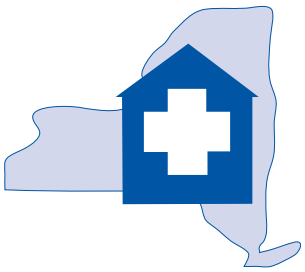

Laying the Foundation

Health System Reform in New York State and the Primary Care Imperative

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The views expressed here are solely those of the authors.

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Executive Summary

New York State has embarked on a substantial effort to restructure its health care system as a result of rapidly escalating health care expenditures, especially with respect to Medicaid expenditures for institutional health care. But it is impossible to alter these high cost health expenditures without strengthening and expanding the primary care foundation on which New York's health system rests.

The Primary Care Imperative

Several features make primary care effective, and these features can be embodied in a range of service delivery models such as private group practices and hospital and freestanding clinic services. Health centers and hospital clinics represent particularly important sources of primary health care for populations at risk for medical underservice.

Extensive evidence on the impact of primary health care shows that regardless of how its effect is measured, more and better primary care results in more and better health outcomes, reduced health disparities, and reduced expenditures for avoidable institutional care. Extensive research also shows that health care safety net providers, especially health centers, are able to improve health outcomes, not only for individual patients but also for the communities they serve, in terms of lower infant mortality, lower rates of chronic conditions, especially among minority patients, and greater use of preventive services.

Important examples of primary health care reform to benefit medically underserved communities can be found in Dallas, Texas (a restructured, hospital based primary care delivery system) and Denver, Colorado (a partnership between a public health system and affiliated community health centers). These models suggest that New York's hospitals and health centers, school health clinics, home health centers, community mental health centers, and other community based services, could achieve similar results — without new facility construction, and by emphasizing applied development of delivery networks.

New York State's Health Reform Effort: A Missing Focus on Primary Health Care

New York State's substantial and multi-dimensional health reform effort includes establishment of the Commission on Health Care Facilities in the 21st Century, investment in the development of health information technology, renewal and restructuring of the state's Medicaid 1115 demonstration, and the creation of the New York Charitable Assets Foundation. But none of these initiatives directly addresses primary care reform as a specific activity, and this omission carries significant implications. Without a deliberately designed primary care reform agenda, the state's quest for a solution to the health care cost crisis is likely to yield insufficient results.

Key Primary Care Challenges Exist in New York

Several challenges impede efforts to improve primary care in New York without deliberate planning and investment.

A significantly uninsured population. The state faces significant health insurance coverage and access problems, which are concentrated among the state's low income residents. The state's uninsured population is growing, fueled in part by growth in the low income population, as well as by the high cost of employer-sponsored and individually purchased health insurance. In addition, the level of coverage is likely eroding as costs increase.

Heavy reliance on Medicaid but under-investment in primary health care. New York relies heavily on Medicaid to cover lower income persons in relation to other states, but its institutional expenditures are among the highest in the nation. Indeed, New York leads the nation with respect to institutional Medicaid expenditures while at the same time seriously under-spending on primary care, whether furnished in free-standing clinics such as health centers, hospital outpatient clinical settings, or private clinical practice settings.

The state's under-investment in primary care crosses both office-based and clinical settings. As is the case generally, the state relies heavily on what the Institute of Medicine has termed the "core health care safety net" consisting of clinics that by law or mission serve large numbers of low income uninsured and publicly insured patients. Together these freestanding clinics (known as Diagnostic and Treatment Centers (D&TCs) in New York State) and hospital-based outpatient clinics account for millions of visits annually by the state's most vulnerable residents. Yet despite a tradition of support for these providers, their financial base is eroding, both because Medicaid payment rates have stagnated and because the state's indigent care pool is unable to compensate for this erosion. Payment statistics indicate that the indigent care pool pays hospital-based clinics only about 40 to 50 cents for every dollar of free care, while pool funding allocated to D&TCs represents only about 20 cents for every dollar of care furnished. Currently, the Greater New York Hospital Association estimates that hospitals lose $1.2 billion annually because of low payment rates for outpatient clinical and emergency care services.

Health and health care disparities. Racial, ethnic, and socio-economic disparities in health and health care represent a significant problem in New York. The state's minority and low income populations exhibit the same disparities in health status observed nationally, and their access to health care is similarly compromised in terms of both timing and quality. Health care disparities reveal themselves in three important ways relevant to state health reform: the use of emergency departments for conditions that could be managed both timely and efficiently in an ambulatory setting, high rates of hospitalization for "ambulatory care sensitive conditions" that also could be effectively and efficiently managed through ambulatory care; and the high number of state residents without a regular source of health care. Low income patients in New York rely heavily on emergency departments for conditions that indisputably require medical care but that could be treated in lower cost settings and far better managed.

With the exception of Texas and California, New York has been estimated to have more residents without a regular source of health care than any other state.

A failure to invest in primary care professionals. As a general matter, the nation appears to be heading toward a primary care crisis. Estimates of physician supply in New York suggest that the state is at serious risk for the loss of a primary care infrastructure, particularly in the case of medically underserved and rural communities.

Making Primary Care a Centerpiece of New York State Health Reform

New York policymakers must make primary care a centerpiece of reform if the state is to reverse longterm trends affecting health care costs, access, and quality, especially for underserved populations. Effective reform will focus on six major goals:

- Add to the goals of reform a primary health care home for all New York residents within the next decade.
- Stem the erosion in primary care capacity, especially for populations at risk and the health care safety net, through payment reforms that reward results and incentivize investment in quality of care improvements and adoption of health information technology.
- Stimulate capital investment in the primary care infrastructure, including investment in facilities, equipment, and health information technology and performance improvement.
- Ensure adequate financial support to recognize costs incurred by the primary health care safety net.
- Invest in the development of a primary care workforce.
- Make active engagement with primary care systems a fundamental performance measure in hospital and nursing facility right-sizing.

Introduction: Primary Care as the Foundation of Health System Reform

New York State has embarked on a substantial effort to restructure its health care system. Rapidly escalating health care expenditures, particularly in the case of Medicaid expenditures for institutional health care, are the immediate drivers underlying the state's multi-phased initiative.

But policy makers cannot hope to alleviate the financial drain caused by excessive health expenditures without realignment of the delivery system, away from costly hospital and nursing home services and toward a health care system that guarantees all New Yorkers accessible, affordable, and high quality primary health care. Indeed, an overwhelming body of evidence points to the fact that it is impossible to alter the costly outcomes that flow from New York State's health care system without strengthening and expanding the primary care foundations on which that system rests.

Access to high quality primary care is a "bottom line" in health reform. This is true regardless of whether the focus is on persons whose health needs predominantly fall along a primary care/acute care spectrum, or instead, on individuals with chronic and serious physical and mental health care conditions that elevate the risk for medically inappropriate institutional care. Primary care can make an enormous difference to health care outcome and costs in the context of both types of patients.

Better primary care would benefit all New Yorkers. But the evidence also shows that investing in primary care would achieve especially enhanced results in the case of low income, minority, and medically underserved residents, whose health is more likely to be compromised and who run the greatest risk of avoidable institutional care. These populations rely disproportionately on the state's primary health care safety net, comprised of community health centers, public and community hospital outpatient clinics, and clinical practices located in both rural and urban medically underserved communities.

Because those who stand to gain the most from better primary care rely so heavily on the health care safety net, strengthening the primary care safety net and integrating safety net providers into larger systems of care assume particular importance within a broader primary care initiative. Indeed, the impact of proposed reforms on primary care generally and safety net primary care in particular should function as an explicit criterion in broader state reform efforts.

This analysis begins with an overview of the evidence regarding the role of primary health care in improving population health and reducing cost. Following a brief description of the health reform initiatives now underway, we identify a series of major barriers that impede the development and operation of a well-functioning primary care system. The analysis concludes with a series of recom-

mendations designed to stimulate the development of an approach to primary care that in our view would immeasurably enhance access and quality while reducing costs over the long run.

Primary Care: Critical Functions, Key Components, and Promising Models

A large and growing body of evidence,[1] including studies of the quality and efficiency impact of improved primary health care in New York State,[2] underscores the foundational role of primary health care from both a cost and quality perspective. The evidence supports three major conclusions:

- *First*, improving the overall cost and quality of health care is dependent on achieving improvements in the availability, accessibility, and quality of the primary care component of the health care system.
- *Second*, while the case for primary health care reforms speaks to the health care needs of all residents, gains in primary care can be expected to have their biggest payoffs for lower income, minority, and medically underserved residents at greatest risk for poor health and hospitalization for serious and chronic health conditions that could have been managed in community settings.
- *Third*, improving the primary care quality is more than improving its availability, quality, and safety; especially for at-risk populations, reforms must pay attention to patient supports and enabling services, language access and translation, and provision of care by a culturally competent health workforce. For the primary care system as a whole, and in particular, for the health care safety net, a primary care agenda encompasses integration with specialty and long-term care, adoption of health information technology, ongoing improvement to practice operations, and clinical care.

The Aims, Key Functions, and Benefits of Primary Health Care

In its landmark study, *Crossing the Quality Chasm,* the Institute of Medicine determined that a high quality health system is one that is safe, effective, patient-centered, timely, efficient, and equitable. No health care system can achieve these results if it does not rest on well-functioning primary health care. Indeed, it is timely, efficient, and equitable primary health care that makes these six goals feasible, by helping patients obtain needed care in ways that avert the "use of resources without benefit to the patients a system is intended to help.[3]

Primary care in the twenty-first century is understood as far more than the mechanism for furnishing preventive services. The modern vision of primary care is that of a "medical home" that is staffed, equipped, and trained to carry out a range of vital functions in the most community-integrated setting possible. Dr.

Kevin Grumbach and Dr. Thomas Bodenheimer, two of the nation's leading primary care experts, have written about the concept of the "primary care home." They identify the four essential functions that any primary care home should be expected to fulfill:

- *First contact care:* a primary care home is the "door the patient knocks on to initiate help."
- *Comprehensive:* a primary care home offers the "spectrum of preventive, acute, and chronic health care needs."
- *Longitudinal:* a primary care home is not transitory; instead, it provides "longitudinal care with sustained relationships, a place where people know you."
- *Home base:* this is the term of art used by the authors to communicate their belief that a primary care home should serve as the "base from which other accommodations — specialists and other caregivers — are arranged."[4]

The features that make primary care effective can be embodied in a range of service delivery models such as private group practices and hospital and free-standing clinic services. In the case of populations at significant risk for medical underservice, community health centers have been repeatedly evaluated as especially effective in terms of both cost and quality, because of their community accessibility as well as their ability to furnish timely and high quality care in a manner adapted to patient need.

