.3 <sup>a3,b3 f3</sup>	92.9 <sup>a3,b3 d3,f3</sup>	5.3	1.8
Miami-Dade	33,500	43.2 <sup>c3 d3,f3</sup>	26.2 <sup>a3,c3 d3,f3</sup>	1.2	98.8 <sup>a3,c3 d3,f3</sup>	<1
Palm Beach	8,817	63.1 <sup>b3,c3 d3</sup>	2.5 <sup>b3,c3 d3,f1</sup>	<1	1.0	98.0 <sup>b3,c3 d3,f3</sup>
<b>Uninsured</b>						
Broward	17,325	47.9 <sup>a3,b3 e3,f3</sup>	15.7 <sup>a3,b3 e3,f3</sup>	94.3 <sup>a3,b3 e3,f3</sup>	4.2	1.5
Miami-Dade	22,413	41.3 <sup>a3,c3 e3,f3</sup>	27.7 <sup>a3,c3 e3,f3</sup>	2.4	97.4 <sup>a3,c3 e3,f3</sup>	<1
Palm Beach	8,809	63.3 <sup>b3,c3 e3</sup>	2.0 <sup>b3,c3 e3,f1</sup>	2.8	1.4	95.6 <sup>b3,c3 e3,f3</sup>

NOTES: The sum across county-specific columns may not add up to 100 percent since some residents were discharged from "other" counties.

Significance codes: within payer contrasts: a = Broward and Miami-Dade; b = Broward and Palm Beach; and c = Miami-Dade and Palm Beach.

Within county contrasts: d = commercial and Medicaid; e = commercial and uninsured; and f = Medicaid and uninsured.

(1): p <= 0.05; (2): p <= 0.01; and (3): p <= 0.001.

Table C.2

Urgent/Elective Admissions, Adult Hospital Patient Travel Patterns by Insurance Type and by County of Residence, 2000

Payer/County	Total Patients	1&2	10+	Broward	Miami-Dade	Palm Beach
<b>Commercial</b>						
Broward	32,005	36.4 <sup>b3</sup> e1	15.0 <sup>a3,b3</sup> e2	83.8 <sup>a3</sup> e3	10.0	6.2
Miami-Dade	36,953	33.8 <sup>c3</sup> d3	26.0 <sup>a3,c3</sup> d2,e1	6.5	93.4 <sup>a3,c3</sup> d3	<1
Palm Beach	21,026	47.3 <sup>b3,c3</sup> d3,e3	4.5 <sup>b3,c3</sup>	5.1	3.3	91.4 <sup>c3</sup> d3,e3
<b>Medicaid</b>						
Broward	7,441	37.7 <sup>a3,b3</sup>	16.6 <sup>a3,b3</sup>	92.7 <sup>a3,b2</sup> f2	5.1	2.2
Miami-Dade	15,175	40.5 <sup>a3,c3</sup> d3,f3	27.6 <sup>a3,c3</sup> d2,f3	1.9	98.1 <sup>a3,c3</sup> d3,f3	<1
Palm Beach	5,627	56.1 <sup>b3,c3</sup> d3	2.9 <sup>b3,c3</sup>	1.0	1.2	97.7 <sup>b2,c3</sup> d3
<b>Uninsured</b>						
Broward	7,260	37.1 <sup>a2,b3</sup> e1	23.9 <sup>a3,b3</sup> e2	94.8 <sup>a2</sup> e3,f2	3.6	1.6
Miami-Dade	6,478	34.4 <sup>a2,c3</sup> f3	31.4 <sup>a3,c3</sup> e1,f3	3.1	96.6 <sup>a2</sup> f3	<1
Palm Beach	3,750	51.5 <sup>b3,c3</sup> e3	3.0 <sup>b3,c3</sup>	3.3	1.9	94.7 <sup>e3</sup>

NOTES: The sum across county-specific columns may not add up to 100 percent since some residents were discharged from "other" counties.

Significance codes: within payer contrasts: a = Broward and Miami-Dade; b = Broward and Palm Beach; and c = Miami-Dade and Palm Beach.

