Physician Participation in the Medicaid Managed Care Program in New York City

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PREFACE

New York State recently received approval from the United States Health Care Financing Agency (HCFA) to continue to expand its mandatory Medicaid managed care program. Approximately 2.2 million Medicaid recipients in New York are eligible for enrollment in managed care, of whom approximately 1.5 million reside in New York City.¹ When this study began, there were almost 400,000 people enrolled in the Medicaid managed care program in New York City, or about 27% of those eligible.

In the spring of 2000, the United Hospital Fund of New York (UHF) contracted with the Center for Health Workforce Studies (the Center) to conduct a study of physician participation in the Medicaid managed care program in New York City. The goal of the study is to help policy makers and others to better understand the dynamics of primary care physicians participating in the Medicaid managed care program. The Center is located within the School of Public Health at the University at Albany, State University of New York.

Key Center staff on this study were Gaetano J. Forte, Edward Salsberg, Steven Schreiber, and Mark Beaulieu. The views expressed in this report are those of the Center and do not necessarily reflect the positions of the University at Albany, School of Public Health, or UHF. The Center is indebted to several staff from the New York State Department of Health (NYSDOH) for their assistance with this project: Colene Byrne from the Center for Community Health for her assistance in geocoding physician addresses; Bruce Lombardo from the Office of Medicaid Management, who provided valuable Medicaid physician data; and Pat Roohan and Laura Dellehunt from the Office of Managed Care who provided valuable information and assistance at various points of the project. We are also appreciative of the insights provided by Kathryn Haslanger and Tim Prinz of UHF.

July 2001

¹New York State Department of Health Medicaid Managed Care Enrollment Report, March 2000.
CONTENTS

Executive Summary ............................................................................................................................ vii

Introduction .......................................................................................................................................... 1

Objectives ............................................................................................................................................. 1

Methods ................................................................................................................................................ 3
  Data Sources ................................................................................................................................... 3
  Definitions ...................................................................................................................................... 4

Overview of Findings ........................................................................................................................... 7

Findings ................................................................................................................................................ 9
  A. Estimated Physician Counts ...................................................................................................... 9
  B. Level of Participation in the Medicaid Fee for Service and Managed Care Programs ................. 11
  C. Characteristics of Selected Primary Care Physicians in New York City ..................................... 13
    1. Primary Care Physicians Participating in the Medicaid Programs Compared to Those Not Participating .............................................................................................................................................. 13
      Demographics ............................................................................................................................ 13
      Education .................................................................................................................................. 16
      Practice Characteristics ............................................................................................................ 18
      Reimbursement ......................................................................................................................... 22
    2. Primary Care Physicians Participating in the Medicaid Managed Care Program in Selected Settings ............................................................................................................................................ 25
      Demographics ............................................................................................................................ 26
      Education .................................................................................................................................. 27
      Practice Characteristics ............................................................................................................ 28
      Reimbursement ......................................................................................................................... 31
    3. Primary Care Physicians Participating in the Medicaid Managed Care Program by Level of Program Participation .................................................................................................................. 33
      Demographics ............................................................................................................................ 33
      Education .................................................................................................................................. 37
      Practice Characteristics ............................................................................................................ 38
      Reimbursement ......................................................................................................................... 42
  D. Geographic Distribution of Primary Care Physicians Participating in the Medicaid Managed Care Program Relative to Mandatory Program Phase-In Schedule and Need ............................................ 45

Conclusions ........................................................................................................................................ 49
FIGURES, TABLES, AND MAPS

