NASSAU UNIVERSITY MEDICAL CENTER

NASSAU COUNTY'S SAFETY NET HEALTH INFRASTRUCTURE

October 2003

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INTRODUCTION: MISSION OF LONG ISLAND'S PUBLIC HEALTH HOSPITALS AND MUNICIPAL HEALTH NETWORK

A growing segment of any regional economy is the health care industry. Important elements of that sector are the public hospitals and municipal health systems. The demand for services placed on this industry, and especially the municipal health networks is growing. This despite an environment of constantly increasing costs for services, sluggish regional economy's and tightening municipal budgets.

The Nassau University Medical Center (NUMC), The Suffolk County Health Department (SCHD), and the Stony Brook University Hospital (SBUH) comprise the municipal health infrastructure of Long Island. Despite being three distinctly different institutions, each, in its own way, operates in this environment and shares a number of important missions that make them important to our regional health care delivery system. Fundamental to all three is that they treat hundreds-of-thousands of patients, regardless of ability to pay. This includes providing thousands of uninsured individuals and families with access to medical care, regardless of whether or not they have health insurance. To provide this medical care, the region's safety net hospitals and health centers must absorb the excess medical costs after receiving partial reimbursement from New York State's constantly underfunded Bad Debt and Charity Care Pool. According to The National Association of Public Hospitals (NAPH), of which the Nassau University Medical Center and the University Hospital at Stony Brook are members, in fiscal year 2001 NAPH members provided $4.9 billion in uncompensated care costs, almost 23 percent of the total uncompensated care in the country. NAPH further noted that uncompensated care represents 25 percent of costs for NAPH members as compared to 5.6 percent of costs for all hospitals in the country.[1]

Long Island's regional municipal health system also treats other at risk populations, including the elderly, low-income children and families on Medicaid, some of the

[1] Ingrid Singer, America's Safety Net Hospitals and Health Systems, 2001.

region's newest arrivals, and patients with chronic illnesses such as HIV/AIDS, mental illness, diabetes, and asthma. Also provided are essential and universally needed high cost services such as trauma care, burn care, and neonatal and pediatric intensive care. Long Island's municipal hospitals and health systems are also part of the emergency preparedness efforts, with linkages to other first responders including police, fire, emergency services and public health.

According to NAPH, the fiscal and operational environment is not likely to improve. NAPH reports that the economic downturn is increasing the number of people without health insurance, and that states and localities facing crippling budget deficits are forced to consider cutting back on Medicaid and other programs that support services in safety net hospital systems. Adding to that financial burden is the increased investment in emergency response preparedness and infrastructure that the new threats from terrorism have forced on safety net hospitals.

Because of their mission of treating all patients regardless of ability to pay, NAPH members serve a substantial proportion of patients who are uninsured, underinsured or covered by the Medicaid program. The result is a financial situation where NAPH members are usually far worse than that of other hospitals in the country. For 2001, the latest year for which accurate data is available, an average of 38 percent of patients discharged from NAPH hospitals were covered by Medicaid, and another 26 percent of patients were uninsured. This resulted in NAPH members losing over $527 million on Medicare patients in 2001, an increase of 29 percent over Medicare losses for 2000. Furthermore, 88 percent of NAPH members lost money on Medicare patients, significantly greater, by comparison, to just under half of all hospitals nationally. In 2001, 41 percent of NAPH members reported negative margins, with the average margin just barely breaking even at .1 percent, as compared to the nationwide average profit margin

of 4.2 percent for all hospitals. [2]

Contributing to the dismal financial operating results of NAPH members is that they provide a disproportionate share of ambulatory care. NAPH members, many through a network of public health hospitals and municipal clinics and health centers, provide almost a quarter of the ambulatory care visits in their communities. Primary care accounts for 47 percent of these non-emergency room ambulatory care visits.[3]

Irrefutable, is that Long Island's municipal hospitals and respective health delivery system of clinics and health centers has become the region's "safety net". What is even clearer, as NAPH discloses, is that government's fiscal obligation to fund that mission is critical to the delivery of that care. NAPH members rely on governmental payers to help them meet their various "safety net" missions, with 73 percent of their revenues from Medicaid, Medicare, and state and local government subsidies. The conclusion drawn by NAPH is that reimbursement from these sources is not adequate to cover the costs of care, an inadequacy that is worsening over time.[4]

What follows is a view of Long Island's health delivery "safety net", as provided by Nassau University Medical Center, the Suffolk County Health Department, and Stony Brook University Hospital. What becomes apparent is the importance that government financial support plays in the delivery of that service.

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[2] Ibid.
[3] Ibid.
[4] Ibid.

II: LONG ISLAND PUBLIC HOSPITALS-MUNICIPAL HEALTH NETWORK

A: STONY BROOK UNIVERSITY HOSPITAL

Stony Brook University Hospital (SBUH) is an important Long Island health care provider. It is Long Island's only comprehensive academic health center, with a mission to provide education, research, patient care and community service. The Health Sciences Center was established in 1972 to address the shortage of health care professionals and improve access to the most sophisticated types of medical care. In addition to operating five professional medical and medical related schools, the University Hospital's clinical facilities consist of a 504-bed teaching hospital, a 350-bed nursing home, a Dental Care Center and many on and offsite outpatient facilities providing diagnostic and therapeutic services.

Not only has SBUH been ranked as one of the Top 15 teaching hospitals in the United States, it is the only tertiary care hospital servicing Suffolk County's 1.4 million residents. The hospital treats over 28,000 in-patients and 600,000 outpatients annually, including approximately 310,000 physician visits, 68,000 emergency room visits and 216,000 visits for other diagnostic and therapeutic services.[5]

The 504-bed facility offers state-of-the-art care in most specialties, and plays an important regional role by providing the full scope in medical and surgical services, psychiatry, cardiac care, trauma, neonatal, and perintatal care, and women's health care. The 350-bed skilled nursing facility opened in October 1991, and is the Long Island State Veterans Home providing 24 hour nursing and sub-acute care to veterans of the United States armed forces. It is one of the only nursing homes in the country that is fully integrated into the health and educational mission of a major teaching and research university.[6]

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[5] Simminate Ennever, Via Fax.