Within county contrasts: d = commercial and Medicaid; e = commercial and uninsured; and f = Medicaid and uninsured.

(1): p <= 0.05; (2): p <= 0.01; and (3): p <= 0.001.

Table C.3

Emergency Admission, Adult Hospital Patient Travel Patterns by Insurance Type and by County of Residence, 2000

Payer/County	Total Patients	1&2	10+	Broward	Miami-Dade	Palm Beach
<b>Commercial</b>						
Broward	17,504	53.1 <sup>a3,b3</sup> <sub>e3</sub>	8.7 <sup>a3,b3</sup> <sub>e2</sub>	90.1 <sup>a3,b3</sup> <sub>d3,e3</sub>	6.5	3.4
Miami-Dade	20,277	48.3 <sup>a3,c3</sup> <sub>d3,e3</sub>	18.5 <sup>a3,c3</sup> <sub>d3,e3</sub>	2.9	96.9 <sup>a3,c3</sup> <sub>d3,e3</sub>	<1
Palm Beach	11,709	71.8 <sup>b3,c3</sup> <sub>d3</sub>	1.6 <sup>b3,c3</sup> <sub>e1</sub>	3.1	1.1	95.5 <sup>b3,c3</sup> <sub>d3,e1</sub>
<b>Medicaid</b>						
Broward	4,612	52.5 <sup>a3,b3</sup> <sub>f3</sub>	8.0 <sup>a3,b3</sup> <sub>f3</sub>	93.0 <sup>a3,b3</sup> <sub>d3,f1</sub>	5.7	1.3
Miami-Dade	18,322	45.5 <sup>a3,c3</sup> <sub>d3,f2</sub>	25.0 <sup>a3,c3</sup> <sub>d3,f2</sub>	<1	99.4 <sup>a3,c3</sup> <sub>d3,f3</sub>	<1
Palm Beach	3,186	75.3 <sup>b3,c3</sup> <sub>d3,f2</sub>	1.7 <sup>b3,c3</sup>	<1	<1	98.7 <sup>b3,c3</sup> <sub>d3,f3</sub>
<b>Uninsured</b>						
Broward	10,065	55.6 <sup>a3,b3</sup> <sub>e3,f3</sub>	9.8 <sup>a3,b3</sup> <sub>e2, f3</sub>	93.9 <sup>a3,b3</sup> <sub>e3,f1</sub>	4.7	1.4
Miami-Dade	15,935	44.1 <sup>a3,c3</sup> <sub>e3,f2</sub>	26.2 <sup>a3,c3</sup> <sub>e3, f2</sub>	2.1	97.8 <sup>a3,c3</sup> <sub>e3,f3</sub>	<1
Palm Beach	5,059	72.0 <sup>b3,c3</sup> <sub>f2</sub>	1.2 <sup>b3,c3</sup> <sub>e1</sub>	2.4	1.0	96.3 <sup>b3,c3</sup> <sub>e1,f3</sub>

NOTES: The sum across county-specific columns may not add up to 100 percent since some residents were discharged from "other" counties.

Significance codes: within payer contrasts: a = Broward and Miami-Dade; b = Broward and Palm Beach; and c = Miami-Dade and Palm Beach.

Within county contrasts: d = commercial and Medicaid; e = commercial and uninsured; and f = Medicaid and uninsured.

(1): p <= 0.05; (2): p <= 0.01; and (3): p <= 0.001.