Figure 1. Distribution of Participation in Medicaid Programs in New York City, Primary Care Physicians ................................................................. 9
Table 1. Distribution of Participation in Medicaid Programs in New York City by Level of Participation, Primary Care Physicians ........................................ 11
Figure 2. Percentage of Primary Care Physicians that Are Female ........................................ 14
Figure 3. Race/Ethnicity Distribution of Primary Care Physicians in New York City by Program Participation ................................................................. 14
Figure 4. Type of Participation in Medicaid Programs by Race/Ethnicity, Primary Care Physicians in New York City ............................................................. 15
Figure 5. Percentage of Primary Care Physicians in New York City Above Age 50 ................ 16
Figure 6. Percentage of Primary Care Physicians in New York City that Are IMGs ............... 17
Figure 7. Percentage of Primary Care Physicians in New York City that Have Completed Accredited Residency Programs and Are Board Certified in Primary Specialty ........................................ 17
Figure 8. Percentage of Primary Care Physicians in New York City that Have Hospital Admitting Privileges ................................................................. 18
Figure 9. Medical Specialty Distribution by Type of Participation of Primary Care Physicians in New York City ........................................................................... 19
Figure 10. Participation in Medicaid Programs by Medical Specialty, Primary Care Physicians in New York City ................................................................................... 19
Figure 11. Percentage of Primary Care Physicians in New York City that Are Accepting New Patients .................................................................................. 20
Figure 12. Participation in Medicaid Programs within Each Borough, Primary Care Physicians in New York City ........................................................................... 21
Figure 13. Reimbursement Characteristics of Primary Care Physicians in New York City ........ 22
Figure 14. Practice Setting Distribution of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City ...................................... 25
Figure 15. Percentage of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City that Are Female by Practice Setting ................................ 26
Figure 16. Percentage of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City that Are Above Age 50 by Practice Setting ...................................... 27
Figure 17. Percentage of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City that Are IMGs by Practice Setting ...................................... 28
Figure 18. Percentage of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City that Have Hospital Admitting Privileges by Practice Setting ...................................... 29
Figure 19. County Distribution of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City by Practice Setting ...................................... 29
Figure 20. Practice Setting Distribution of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City by County of Practice Location ...................................... 30
Figure 21. Reimbursement Characteristics of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City by Practice Setting ...................................... 31
Figure 22. Percentage of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City that Are Female by Level of Program Participation ..................................... 34
Figure 23. Race/Ethnicity of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City by Level of Program Participation ...................................... 35
Figure 24. Level of Participation in the Medicaid Managed Care Program of Primary Care Physicians in New York City by Race/Ethnicity ................................................................. 35
Figure 25. Percentage of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City Above Age 50 by Level of Program Participation .................. 36
Figure 26. Percentage of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City that Are IMGs by Level of Program Participation ...................... 36
Figure 27. Percentage of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City that Have Completed Accredited Residency Programs and Are Board Certified in Primary Specialty by Level of Program Participation ................................................... 37
Figure 28. Percentage of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City that Have Hospital Admitting Privileges by Level of Program Participation ............................................................................................................ 38
Figure 29. Medical Specialty of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City by Level of Program Participation ................................. 39
Figure 30. Level of Participation in the Medicaid Managed Care Program in New York City by Medical Specialty, Primary Care Physicians ................................................................................ 40
Figure 31. Level of Participation in the Medicaid Managed Care Program in New York City by Borough, Primary Care Physicians .................................................................................. 40
Figure 32. Level of Participation in the Medicaid Managed Care Program in New York City by Practice Setting, Primary Care Physicians ............................................................................. 41
Figure 33. Remuneration Characteristics of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City by Level of Program Participation .................. 42
Map 1. Most Active 30% of Practice Sites of Primary Care Physicians in Medicaid Managed Care Program in New York City ..................................................................................... 45
Map 2. Most Active 30% of Practice Sites of Primary Care Physicians in Medicaid Managed Care Program in New York City .......................................................................................... 46
Map 3. Practice Sites of Primary Care Physicians with Empty Medicaid Managed Care Panels in New York City ................................................................................................................ 47
EXECUTIVE SUMMARY

For the past several years, New York City, as much of the nation, has introduced new programs and policies to encourage or require individuals covered by Medicaid to enroll in managed care plans. This is based on the belief that managed care can offer high quality cost-effective care. But for these efforts to be successful, it is essential that an adequate number of well-prepared physicians participate in the Medicaid managed care program.

For a variety of reasons, concerns have been expressed by consumer advocates and the federal government as to whether there are sufficient numbers of physicians participating in Medicaid managed care plans in New York City to assure access for individuals covered by the Medicaid program. This is a particularly important as the City expands its mandatory enrollment program which will lead to a sharp increase in the number of persons on Medicaid that are enrolled in managed care. In addition, enrollees will have their access limited to participating physicians.

To better understand the dynamics of physician participation in the Medicaid managed care program, the United Hospital Fund contracted with the Center for Health Workforce Studies for an analysis of the physicians participating in Medicaid managed care in New York City. The Center, using a variety of databases, compared characteristics of physicians in the Medicaid managed care program with physicians receiving fee for service Medicaid reimbursement and physicians not providing services to Medicaid patients at all. The Center also analyzed several subgroups of physicians participating in the Medicaid managed care program.

The analysis of Medicaid managed care physicians and Medicaid fee for service physicians is complicated by the fact that many physicians in each component participate on a limited basis while a minority of physicians provide the bulk of the services. In fact, there were 1,677 primary care physicians signed up for participation in the Medicaid managed care program who had no enrollees on their patient panels. While it is important to have information about all of the physicians serving Medicaid patients, to assess the number and qualifications of the physicians providing the services to Medicaid patients, it is more appropriate to focus on the high volume providers who provide the vast majority of the services to Medicaid recipients.
Key Findings

1. In 2000, 38% of the primary care physicians in New York City were “participating” in a Medicaid managed care plan (3,384). This was well above the number of primary care physicians receiving Medicaid fee for service reimbursement in 1999 (1,937).

Since there were about 400,000 enrollees in the Medicaid managed care program in 2000, about 5% of the New York City population, this level of primary care physician participation in the program is encouraging. However, many of these physicians have few or no Medicaid managed care enrollees making it difficult to assess the adequacy of the supply from these data.

2. Relatively few primary care physicians participating in the Medicaid managed care program and the Medicaid fee for service program provide the bulk of services. Of the 3,384 physicians “participating” in the Medicaid managed care program, 1,728 had 1 or fewer enrollees and 76% of the Medicaid managed care enrollees were enrolled with 646 physicians. The level of concentration in the fee for service program is even greater.

The most active primary care physicians participating in the Medicaid managed care program represent about 7% of the primary care physicians in the city. The concentration of services in this small group of physicians is not by itself an indicator of an access problem. The concentration may reflect the location of these physicians in those communities with concentrations of individuals covered by Medicaid and/or the preferences of Medicaid patients. These data alone cannot be used to assess the adequacy of the supply for the program. It can, however, be used to analyze and compare the backgrounds and characteristics of the primary care physicians participating in the Medicaid managed care program and those receiving Medicaid fee for service reimbursement only as well as all other primary care physicians in the city.