- Extensive studies have underscored health centers' quality and effectiveness, cost-effectiveness, and their ability to reduce racial, ethnic and socioeconomic disparities in health and health care.[5] Among the most notable findings are health centers' ability to improve health outcomes, not only for individual patients but also for the communities they serve, in terms of lower infant mortality, lower rates of chronic conditions, especially among minority patients, and greater use of preventive services.[6]
- Health centers' cost effectiveness is one of the more well-studied areas of primary health care-related health services research.[7] Studies have shown that populations served by health centers show lower rates of costly health conditions and significantly lower rates of preventable hospitalizations compared to those who do not live within close proximity to a health center (5.8 fewer preventable hospitalizations per 1000 persons).[8]

In a broader context, the benefits of primary health care models embodying the key attributes identified by Grumbach and Bodenheimer have been exhaustively researched by Barbara Starfield, Leiyu Shi, and James Macinko.[9] Their seminal literature review of the impact of primary health care underscores that regardless of which classic measure of primary health care is used in health services research — primary care physician supply, having a regular source of care, or receiving health care in settings with primary care attributes — the results are uniform: *The better the primary care, the greater the cost savings, the better the health outcomes, and the greater the reduction in health and health care dispari-*

ties. Writing about the importance of primary care investment, the authors state:

> We believe that [the] health of the U.S. population will improve if this maldistribution is corrected. Specifically, a greater emphasis on primary care can be expected to lower the costs of care, improve health through access to more appropriate services, and reduce the inequities in the population's health.[10]

The literature synthesis on which these conclusions rest spans virtually the entire field of health services research involving primary health care, and their synthesis includes specific findings regarding the positive impact of safety net primary care providers on patient health. The most critical elements of the authors' synthesis can be summarized as follows:

Physician supply

- Studies show a direct relationship between primary care physician supply and health outcomes, rates of mortality from cancer and stroke, infant mortality, and heart disease and low birth weight;
- Rural counties with higher numbers of primary care physicians exhibit increased levels of health, including 2 percent lower mortality rates from all causes, 4 percent lower mortality associated with heart disease, and 3 percent lower mortality associated with cancer.

Primary care as a regular source of care

- Adults whose regular source of care is a primary care physician rather than a specialist report a lower mortality rate over a five-year time period.

Patients served in community health centers show higher levels of health than similar patients served in other settings. They receive more preventive care and experience higher rates of vaccination and preventive tests.

- Persons who report a particular person as a primary care provider are more likely to receive appropriate preventive care, fewer prescriptions, fewer diagnostic tests, and to experience decreased hospitalization and emergency care.
- Having a primary care physician as the first contact decreases the likelihood of specialty care and increases the effectiveness and appropriateness of care.

The impact of governmental support for primary health care

- A study of 18 industrialized nations found that the greater a nation's "primary care orientation," the lower its mortality rates from all causes, and specifically, for asthma and bronchitis, emphysema, pneumonia, cardiovascular disease, and heart disease.

Primary care and health disparities

- Primary care can reduce the health differentials between rich and poor. Compared to the population mean, communities with high income inequal-

ity but a high ratio of available primary care physicians showed a 17 percent lower post-neonatal mortality rate, while those with low levels of primary care showed a 7 percent higher rate of post-neonatal mortality.

- The relationship between abundant primary care and decreased mortality among persons with low socio-economic status is particularly pronounced in the case of the African American population, thereby demonstrating that better primary care can reduce racial health disparities. Community health centers in particular were found to reduce low birth weight disparities between infants born to African American and white women.

The overall cost of care

- Primary care supply reduces the cost of health care. The higher the primary care/patient ratio, the lower the overall cost of care as a result of increased preventive care and reduced use of hospital services.
- Medicare spending is directly related to the supply of primary health care physicians; the greater the supply of primary care, the lower the Medicare spending rate.
- Primary care increases the prevalence of preventive interventions to reduce the incidence of chronic and costly disease, using interventions such as smoking cessation, obesity regulation, physical activity, seat belt usage, and breast feeding.
- Primary care is associated with earlier detection of melanoma and breast, colon, and cervical cancer.
- Primary care is particularly effective in the management of health problems that can cause serious complications or require hospitalization and emergency care.
- A U.K. study showed that for every 15-20 percent increase in the supply of primary care physicians/10,000 persons, hospitalization rates decreased by 14 percent in the case of acute illness and 15 percent in the case of chronic illness.
- The greater the rate of primary care, the lower the likelihood of hospitalization for ambulatory care-sensitive conditions.

In sum, this vast literature review documents the beneficial impact of primary health care on health outcomes, hospital admission rates for ambulatory care-sensitive conditions, better management of chronic conditions, lower rates of death and long term disability, and the reduction of racial and socioeconomic health disparities.

In the authors' view — and indeed, in the view of all experts in primary health care whose analyses are considered in this report — the evidence supports a major investment in a primary care system capable of recognizing and managing multiple health problems, deterring the adverse impact of unnecessary medical

interventions, and improving health care equity.[11]

Taken together, the literature on health care quality and primary care suggest the importance of investing in a primary care system with certain key characteristics:

- Where necessary for stabilization in low income communities, provision of operational subsidies to assure affordability at the time of service and stability in low income and medically underserved communities with higher concentrations of persons without health insurance;
- Investment in the training of a primary health care workforce skilled in both preventive care and the management of chronic conditions and with the ability to do so in a culturally and linguistically appropriate fashion;
- The development of formal affiliation and linkage arrangements between primary care providers and specialty and inpatient care so that referral services can be made available at the earliest possible time, before situations become critical;
- The ability to serve as the "destination point," i.e., a site of care for patients discharged from more advanced levels of care and recovering from conditions and illnesses that require more advanced interventions;
- Performance improvement initiatives aimed at transforming primary care operation and delivery, so that patients with immediate health care needs can be oriented toward primary care service sites and away from less appropriate emergency department settings;[12]
- Augmented use of primary care systems to manage chronic conditions through improved skills development for primary care practitioners, greater affiliation arrangements, and the use of patient self-management techniques;[13]
- Access to the type of health information technology (HIT), including electronic health records, decision support, and other advances, that have been shown to improve the quality and safety of care;[14] and
- Innovations in primary care financing that span all payers and that uses a combination of capital investment[15] and service compensation methodologies that have been structured to compensate providers on the basis of measurable quality standards. This type of payment innovation is commonly termed "pay for performance (P4P)" that calls for the alignment of payment incentives with the achievement of specific outcomes tied to patient health status. While much of the pay for performance effort has focused on inpatient care, the model has clear applicability in an outpatient context, with payment incentives tied to the achievement of certain quality benchmarks. Proponents of primary care payment reform[16] have also recommend the use of financial, per-patient retainer payments as a means of augmenting ongoing payment structure, so that primary care providers have a means of capital financing for larger scale improvements aimed at quality

innovation, such as information technology.

Furthermore, the recommendations of experts regarding the importance and value of a well functioning primary care system lead to a further observation: investments in inpatient and specialty services should turn in significant part on the notion of "community engagement." That is, to the extent that improving the quality of health care depends on making the health system more primary care-centered as a whole, the extent to which hospitals and specialty programs are able to demonstrate active engagement with primary care systems in their service areas could be used as a measure of their investment-worthiness.[17]

Promising Models of Primary Care

A comprehensive analysis of models of primary care reform is beyond the scope of this analysis. A more extensive study — one that probes the structural, political, cultural, and other factors that determine the ease with which particular health care service models can be replicated from one location to another — may be warranted. However, even a cursory review of the literature suggests that health care providers operating in communities experiencing the primary care barriers evident in New York have been able to achieve impressive results.

The analysis by Starfield, Shi, and Macinko documents the success of well-known and highly regarded investments such as health centers. Other community providers also have achieved important gains in community health, even as they serve communities with heavily poor, heavily uninsured populations. At least two examples, which are described below, show that hospitals that exhibit strong "community engagement" can work with their communities to revolutionize primary health care. These models suggest that a number of New York hospital-based health systems, with their well developed network of health centers, school health clinics, home health centers, community mental health centers, and other community based services, could achieve similar results without new facility construction, but instead through a more applied development of delivery networks.

- Two of the best known hospital-led primary care initiatives can be found in Dallas, Texas, and Denver, Colorado.

  In recent years, Parkland Hospital, located in Dallas, Texas, and one of the nation's premier public hospitals, also has become home to one of the nation's largest efforts to institute "community oriented primary care" throughout its service system. Established with a special $50 million capital investment derived from taxes and Medicaid disproportionate share hospital (DSH) payments, and later the recipient of additional revenues through county assessments, the Parkland system has improved access to care for more than 350,000 low income residents.[18] At the hub of the model is a 900-bed hospital, but the model includes 9 health centers, 7 women's clinics, 10 youth/ family centers, all of which were developed in response to evidence that patients with access to COPC were significantly less likely to be admitted to the hospital, and if admitted, had significantly shorter lengths of stay. COPC patients also cost less to manage and were more

likely to have Medicaid coverage as a result of the overall patient support services furnished through the primary care system.

The achievements of Denver Health, Denver's public hospital, have been similarly impressive.[19] In the case of Denver Health, however, the institution built its fully integrated primary health care system through active development of an affiliated program of federally funded community health centers operating with community governing boards and fully integrated into hospital service and teaching operations. This hybrid model preserves the strength of a public hospital while ensuring full access to federal health center grant funding and preservation of community governance, a feature that itself has been associated with past studies of quality improvement in health care.[20] The integration of health centers with a public hospital not only has the potential to orient a broader health system toward primary care but also strengthens health center operations by ensuring better access to specialty care, information technology, and an academic affiliation aimed at promoting primary care specialization and training.