[6] Ibid.

B: SUFFOLK COUNTY PUBLIC HEALTH DELIVERY SYSTEM

The Suffolk County Health Department (SCHD) is a publicly sponsored agency which operates nine stand alone health centers and four satellite clinics through its Division of Patient Care Services. The SCHD is divided into eight Divisions, with the patient care division having responsibility for direct patient care and the John J. Foley Skilled Nursing Facility. The Patient Care Division's mission is to provide diagnostic and therapeutic medical care in maternal and child health to those residents otherwise economically unable to access these services, and to provide nursing, physical therapy, speech therapy, occupational therapy and home health services to Suffolk residents who are homebound. This Division operates the County Comprehensive Ambulatory Health Care centers, other patient treatment programs, and also provides medical care and ancillary services to the County Correctional Facilities.[7] The stand alone health centers are located in the communities of Bayshore/Central Islip, Brentwood, Coram (Elsie Owens Center), Huntington, Patchogue (South East Brookhaven Health Center), Riverhead, Shirley (South West Brookhaven Health Center), Tri-Community (Amityville), and Wyandanch (Martin Luther King Community Health Center). Satellite clinics are located in Greenport and Southampton.

Suffolk County also maintains the John J. Foley skilled nursing facility in Yaphank. The nursing facility provides necessary medical, therapeutic and nutritional care to residents who, due to various illnesses and incapacitates, require twenty-four hour medical supervision. Services are provided to both the general patient population and those individuals with AIDS. Since 1998, the facility also operates an adult day care health program which provides essentially the same services as the nursing facility, except the registrants remain in the community, reside with their family, or other setting.

The 2002 Suffolk County adopted budget provided $50.2 million for patient care and

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[7] County of Suffolk 2003 Annual Budget, Health Services Department.

related programs, $6.3 million for county owned health centers, $21.7 million for the John J. Foley Skilled Nursing Facility, and $38,455,267 of direct funding to county-contracted health centers supervised by local hospitals. They included: Coram ($4,301,696; Greenport satellite ($18,364); Patchogue and Shirley ($13,897,383); Wyandanch ($5,250,031); Riverhead/Southampton satellite ($561,930); Bayshore/Central Islip ($12,169,673); Huntington ($2,256,190). The $6,317,145 was spent on SCHD personnel at county-owned health centers in Riverhead ($2,870,946); Amityville ($2,546,054); and Brentwood ($900,145).[8] Further example of government support of public health services is found in the Suffolk County 2003 budget which includes $500,000 for converting the Dolan Health Center to a county owned model of operation.

The $21,705,302, budget for the 264 bed John J Foley Skilled Nursing Facility includes over 79 percent for personal services. The Suffolk County Legislative Budget Review Office also reported that the $21.7 million nursing facility budget required a county subsidy of $5,146,552 million to cover an operating deficit where gross expenditures exceeded direct revenues. The Budget Review Office further noted that the county subsidy would have to increase by over $2 million for 2003, for a total of $7,312,074 million. The subsidy was necessary due to a combination of factors. They were the growth in contractual raises exceeding the growth of Medicaid, the decrease in nursing facility census, and a change in patient mix.[9]

C: NASSAU UNIVERSITY MEDICAL CENTER

The Nassau University Medical Center is a 1,500-bed health care system, which includes a licensed 631-bed tertiary care teaching hospital, an 889-bed skilled nursing facility and seven community health centers serving the communities of Elmont, Freeport, Hempstead, Inwood, Long Beach, New Cassel, and Roosevelt.. For more than

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[8] Ibid.

[9] County of Suffolk Legislature Budget Review Office, Review of the 2003 Recommended Operating Budget.

65 years the Medical Center, which is affiliated with Lenox Hill Hospital and the Health Sciences Center of the State University of New York at Stony Brook, has maintained a strong commitment to medical education, while offering a proud tradition of service and caring to the people of Long Island. In 2001, its staff of over 3,000 saw nearly 100,000 persons in over 364,000 outpatient visits. More than 82,000 of those visits were to the NUMC Emergency Department, and more than 282,000 to other departments. Of the ambulatory care visits, 30 percent were considered for primary care, including family and general practice, internal medicine, and pediatrics. The balance of the 70 percent was for specialty care provided in NUMC's other departments, including nearly 1,900 births.[10]

Yet NUMC, which provides medical care to so many Nassau County residents, still must confront the type of fiscal challenges faced by SCHD and SBUH. For 2003, despite gross expenditures basically favorable to budget, NUMC expects to report a deficit, caused by fiscal pressures beyond NUMC's control. These include; revenues falling below expectations; required increases in pension contributions to replace lost value in pension funds caused by stock market declines; and increases in uncompensated care costs net of partial reimbursement from the historically underfunded New York State Bad Debt Charity Care pool. Additionally, in 2005 NUMC must begin paying interest on the $259.7 million of debt financing used to purchase NUMC, the health clinics, and the Holly Patterson Nursing Home from Nassau County, increasing the annual debt service to $19.8 million. The glaring difference is that SCHD and SBUH have their deficits funded by the New York State and the Suffolk County respective General Funds. Furthermore, the increased municipal pension contributions, as permitted by the New York State Comptroller, will be spread over several years. NUMC, while providing the same medical care to basically the same population, as illustrated in Tables 1-6 that follow, still must operate under basically the same financial constraints as SCHD and

[10] Nassau University Medical Center, National Association of Public Hospital and Health Systems 2001 Survey.

SBUH, yet without the option of seeking any municipal financial support.[11] Something very difficult to accomplish according to the National Association of Public Hospitals.

As reflected in Table 1, the NUMC patient visit distribution is similar to that of SBUH and SCHD.

Table 1: Comparison of Patients Served Annually (2001)

	Nassau Univ Med. Ctr.[12]	**Stony Brook Univ. Hosp.**[13]	**Suffolk Cty. Health Dept**[14]
Beds:Licenced/Available	631/481	504	Not Applic.
Inpatient Discharges	21,914	28,000	Not Applic.
Total Outpatients Visits	364,369	594,000	266,208(c)
Physician Visits	266,873	310,000	Not Applic.
Emergency Room Visits	82,111	68,000	Not Applic.
Diagnostic/Therapeutic	15,385	216,000	64,185(a)
Jail Medical Program			28,148(d)
Health Ctr. Patient Visits	60,000(b)		
Nursing Visits			60,894

Notes: (a) Women's Health Programs: Prenatal Care Visits, Infant Deliveries, Family Planning Visits, Mammography.