3. Sixty-one percent (61%) of the physicians participating in the Medicaid managed care program are pediatricians compared to only 22% in the fee for service program and 17% of the other primary care physicians in the city. Internists on the other hand, represent only 25% of the physicians participating in the Medicaid managed care program, but 67% of the fee for service only physicians and 64% of the other primary care physicians. This reflects the population enrolled in Medicaid managed care.
In comparing the physicians participating in the Medicaid managed care program, it is important to be aware that their specialty mix is very different than primary care physicians receiving Medicaid fee for service reimbursement only and the other primary care physicians in the city. This is logical given the focus of the Medicaid managed care program on enrolling the population eligible for Medicaid under Aid to Families and Dependent Children (AFDC). The high percentage of internists receiving fee for service reimbursement reflects the needs of the broader Medicaid population. Family physicians are also very likely to participate in the Medicaid managed care program, as 52% of all family physicians in the city participate; however, because their numbers are so small in New York City, the only represent 11% of the physicians in the managed care program. This is significantly higher than their representation among primary care physicians receiving Medicaid fee for service reimbursement only (3%).

4. **Black/African American and Hispanic/Latino physicians**, who comprise 12% of the primary care physicians in the city, comprise 29% of the primary care physicians participating in the Medicaid managed care program. Similarly, **Asian/Pacific Islanders** are also over-represented in the Medicaid managed care program (38%) compared to their representation in the other physician group (25%). Black/African American and Hispanic/Latino physicians are also more likely to participate in the Medicaid managed care program than receive fee for service Medicaid reimbursement.

As documented in studies elsewhere, minority physicians are more likely to practice in underserved areas and in low-income areas. This appears to be the case in New York as well. This finding suggests that efforts to increase the number of under-represented minorities in medical school are warranted.

5. **Primary care physicians participating in the Medicaid managed care program appear to be better qualified than both the physicians receiving Medicaid fee for service reimbursement only and the other primary care physicians in the city based on such criteria as the percentage board certified, percentage having completed an accredited residency program, and the percentage with hospital admitting privileges. A higher percentage of the primary care physicians participating in the Medicaid managed care program are female as well.**
Although there is no universally accepted measure of skills and competence, it is generally accepted that completion of an accredited residency program and board certification important indicators of the adequacy of a physician’s preparation. In addition, since hospitals must review each physician’s performance before granting and continuing admitting privileges, having privileges is often viewed as indicator of competence. The higher percentage of the physicians participating in the Medicaid managed care program in each of these categories, may reflect, in part, the greater number of general practitioners in the community at large than in the managed care program.

6. A majority of the primary care physicians in Brooklyn (58%) participate in the Medicaid managed care program as do a high percentage in Richmond (45%), Bronx (42%) and Queens (41%). On the other hand, only 19% of the primary care physicians in Manhattan participate in the program.

7. A majority of the medicaid managed care providers practice in private offices (54%), while 33% practice in hospitals and 13% in DTCs/CHCs, although there are significant variations by borough. The majority of the physicians participating in the Medicaid managed care program in Richmond, Brooklyn, and Queens are in private practice (69%, 66%, and 60%, respectively). In Manhattan, 50% of the participating physicians practice in hospitals and only 33% are in private practice. The Bronx has the highest percentage in CHCs/D&TCS (27%), although the single largest setting for primary care physicians participating in the Medicaid managed care program in the Bronx is hospitals.

There are important variations in the profile of primary care physicians participating in the Medicaid managed care program by borough. To a large extent this reflects the nature of medical practice in each of the boroughs.

8. Ninety-one percent (91%) of the physicians participating in the Medicaid managed care program reported that Medicaid patients comprised more than 10% of their patients, and 58% reported that more than 50% of their patients were in managed care.

Physicians participating in the Medicaid managed care program are more likely than other physicians to have reported that they care for many Medicaid patients and participated in managed care in general. This is not surprising as many physicians practicing in areas
with concentrations of Medicaid would have an incentive to enroll in the Medicaid managed care program.

9. **International Medical School Graduates (IMGs) are more likely to participate in the Medicaid managed care program (64%) than would be expected based on the percentage of other primary care physicians that are IMGs (42%). Nevertheless, the percentage of physicians participating in the program that are IMGs is less than the percentage of the Medicaid fee for service only primary care physicians that are IMGs (71%).**

The high percentage of IMGs serving Medicaid patients may reflect their practice location.

10. **A mapping of the most active Medicaid managed care primary care physicians indicates that most are either in areas of high need and/or the areas that were in the first phase of the mandatory implementation of the Medicaid managed care program. In addition, a mapping of the physicians listed as participating in the program but who did not have any Medicaid enrollees indicates that they are distributed across the city.**

The last section of the report includes several maps of the location of the most active primary care physicians participating in the Medicaid managed care program. The maps document that these physicians are located in areas of high need and/or areas with mandatory Medicaid managed care program enrollment. The final map presents the distribution of those primary care physicians signed up with the Medicaid managed care program who do not have enrollees. Their wide distribution may indicate that there is unused capacity within the Medicaid managed care system that could be tapped as the program expands.
**INTRODUCTION**

Although New York State does not have a general shortage of primary care physicians, their geographic maldistribution has been a concern for many years. As a result, health care providers, policy makers, and program advocates have focused their attention on whether the current and future physician workforce will be adequate in communities that will be part of the scheduled mandatory implementation of the Medicaid managed care program. Understanding the distribution, demographic, educational, and practice characteristics of physicians participating in the Medicaid managed care program can help to determine the adequacy of current services and also to target future efforts to enroll new physicians into the program.

**OBJECTIVES**

1. To identify primary care physicians in New York City participating in the Medicaid managed care program and their level of managed care participation.