- Where primary care based reforms are concerned, the experiences of health centers offer valuable lessons for primary care investment as a whole. Beginning in 1999, the federal Bureau of Primary Health Care launched a Health Disparities Collaborative, whose aim is to reduce health disparities through the introduction of systemic quality improvements aimed at the management of chronic diseases that collectively account for much of the excess mortality and morbidity experienced by minority and low income populations in the U.S. Recently reported results from a study of a large group of collaborative sites showed marked improvement in health status, improved use of primary care, and reductions in sporadic and ineffective use of care.[21]

- In other communities, efforts are underway at the primary care level to upgrade the quality of primary care practice. The Commonwealth Fund has recognized the primary care improvement efforts of the Primary Care Development Corporation, whose learning collaboratives resulted in important access and quality of care improvements, including accelerating appointment availability through "advanced access" and care on demand, improving revenue collections, and attracting and retaining patients.[22] This accelerated appointment availability technique known as "advanced access" also has been adapted into private practices.[23]

- Examples from abroad also are in evidence. Of particular interest has been the effort in the United Kingdom to develop primary care groups (PCGs) whose function is to formalize and capture the essence of "community oriented primary care" movement that began decades ago. PCGs bring together local general practitioners, community nurses, and other health and specialized health care professionals to engage in planning, service development, quality improvement, and overall community health development.[24]

The PCG model in the UK is compulsory for general practitioners. It is intended to lead to the formation of a larger integrated primary care groups that, for a region, develop and plan primary care and community health services, undertake quality improvement efforts through advanced clinical governance, assume responsibility for specialty and hospital services selection and contracting, and engage in population health improvement and population-level health interventions that reduce inequalities. Most notably, the UK model of service has been structured to place the locus of control over specialty and inpatient services in the hands of the PCGs, on the theory that such placement would foster specialty and institutional accountability to primary care.

In sum, regardless of whether the model is a collaboration among similar entities (e.g., the health centers disparities collaboratives and reforms in the UK) or a vertically integrated enterprise such as those found in Dallas and Denver, experience shows that it is indeed possible to carefully and deliberately apply the tools of reform to advance and improve primary health care. While more research may be needed to assess the transferability of these efforts to New York, their success in complex local environments and with seriously underserved communities suggests sufficient parallels to justify their role as potential models that work.

The Landscape for Primary Health Care in New York State

The preceding section describes the improvements in health and health care that can be achieved through primary care. The preceding materials also underscore that these improvements are not a by-product of some other effort but instead must be viewed as the end result of a deliberate effort to restructure and revitalize primary care.

To be sure, New York State is currently engaged in a substantial, multi-dimensional health reform effort:

- Establishment of the Commission on Health Care Facilities in the 21st Century (Commission 21), whose mission is to strengthen the responsiveness, quality, and efficiency of community health systems through the right-sizing and realignment of the state's hospital and nursing facility supply. Two criteria that by law guide the Commission's work and that play a potentially crucial role in ensuring that its mission reaches the issue of primary care reform are "the potential for improved quality of care and the redirection of resources from supporting excess capacity toward reinvestment into productive health care purposes..." and "the extent to which a facility serves the health care needs of the region."[25]
- Investment, through New York's Health Care Efficiency and Affordability Law for New Yorkers (HEAL/NY) in the development of health information technology reforms and restructuring planning to improve the stability,

efficiency and quality of regional health care services;[26]

- Renewal of the state's Medicaid §1115 demonstration Partnership Plan, with the inclusion of a new element, known as F-SHRP, that will result in the reinvestment of $1.5 billion of the estimated nearly $6 billion in federal expenditure savings achieved as a result of the demonstration;[27]
- Investment of several billion dollars resulting from the acquisition of Empire Blue Cross Blue Shield/WellChoice by WellPoint,[28] as well as the merger of two major New York health insurers, Health Insurance Plans and Group Health Insurance Plans;[29] and
- Creation of the New York Charitable Assets Foundation with 5 percent of the proceeds from the WellPoint acquisition of Empire Blue Cross/Blue Shield and holding of about $300 million;

But it is also fair to say that none of these initiatives directly addresses primary care reform as a specific activity, and this omission carries significant implications. Without a deliberately designed primary care reform agenda, the state's quest for a solution to the health care cost crisis is likely to yield few if any meaningful or long-lasting results. Indeed, without a fundamental commitment to primary care as a centerpiece of reform, worsening health care barriers faced by millions of New Yorkers promise to overwhelm the process, and in the end, to severely diminish, if not erase, any short term results that might be achieved.

New York's latest reform efforts are unfolding against extensive evidence of need for fundamental, population-wide change in the manner in which health services are organized, financed, and delivered.

Declining Health Care Coverage: Causes and Consequences

During the 2002-2003 time period, an estimated 2.9 million non-elderly New York State residents were uninsured, nearly one in five state residents, and one in four residents of New York City.[30] As is true nationally, uninsured New Yorkers overwhelmingly tend to be members of low wage working families. Characteristics that reflect the major features of this nation's approach to financing health care for the working-age population and their families are:

- Reliance on voluntary employer-sponsored health plans, which in turn results in limited access to any — or affordable — coverage;
- Limited eligibility for public coverage, particularly in the case of adults; and
- The high cost of individual coverage.[31]

In New York, as in the nation as a whole, the most significant coverage and access problems are concentrated among the state's low income residents, and coverage patterns underscore the extensive role played by Medicaid, the nation's

single largest insurer:

- During the 2002-2003 time period, less than half of non-elderly New York City residents had employer-sponsored coverage, compared to 71 percent of residents in the remaining portion of the state.[32]
- Conversely, reliance on Medicaid and other forms of public insurance is substantial. Throughout the state, but particularly in New York City, Medicaid is enormously important, covering a quarter of the population.[33] At the same time, an estimated 1.2 million of the approx 2.7 million uninsured are eligible for Medicaid or other public insurance but are not enrolled.
- Individually purchased coverage plays a modest role at best. The latest estimates show that the proportion of state residents covered by individually purchased plans stands at 4 percent.[34]

Furthermore, the state's uninsured population is growing, fueled in part by growth in the low income population,[35] as well as by the high cost of employer-sponsored and individually purchased health insurance:

- Between 2001 and 2003 alone the employee share of employer-sponsored coverage rose 54 percent, from $1,392 per year in 2001 to $2,148 in 2003.
- Waiting periods before the commencement of work-based coverage have lengthened.[36]

In addition, *the level of coverage* among those individuals who continue to have access to a plan is likely eroding.

- In recent years, employers and insurers have moved with increasing interest toward the use of high deductible health plans that offer catastrophic-only benefits, which in some cases are coupled with health savings accounts that may or may not hold employer contributions. National studies suggest that the problem of under-insurance is widespread, leaving lower income and moderate income families without sufficient resources to finance necessary health care.[37]
- Whether these plans can save the slide toward total disinsurance without compromising access to health care is not yet known. Even with this downgrading of coverage, it is unlikely that these "barebones plans" will put coverage within the reach of lower income families. The state's insurance costs are so high that in 2003, a couple with two children and family income twice the federal poverty level would have had to pay 42 percent of its income to secure family coverage.[38]

The problem of being without health insurance coverage is not a static one.

- One study of health insurance coverage patterns over time estimates that one in three non-elderly persons experiences at least one break in coverage over a two-year time period.[39]
- The problem of cycling on and off health insurance as family living and

employment circumstances change mean that in New York as in elsewhere, health professionals, clinics, and hospitals find themselves serving patients who, with regular frequency, fall in and out of coverage.

Being without a stable and adequate source of health insurance carries serious consequences:

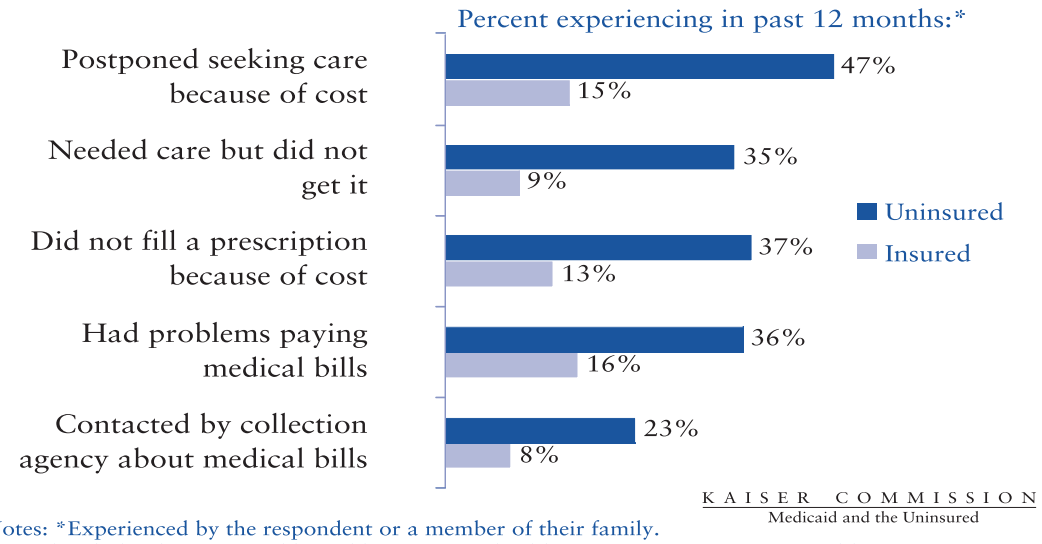
- An extensive body of evidence indicates that uninsured persons use less primary and preventive care, are more likely to go without necessary medical care, are sicker when diagnosed, use fewer therapeutic services, and have poorer health outcomes, including higher mortality and morbidity.[40]
- Furthermore, pervasive uninsurance becomes a community-wide public health problem, affecting the quality and performance of the health care system as a whole.[41]

Findings from a survey of uninsured persons, conducted by the Kaiser Commission on Medicaid and the Uninsured and summarized in Figure 1, reveal the many ways in which a lack of health insurance coverage affects the lives of the uninsured.

In sum, in New York as elsewhere, the high proportion of state residents without any — or adequate — health insurance is the result of a series of deeply embedded features in the nation's overall approach to health care financing. New York State's situation shows no exception to this pattern. Furthermore, because these large gaps in coverage result from structural factors and are not transitory, this pattern is unlikely to change in the near future.