(b) Patient Ambulatory Visits Based On Annualizing Actual Four Months Ending April 30, 2003.

(c) Primary Care Visits.

(d) Average Daily Census, New Admission Physicals, Sick Call Examinations, Dental Visits.

Similarities also exist in bed allocation at the respective skilled nursing facilities. NUMC allocates 98 percent of its beds for geriatrics/ventilator and two percent for HIV/AIDs; SCHD allocates 96 percent and four percent respectively. As presented in Table 2, the bed occupancy rate is higher for SCHD. However, as previously noted, both skilled nursing facilities operate at deficits, this despite SCHD's facility operating at near full capacity.

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[11] Nassau University Medical Center.

[12] Ibid.

[13] Simminate Ennever, Via Fax.

[14] County of Suffolk 2003 Annual Budget, Department of Health Services.

Table 2: Nursing Facilities Bed Occupancy Rate

	Nassau Univ. Medical Ctr.(a)		Suffolk Cty Health Dept.[15]	
Total Beds	889	100%	264	100%
General Patients	669	77%	245	93%
HIV/AIDS Patients	20	2%	12	4%
Total	689	79%	257	97%

Notes: (a) Source: Nassau University Medical Center, April 2003.

The patients treated at Long Island's public health hospitals and clinics tend to be older and younger, and in larger percentages, than the same age composition of the general population of Nassau and Suffolk County. Tables 3 and 4 indicate that while those over 65 years of age are 15 percent and 12 percent of the respective Nassau and Suffolk County population, they comprise 23 percent of the patient discharges at NUMC. Thirty-seven percent of NUMC's discharges are 20 years and younger, greater than the respective 27 and 28 percent representation in Nassau and Suffolk County.

Table 3: Long Island Population 2000[16]

	Nassau County		Suffolk County	
Population	1,334,544	100 %	1,419,369	100 %
0-4 yrs.	86,628	7 %	100,304	7 %
5-14 yrs.	189,633	14 %	213,620	15 %
15-19 yrs.	82,662	6 %	88,558	6 %
20-34 yrs.	230,766	17 %	267,360	19 %
35-54 yrs.	418,057	31 %	449,193	32 %
55-64 yrs.	125,957	10 %	132,776	9 %
65 yrs. and over	200,841	15 %	167,558	12 %

Source: 2000 Census of Population, U.S. Bureau of Census

[15] Ibid.
[16] Ibid.

Table 4: Patient Discharges Age Distribution (2001)

Nassau UnivMedical Ctr.(a)

0-1 yrs.	2,204	10 %
2-20 yrs.	5,888	27 %
21-44 yrs.	3,675	17 %
45-64 yrs.	4,383	20 %
65 years and over	5,089	23 %
Unknown	675	3 %
Total Discharges	21,914	100 %

Notes: (a) Source: Nassau University Medical Center, National Association of Public Hospitals and Health Systems 2001 Survey.

The ethnicity distribution of those discharged from NUMC, the Nassau County "safety-net" hospital is quite different from the ethnic composition of Nassau and Suffolk County. As Tables 5 and 6 indicate, NUMC appears to be the hospital of choice for a disproportionate amount of black and Hispanic patients then are represented in the regional population. That the mission of NUMC is to accept for treatment those who either do not have health insurance or those who are under insured, may explain why so many in Long Island's minority community use the municipal "safety net" hospitals for primary medical care.

Table 5: Racial Composition of Long Island (2000)

	Nassau County		Suffolk County	
White	1,058,285	79 %	1,200,755	85 %
Black	134,673	10 %	98,553	7 %
Asian/Pacific Islander/Other	113,290	9 %	90,877	6 %
Two or More Races	28,296	2 %	29,184	2 %
Total	1,334,544	100 %	1,419,369	100 %
Hispanic or Latino*	133,282	10 %	282,693	20 %

Source: 2000 Census of Population and Housing
* Hispanics May Be of Any Race (2000 Census of Population and Housing)

Table 6: Ethnicity of Patient Discharges (2001)

	Nassau Univ.Medical Ctr.(a)	
White	4,112	19%
Black	9,795	45 %
Hispanic	7,570	34 %
Asian/Pacific Islander	241	1 %
Other/Unknown	196	1 %
Total Discharges	21,914	100 %

Notes: (a) Source: Nassau University Medical Center, National Association of Public Hospitals and Health Systems 2001 Survey.

III:NASSAU UNIVERSITY MEDICAL CENTER

Introduction:

Nassau University Medical Center (NUMC), the seven clinics, and the skilled nursing facility that it operates, have become Nassau County's health care safety-net. Together with Stony Brook University Hospital (SBUH), the Suffolk County Health Department health centers (SCHD), and each's respective skilled nursing facility, they form the region's municipal healthcare safety-net infrastructure. However, despite the similarity in missions, and the budgetary implications inherent in delivering that mission, NUMC, because it is an independent entity, doesn't enjoy the same level of financial support from its municipality that SBUH and SCHD do from theirs.

Municipal financial support is often necessary because of the greater share of patients with medical care costs exceeding reimbursements served by the nation's municipal health delivery networks. This disproportionate financial burden forces these hospitals to absorb the net costs of that care. Last year, Long Island's hospitals, including SBUH and NUMC, provided $173 million in indigent care, which has strained their resources.[17] However, the manner in which the net unreimbursed indigent care costs are absorbed by

[17] Pearl Kamer, The Vital Role of Hospitals in the Long Island Economy.