2. To compare the demographic, education, and practice characteristics of three groups of physicians:
   a) all physicians in New York City who received Medicaid fee for service payments in 1999, but were not participating in the Medicaid managed care program as of March 2000;
   b) all physicians in New York City participating in the Medicaid managed care program in 1999 (including those who may also have received Medicaid fee for service payments); and
   c) all other physicians in New York City who were actively providing in primary care services in 1999.

3. To compare the characteristics among three groups of Medicaid managed care physicians:
   a) hospital-based;
   b) community health center-based; and
   c) office-based.

4. To compare the characteristics of physicians in New York City who participate in the Medicaid managed care program based upon their level of activity in the program, i.e., high volume providers compared to others.
5. To assess the geographic distribution of Medicaid managed care physicians in New York City in relationship to areas of greatest need and to the implementation phase-in schedule for Medicaid managed care.
METHODS

Data Sources

Information on the demographic, educational, and practice characteristics of physicians was obtained from the 1994 and 1997-99 physician licensure re-registration survey conducted by the New York State Education Department and the Center as part of the biannual re-registration of all physicians licensed in New York State. In 1994, the Center received surveys from approximately 85% of the physicians licensed in New York State. During the 1997-99 cycle of the re-registration survey, the Center received just under 40,000 completed surveys, achieving a response rate of 57% from physicians licensed in New York State. Estimates of counts of physicians based on these data take into account variation in response rates by county. No known response bias exists in either cycle of re-registration data.

Physicians participating in the Medicaid managed care program as of March 2000 were identified from the Health Provider Network (HPN) file provided by the NYSDOH Office of Managed Care (OMC). According to OMC, the file contains a complete listing of all physicians in managed care programs in New York State. Updated quarterly by OMC, the HPN file contains a wide range of variables including physician practice addresses, practice characteristics, and patient panel size. A summation of patients on Medicaid managed care panels yields a total of 316,000 patients in New York City as of March 2000. This figure compares closely to the total of 388,000 Medicaid managed care enrollees in New York City at the time as reported by OMC (http://www.health.state.ny.us/nysdoh/mancare/medicaid/2000/en_mar00.pdf; accessed 01/23/01) based on data from the Medicaid Encounter Data System (MEDS). The discrepancy in totals can be explained in a number of ways, including under-reporting patient panel sizes by the managed care plans and/or a lag in reporting data.

Medicaid fee for service physicians were identified from the Medicaid Management Information System (MMIS) file provided by the NYSDOH Office of Medicaid Management (OMM). This file included physician name, practice address, and levels of payment made for calendar year 1999. This dataset, however, cannot be used to reliably determine the specialty of a physician. Supplemental data on physician specialty for physicians in this file were drawn from the Center’s re-registration survey data from the 1994 and 1997-99 cycles.
Definitions

Primary care practice was defined as practice in any of the following specialties: family practice, general practice, general internal medicine, and general pediatrics.

The number of other primary care physicians, i.e., those primary care physicians in New York City who were not participating in either Medicaid program was determined by subtracting the number of physicians identified on the HPN and MMIS files from the estimated total number of primary care physicians in New York City.

High need areas were defined using a zipcode-based composite of sociodemographic, health status, hospitalization, and ambulatory care data prepared by the New York City Health Systems Agency in 1993 as part of its community health profiles.

The zip codes included in the mandatory Medicaid managed care program phase-in schedule were taken from the New York City Department of Health website (http://www.ci.nyc.ny.us/html/doh/hca/hca3.html; hca3a.html; hca3b.html; and hca3c.html; accessed 01/22/01).

High volume providers: Preliminary analyses found that the distribution of services provided by both Medicaid fee for service and Medicaid managed care physicians was highly skewed. The most active 30% of providers in the Medicaid fee for service program, as measured by levels of payment, accounted for over 90% of the services billed. The most active 30% of the providers in the Medicaid managed care program, as measured by patient panel size, were responsible for over 75% of the managed care services. In light of these findings, it was determined that the comparison between primary care physicians participating in the Medicaid fee for service program and primary care physicians participating in the Medicaid managed care program (Findings section C) would be limited to the most active 30% of each group. The most active 30% corresponded to physicians who had either fee for services payments of $16,005 or more in 1999 or medicaid managed care panel sizes of 119 or more patients. An examination of the “most active” physicians in each group is the most efficient means of uncovering any differences between the groups of physicians. In addition, this type of examination will ensure that the findings are the most policy-relevant possible.
OVERVIEW OF FINDINGS

Section A
This section provides an overview of participation of primary care physicians in New York City in Medicaid under managed care and fee-for-service reimbursement. It presents the counts of: a) the total number of primary care physicians in New York City; b) the number participating in the Medicaid managed care program; c) the number receiving Medicaid fee for service reimbursement; and d) the number in the Medicaid managed care program and receiving fee-for-service. For purposes of this section, Medicaid managed care participation includes all primary care physicians that were signed up with the program as of March 2000 regardless of the number of Medicaid enrollees on their panel.

Section B
This section documents that the level of participation for physicians in the Medicaid managed care program and for physicians that received fee-for-service reimbursement is highly skewed with a relatively small numbers of physicians providing the bulk of the services. This section excludes Medicaid managed care physicians with less than 2 Medicaid patients on their panel and fee for service physicians with less than $100 of billings in 1999.