Figure 1

Barriers to Health Care by Insurance Status, 2003



Notes: *Experienced by the respondent or a member of their family.
Insured includes those covered by public or private health insurance. Kaiser 2003 Health Insurance Survey

Excessive Spending on High Cost Institutional Care, Under-Investment in Primary Care

Although New York residents use health care at rates comparable to those seen in other jurisdictions, the state places a unique reliance on public financing to meet the cost of necessary medical care. As a result, high institutional expenditures place a major and direct demand on the state's budget.

A recent analysis of data drawn from the national Medical Expenditure Panel Survey (MEPS) shows that in 2003, 85.8 percent of New York State residents incurred some health care expense compared to 85.6 percent of all U.S. residents.[42] Similarly, the proportion of New York State residents incurring expenses for ambulatory care, prescribed medications, and dental care mirrored the national average, while the proportion of persons incurring any expenditure for hospital care actually fell slightly below the U.S. average.[43] At the same time, Table 1 *(right)* shows the state's unique reliance on public health care financing in New York compared to other large states and to the nation as a whole. In 2003, New York's rate of health expenditures through Medicare and out-of-pocket payments resembled the national average as well as expenditure patterns in other large states. At the same time:

- New York State's Medicaid program accounted for 21.6 percent of total statewide health care spending, 2.3 times the national average, which stood at 9.2 percent that year.[44]
- Conversely, the proportion of state health expenditures attributable to third party private sources of financing stood at 35.0 percent, significantly below the national average of 42.4 percent, and well below private insurance expenditure levels in other large states.[45]
- New York's reliance on Medicaid leads the nation with respect to both acute and long term care.[46] When long term care services are considered alone, New York State:
    - led the nation in 2004, ranking first nationally in expenditures for personal care and home health services (20 percent of Medicaid expenditures nationwide),
    - led the nation in spending for services of intermediate care facilities for persons with mental retardation and developmental disabilities (ICF-MRs) (22 percent of Medicaid expenditures nationwide),
    - was second nationally in expenditures for mental health institutions (10 percent of all Medicaid expenditures nationwide), and
    - led the nation in expenditures nursing facility expenditures (14 percent of all Medicaid expenditures nationwide).[47]

New York is similarly a national leader in Medicaid spending for certain forms of acute care:

- New York State ranks first in the nation with respect to hospital spending.[48]

Table 1. **Distribution of Total Health Care Expenses by Source of Payment: U.S. and Ten Largest States**

	Sources of Payment:			
	PRIVATE	MEDICARE	MEDICAID	OUT OF POCKET
U. S.	**42.4%**	**19.9%**	**9.2%**	**19.6%**
California	36.7	16.2	13.2	18.2
Texas	38.9	17.0	10.8	22.4
New York	**35.0**	**20.4**	**21.6**	**18.0**
Florida	35.2	25.4	6.7	21.6
Illinois	40.7	27.3	3.9	18.4
Pennsylvania	59.6	17.2	4.4	14.9
Ohio	54.7	17.5	6.2	14.2
Michigan	49.0	21.2	9.3	15.5
New Jersey	44.3	20.2	7.6	22.8
Georgia	48.7	13.5	7.1	21.9

Source: Sommers, Estimates of Health Care Expenditures for the Ten Largest States (AHRQ Statistical Brief #106)

At the same time however, New York State seriously under-spends on primary care, whether furnished in free-standing clinics such as health centers, hospital outpatient clinical settings, or private clinical practice settings.

Like many states, New York relies heavily on health care providers that have been classified by the Institute of Medicine as part of a "core" health care safety net. These providers, comprised of entities such as health centers, public hospitals, and certain voluntary hospitals, either by law or mission, provide a heavy volume of primary health care to a heavily uninsured or publicly insured low income patient population.[49] The situation faced by the safety net should be a matter of particular concern, since the patients they serve are at heaviest risk for preventable and costly chronic health conditions, under-management of health conditions in community settings, and avoidable hospitalization.

- New York State relies heavily on free-standing (known as "Diagnostic and Treatment Centers (D&TCs) and public and voluntary hospital-based outpatient clinics (OPDs) to furnish health care to publicly insured, uninsured, and medically underserved populations. Outside of Medicaid managed care networks, few private physicians accept Medicaid as a form of payment.

Together, D&TCs and hospital clinics account for millions of visits annually; hospital clinics alone accounted for more than 15 million outpatient visits in 2004.

- Medicaid payments are tied to licensure status rather than indicators of health performance. Since 1991, payment levels for hospital OPDs have been capped at $67.50. The clinics that are hardest hit by this cap are those operated by safety net hospitals, since they must maintain relatively large clinical care capacity. The Greater New York Hospital Association estimates that hospitals lose $1.2 billion annually on Medicaid clinic and emergency care services.

- Payment levels for D&TCs, while cost-based, have been frozen since 1995. New D&TC rates are set based on projected costs and are subject to certain ceilings, which have not been adjusted over time to recognize emerging costs associated with health care performance and quality.

- The state maintains two indigent care pools — one for hospitals and another for D&TCs. Both pools pay proportionately more money to facilities that have a greater percentage of uninsured patients. Experts estimate that the current formula pays hospital-based clinics approximately 40 to 50 cents for every dollar of free care, while pool funding allocated to D&TCs represent only about 20 cents for every dollar of care furnished.

- The state shows similar under-investment in clinical care furnished through private practices. In 2004, New York State ranked 46th nationally with respect to Medicaid expenditures for physician and laboratory care. A nationwide Medicaid-to-Medicare physician fee index shows that in 2003, New York's primary care payment rates ranked 47th nationally, with Medicaid payments for primary care set at 40 percent of the Medicare rate.[50] The indigent care pool does not cover physician practices.

Significant Racial, Ethnic, and Socioeconomic Disparities in Health Care Access and Utilization, and High Rates of Avoidable Hospitalization for Conditions that Could Have Been Managed in the Community

Racial, ethnic, and socio-economic disparities in health and health care represent an enormous national problem. A recent review of health disparities by the United States Agency for Health Care Research and Quality found that:[51]

- African American patients receive poorer quality care than Whites for 43% of core measures examined in the report, while Latino populations receive poorer quality care than that received by non-Latino white patients for 53 percent of such measures.

- Where poverty is present, the quality disparities are even greater. Low income patients receive poorer quality care than high-income people for 85% of core measures examined in the report.

- Disparities are also prevalent in the case of health care access measures. African Americans show worse access to care than White persons for 50% of core report measures, while Latino individuals show worse access to care than Non-Hispanic Whites for 88% of core report measures. Low income persons have worse access to health care compared to high-income people for a full 100% of core report measures.

New York's minority and low income populations exhibit the same disparities in health status observed nationally, and their access to health care is similarly compromised in terms of both location and quality. Thus, the statewide health care utilization patterns identified in the MEPS data presented above, mask enormous variations in health care access and utilization on the basis of race, ethnicity, and income. New York's health care disparities reveal themselves in three important ways relevant to state health reform:

- Use of emergency departments for conditions that could be managed both timely and efficiently in an ambulatory setting;
- High rates of hospitalization for "ambulatory care sensitive conditions" that also could be effectively and efficiently managed through ambulatory care; and
- A high number of state residents without a regular source of health care.

Emergency department use for non-emergency care, and hospitalization for ambulatory care sensitive conditions

Evidence shows that New Yorkers rely heavily on emergency departments for conditions that experts consider to be either non-emergent, or emergent but treatable in a primary care setting. *In neither case is the care considered unnecessary; instead the issue is the appropriateness of the location in which care is received:*

- One widely-cited study of emergency department use in New York City estimated that fewer than one in five emergency department encounters involves a condition that constitutes a true medical emergency requiring the type of service that only an emergency department typically is equipped to furnish.[52] Researchers found that most encounters, which disproportionately involved low income and minority patients, were for conditions that require health care but that could be managed in lower cost, lower intensity settings.
- A separate study of hospital admissions documented "pervasive differences" between low income and high income areas of the City with respect to hospitalization for "ambulatory care sensitive (ACS)" conditions, i.e., conditions considered amenable to management in an outpatient setting.[53]
    - In lower income communities, admission rates were 6.4 times higher for asthma, 5.3 times higher for diabetes related conditions, and 4.6 times higher for congestive heart failure.

- More than half the variation in the rate of ACS admissions between low and high income neighborhoods could be explained by income variation.
- Children were not spared the impact of poverty on ACS admissions, with low income children hospitalized for such conditions at three times the rate of their higher-income counterparts.

State residents without a regular source of primary health care

Inadequate access to primary care represents the flip side of the use of emergency departments for non-emergency but necessary health care, as well as disparities in hospitalization for "ambulatory care sensitive" conditions. In this regard, with the exception of Texas and California, New York has been estimated to have more residents without a regular source of health care than any other state.

- One study that developed national and state-by-state estimates of the number of persons without a regular source of primary health care found that New York State accounted for more than 2 million such persons in 2003, more than one in every 20 U.S. residents without a regular source of health care that year.[54]
- Even following an expansion of more than 160,000 persons served by federally funded community health centers as a result of President Bush's 2001 health center initiative, the number of individuals without a regular source of health care is estimated to remain above the 2 million mark.[55] The high number of persons who continue to be underserved continues, despite some health center expansion and the efforts of the Primary Care Development Corporation to expand primary care capacity over the past decade by 350,000, a number that includes both the health center expansions and expansion of primary care capacity in other clinical delivery settings.