SBUH and SCHD, and the financial impact on their operations, is quite different from NUMC. Those differences appear below

Government Subsidies

Financing the mission of SBUH and SCHD is easier because any revenue shortfalls, common place to public health networks, are absorbed by the budget appropriations of their respective government. Thus, to offset the patient care cost-vs-revenue deficits incurred at SCHD and SBUH are financial resources provided respectively by the Suffolk County and New York State budgets. As shown in Table 7, the 2002 Suffolk County adopted budget providing for Health Department patient care services, operated at a deficit of $34.926 million resulting from the excess of $230.962 million of gross expenditures over $196.034 million of direct revenues. The Suffolk County Health Centers, a part of that budget, projected $95 million of expenses, offset by only $24.6 million of revenues. The total departmental direct revenues included fees and fines of $118.661 million, State Aid of $59.062 million, and Federal Aid of $18.313 million.[18] In contrast NUMC, as an independent hospital, receives state aid of $33 million and $3 million of federal aid, all less than what SCHD received, while also treating the same patient mix, while pursuing similar missions.

Furthermore, while Nassau County provides NUMC with a $13 million Mission Payment and $ 5 million for operating the clinics, Suffolk County in 2002 provided $38.5 million of direct funding to county-contracted health centers supervised by local hospitals, and allocated $6.3 million for county run health centers and $5.1 million to fund the deficit in its skilled nursing facility.

What Suffolk County and New York State understand is that without government support, making health care available to all, whether they can pay for it or not, results in operating deficits. Deficits that NUMC must absorb, while SBUH and SCHD do not.

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[18] County of Suffolk 2003 Annual Budget, Department of Health Services.

Table 7: Gross Expenditure -vs- Direct Revenue Deficit

	Nassau Univ. Medical Ctr.[19]	Suffolk Cty. Health Dept.[20]
Patient Service Delivery	$ 62.8 mill	$ 34.9 mill.
Skilled Nursing Facility		$ 5.1 mill.
Health Center Convers.	n/a	$ .5 mill.

At the regions municipal health treatment centers, payment for services are collected from Medicare, Medicaid, fees for service, and insurance payments. Patients who can't pay for services, or are not fully covered by Medicare, Medicaid or insurance, are never-the-less provided treatment. While SBUH and SCHD have these unreimbursed indigent medical care costs absorbed by their respective budgets, all three, including NUMC receive limited financial relief from the New York State Bad Debt and Charity Care Pool (BDCC).

The source of revenues for the BDCC pool is a surcharge collected on net patient revenues. The surcharge is added to all hospital bills, fee for service and health insurance payments received by not-for-profit health care providers in New York State, such as hospitals, and health centers. Since collections of the surcharge can vary monthly, the proceeds are not always sufficient to fund the BDCC pool at an amount equal to the annual awards of SCHD, SBUH and NUMC. The result is that the annual award's are converted to a percentage of total state awards, with the result applied to the surcharge collected to determine the monthly grant award.

The financial difficulties encountered by SCHD, SBUH, NUMC, and other not-for-profit providers of indigent medical are compounded by the inconsistent state distribution of financial support for that care. The result has been a continuing pattern of adjustments of prior year distributions received by from the BDCC pool. The uncertainty is inherent

[19] Nassau University Medical Center, National Association of Public Hospitals and Health Systems 2001 Survey.
[20] County of Suffolk 2002 Adopted Budget.

to the process, which establishes BDCC appropriations based on projections, with the intention to make adjustments when final data is available.

The cause for this has been that the annual BDCC pool distributions are calculated on the fluid proportional relationship existing among New York's not-for-profit health care providers, which is based on their respective percentage of indigent care visits to their total of eligible patient visits. These proportions are based upon constantly changing base year calculations, often two years before the current benefit year. When actual benefit year pool distribution calculations are made, based upon the actual percentages of indigent care to total eligible patient care visits, adjustments are made to the preliminary pool distribution awards. These adjustment reflect the percentage of indigent care provided among the not-for-profit health care providers, with the original fund redistributed base upon the final numbers. Those initially receiving overpayments in the preliminary base year calculations must return those funds to New York State, which then redistributes them to those who previously received underpayments.

While SCHD and SBUH have their year to year direct revenue-vs-gross expenditure deficits filled by appropriations from their respective government subdivisions, the impact of the BDCC inconsistencies is harder for NUMC to absorb. NUMC, while providing medical care to similar indigent patients as SCHD and SBUH, is unable to seek any assistance from local government, but must fill any refunds to BDCC from its operating budget and available cash reserves. The task confronting NUMC is compounded by the disproportionate share of uninsured and underinsured patients that it treats. For 2002 the direct revenue, including the BDCC distribution for SCHD, was expected to be just over $29 million, much less than the $95 million of projected gross patient expenditures[21]. For NUMC, the BDCC deficit over the uncompensated care need is $26.1 million, the total of which must be absorbed by NUMC.[22]

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[21] County of Suffolk Legislature Budget Review Office, Review of the 2003 Recommended Operating Budget.

[22] Nassau University Medical Center, National Association of Public Hospital and Health Systems 2001 Survey.

Impact of Long Island's Public Hospital Safety-Net on the Regional Economy

The health care sector of the Long Island economy has been one of the sectors that has shown growth during the past decade. By 2001, Long Island hospitals employed 41,943 full-time equivalent workers, representing approximately 3.5 percent of all Long Island employment, and accounting for almost 25 percent of the regional health care employment. The total direct spending by Long Island hospitals exceeded $4.6 billion, including wages and fringe benefits exceeding $2.7 billion.[23]

While the direct spending by Long Island hospitals represents approximately 4 percent of the Long Island Regional Product, (the total goods and services produced in the region), the benefit to the Long Island economy is much greater. The direct spending on wages, goods and services by Long Island hospitals circulates several times in the Long Island economy before the dollars find their way to final financial destinations such as bank accounts, investments, or out of region purchases. This economic relationship is called the secondary economic impact, or multiplier.

Thus, the total of direct hospital spending during 2001 of $4.6 billion, when circulated in the Long Island economy had a secondary economic impact of almost $5.0 billion. The result was a total economic impact of nearly $9.6 billion,[24] approximately 9 percent of Long Island's Gross Regional Product.

Long Island hospitals, including NUMC and SBUH, have become important contributors to Long Island's economic growth. However, as noted by the National Association of Public Hospitals, because of the mission of Long Island's public hospitals, and the financial pressure they face because of the growing numbers of uninsured patients that they serve, unless support is given to them to retain their financial viability, a significant part of the Long Island economy is placed in unnecessary jeopardy. SBUH

[23] Kamer, Pearl. The Vital Role of Hospitals in the Long Island Economy.
[24] Ibid.

receives such support, while NUMC does not.