Section C
This section includes several analyses related to the physicians in the Medicaid managed care program. Because the participation of physicians in Medicaid managed care and under Medicaid fee for service is so skewed, this section presents the results for high volume providers only which for this section is defined as the most active 30% in terms of volume of services or number of enrollees. For Medicaid managed care, these primary care physicians provided over 75% of all Medicaid managed care patients in 1999 and had panel sizes of 119 or more patients. For Medicaid fee for service, these primary care physicians provided almost 90% of the total Medicaid fee for service billings and received payments of greater than $16,005 in 1999. The use of high volume providers more clearly presents the characteristics of the physicians who are actually providing the services under each component of the Medicaid program.
Section D

This section displays the geographical distribution of the high volume providers including by the phase in stages of mandatory Medicaid managed care in New York City. It also presents the distribution of all Medicaid managed care physicians, regardless of the level participation in the program.
**FINDINGS**

**A. Estimated Physician Counts**

Based on analysis of the Center’s physician re-registration database, it was determined that there were 9,027 primary care physicians in New York City in 2000. Analysis of the HPN and MMIS databases reveals that 3,384 (38%) primary care physicians were participating in the Medicaid managed care program in New York City as of March 2000 and 1,937 (21%) primary care physician had participated in the Medicaid fee for services program in New York City in 1999. Further analysis, however, determined that 877 (10%) physicians were participating in both Medicaid programs in New York City (Figure 1).

*Figure 1. Distribution of Participation in Medicaid Programs in New York City, Primary Care Physicians*
**B. Level of Participation in the Medicaid Fee for Service and Managed Care Programs**

Table 1 shows the distribution of participation in the Medicaid fee for service and managed care programs. As is evident, 40% of the physicians exclusively participating in the Medicaid fee for service program account for 90% of all Medicaid fee for service payments to primary care physicians in New York City. Forty-nine percent (49%) of the physicians participating in both Medicaid managed care and fee for service programs account for 94% of all patients seen by physicians participating in both programs. Sixty percent (60%) of the physicians exclusively participating in the Medicaid managed care program are responsible for 92% of the patients seen by physicians in this category.

**Table 1. Distribution of Participation in Medicaid Programs in New York City by Level of Participation, Primary Care Physicians**

<table>
<thead>
<tr>
<th>Type of Medicaid Participation</th>
<th>Level of Participation</th>
<th>Low*</th>
<th>High**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of Total Physicians in Row</td>
<td>% Total Payments or Patients</td>
<td>% of Total Physicians in Row</td>
</tr>
<tr>
<td>Fee for Service Only</td>
<td>56%</td>
<td>10%</td>
<td>44%</td>
</tr>
<tr>
<td>Managed Care and Fee for Service</td>
<td>51%</td>
<td>6%</td>
<td>49%</td>
</tr>
<tr>
<td>Managed Care Only</td>
<td>40%</td>
<td>8%</td>
<td>60%</td>
</tr>
</tbody>
</table>

* FFS >=$100 and <$9128 payments; Managed Care>=2 and <=47 patients
** FFS >=$9128 payments; Managed Care >47 patients

For the remainder of this report, the following statements are true:

**Primary care physicians participating in the Medicaid managed care program** were defined as those who had at least two (2) managed care patients on their panels.²

**Primary care physicians participating in the Medicaid fee for service program** were defined as those who had at least $100 in primary care billings in calendar year 1999.

**Primary care physicians participating in both programs** were defined as those who had at least

²It should be noted that there were 1,677 physicians for which the HPN file listed no patients and 51 physicians for which the HPN file listed 1 patient on their panels. This group comprised 35% of the 5,007 primary care physicians in the HPN file. These physicians were included in estimated counts (Findings section A: Figure 1) of physicians in New York City as well as the geographical distribution analysis (Findings section D) of primary care physicians participating in the Medicaid managed care program in New York City, but were not included in any of the other analyses contained in this report.
two (2) managed care patients on their panels and at least $100 in primary care fee for service billings. For example, a primary care physician with two (2) or more managed care patients, but only $50 in primary care fee for service billings would be defined as a primary care physician participating in the Medicaid managed care program only. A primary care physician with more than $100 in primary care fee for service billings and only one (1) managed care patient would be defined as a primary care physicians participating in the Medicaid fee for service program only.


C. Characteristics of Selected Primary Care Physicians in New York City

In this section, a variety of groups of primary care physicians in New York City are compared to determine if there are differences between:

1. physicians participating in the Medicaid programs and those who are not, with an additional comparison of those participating in the fee for service program exclusively and those participating in the managed care program;

2. physicians participating in the Medicaid managed care program practicing in a number of settings;³ and

3. physicians participating in the Medicaid managed care program at different levels of participation.

For the sake of clarity, each of these comparisons has been afforded a subsection in the report.

1. Primary Care Physicians Participating in the Medicaid Programs Compared to Those Not Participating

Demographics

Demographically, primary care physicians in New York City who participate in the Medicaid programs are significantly different than those who do not participate in these programs. In terms of gender (Figure 2), primary care physicians participating in the Medicaid managed care program are more likely to be female (48%) than those not participating in the Medicaid programs (34%). Primary care physicians participating in the Medicaid managed care program are also much more likely to be female than those participating in the Medicaid fee for service program only (19%).

Figure 3 shows the distribution of primary care physicians in New York City by race/ethnicity. As is evident, primary care physicians participating in the Medicaid managed care program are more likely to be under-represented minorities (29%) than those not participating in Medicaid programs (12%). Primary care physicians participating in the Medicaid fee for service program exclusively are also more likely to be under-represented minorities (17%) than primary care physicians not participating in the Medicaid program at all (12%).