Table C.4

Cardiac Admission, Adult Hospital Patient Travel Patterns by Insurance Type and by County of Residence, 2000

Payer/County	Total Patients	1&2	10+	Broward	Miami-Dade	Palm Beach
<b>Commercial</b>						
Broward	2,619	41.5 a3,b3 d1	11.0 a3,b3 d3,e3	89.1 a3,b3 d3,e3	8.9	2.0
Miami-Dade	3,458	42.6 a3,c3 d3	23.7 a3,c3 d3,e3	3.1	96.8 a3,c3 d3,e3	<1
Palm Beach	1,843	57.6 b3,c3 d3,e3	2.8 b3,c3 d3,e3	8.1	1.5	90.3 b3,c3 d3,e3
<b>Medicaid</b>						
Broward	469	41.2 a3,b3 d1	10.5 a3,b3 d3	90.8 a3,b3 d3,f3	8.1	1.1
Miami-Dade	1,797	50.7 a3,c3 d3,f3	20.5 a3,c3 d3,f3	<1	99.3 a3 d3,f3	<1
Palm Beach	313	76.4 b3,c3 d3,f3	1.0 b3,c3 d3	<1	2.9	96.2 b3 d3,f3
<b>Uninsured</b>						
Broward	880	46.5 a2,b3	14.1 a3,b3 e3	95.1 a3 e3,f3	3.9	1.0
Miami-Dade	1,335	41.1 a2,c3 f3	26.5 a3,c3 e3,f3	2.5	97.5 a3,c3 e3,f3	<1
Palm Beach	462	71.9 b3,c3 e3,f3	2.4 b3,c3 e3	1.5	1.3	97.2 c3 e3,f3

NOTES: The sum across county-specific columns may not add up to 100 percent since some residents were discharged from "other" counties.

Significance codes: within payer contrasts: a = Broward and Miami-Dade; b = Broward and Palm Beach; and c = Miami-Dade and Palm Beach.

Within county contrasts: d = commercial and Medicaid; e = commercial and uninsured; and f = Medicaid and uninsured.

(1): p <= 0.05; (2): p <= 0.01; and (3): p <= 0.001.

**Table C.5**

**All Admissions, Pediatric Hospital Patient Travel Patterns by Insurance Type and by County of Residence, 2000**

Payer/County	Total Patients	1&2	10+	Broward	Miami-Dade	Palm Beach
<b>Commercial</b>						
Broward	7,123	36.0 <sup>b3</sup>	14.4 <sup>a3,b3 d1,e3</sup>	84.7 <sup>a3,b3 d3,e3</sup>	9.7	4.7
Miami-Dade	9,923	35.0 <sup>c3 d3</sup>	27.0 <sup>a3,c3 e3</sup>	5.0	93.9 <sup>a3,c3 d3,e2</sup>	<1
Palm Beach	4,201	47.0 <sup>b3,c3 d3,e3</sup>	3.6 <sup>b3,c3 d2,e3</sup>	2.9	6.0	89.8 <sup>b3,c3 d3</sup>
<b>Medicaid</b>						
Broward	4,716	37.6 <sup>b3</sup>	15.7 <sup>a3,b3 d1,f1</sup>	91.8 <sup>a3,b3 d3</sup>	6.2	1.7
Miami-Dade	10,840	38.9 <sup>c3 d3,f1</sup>	27.4 <sup>a3,c3 f3</sup>	1.7	97.93 <sup>a3,c3 d3,f3</sup>	<1
Palm Beach	3,400	56.7 <sup>b3,c3 d3</sup>	2.4 <sup>b3,c3 d2,f1</sup>	1.1	2.3	96.2 <sup>b3,c3 d3,f3</sup>
<b>Uninsured</b>						
Broward	1,311	38.5 <sup>b3</sup>	18.2 <sup>a3,b3 e3,f1</sup>	92.5 <sup>a3 e3</sup>	4.4	1.8
Miami-Dade	1,549	35.9 <sup>c3 f1</sup>	31.3 <sup>a3,c3 e3,f3</sup>	2.8	95.5 <sup>a3,c3 e2,f3</sup>	<1
Palm Beach	612	55.4 <sup>b3,c3 e3</sup>	<1 <sup>b3,c3 e3,f1</sup>	2.0	2.6	91.8 <sup>c3 f3</sup>

NOTES: The sum across county-specific columns may not add up to 100 percent since some residents were discharged from "other" counties.

Significance codes: within payer contrasts: a = Broward and Miami-Dade; b = Broward and Palm Beach; and c = Miami-Dade and Palm Beach.