An Imperiled Primary Health Care Workforce

The Council on Graduate Medical Education (COGME) has found that, while the need for medical specialists is growing, the nation continues to produce too few primary health care professionals in relation to trends in need.[56] A combination of stressful working conditions and low pay relative to specialty payment levels appears to be taking a toll on the primary health care workforce (not only primary medical care specialists but also advanced practice nurses and physicians assistants) at a time when the aging of the population is poised to place greater demands than ever before on a well-functioning primary care system:

- A recent study by the American College of Physicians termed primary health care in the U.S. "on the verge of collapse," with high drops in the rate at which young physicians are entering primary health care practice. The study found a 50 percent decline in 6 years — from 54 percent to 27 percent — in the proportion of third year internal medicine residents planning to practice general internal medicine upon completing their residency.[57]

Estimates of physician supply in New York suggest that, even more than the national average, the state is on the verge of losing its primary care infrastructure:

- One study of New York State physician supply data from 2000 (which was produced in the midst of the downward trend noted by the American College of Physicians), showed primary care practice rates for New York physicians comparable to the U.S. average in the primary care specialty fields of pediatrics, obstetrics-gynecology, and internal medicine. At the same time, however, the proportion of New York physicians practicing in family medicine stood at half the U.S. average.[58] This shortage of family practice physicians can be expected to disproportionately affect rural access in New York, according to COGME studies of physician practice patterns.[59]

A Struggling Primary Health Care Safety Net

Rising rates of residents who are uninsured and under-insured, the growing cost of health care as a result of emerging technologies in practice and health information, lagging payment rates, and other factors place enormous stress on the state's primary health care safety net, comprised of community health centers, public and disproportionate share hospital-based clinics, and physician practices located in health professions shortage areas.

Data on the New York safety net are limited. However, two key safety net providers — health centers and the New York City Health and Hospitals Corporation — maintain data that together illustrate the patients, services, and challenges of core safety net entities.

Health centers

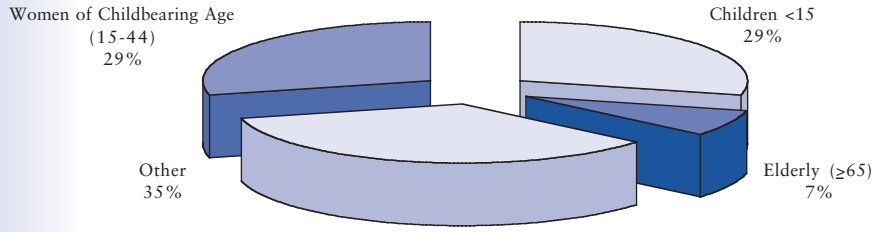
By law, the state's federally funded community health centers must collect and report considerable data on patients, revenues, and services. These data are shown in Figures 2 through 7.

Figure 2 *(page 24)* shows that persons who depend on the core safety net tend to be younger, although a not-insignificant proportion is elderly. In 2004, health centers served more than 1 million patients. Children under age 15 comprised nearly 30 percent of all health center patients, while women of childbearing age comprised another 30 percent of patients. Elderly persons made up 7 percent of all patients that year.

Figures 3-5 *(page 24)* show that community health center patients are disproportionately poor, uninsured, and members of racial and ethnic minority groups. In 2004, 71 percent of all health center patients had family incomes below 100 percent of the federal poverty level, more than three quarters were members of a racial or ethnic minority group, and one quarter were uninsured.

Figure 2

New York State Community Health Center Patients by Age and Childbearing Status, 2004

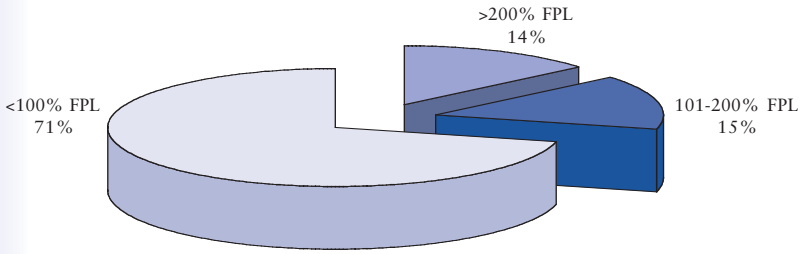


SOURCE: Center for Health Services Research and Policy analysis of 2004 UDS.

Total = 1.03 million

Figure 3

New York State Community Center Patients by Income, 2004

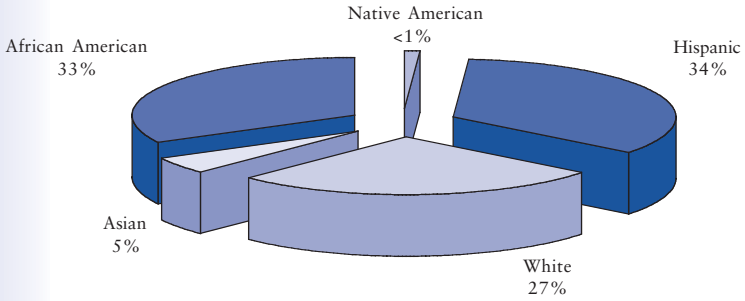


SOURCE: Center for Health Services Research and Policy analysis of 2004 UDS.

Total = 1.03 million

Figure 4

New York State Community Health Center Patients by Race/Ethnicity, 2004

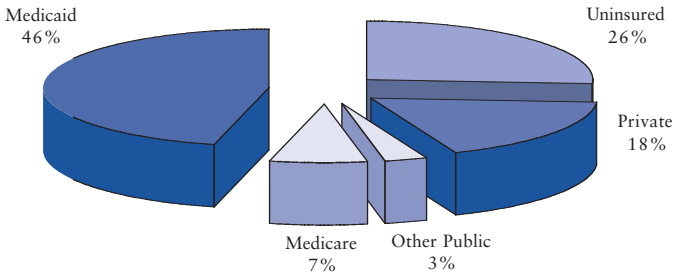


NOTE: 27% of NYS health center patients require translation services.
SOURCE: Center for Health Services Research and Policy analysis of 2004 UDS.

Total = 1.03 million

Figure 5

New York State Community Health Center Patients by Insurance Status, 2004

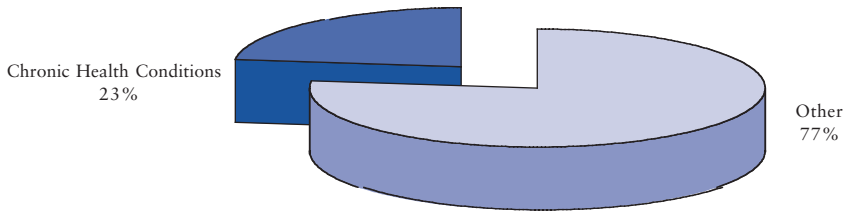


SOURCE: Center for Health Services Research and Policy analysis of 2004 UDS.

Total = 1.03 million

As is the case with low income persons generally, community health center patients, even though younger, tend to be in relatively poor health. Figure 6 shows that in 2004, nearly a quarter of all health center patients had one or more chronic physical or mental health conditions, a figure that compares with similar estimates using national data.[60]

Figure 6
Proportion of the New York State Community Health Center Patients with One or More Chronic Conditions, 2004



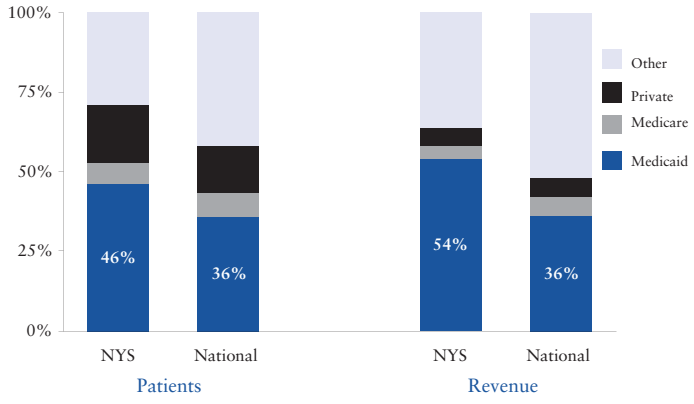
NOTE: Chronic conditions based on proportion of medical visits for asthma, chronic respiratory problems, diabetes, heart disease and hypertension

Total = 1.03 million

SOURCE: Center for Health Services Research and Policy analysis of 2004 UDS.

Figure 7 compares health centers' role in Medicaid and, in turn, Medicaid's importance to health centers, both nationally and in New York. This figure shows that, while health centers and Medicaid have an extremely close operational relationship nationally, the relationship between the two systems in New York is especially pronounced. In 2004, Medicaid patients comprised a third of health center patients nationally but 46 percent in New York State. Figure 7 also shows that compared to health centers nationally, New York health centers receive a high proportion of their public financing through Medicaid, compared to other sources of public funding such as grants under other state programs. Thus, to an enormous degree, the survival of New York's health centers depends on state Medicaid policy.

Figure 7
Comparison of Community Health Center Patients and Revenues, New York State and US, 2004

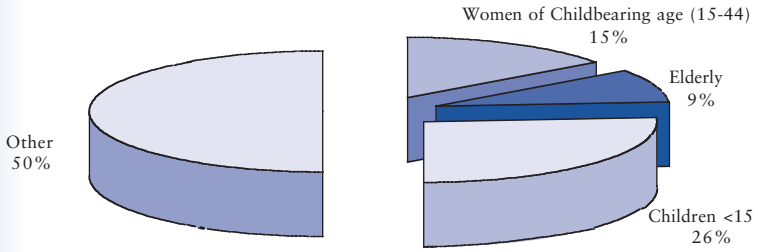


SOURCE: Center for Health Services Research and Policy analysis of 2004 UDS.

New York Health and Hospitals Corporation

Figures 8 and 9 illustrate the role played by New York City's system of public hospital-based outpatient clinics, and the enormous needs they meet. In 2005, more than 100 HHC clinics and 6 diagnostic and treatment centers[61] served more than 800,000 patients, half of whom were women, children, and the elderly. Figure 8 shows that working-age adults rely particularly heavily on HHC

Figure 8
New York City Health and Hospital Outpatient Clinic Patients, 2005

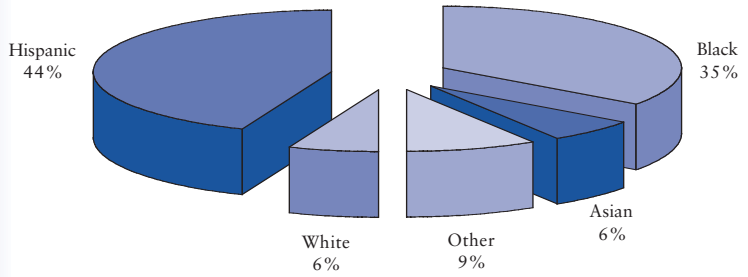


NOTE: Data reflects primary care for outpatient adult general medicine, pediatrics and OB/GYN care

Total = 882 thousand

SOURCE: New York City Health and Hospitals Corporation

Figure 9
New York City Health and Hospital Outpatient Clinic Patients, 2005



NOTE: Data reflects primary care for outpatient adult general medicine, pediatrics and OB/GYN care

Total = 882 thousand

SOURCE: New York City Health and Hosptials Corporation

clinics.