³As mentioned in the Methods section, in comparisons 1 and 2, primary care physicians were only included if they were among the top 30% on at least one of the following: Medicaid fee for service payments (i.e., $16,005 or more in payments in 1999) or Medicaid managed care panel size (119 or more patients on Medicaid managed care panel).
Figure 2. Percentage of Primary Care Physicians that Are Female

Figure 3. Race/Ethnicity Distribution of Primary Care Physicians in New York City by Program Participation
Examining the race/ethnicity of primary care physicians in New York City from a different perspective, under-represented minorities are far more likely (56%) to participate in the Medicaid managed care program than white primary care physicians (25%) and Asian/Pacific Islander primary care physicians (44%) (Figure 4). That is, while more than half of the primary care physicians in New York City who are under-represented minorities participate in the Medicaid managed care program, only a quarter of the white primary care physicians participate in the program. In fact, white primary care physicians are most likely (58%) not to participate in Medicaid programs at all.

![Type of Participation in Medicaid Programs by Race/Ethnicity, Primary Care Physicians in New York City](chart.png)

Primary care physicians who participate in the Medicaid managed care program in New York City are also slightly more likely to be age 50 or younger (52%) than those primary care physicians who do not participate in the Medicaid programs (49%) (Figure 5). Primary care physicians who participate in the Medicaid managed care program are also far more likely to be younger than those primary care physicians who only participate in the Medicaid fee for service program (37%).
Primary care physicians who participate in the Medicaid managed care program are also more likely (64%) to have graduated from a medical school outside the United States and Canada, i.e., they are more likely to be international medical school graduates (IMGs), than primary care physicians who do not participate in the Medicaid programs (42%) (Figure 6). On the other hand, primary care physicians who participate in the Medicaid managed care program are less likely to be IMGs than primary care physicians who only participate in the Medicaid fee for service program (71%).
Figure 6. Percentage of Primary Care Physicians in New York City that Are IMGs

- Medicaid Managed Care Physicians: 64%
- Medicaid Fee for Service Only Physicians: 71%
- All Other Primary Care Physicians: 42%

Figure 7. Percentage of Primary Care Physicians in New York City that Have Completed Accredited Residency Programs and Are Board Certified in Primary Specialty

- Completed an Accredited Residency Program:
  - Medicaid Managed Care Physicians: 99%
  - Medicaid Fee for Service Only Physicians: 95%
  - All Other Primary Care Physicians: 89%

- Board Certified in Primary Specialty:
  - Medicaid Managed Care Physicians: 85%
  - Medicaid Fee for Service Only Physicians: 68%
  - All Other Primary Care Physicians: 65%
Primary care physicians participating in the Medicaid managed care program in New York City are more likely (99%) to have completed an accredited residency program than those primary care physicians who do not participate in Medicaid programs (89%) (Figure 7). Further, primary care physicians participating in the Medicaid managed care program are also slightly more likely to have completed an ACGME-accredited residency program than those who participate in the Medicaid fee for service program only (95%). In terms of board certification, primary care physicians participating in the Medicaid managed care program are much more likely (85%) to be board certified in their primary specialty than either primary care physicians participating in the Medicaid fee for service program only (68%) and those not participating in either Medicaid program (65%).

**Practice Characteristics**

Primary care physicians participating in the Medicaid programs in New York City are more likely to have admitting privileges at one or more hospitals than physicians who do not participate in the Medicaid programs (66%) (Figure 8). Moreover, primary care physicians participating in the Medicaid managed care program are more likely (96%) to have admitting privileges at one or more hospitals than primary care physicians participating in the Medicaid fee for service program only (84%).
Figure 9. Medical Specialty by Type of Participation of Primary Care Physicians in New York City

- Family Practice
- General Practice
- Internal Medicine (General)
- Pediatrics (General)

Figure 10. Participation in Medicaid Programs Distribution by Medical Specialty, Primary Care Physicians in New York City

- Medicaid Managed Care Physicians
- Medicaid Fee for Service Only Physicians
- All Other Primary Care Physicians
Primary care physicians participating in the Medicaid managed care program in New York City are most likely (61%) to specialize in pediatrics, rather than internal medicine (25%), family practice (11%), or general practice (2%) (Figure 9). This is very different than the specialty mix of physicians receiving fee for service reimbursement or not participating in either Medicaid program. This probably reflects the fact that the implementation of the Medicaid managed care program has focused on the AFDC population which is comprised of children primarily. Primary care physicians participating in the Medicaid fee for service program only, on the other hand, are most likely to specialize in internal medicine (67%), rather than pediatrics (22%), general practice (8%), or family practice (3%). Primary care physicians not participating in the Medicaid programs are most likely to specialize in internal medicine (64%), rather than pediatrics (17%), general practice (11%), or family practice (8%). The primary care physicians who do not participate in the Medicaid programs are similar to those physicians who participate in the Medicaid fee for service program only.

Examining participation in Medicaid programs within each primary care specialty (Figure 10), it is clear that most pediatricians (66%) and family practitioners (52%) participate in the Medicaid managed care program. On the other hand, only 19% of the internists and 11% of the generalists

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**Figure 11. Percentage of Primary Care Physicians in New York City that Are Accepting New Patients**

<table>
<thead>
<tr>
<th></th>
<th>Medicaid Managed Care Physicians</th>
<th>Medicaid Fee for Service Only Physicians</th>
<th>All Other Primary Care Physicians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>98%</td>
<td>98%</td>
<td>92%</td>
</tr>
</tbody>
</table>
participate in the Medicaid managed care program.

Primary care physicians participating in the Medicaid programs in New York City are slightly more likely to have the ability to accept new patients than physicians who do not participate in the Medicaid programs (92%) (Figure 11). Primary care physicians participating in the Medicaid managed care program are equally as likely (98%) to have the ability to accept new patients as those physicians participating in the Medicaid fee for service program only.