Economic Impact: Nassau University Medical Center and Stony Brook University Hospital

Employment

The contributions to the regional economy made by Long Island's two public hospitals, NUMC and SBUH, among the top health care employers, are from direct employment, direct purchases, and the secondary economic impact of that spending as it ripples through the economy. The largest single hospital employer in 2001 was the North Shore University Hospital network, which employs 6,538 persons, 15.6 percent of Long Island's direct hospital employment. The second and fourth largest hospital employers were Stony Brook University Hospital and Nassau University Medical Center, respectively employing 3,826 and 3,171 persons, or 9.1 and 7.6 percent of Long Island hospital employment.[25]

Direct Spending: Stony Brook University Hospital (SBUH):

Additional to the $ 256.3 million that SBUH spent in 2001 on salaries and fringe benefits for its 3,826 employees, it spent another $210.3 million on non-payroll and capital expenditures, for a total of nearly $466.6 million in 2001 direct spending. Capital spending of $12.1 million amounted to just 2.6 percent of direct spending. When the $500.9 million of secondary economic impact of the direct spending is included, $967.5 million was contributed to the Long Island economy by SUBH. This was nearly 1 percent of Long Island's 2001 Gross Regional Product and is 10.1 percent of the total 2001 economic impact generated by Long Island hospitals.[26]

Direct Spending: Nassau University Medical Center (NUMC)

The economic impact of the $316.3 million of direct spending in 2001 by NUMC, and the generated secondary economic impact of $339.5 million resulted in $655.8 million of

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[25] Ibid.
[26] Ibid.

economic activity contributed to the Long Island economy.[27] This was equivalent to approximately .6 percent of Long Island's 2001 Gross Regional Product and was 6.9 percent of the economic activity generated by Long Island hospitals from 2001 spending.

The total of $316.3 million of direct spending included $216.1 million for payroll and fringe benefits and $100.2 for non-payroll and capital costs. The capital costs of $16.7 million was 5.3 percent of direct spending, slightly more than twice Stony Brook University Hospital's capital spending rate of 2.6 percent.[28]

The difference in expenditures may be explained in part by SBUH not having to absorb any operating deficits. Budget deficits are usually addressed during the New York State Budget process. NUMC, on the other hand, must balance its own budget without reliance on any additional financial assistance from Nassau County or New York State Governments. The only options available to NUMC are either cutting programs or identifying new revenue streams sufficient to offset any deficits.

Table 8: Economic Activity Generation[29]

	Nassau Univ. Med. Center	**Stony Brook Univer, Hosp.**
Direct Employment-Persons	3,171	3,826
Dir. Emplymnt Percent of Hospitals	7.6 %	9.1 %
Direct Employment-Payroll Cost	$ 216,063,904	$ 256,304,862
Employment Ranking(a)	4th	2nd
Direct Spending Incl. Payroll Cost	$ 316,289,515	$ 466,587,572
Dir. Spending Economic Impact	$ 655,826,309	$ 967,469,331
Economic Impact Ranking(a)	4th	2nd

Note: (a) Ranking among Long Island Hospitals in 2001.

What is apparent is that because of the magnitude of those employed, and the economic activity generated from NUMC, it can't be readily assumed that if NUMC is allowed to close, that economic activity and employment would be retained at the current

[27] Ibid.
[28] Ibid.
[29] Ibid.

levels by Nassau County's remaining hospitals. To assume otherwise overstretches the capabilities of those hospitals given their current capacity. It also underestimates what NUMC, as the region's fourth largest contributor to the economic activity of the health care sector, contributes to the Long Island Economy.

IV: LONG ISLAND'S SAFETY-NET HEALTH NETWORK: A COMPARATIVE COMMUNITY PROFILE OF SOCIO-ECONOMIC INDICATORS

Tables 9 to 15, and the related analysis, present a comparative socio-economic profile of the communities from which NUMC and SCHD, two important components in Long Island's "safety net" health infrastructure draw their patients. The profile, developed from 2000 U.S. Census data, consists of household, family and housing characteristics, family median and per capital income, gender and marital composition, and workforce participation. The comparison draws attention to the fact that NUMC and SCHD are integral to the public health mission of their respective counties, supported by community profiles illustrating the characteristics of patients who most frequently use NUMC and SCHD.

The NUMC profile was developed from a three year compilation of 671,301 patient visits to NUMC and its health clinics. Patient visits were categorized by zip code between 2000 and 2002.[30] The profile analyzes 610,413 Nassau County resident patient visits, 91 percent of all patient visits to NUMCover the three year period. The remaining patient visits came from patients in the region extending from Brooklyn to eastern Suffolk County. The patient community profile of the nearly 300,000 outpatient visits at Suffolk County Health Department health centers was developed from the communities in and around each individual health center.

[30] Nassau University Medical Center.

HOUSEHOLD AND FAMILY STRUCTURE:

Table 9: Patient Community Household and Family Characteristics[31]

	Nassau Univ. Medical Ctr.		Suffolk Cty. Health Ctrs.	
Households:	372,037		67,998	
Population in Households	1,104,084		217,937	
Ave.Persons in Households	2.96		3.04	
Family Households:	296,985	100 %	51,213	100 %
Married Couple Families	240,785	81 %	36,994	72 %
Male Headed Families	14,157	5 %	3,753	7 %
Female Headed Families	42,043	14 %	10,466	21%
Population in Families	972,721		194,384	
Ave. Persons in Family	3.37		3.47	

Source: 2000 U.S. Census.

Households and families in communities served by NUMC and SCHD have average persons per household that are within 3 percent of each other, with SCHD families more crowded. In each case, NUMC and SCHD patient families and households were more crowded than households and families in their respective county. Additionally, NUMC served far greater families and households than SCHD.

Noticeable was the percentage differences between NUMC and SCHD in single and married head of households. The percent of NUMC married couple families were 13 percent greater than SCHD, while the percent of SCHD families headed by males and females were respectively 40 percent and 50 percent more than NUMC patient families. Furthermore, NUMC patient families reflected the same distribution of married and single headed households as in Nassau County, while the SCHD percentage of married head of households was 11 percent less than Suffolk County, and SCHD single male and female headed households were respectively 40 percent and 50 percent greater than in

[31] U.S. Bureau of the Census: 2000 Census.