Within county contrasts: d = commercial and Medicaid; e = commercial and uninsured; and f = Medicaid and uninsured.

(1): p <= 0.05; (2): p <= 0.01; and (3): p <= 0.001.



Table C.6

Emergency Admissions, Pediatric Hospital Patient Travel Patterns by Insurance Type and by County of Residence, 2000

Payer/County	Total Patients	1&2	10+	Broward	Miami-Dade	Palm Beach
<b>Commercial</b>						
Broward	2,896	42.2 <sup>a3,b3</sup> <sub>e1</sub>	11.0 <sup>a3,b3</sup> <sub>d2</sub>	85.2 <sup>a3,b3</sup> <sub>d3,e3</sub>	5.5	7.7
Miami-Dade	4,898	35.2 <sup>a3,c3</sup> <sub>d3</sub>	29.3 <sup>a3,c3</sup>	1.9	96.9 <sup>a3,c3</sup> <sub>d3</sub>	<1
Palm Beach	2,151	56.6 <sup>b3,c3</sup> <sub>d2</sub>	2.8 <sup>b3,c3</sup> <sub>d2,e1</sub>	1.5	2.1	94.5 <sup>b3,c3</sup> <sub>d3,e2</sub>
<b>Medicaid</b>						
Broward	2,391	40.1 <sup>b3</sup> <sub>f1</sub>	13.3 <sup>a3,b3</sup> <sub>d2</sub>	92.5 <sup>a3,b3</sup> <sub>d3</sub>	5.0	2.1
Miami-Dade	6,113	40.3 <sup>c3</sup> <sub>d3,f1</sub>	28.6 <sup>a3,c3</sup>	<1	98.7 <sup>a3,c1</sup> <sub>d3,f3</sub>	<1
Palm Beach	1,967	61.2 <sup>b3,c3</sup> <sub>d2</sub>	1.4 <sup>b3,c3</sup> <sub>d2</sub>	<1	1.1	97.8 <sup>b3,c1</sup> <sub>d3,f3</sub>
<b>Uninsured</b>						
Broward	773	46.3 <sup>a3,b3</sup> <sub>e1,f1</sub>	12.4 <sup>a3,b3</sup>	93.0 <sup>a1</sup> <sub>e3</sub>	2.1	2.9
Miami-Dade	1,009	37.1 <sup>a3,c3</sup> <sub>f1</sub>	30.7 <sup>a3,c3</sup>	2.0	96.3 <sup>a1,c3</sup> <sub>f3</sub>	<1
Palm Beach	344	59.9 <sup>b3,c3</sup>	<1 <sup>b3,c3</sup> <sub>e1</sub>	1.7	1.5	91.0 <sup>c3</sup> <sub>e2,f3</sub>

NOTES: The sum across county-specific columns may not add up to 100 percent since some residents were discharged from "other" counties.

Significance codes: within payer contrasts: a = Broward and Miami-Dade; b = Broward and Palm Beach; and c = Miami-Dade and Palm Beach.

Within county contrasts: d = commercial and Medicaid; e = commercial and uninsured; and f = Medicaid and uninsured.

(1): p <= 0.05; (2): p <= 0.01; and (3): p <= 0.001.

Table C.7

Urgent/Elective Admissions, Pediatric Hospital Patient Travel Patterns by Insurance Type and by County of Residence, 2000