Kings county has the highest proportion (58%) of its primary care physicians participating in the Medicaid managed care program (Figure 12). It is followed by Richmond (42%), Bronx (42%), and Queens (34%). However, only 19% of the primary care physicians in New York county participate in the Medicaid managed care program. Queens county has the highest proportion (25%) of its primary care physicians participating in the Medicaid fee for service program only. It is followed by Bronx (18%), Kings (17%), New York (16%), and Richmond (8%).

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4See Section D for an analysis on how this distribution corresponds with the distribution of primary care need in New York City.
Reimbursement
How physicians are reimbursed for their services often affects how and where physicians practice. Figure 13 presents the percentage of primary care physicians receiving reimbursement with selected characteristics. Beginning with managed care reimbursement, primary care physicians participating in the Medicaid managed care program in New York City are far more likely (58%) to have a majority of their patients covered by managed care than those who participate in the Medicaid fee for service program only (27%) or do not participate in either Medicaid program (34%). In terms of Medicare reimbursement, primary care physicians participating in the Medicaid managed care program in New York City are far less likely (19%) to have 30% or more of their patients covered by Medicare than those primary care physicians who participate in the Medicaid fee for service program only (65%) and those that do not participate in either Medicaid program (43%). In terms of Medicaid reimbursement, primary care physicians participating in the Medicaid managed care program in New York City are far more likely (91%) to have at least 10% of their patients covered by Medicaid than those primary care physicians who participate in the Medicaid fee for service program only (67%) and those that do not participate in either Medicaid program (64%). In terms of self-paying patients, primary care physicians participating in the Medicaid managed care program are

Figure 13. Reimbursement Characteristics of Primary Care Physicians in New York City
slightly more likely (32%) to have at least 10% of their patients paying out-of-pocket for services than those who participate in the Medicaid fee for service program only (28%), but are far less likely to have at least 10% of their patients paying out-of-pocket than those primary care physicians who do not participate in either Medicaid program (56%).
2. Primary Care Physicians Participating in the Medicaid Managed Care Program in Selected Settings

This section examines more closely the physicians who participate in the Medicaid managed care program in New York City in 1999. Of particular interest to planners and policy analysts is how service delivery differs by practice setting. What follows is an analysis of the primary care physicians participating in the Medicaid managed care program in New York City by practice setting. The practice settings included in the analysis are: private offices, community health centers/diagnostic and treatment centers (CHC/D&TCs), and hospitals. As in the previous section, only the most active 30% (i.e., those having 119 or more patients on their Medicaid managed care panel) of these physicians are included in the analysis. With this criterion, some 646 primary care physicians (including both Medicaid managed care program only participants as well as those that participate in both managed care and fee for service programs) are included in the analysis below with 54% practicing in private offices, 33% in hospitals, and 13% in CHC/D&TCs (Figure 14). To improve clarity, primary care physicians participating in the Medicaid managed care program in New York City are referred to as “participating physicians” in this section.

Figure 14. Practice Setting Distribution of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City

- Private Office: 54%
- Hospital: 33%
- CHC/D&TC: 13%
**Demographics**

Demographically, primary care physicians participating in the Medicaid managed care program in New York City differ significantly by practice setting in terms of gender and age. Figure 15 shows that participating physicians practicing in hospitals are far more likely to be female (65%) than those participating physicians practicing in CHC/D&TCs (51%) and those practicing in private offices (35%).

Primary care physicians participating in the Medicaid managed care program in New York City that practice in private offices are older than those who practice in other settings (Figure 16). Participating physicians who practice in private offices are more likely (55%) to be above age 50 than participating physicians who practice in CHC/D&TCs (45%). Further, participating physicians who practice in private offices are also more likely to be above age 50 than participating physicians who practice in hospitals (40%).

Importantly, among primary care physicians participating in the Medicaid managed care program in New York City, there were no statistically significant differences in the race/ethnicity distribution by practice setting, or congruently with the practice setting distribution by race/ethnicity. Please refer to

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**Figure 15. Percentage of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City that Are Female by Practice Setting**
Figures 3 and 4 for details on the race/ethnicity distribution of participating physicians.

**Education**

Primary care physicians participating in the Medicaid managed care program in New York City differ significantly by practice setting in terms of education. Figure 17 shows that participating physicians practicing in office settings are more likely to be IMGs (69%) than those participating physicians practicing in CHC/D&TCs (58%). Participating physicians practicing in office settings are also more likely to be IMGs than those practicing in hospitals (55%).

Importantly, among primary care physicians participating in the Medicaid managed care program in New York City, there were no statistically significant differences in the likelihood of participating physicians having completed an ACGME-accredited residency program by practice setting, nor were there statistically significant differences in the likelihood of participating physicians being board certified in their primary specialty by practice setting. (See Figure 7 for the residency training and board certification distributions of participating physicians.)
Primary care physicians participating in the Medicaid managed care program in New York City differ significantly in hospital admitting privileges and borough of their practice by practice setting. As Figure 18 shows, participating physicians practicing in private offices (99%) and those that practice in hospitals (96%) are just about equally likely to have hospital admitting privileges to at least one hospital. Participating physicians in these settings are more likely to have hospital admitting privileges than those practicing in CHC/D&TCs (85%).