Suffolk County.

Table 10: Patient Community Over 15 Yrs: Gender and Marital Composition[32]

	Nassau Univ. Medical Ctr.		Suffolk Cty. Health Ctrs.	
Population Over 15 yrs.	906,084	100 %	169,507	100 %
Males Over 15 yrs.	428,287	47 %	81,591	48 %
Females Over 15 yrs.	477,797	53 %	87,916	52 %
Males Over 15 Yrs.	428,287	100 %	81,591	100 %
Males Never Married:	126,270	30 %	28,585	35 %
Males Now Married:	270,414	63 %	45,578	56 %
Males Now Widowed:	12,385	3 %	2,135	3 %
Males Divorced/Separated:	19,218	4 %	5,293	6 %
Females Over 15 Yrs.	477,797	100 %	87,916	100 %
Females Never Married:	113,099	24 %	25,243	29 %
Females Now Married:	275,397	57 %	45,884	52 %
Females Now Widowed:	56,634	12 %	8,902	10 %
Females Divorced/Separated:	32,667	7 %	7,887	9 %

Source: 2000 U.S. Census.

The communities served by NUMC and SCHD have comparable distribution percentages of males and females over 15 years of age. Differences do exist, however, in the incidence of marriage within each of those gender categories. The percent of SCHD male patients who have never been married are 18 percent more than their NUMC counterparts. Conversely, the percent of SCHD male patients now married are 12 percent less than NUMC married males. A similar relationship exists between SCHD and NUMC females. The percent of SCHD females never married are 24 percent more than NUMC never married females, with married SCHD females nearly 10 percent lower than the percent of their NUMC counterparts.

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[32] Ibid.

Further differences become evident when the gender and marital distribution of patient communities served by SCHD and NUMC are compared to Suffolk and Nassau Counties. The percent of single males from SCHD patient communities is 18 percent greater than single males in the Suffolk County population, while the 37 percent of single males from NUMC patient communities is equal to single males in the Nassau County population. Similarly, the 43 percent of single females from NUMC communities is the same percentage as in the Nassau County population, while the 48 percent of single females from SCHD communities is nearly 8 percent more than the single females in Suffolk County. The married males and females from NUMC communities are the same as reflected in the Nassau County population, while the percent of married males and females from SCHD communities are 10 percent and 5 percent less than their respective Suffolk County counterparts.

Table 11: Patient Community Housing Characteristics[33]

	Nassau Univ. Medical Ctr.		Suffolk Cty. Health Ctrs.	
Occupied Housing Units:	380,629	100 %	68,058	100 %
Owner Occupied	302,165	79 %	46,588	68 %
Renter Occupied	78,464	21%	21,470	32 %
Total Ave. Household Size:	2.96		3.04	
Ave. Persons:Owner Occup.	3.07		3.09	
Ave. Persons:Renter Occup.	2.50		2.95	

Source: 2000 U.S. Census.

[33] Ibid.

Table 12: Patient Community Owned Vehicles Per Housing Unit[34]

	Nassau Univ. Medical Ctr.		Suffolk Cty. Health Ctrs.	
Total Occ. Housing Units:	380,629	100 %	68,058	100 %
Owner Occupied	302,165	79 %	46,588	68 %
Owner Occ.-No Vehicle	14,112	5 %	2,048	4 %
Owner Occ.-One Vehicle	79,977	26 %	12,147	26 %
Owner Occ.-More Than One Vehicle	208,076	69 %	32,393	70 %
Renter Occupied	78,464	21 %	21,470	32 %
Renter Occ.-No Vehicle	16,708	21 %	4,050	19 %
Renter Occ.-One Vehicle	35,845	46 %	9,673	45 %
Renter Occ.-More Than One Vehicle	25,911	33 %	7,747	36 %

Source: 2000 U.S. Census.

An important consideration why SCHD and NUMC provides health care through a network of health centers is to bring health care to communities where health care is not always available, and where transportation is not always feasible. As Table 12 illustrates, availability of a household vehicles increase with owner occupied housing, where having more than one vehicle in owner occupied units is more than twice the rate of renter occupied units. Conversely, more than four times as many renter occupied units have no vehicles as compared to owner occupied units.

With transportation a concern in most communities on Long Island, renters appear to be at a transportation disadvantage, with SCHD serving more of those patient communities than NUMC. A comparison of vehicles available per household available for daily use, including commuting to work, illustrates this disadvantage. While 37.5 percent of all Nassau County households had either no vehicle, or at least one vehicle in 2000 available for daily needs, including commuting to work, a disproportionate 67

[34] Ibid.

percent of NUMC patient communities with renter occupied households had either no vehicle, or only one vehicle, available for use, as compared to 31 percent of owner occupants. It was no different in Suffolk County, where 32.2 percent of all households had either no car, or only one car available for daily use. In contrast, an average of 41 percent of occupied housing units in SCHD patient communities had either no vehicle, or one vehicle available for daily use, 30 percent for owner occupied, and 64 percent for renter occupied units. [35]

As reflected in Table 11, NUMC serves patient communities where 79 percent of occupied housing units are owner occupied, exceeding by 17 percent the 68 percent owner occupied housing units served by SCHD. Conversely, the 32 percent of renter occupied units of patient communities served by SCHD exceeds by 50 percent those living in rented units served by NUMC. In these cases, the average household size in communities served by SCHD and NUMC were within three percent of each other, with persons per renter occupied units in SCHD served communities exceeding NUMC by less than 20 percent.

Differences appear when comparing regional occupied housing units to communities served by SCHD. While NUMC serves communities where 79 percent of units are owner occupied and 21 percent are renter occupied, similar to Nassau County, the communities served by SCHD have owner occupied housing units 15 percent lower than, and renter occupied units 60 percent more than, Suffolk County. Worth repeating is that renter occupied households in these communities also have fewer cars available for daily use, including going for medical care. This lack of mobility reinforces the importance of the NUMC and SCHD neighborhood health clinics and health centers

With the cost and availability of health care a growing concern for many Long Islander's, Table 13 reveals that the regional health care safety-net has become an

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[35] Ibid.

important health care resource for many of Long Island's lower wage earning families.