Figure 9 shows the overwhelming minority composition of HHS patients. In 2005, African American and Latino patients comprised 4 out of 5 HHC outpatient clinic patients.

HHC provides an enormous volume of primary health care. In 2005 HHC outpatient clinics registered nearly 159,000 primary care visits covering adult medicine, obstetrics and gynecology, and pediatrics.

Reliance on HHC clinics for preventive services is extensive. For example, in 2002, HHC performed more than 180,000 cervical cancer screens, with a detec-

tion rate of more than 7 cases of cancer per 1000 women screened.[62]

As is true with the safety net generally, HHC's patient revenues reflect the importance of Medicaid to this system of care, which has undergone a major transformation in ambulatory care service design over the past several years.

- In 2005, Medicaid accounted for more than 47% of its net patient revenue.
- That year, all other third parties combined (including private insurance and managed care) accounted for about 16% of net revenue, leaving the remainder of revenue borne primarily through out of pocket payments.

Many New York Counties Show the Stress of Inadequate Primary Health Care

In order to examine county-level patterns of need for primary care throughout the state, we utilized online, county-level data regarding primary care physician supply and hospitalization for ambulatory care-sensitive conditions. These data were used to create a tool for ranking counties in accordance with evidence of both under-supply of primary care and high rates of preventable hospitalizations.[63] The index provides a crude estimate of unmet health care needs. Additional indicators such as urban and rural case mix, uninsurance and public coverage variations, and other demographic and health care factors were not included in the index due to lack of data at the county level.

The results of our estimates can be found in Table 2, which ranks the state's 62 counties, from most to least in terms of need for primary care investment. Thus, counties exhibiting the highest level of need are represented at the top of the table. While county-level rankings for primary health care cannot take into account the specific service delivery needs of sub-county communities, county level rankings are useful in the context of statewide planning of the type currently being undertaken by Commission 21.

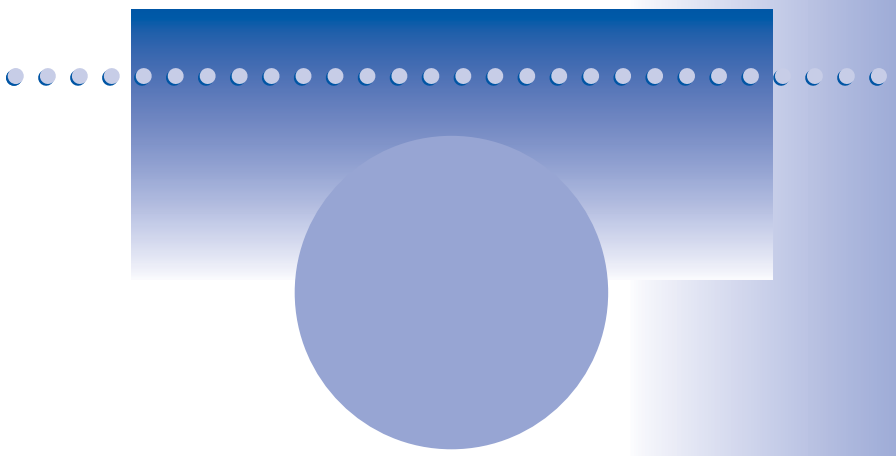


Table 2. County Primary Health Care Shortage Risk

County	*Overall Rank*
Bronx	1
Oswego	2
Niagara	3
Montgomery	4
Cattaraugus	5
Jefferson	6
Schenectady	7
Hamilton	8
Kings	9
Washington	10
Queens	10
Orleans	10
Sullivan	13
Lewis	13
Wayne	15
Allegany	15
Cayuga	17
Steuben	18
Schuyler	19
Genesee	19
Cortland	21
Herkimer	22
Tioga	23
Orange	24
Richmond	25
Chautauqua	26
Chenango	27
Greene	28
Oneida	29
Erie	29
Chemung	31

County	*Overall Rank*
Fulton	32
St. Lawrence	33
Franklin	33
New York (Manhattan)	35
Madison	36
Schoharie	37
Livingston	38
Delaware	39
Rensselaer	40
Yates	41
Ulster	41
Essex	43
Suffolk	44
Wyoming	45
Columbia	46
Seneca	47
Clinton	48
Rockland	49
Putnam	50
Otsego	51
Onondaga	51
Saratoga	53
Dutchess	54
Westchester	55
Monroe	56
Ontario	57
Tompkins	58
Warren	59
Albany	59
Broome	61
Nassau	62

Charting an Agenda for Primary Care Reform

This analysis documents a health environment in New York, in which millions of residents lack regular, stable access to high quality and cost-effective primary health care. Substantial evidence points to the following problems:

- Nearly 3 million state residents lack coverage outright; furthermore, if New York's population mirrors that of the U.S. (an assumption borne out by comparing state and national statistics) then an equal number can be considered seriously underinsured if income and coverage are compared to health care need.

- Significantly elevated expenditures for inpatient acute care, particularly for conditions considered ambulatory care sensitive.

- Low investment in primary health care, for both physicians in private practice as well as the health care safety net, whose payment rates have experienced stagnation in relation to a major evolution in both the standard of care for chronic disease management in outpatient settings and health information technology.

- Urban and rural communities across the state who lack a primary health care home, whose advantages over more episodic and costly specialty care are well known. Despite advances in access and quality, some 2 million New Yorkers remain at risk for primary care underservice, among the nation's highest rates of persons estimated to lack a regular source of health care.

- A health care safety net that remains the centerpiece of primary care for the state's low income, minority, and medically underserved residents, but whose survival depends on major public investments.

Recent federal Medicaid reforms may well worsen this situation. While giving states certain new types of flexibility over benefit design and cost sharing, major deficit reduction legislation passed by Congress in February, 2006, also bans Medicaid coverage for individuals who cannot prove their citizenship. At least one analysis of this change estimates that its national impact is to jeopardize coverage for between 3 and 5 million U.S. citizens.[64] Particularly at risk are older adults, rural residents, African American adults, and adults with low educational levels, who disproportionately lack documents such as birth certificates and passports. Persons with mental incapacity are not exempt. New York can be expected to feel the effects of this provision profoundly, simply because of the sheer size of the Medicaid population.

This evidence underscores the importance of moving primary care to occupy a central place on the state's health reform agenda. While the large number of individuals without any, or adequate, health insurance coverage creates challenges for achieving the type of fundamental health system change envisioned by the Institute of Medicine in *Crossing the Quality Chasm,* we believe that it is possible through targeted investment, to make significant and meaningful improvements in the accessibility and quality of primary care. To this end, we have developed the following recommendations for strengthening and improving primary health care.

1. Make a primary health care home for all New York residents within the next decade an explicit goal of reform.

Primary care is relatively inexpensive. At the same time, achieving a primary care system that functions well takes as much planning and policy development as retooling any other aspect of health care. Simply reducing expenditures for inpatient care will not yield advances in primary care. Therefore, it is important that the goal of assuring a primary health care home for all state residents be made explicit and that it receive the same careful attention as reforms in specialized and inpatient care. We believe that adding the goal of a primary care home as an explicit aim of reform is consistent with other reform directions in the state, and in particular, with the mission of Commission 21, whose stated role is to promote activities that advance "the potential for improved quality of care and the redirection of resources from supporting excess capacity toward reinvestment into productive health care purposes..."

2. Act to stem the erosion in primary care capacity, especially for populations at risk and the health care safety net, through payment reforms that reward results and incentivize investment in quality of care improvements, and the adoption of health information technology.

It is very hard to move forward with improvements as the system continues to erode. As with other services, the accessibility and quality of primary health care is sensitive to payment incentives. The evidence strongly suggests that New York State Medicaid policy significantly limits primary care investment in both safety net and private practice settings. A system of payment incentives is needed that is expressly grounded in primary care improvement, reflects the achievement of milestones in health system management reforms, health information technology adoption, and health quality outcomes.

Certain changes in Medicaid coverage and payment policy should be avoided. The Medicaid legislation recently enacted by Congress affords states expanded flexibility to reduce the benefits and services covered for most enrollees and to impose higher premiums and cost-sharing (in the form of co-payments and coinsurance) on most beneficiaries. In light of already low payment rates for primary health care, coverage and cost sharing changes that would reduce revenue flow to primary care settings should be avoided. Thus, for example, cost-sharing should exempt not only preventive care, but also services deemed essential under evidence-based practice standards to the effective primary care management of chronic conditions and illnesses such as asthma, diabetes, cardiovascular disease,

and depression. Beneficiaries who receive treatment from health care providers that engage in evidence-based practice should be exempt from cost sharing; indeed payments should be augmented to support a shift toward proven practice management and clinical performance standards where chronic conditions are concerned.

In a health care safety net context, Medicaid is the principal source of revenue to examine. At the same time, there is very little evidence regarding the adequacy of primary care compensation among private insurers and health plans. We believe that as part of health reform, significantly greater focus should be placed on the extent to which in their compensation arrangements, private insurers and plans are emphasizing payments for quality and in the most cost-effective settings.

3. Stimulate capital investment in the primary care infrastructure, including investments in facilities, equipment, and health information technology and performance improvement.

Augmented payment levels alone cannot ensure transition to a higher performing primary health care system. Carefully planned capital investments are needed in certain areas, such as development of new facilities where they are needed, the acquisition of appropriate equipment as part of a modernization of primary care, and of course, health information technology adoption.

Much attention has been given to the adoption of technology in hospital settings. Yet in no health care setting will adoption of safe, secure, and interoperable health information technology be more important than in primary care, where the bulk of health care is delivered, where a consolidated health history must be maintained, and where the support and safety enhancements offered through HIT will experience their most constant use. A deliberate investment strategy — one that includes capital investment and technical assistance — is essential for the health care safety net. Given the disproportionate reliance on these providers among racial and ethnic minority patients as well as low income persons, if these sources of care are left behind, the risk of ever widening disparities in health care also grows.