Payer/County	Total Patients	1&2	10+	Broward	Miami-Dade	Palm Beach
<b>Commercial</b>						
Broward	4,227	31.7 <sup>a3,b3 d2,e1</sup>	16.8 <sup>a3,b3 e3</sup>	84.3 <sup>a3 d3,e3</sup>	12.5	2.6
Miami-Dade	5,025	34.8 <sup>a3 d1</sup>	24.6 <sup>a3,c3 e3</sup>	8.1	91.1 <sup>a3,c3 d3,e1</sup>	<1
Palm Beach	2,049	37.0 <sup>b3 d3,e3</sup>	4.3 <sup>b3,c3 e2</sup>	4.3	10.1	84.8 <sup>c3 d3,e3</sup>
<b>Medicaid</b>						
Broward	2,324	35.0 <sup>b3 d2,f3</sup>	18.2 <sup>a3,b3 f3</sup>	91.1 <sup>a3,b2 d3</sup>	7.3	1.3
Miami-Dade	4,726	37.0 <sup>c3 d1</sup>	25.9 <sup>a3,c3 f3</sup>	2.9	96.8 <sup>a3,c3 d3,f3</sup>	0.0
Palm Beach	1,433	50.7 <sup>b3,c3 d3</sup>	3.7 <sup>b3,c3 f1</sup>	2.0	4.1	93.9 <sup>b2,c3 d3</sup>
<b>Uninsured</b>						
Broward	538	27.3 <sup>a1,b3 e1,f3</sup>	26.4 <sup>a1,b3 e3,f3</sup>	90.3 <sup>a1 e3</sup>	7.8	<1
Miami-Dade	540	33.7 <sup>a1,c3</sup>	32.4 <sup>a1,c3 e3,f3</sup>	4.3	94.1 <sup>a1 e1,f3</sup>	<1
Palm Beach	267	49.4 <sup>b3,c3 e3</sup>	<1 <sup>b3,c3 e2,f1</sup>	2.3	4.1	93.3 <sup>e3</sup>

NOTES: The sum across county-specific columns may not add up to 100 percent since some residents were discharged from "other" counties.

Significance codes: within payer contrasts: a = Broward and Miami-Dade; b = Broward and Palm Beach; and c = Miami-Dade and Palm Beach.

Within county contrasts: d = commercial and Medicaid; e = commercial and uninsured; and f = Medicaid and uninsured.

(1): p <= 0.05; (2): p <= 0.01; and (3): p <= 0.001.

**APPENDIX D  
RECONCILIATION OF HOSPITAL DISCHARGE AND HOSPITAL FINANCIAL DATA**

To examine the financial effects of providing care to the uninsured, we used the hospital finance data that are routinely reported to the Florida Health Care Administration. To develop a more stable understanding of the hospital financial situation, we looked at trends from 1998 through 2001. The financial data are reported annually but reflect hospital-specific fiscal years. Here we used the reporting year. To compare the hospital discharge data with the hospital financial data, we looked at the number of discharges by the insurance categories of interest: commercial, Medicaid, and uninsured.

Across the counties, the hospital financial data appear to underreport the number of discharges. Moreover, the under-reporting is not proportional across insurance type.

A number of reasons can be posited why the data are discrepant between the two sources. First, as mentioned above there are reporting period differences - the hospital financial data are reported by hospital-specific fiscal year and the discharge data are reported by calendar year. Second, the insurance category listed in the discharge data is generally the anticipated insurance type. Hospitals may determine that the category should be changed when reimbursement is sought. Unfortunately, this change is rarely reported in the discharge data. Third, there are differences in how some of the categories are reported. Interestingly, Broward County does not use the "other government" category for those patients whose care is subsidized by the county, while Miami-Dade and Palm Beach do (11,875 and 2,237 discharges, respectively). Such variation makes it difficult to compare the numbers of patients treated with local public funding.

Because of the reporting differences, we analyzed the hospital financial data without further reconciliation with the hospital discharge data. In addition, we included the "other government" discharges in the uninsured category.

**Table D.1**

**Comparison of Counts of Discharges from AHCA  
Hospital Discharge and Hospital Financial Reports by  
County and Selected Payer Categories and Totals,  
2000**

	South Florida County of Residence		
	Broward	Miami-Dade	Palm Beach
<b>Discharge</b>			
Commercial	86,345	113,841	56,181
Medicaid	23,751	67,054	19,160
Uninsured	25,217	32,249	14,780
Total	221,486	317,454	164,149
<b>Financial</b>			
Commercial	65,079	94,723	52,771
Medicaid	19,397	56,729	14,660
Self-pay	22,876	23,100	7,415
Total	197,108	306,948	159,429

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