FAMLY INCOME:

Table 13: Patient Community Family Earned Income Distribution[36]

	Nassau Univ. Medical Ctr.		Suffolk Cty. Health Ctrs.	
Total Families:	296,985	100 %	51,213	100 %
Less than $10,000	6,793	2 %	2,039	4 %
$10,000 - $24,999	19,925	7 %	5,624	11 %
$25,000 - $49,999	51,470	17 %	13,229	26 %
$50,000 - $74,999	62,486	21 %	12,142	24 %
$75,000 - $ 99,999	53,628	18 %	8,835	17 %
$100,000-$149,999	61,025	21 %	6,837	13 %
$150,000-$199,999	22,059	7 %	1,680	3 %
$200,000 and Over	19,599	7 %	827	2 %

The family incomes of NUMC and SCHD patient communities fall within the family incomes distribution of the surrounding region. Illustrating this are the majority of families in NUMC and SCHD patient communities falling within the $25,000 to $99,000 family income categories. While families in SCHD patient communities within these categories are 20 percent more than NUMC communities, family income of NUMC and SCHD patient communities are generally reflective of the family income distribution of their respective county. For Nassau and Suffolk County respectively, 54 and 61 percent of families earn between $25,000 and $99,000, as compared to 56 percent of NUMC and 67 percent of SCHD patient families. Lower income families reflect similar results. Nine percent and 15 percent of NUMC and SCHD patient communities have family incomes below $25,000, as compared to nine percent of Nassau County and 10 percent of Suffolk County families. What is clear, is that the majority of patients who use the public health networks offered by NUMC and SCHD are from middle and lower income Long Island families, with family income of these patient communities appearing to fall within the

[36] Ibid.

respective family income distributions of Nassau and Suffolk County. However, as the Table 14 illustrates, a closer analysis of the median family income and mean per capita income of health center patient communities reveals income levels below the county in which each health center is located.

Table 14: Comparative Median Family and Mean Per Capita Income of Health Center Communities:(a)

Nassau Univ. Medical Ctr.		Suffolk Cty. Health Ctrs.	
Median Family Income			
Average NUMC Family:	$80,573	Average SCHD Family:	$54,307
All Nassau County Families:	$81,246	All Suffolk County Families:	$72,112
NUMC Clinic Communities:		SCHD Communities:	
Elmont:	$70,378	Bay Shore:	$60,046
Inwood:	$47,325	Brentwood:	$57,047
Freeport:	$61,658	Coram:	$70,769
Hempstead:	$48,488	Greenport:	$46,351
Long Beach:	$70,086	Huntington Station:	$67,115
Roosevelt:	$56,528	North Amityville:	$49,901
Westbry/New Cassel:	$74,520	Patchogue:	$60,126
		Riverhead:	$39,672
		Shirley:	$58,146
		Wyandanch:	
$41,857			
Mean Per Capita Income			
Average NUMC Families:	$30,747	Average SCHD Family:	$20,094
All Nassau County Families	$32,151	All Suffolk County Families:	$26,577

Notes: (a) Sources: 2000 U.S. Census, 1999 Median Family Income (Unadjusted For Inflation).

In each case presented above, the average NUMC and SCHD median community family income, and the health center patient community median family income, are all less than the median family income of Nassau or Suffolk County. The same is true for mean per capita income, which is five percent lower for NUMC family communities, and

nearly 25 percent lower for all SCHD families, as compared respectively to all Nassau and Suffolk County families.

WORKFORCE PARTICIPATION:

Table 15: Patient Community Workforce Participation: Over 16 Years of Age[37]

	Nassau Univ. Medical Ctr.		Suffolk Cty. Health Ctrs.	
Total Population Over 16 Yr:	891,373	100 %	166,284	100 %
Males 16 Yrs and Over.	420,955	47 %	79,967	48 %
Males Employed:	289,899	69 %	54,565	68 %
Males Unemployed:	11,330	3 %	2,975	4 %
Males Not In Work Force:	119,726	28 %	22,427	28 %
Females 16 Yrs. and Over:	470,418	53 %	86,317	52 %
Females Employed	252,884	54 %	48,245	56 %
Females Unemployed:	10,094	2 %	2,932	3 %
Females Not In Work Force:	207,440	44 %	35,140	41 %

The 2000 census for Nassau County reflects a total workforce of 655,363 persons with 54 percent or 352,102 males and 46 percent or 303,261 females. The total unemployed, as a percent of the total workforce, was 3.7 percent, composed of 12,807 males or 2.0 percent of total male workforce, and 11,368 females or 1.7 of total female workforce participants. When compared to Nassau County patient communities as presented in Table 15, more women than men, both working and unemployed, used NUMC as their primary source of medical care. SCHD patient communities, when compared to the Suffolk County workforce of 711,026, produces similar results. Forty-eight percent of patient communities using SCHD are males, with 52 percent female, while Suffolk County's workforce is comprised of 385,253 males or 54 percent, and 325,773 females or 46 percent. Furthermore, the men and women who use NUMC and SCHD come from

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[37] Ibid.

communities where males and females are employed in greater percentages than are working in the regional economy. Sixty-eight percent of males, and 56 percent of females who use SCHD are employed as compared with 54 percent of employed males, and 46 percent of employed females in the Suffolk County workforce. Similarly, of those employed in Nassau County, 54 percent are males and 46 percent female, as compared to NUMC patient communities where 69 percent of males and 54 percent of females are employed.

V:CONCLUSION

Introduction:

The presented comparative data supports the contention that governmental financial support is essential if NUMC is to continue fulfilling its legislative mandated mission, a mission similar to SBUH and SCHD. NUMC experiences similar volumes of patient and emergency room visits as SBUH and SCHD, and its skilled nursing facility operates at an average of 75 percent occupancy rate, and has been at rates similar to SCHD. However, SCHD's skilled nursing facility, despite high levels of occupancy still operates at a deficit, a fiscal dilemma similar to NUMC.