Targeting the safety net for special investment makes enormous sense. As illustrated by the primary care improvement efforts undertaken by health centers (through initiatives of the federal Bureau of Primary Health Care) and the Primary Care Development Corporation, cutting edge reform can be achieved in programs whose mission is to reach medically underserved populations. Furthermore, the lessons learned in these practice settings yield important information that over time can be transferred to primary care practice settings generally.

4. Ensure adequate financial support to recognize costs incurred by the primary health care safety net.

The large proportion of the population without any or adequate health insurance coverage makes ongoing support grants absolutely critical to the survival of the primary health care safety net. The federal funds that flow to health centers represent an operational subsidy lifeline that help anchor health centers in com-

munities that otherwise could not afford to maintain a health care infrastructure. Yet even for health centers, these funds cover only a fraction of the health care they must furnish to their uninsured patients and provide seriously inadequate support for referral and specialty care. The same need for operational subsidies through a strong uncompensated care pool exists among the state's major hospital-based providers of health care for uninsured and under-insured low income populations such as New York City's Health and Hospitals Corporation and community hospitals, which furnish a disproportionate share of primary health care received by low income patients.

5. Invest in the development of a primary care workforce.

Investment in funding to support the education and training of a primary health care workforce covering medicine, nursing, dentistry, mental health, and other primary and community service specialties is essential. Training and education programs also need to be linked to primary care sites in order to foster the growth of skills in primary care settings, particularly settings that are located in urban and rural shortage areas and on which the state's medically underserved residents depend.

6. Make active engagement in primary care systems a hallmark of hospital and nursing facility right-sizing measurement.

The modern concept of primary health care has expanded far beyond its roots as a source of preventive services. Primary care settings are meant to function as the center of health care, the key health care location for maintaining health, and promoting appropriate management of chronic and serious illnesses and conditions in the most community-oriented setting and in the most cost-efficient fashion.

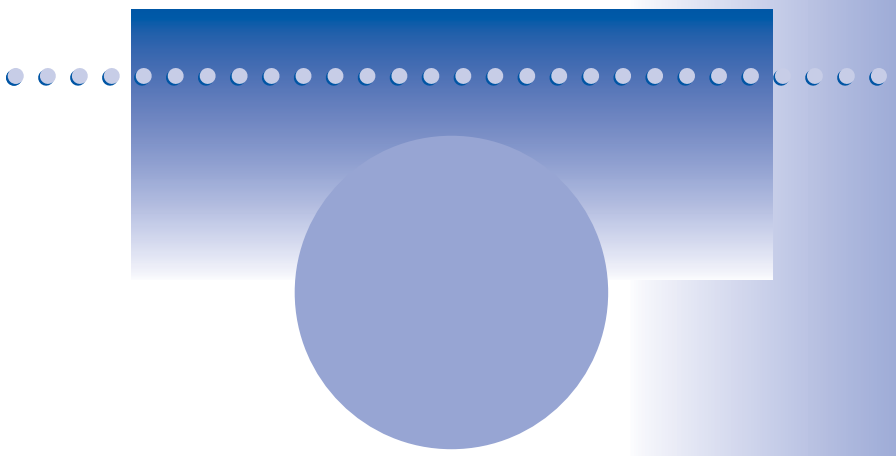
In order to function well, primary care providers must be integrated with hospitals and long term care facilities, as well as with sources of specialty care. This does not mean corporate restructuring. It means the development of practice arrangements that ensure that primary care providers can secure the resources and supports needed for patients whose health conditions may require specialty, referral, and inpatient care. It also means close collaboration between institutional care facilities as patients are discharged into community settings. Recent studies suggest that primary care providers, especially those serving a large volume of lower income patients, experience significant barriers to securing the resources their patients need, either because of the lack of affiliation arrangements, the lack of financial capabilities sufficient to meet the high cost of referral care, and low participation in Medicaid among specialists.

As the state contemplates the right size for its hospital system, we believe that a key focus of inquiry should be the extent to which hospitals in various regions of the state are active participants in primary care-centered systems of care. Do hospitals actively seek out affiliation with the primary health care providers in their communities? Are referral arrangements possible, with subsidies for lower income patients who are uninsured or under-insured? Do affiliated specialists participate in Medicaid and accept referrals from primary health care providers, particularly the safety net? Does collaboration include both services designed to

maintain patient health and in the community, and active efforts to ensure smooth re-entry of patients into the community following hospital discharge? Do residency and health professions training programs maintain sites in community settings?

These and other measures of "primary care engagement" should serve as cornerstones of "right-sizing" the state health care system.

Health reform in New York State, as elsewhere, is best positioned to succeed when the elements of reform are viewed as a series of intimately related tasks along a broader continuum. If the state's heavy expenditures for institutional care ever are to diminish, this transformation will happen only over time, and only if policy makers act to fundamentally realign the public's resource investments in ways that emphasize, incentivize, and reward high quality and accessible primary care for the entire population.



Appendix: Methodology for County Rankings

The purpose of this ranking methodology is to provide a general understanding of the relative health care needs of each NYS county. Select health conditions and access data as well as physician data were used to create rankings for a series of health conditions, physician supply, and overall county ranking. Pneumonia discharge rates are based on 1998-2000 estimates. All other variables are from 2004. Although many of the variables used reflect applied indicators of unmet need used by federal agencies,[65] our rank methodology is limited to the few number of available public-use NYS county data. In addition to availability of data at the county level, the selected indicators also reflect some of the measures commonly used to assess population health and access to care.

One of the major limitations of the ranking methodology due to missing data is that the index may either underestimate or overestimate the effect of selected indicators. In other words, the accuracy of index would be greatly improved by adjusting for urban and rural settings, health insurance mix of the population, varying age mix of county residents, income levels, inter-county use of health care services, and other demographic and health status factors. However, the selected measures used to create the index provide the best available indicators of estimating unmet health care needs at the county level.

Selected health and access variables include rate of prevalence of low birth weight, prenatal care, asthma, gastroenteritis, and otitis media, and admissions rates for pneumonia. These variables generally reflect underlying need for health care services and are weighed to reflect level of significance. Additionally, county unemployment rates were included as a crude socioeconomic variable in lieu of missing poverty and race/ethnicity data, to further estimate demand for each county. For each county, a "Condition Rank" was calculated based on the following weights:

- Unemployment rate: 35%
- Low birth weight per 1,000 live births: 15%
- Prenatal Care per 1,000: 15%
- Asthma rate per 10,000: 20%
- Gastroenteritis per 10,000: 5%
- Otitis Media per 10,000: 5%
- Pneumonia discharge rate per 100,000 age 0-4: 5%

Similarly, the "Provider Rank" is based on the number of Primary Care Physicians (family medicine, internal medicine, and general practice), OB/GYN, and Specialists (pediatrics, cardiovascular, anesthesiology, psychiatry, ophthalmology, general surgery, emergency medicine, orthopedic surgery, neurology, gastroenterology, radiology, physical medicine, urology, and Otolaryngology). These variables were weighed as follows:

- Patient per Physician (PCP): 50%
- Patient per Specialist: 30%
- Pregnant women per OB/GYN: 20%

The rankings range 1 to 62, where, for example, Schenectady county's rank indicates the greatest need for health care services. Tables A and B show the estimates for each measure, the weighted score, and the final rank. Table C shows both the Condition and Provider Rank and the Overall Rank for each county. The Overall Rank was calculated by adding the Condition and Provider ranks together. A rank of 1 suggests relatively the highest level of need. Tied weighted scores are given the same rank.

Given the lack of additional variables and data, this ranking methodology provides only a crude estimate of the relative health care needs of NYS counties. Additional monitoring and evaluation methods may be necessary to assess the level of unmet health care needs in various communities.

***Table A.* Provider Rank**

County	Unemploy. rate	LBW per 1,000	Prenatal care rate 1,000	Asthma (0-4) per 10,000 pop.	Gastroenteritis (0-4) rate per 10,000 pop.	Otitis Media (0-4) per 10,000 pop.	Pneumonia discharge rate per 100,000 age 0-4 1998-2000	Weighted Score	Final Rank
Albany	3.6	8.8	79	41	6.3	1.3	228	22.4	49
Allegany	8.1	5.6	82.3	38.7	19.4	0	486.1	29.9	32
Bronx	10.3	9.5	72.3	178.5	23.5	4.3	603.7	55.8	1
Broome	6	6.6	80.2	13.3	8.6	1.9	748.8	19.9	54
Cattaraugus	7.2	6.9	75.6	56.4	8.4	0	469.4	39.2	14
Cayuga	6.3	7.4	80.9	51.9	18.1	4.5	551	34.3	23
Chautauqua	6.6	6.8	72.5	29.5	14.8	0	523.4	30.6	28
Chemung	6.8	8.5	79.7	72.6	34.4	1.9	323.5	42.3	9
Chenango	6.5	7	80.5	25.3	32.6	0	673.3	27.6	37
Clinton	6.4	8.4	89.1	27.6	33.1	0	190.4	28.6	35
Columbia	3.6	6.9	71.5	37	10.1	0	193.4	19.9	54
Cortland	7.3	8.3	82.5	37.5	30	3.8	1892.9	36.7	20
Delaware	5.1	3.8	78.4	32.5	55.6	4.6	531.7	21.4	53
Dutchess	3.9	6.7	81.9	42.3	8.7	1.2	319.9	19.1	57
Erie	6.3	8.5	73.5	49.4	15.9	3.2	271.4	40.4	11
Essex	5.3	5.7	83.7	23	23	0	96.5	14.2	61
Franklin	7.2	7.5	77.7	54.5	0	0	193.3	37	17
Fulton	6.1	6.5	77.5	125.6	27.1	6.8	891.6	37.9	16
Genesee	7	6.2	71.7	29.5	11.8	0	572.7	30	31
Greene	4.9	6.3	71.1	22.2	0	8.9	264.2	22.5	48
Hamilton	5.9	10.4	82.6	45.5	0	0	276.6	29.8	34
Herkimer	6.1	6.7	69.3	28.2	12.5	3.1	397.7	30.4	29
Jefferson	7.9	6.3	79	70.2	42.6	7.5	894.1	43.1	6