There have been, over the past several years, important budget and management initiatives that have dramatically shrunk projected NUMC operating deficits. However, similar to many public health hospitals, NUMC deficits continue to materialize, primarily due to declining revenues, lower reimbursement rates, and increased pension and health insurance costs. With the National Association of Public Hospitals (NAPH) reporting that the same fiscal difficulties exist with many of its members, it is possible that the original financial expectations of NUMC envisioned by the creation the medical center may have been too unreasonable to achieve, considering the financial implications of fulfilling the mission of NUMC.

Commenting on the current fiscal challenges confronting hospitals was a report by the

United Hospital Fund.[38] The report's concern was that at-risk hospitals serve low-income neighborhoods, such as those served by NUMC and SCHD, communities which are the most vulnerable to loss of medical care. Also cited as critical was the budgetary impact of the high level of uninsured and underinsured people that are treated by these hospitals, an unreimbursed cost also absorbed by NUMC.

A fair evaluation of NUMC's effectiveness, regional importance, and success of management initiatives requires assessing the performance of the medical center within the scope of the socio-economic-financial environment that it must operate in.

-Safety-Net Mission of NUMC:

-The NUMC mission of treating patients regardless of ability to pay results in treatment of a substantial proportion of individuals and families who are uninsured, underinsured or covered by Medicaid, thus creating a mission generated financial operating deficit. A deficit experienced by 41 percent of NAPH members, where 38 percent of their patient discharges are covered by Medicaid and another 26 percent are uninsured. By comparison, NAPH reports that all hosptials nationally average a 4.2 percent profit margin.

-NAPH members rely on governmental payers to help them meet their various "safety-net" missions, with 73 percent of revenues from Medicaid, Medicare and state and local subsidies.

-Primary care accounted for 47 percent of non-emergency room ambulatory care vists at NAPH hospitals. In 2001, 30 percent of NUMC ambulatory visits were for primary care.

-With similar safety-net missions, NUMC reaches many Nassau County residents, similar to the safety-net medical care provided to Suffolk County residents by SCHD. Yet, NUMC receives $18 million from Nassau County

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[38] The Associated Press August 26, 2003.

while SCHD provides $38.5 million for county-contracted health centers supervised by local hospitals, $6.3 million for county operated health centers and $5.1 million to cover the skilled nursing facility's operating deficit, a deficit projected to grow by $2 million in 2003.

-NUMC's Bad Debt and Charity Care pool deficit over the uncompensated care need associated with the disproportionate share of uninsured and underinsured patients it treats was $26.7 million. NUMC must absorb this cost, while $11 million of similar deficits at SCHD are absorbed by Suffolk County.

-Uncompensated care represents 25 percent of costs of NAPH members, as compared to 5.6 percent of costs for all hospitals nationally. In 2001, NUMC Medicaid and indigent care costs exceeded associated revenues by $62.8 million.

-Economic Impact of NUMC:

-NUMC, in 2001, was the fourth largest hospital employer on Long Island, with its 3,171 employees comprising 7.6 percent of Long Island hospital employment. SBUH is second with 3,826 employees.

-NUMC spending economic impact of $656 million, fourth largest among Long Island hospitals, was equivalent to .6 percent of Long Island's 2001 Gross Regional Product or 6.9 percent of the economic activity generated by Long Island hospitals in 2001. NUMC's capital investment as a percent of total spending was slightly more than twice Stony Brook University Hospital's capital spending rate.

-Because of the magnitude of those employed by NUMC, the economic activity generated, and amount of patient and emergency room visits, it can't be readily assumed that if NUMC was forced to close, those levels of treatment, employees hired, and economic generated, would be retained at their current

levels by Nassau County's remaining hospitals.

Patient Community Socio-Economic Profile:

-NUMC is the medical care facility of choice by a greater percentage of Blacks and Hispanics than are represented in the Nassau County population. Also, a larger percentage of NUMC patients are younger and older than are represented in the greater Nassau County population.

-Average persons per families in communities served by NUMC and SCHD are within three percent of each other, with families in patient communities more crowded than families in their respective counties.

-NUMC patient families reflect comparable distribution percentages of married and single headed households as in Nassau County, with patients from married couple families 12 percent more than SCHD.

-NUMC and SCHD patient communities have comparable levels of males and females over 15 years of age. However, the incidence of marriage is greater in males and females of NUMC patient families than SCHD patient families. The gender and marital distribution of NUMC patient communities are representative of the greater Nassau County population.

-While nearly 38 percent of Nassau County households had either no vehicle, or at least one vehicle available for daily needs, including commuting to work, 67 percent of NUMC patient communities in renter occupied households had either no vehicle or only one vehicle, as compared to 31 percent for owner occupants. A similar situation exists with SCHD patient community household.

-NUMC serves patient communities where the distribution of owner-occupied and renter-occupied housing units are similar to Nassau County. However, renter occupied households have fewer cars available for daily use, including going for medical care. This lack of mobility reinforces the importance of

NUMC and its neighborhood health clinics.

-A majority of Long Islanders who use NUMC and SCHD medical facilities are from middle and lower income families (earning below $99,999), and averaging more than three persons in the family.

-The patient communities served by NUMC and SCHD have median family incomes and mean per capita incomes below that of their respective county.

-Males and females who use NUMC and SCHD come from communities where males and females are employed in greater percentages than are represented in the regional workforce.

This comparative analysis sheds light on the importance of NUMC to the Long Island economy, presents a community profile of those who rely on NUMC for medical care, and places in perspective the challenge for profitability confronting national and regional safety-net hospitals and their related health care infrastructure. The mission to provide health care disproportionately to those unable to pay renders the usual market business strategies and supply and demand relationships ineffective, primarily because there is no profit margin when reimbursements for mission driven Medicaid and indigent medical care fall below the costs of delivering that care.

Government was intended to deliver for people what they are unable to deliver for themselves. If ever a situation existed that meets that definition, it is the case made in this analysis for greater government financial support for NUMC to effectively and realistically deliver on its mission.

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Table DP-1: Profile of General Demographic Characteristics: 2000.
Table DP-2: Profile of Selected Social Characteristics: 2000.
Table DP-3: Profile of Selected Economic Characteristics: 2000
Table QT-H1: Profile of General Housing Characteristics: 2000.