Table A. **Provider Rank** *continued*

County	Unemploy. rate	LBW per 1,000	Prenatal care rate 1,000	Asthma (0-4) per 10,000 pop.	Gastroenteritis (0-4) rate per 10,000 pop.	Otitis Media (0-4) per 10,000 pop.	Pneumonia discharge rate per 100,000 age 0-4 1998-2000	Weighted Score	Final Rank
Kings	9.1	8.5	71.7	108.9	53.9	12.5	879.9	54.9	2
Lewis	8.2	7.5	79.8	39.3	13.1	0	629.8	38.1	15
Livingston	6.5	5.1	81.8	25.6	32	0	295.6	23.1	47
Madison	6.1	7.6	82.7	48	2.7	2.7	420.3	29.9	32
Monroe	5.8	7.4	76.2	20.4	5.7	0.9	169.5	26.2	42
Montgomery	7.3	6.7	70.2	61.9	17.2	3.4	789	42.4	8
Nassau	4.1	7.2	86.7	42.5	16.4	4.3	590.7	19.4	56
New York (Manhattan)	8.1		76.8	78.6	21.5	5.3	603.8	41.5	10
Niagara	7.8	8.3	74.7	30.5	14.9	1.7	222.9	39.8	12
Oneida	5.3	9.2	71.5	48.7	11.4	4.1	448.7	36.8	19
Onondaga	5.2	8.4	76.5	27.6	7.1	0.7	386.9	26.3	41
Ontario	5.7	5.9	80.6	21.6	7.2	0	229.4	17.1	58
Orange	4.9	6.4	67.4	62.9	45.9	6.2	552.2	35.5	21
Orleans	7.8	5.4	77.3	16.8	8.4	4.2	307.1	30.2	30
Otsego	4.6	6.5	83.4	80.5	57.5	3.8	515.4	26.5	40
Oswego	9	8.3	77.9	52	30.3	1.4	427.8	48.3	5
Putnam	3.4	5.9	86.1	27.2	11.9	0	230.5	7.3	62
Queens	6.8	8.1	66.1	87.7	36.3	6.8	728.9	50.4	3
Rensselaer	4.5	7.6	79.2	35.6	9.5	3.6	193.3	23.7	45
Richmond	7.4	7.9	84.2	57	58.8	12.1	651.7	43.1	6
Rockland	4.2	6.8	68.8	29.3	29.8	0.9	427	23.2	46
Saratoga	3.7	6.3	83.6	41	21.8	0.8	356.8	16.1	59
Schenectady	4.1	7.8	75.3	51.8	24.7	5.9	196.9	32.1	25
Schoharie	5.2	5.8	80.5	20.1	20.1	0	566.7	15.8	60
Schuyler	7.6	4.8	83.1	47.9	95.9	9.6	254.7	36.9	18
Seneca	5.9	7.2	69.9	46.1	5.8	0	310.5	33.7	24
St.Lawrence	8.4	7.3	80.9	48.3	34.5	0	244.7	39.5	13
Steuben	8.6	8	76	58.8	46.4	5.3	776	49.5	4
Suffolk	4.6	7.2	75.9	43.7	11.6	3.8	367.8	27.2	39
Sullivan	5.3	8	67.1	36.5	26.8	4.9	483.5	34.6	22
Tioga	6.2	7.5	80.3	13.9	10.4	0	256.8	24.5	44
Tompkins	3.2	6.6	78.3	43	23.9	2.4	585.2	21.9	51
Ulster	4.4		78.7	33.4	12.3	1.1	367.7	27.3	38
Warren	5.5	6.1	80.3	34.7	28.4	0	257.2	22.4	49
Washington	4.6	8.5	70.7	29.5	19.7	6.6	266.7	31.8	26
Wayne	6.8	7.1	75	20.2	11	0	137.5	30.8	27
Westchester	4.1	7.7	76.3	37.2	11.5	3.9	429.4	26.1	43
Wyoming	6.5	3.5	77.1	14.7	0	0	244.1	21.9	51
Yates	4.5	4.3	58.5	67.7	6.8	0	394.7	28.2	36

Table B. **Provider Rank**

County	Patient per Physician (Primary Care)	Pregnancy per Ob/GYN	Patients per Specialist	Weighted Score	Final Rank
Albany	1,123.90	86.8	385.8	5.0	58
Allegany	2,407.70	163	4,213.50	44	13
Bronx	8,627.80	1,906.60	5,048.90	58.5	3
Broome	270.9	22.9	140.7	1	62
Cattaraugus	2,976.90	148.6	1,634.40	44.4	12
Cayuga	2,476.50	337.3	1,513.40	43.4	17
Chautauqua	1,938.70	234	1,529.40	35.2	30
Chemung	1,391.00	143.4	674.7	13.2	52
Chenango	2,348.10	219	2,583.00	42.5	21
Clinton	1,479.40	82.4	1,251.80	16.9	49
Columbia	1,761.30	450.5	1,761.30	37	27
Cortland	2,117.00	209.3	1,570.70	36.2	28
Delaware	1,816.40	181	2,951.60	35.6	29
Dutchess	1,852.80	110.4	828.7	23.3	40
Erie	1,592.70	140.4	756.7	17.3	48
Essex	2,166.20	N/A	2,999.40	43.5	14
Franklin	1,547.20	107	1,245.30	19.3	45
Fulton	1,533.50	128	1,082.50	18.9	46
Genesee	2,728.20	155.8	2,143.60	43.5	14
Greene	3,257.70	203.7	3,490.40	51.2	7
Hamilton	5,278.00	N/A	5,278.00	60	2
Herkimer	2,548.20	146.7	3,185.20	43.5	14
Jefferson	2,796.40	163.9	1,169.90	41.1	23
Kings	1,729.00	279.1	1,083.50	30.1	34
Lewis	1,664.80	358	3,805.10	37.2	26
Livingston	2,085.70	254.7	4,041.10	41.9	22
Madison	1,711.80	120.1	1,896.80	28.4	37
Monroe	1,259.40	109.8	612.4	9.6	55
Montgomery	2,742.80	182	1,496.10	42.9	20
Nassau	1,119.00	70	440.3	4.5	59
New York (Manhattan)	698.6	62.9	200.6	2.9	61

Table B. **Provider Rank**

County	Patient per Physician (Primary Care)	Pregnancy per Ob/GYN	Patients per Specialist	Weighted Score	Final Rank
Niagara	2,908.70	244.2	1,947.80	48.4	9
Oneida	1,605.30	214	915.5	23.0	41
Onondaga	1,443.60	96.3	540.5	10.5	54
Ontario	1,736.40	98.6	813.1	20.5	43
Orange	2,389.20	164.5	1,040.60	33.7	32
Orleans	3,356.10	268.5	3,966.30	54.3	5
Otsego	1,130.80	60.2	447.5	5.4	57
Oswego	2,684.70	279.5	2,374.90	47.5	10
Putnam	2,619.70	110.3	1,131.30	34.8	31
Queens	1,856.10	241.6	1,157.30	32.2	33
Rensselaer	2,232.00	281.2	1,426.00	38.6	25
Richmond	1,601.90	156.6	856.1	20.2	44
Rockland	1,655.30	116	619.4	17.5	47
Saratoga	2,280.60	122.2	945.1	29.8	36
Schenectady	9,205.60	N/A	29,457.80	62	1
Schoharie	2,112.30	370	5,280.80	45.5	11
Schuyler	2,161.70	N/A	4,863.80	43.4	17
Seneca	676.6	50.8	495.5	3.5	60
St.Lawrence	1,361.60	126.9	1,073.60	14.6	51
Steuben	1,650.20	171	1,253.30	25.9	39
Suffolk	1,677.80	148.7	805.7	21.4	42
Sullivan	2,498.30	251.2	1,629.30	43.4	17
Tioga	3,234.10	689	51,746.00	58.1	4
Tompkins	1,408.50	137.1	1,078.80	16.3	50
Ulster	1,708.60	214.9	1,437.40	29.9	35
Warren	1,505.00	99.1	534.8	12.1	53
Washington	2,474.90	N/A	12,374.40	49.6	8
Wayne	2,756.70	334.3	5,513.40	54.2	6
Westchester	1,176.80	83.1	405.7	6.1	56
Wyoming	2,259.60	174	2,385.10	39.8	24
Yates	1,454.10	N/A	3,090.00	26.1	38

Table C. **Overall Rank**

County	Condition Rank	Provider Rank	Overall Rank
Albany	49	58	59
Allegany	32	13	15
Bronx	1	3	1
Broome	54	62	61
Cattaraugus	14	12	5
Cayuga	23	17	17
Chautauqua	28	30	26
Chemung	9	52	31
Chenango	37	21	27
Clinton	35	49	48
Columbia	54	27	46
Cortland	20	28	21
Delaware	53	29	39
Dutchess	57	40	54
Erie	11	48	29
Essex	61	14	43
Franklin	17	45	33
Fulton	16	46	32
Genesee	31	14	19
Greene	48	7	28
Hamilton	34	2	8
Herkimer	29	14	22
Jefferson	6	23	6
Kings	2	34	9
Lewis	15	26	13
Livingston	47	22	38
Madison	32	37	36
Monroe	42	55	56
Montgomery	8	20	4
Nassau	56	59	62
New York (Manhattan)	10	61	35
Niagara	12	9	3
Oneida	19	41	29

Table C. **Overall Rank**

County	Condition Rank	Provider Rank	Overall Rank
Onondaga	41	54	51
Ontario	58	43	57
Orange	21	32	24
Orleans	30	5	10
Otsego	40	57	51
Oswego	5	10	2
Putnam	62	31	50
Queens	3	33	10
Rensselaer	45	25	40
Richmond	6	44	25
Rockland	46	47	49
Saratoga	59	36	53
Schenectady	25	1	7
Schoharie	60	11	37
Schuyler	18	17	19
Seneca	24	60	47
St. Lawrence	13	51	33
Steuben	4	39	18
Suffolk	39	42	44
Sullivan	22	17	13
Tioga	44	4	23
Tompkins	51	50	58
Ulster	38	35	41
Warren	49	53	59
Washington	26	8	10
Wayne	27	6	15
Westchester	43	56	55
Wyoming	51	24	45
Yates	36	38	41

Endnotes

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