The location of practice of physicians participating in the Medicaid managed care program in New York City also differs significantly by practice setting (Figure 19). Participating physicians who practice in private offices are most likely (60%) to be have practice locations in Kings County. Participating physicians who practice in CHC/D&TCs are most likely (34%) to have practice locations in Bronx and Kings County as well. Finally, participating physicians practicing in hospitals are most likely (37%) to have practice locations in Kings County. In all practice settings, the least likely location to practice is Richmond county.
Figure 18. Percentage of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City that Have Hospital Admitting Privileges by Practice Setting

- Private Office: 99%
- CHC/D&TC: 85%
- Hospital: 96%

Figure 19. County Distribution of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City by Practice Setting

- Bronx: 60%
- Kings: 34%
- New York: 34%
- Queens: 37%
- Richmond: 26%
Examining participating physicians’ practice locations somewhat differently (Figure 20), it is evident that practice setting varies by practice location. Participating physicians practicing in Bronx County are most likely (39%) to be practicing in hospitals, although the likelihood is not very different from other settings as 33% are practicing in private offices and 27% are practicing in CHC/D&TCs. Participating physicians practicing in Kings County are most likely (66%) to practice in private offices rather than hospitals (25%) or CHC/D&TCs (9%). Participating physicians practicing in New York County are most likely (50%) to practice in hospitals rather than in private offices (33%) or CHC/D&TCs (17%). Participating physicians practicing in Queens County are most likely (60%) to practice in private offices rather than in hospitals (31%) or CHC/D&TCs (9%). Finally, participating physicians practicing in Richmond County are most likely (69%) to practice in private offices rather than hospitals (31%) or CHC/D&TCs (0%).

Importantly, participating physicians do not differ significantly in terms of practice specialty, nor in their ability to accept new patients by practice setting. (See Figure 11 for the ability to accept new patients distribution of participating physicians and Figures 9 and 10 for the practice specialty distribution of participating physicians.)
Reimbursement

There are significant differences in several reimbursement characteristics among primary care physicians practicing in the Medicaid managed care program in New York City by practice setting. Figure 21 presents the percentage of participating physicians receiving reimbursement with selected characteristics by practice setting. Beginning with Medicaid reimbursement, participating physicians practicing in CHC/D&TCs and hospitals are far more likely (100%) to have at least 10% of their patients covered by Medicaid than are participating physicians who practice in private offices. In terms of self-paying patients, participating physicians who practice in CHC/D&TCs are far more likely (59%) to have at least 10% of their patients paying out-of-pocket for services than participating physicians who practice in hospitals (36%) or those who practice in private offices (22%). Finally, for other reimbursements types, participating physicians practicing in private offices are far more likely (49%) to have a majority of their patients have other reimbursement methods than those who practice in hospitals (9%) or CHC/D&TCs (3%).

Importantly, there are no significant differences in the distributions of managed care reimbursement and medicaid reimbursement among participating physicians by practice setting. (See Figure 13 for the managed care and medicaid reimbursement distributions of participating physicians.)

Figure 21. Reimbursement Characteristics of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City by Practice Setting
3. Primary Care Physicians Participating in the Medicaid Managed Care Program by Level of Program Participation

This section examines primary care physicians participating in the Medicaid managed care program in New York City by their level of participation in the program and includes comparisons with physicians who do not participate in the Medicaid programs at all and those that only participate in the Medicaid fee for service program. As previously noted, for this part of the analysis, the participating physicians were split into two groups, high and low program activity. Following the previous sections, high activity physicians were those among the top 30% in terms of Medicaid managed care panel size (having 119 or more patients on their panel). These physicians made up the most active physicians among those participating in the program, and were responsible for 76% of the total enrollees in the medicaid managed care program. Low activity physicians were those with Medicaid managed care panel sizes exceeding 2 patients, but fewer than 119 patients. Seventy percent (70%) of the physicians participating in the Medicaid managed care program fell into this category. With this criterion, 646 most active participating physicians were assigned to the high participation group; 1,543 participating physicians were assigned to the low participation group; and the remaining physicians (those participating in the Medicaid fee for service program only and those who do not participate in either Medicaid program) were included in the “all other primary care physicians” group.

Demographics

There are significant differences in the demographic characteristics of physicians participating in the Medicaid managed care program in New York City at different levels as well as those not participating in the program. In terms of gender (Figure 22), primary care physicians who participate in the Medicaid managed care program at high levels in New York City are far more likely to be female (48%) than those who participate at low levels (34%). Both of these groups are more likely to be female than the primary care physicians in New York City who do not participate in the Medicaid managed care program at all (27%).

Figure 23 shows the distribution of primary care physicians participating in the Medicaid managed care program in New York City at different levels by race/ethnicity. As is evident, physicians participating in the Medicaid managed care program at high levels are most likely to be asian/pacific islander (38%) and under-represented minorities (28%) than those physicians participating at low levels (34% and 20%, respectively) and those physicians who do not participate in the Medicaid managed care program at all (27% and 13%, respectively). Physicians who do not participate in the
Medicaid managed care program at all are also most likely (61%) to be white.

Examining the race/ethnicity of participating physicians from a different perspective (Figure 24), white physicians (10%) are far less likely to have high participation in the Medicaid managed care program in New York City compared to under-represented minority physicians (26%) and asian/pacific islander physicians (20%). Moreover, under-represented minority physicians are equally as likely (43%) to have low participation in the Medicaid managed care program as asian/pacific islander physicians, while both are more likely than white physicians (36%). Finally, white physicians are more likely (54%) not to participate in the Medicaid managed care program than asian/pacific islander physicians (38%) and under-represented minority physicians (31%).

There are no significant age differences between primary care physicians who participate at high levels in the Medicaid managed care program and those that participate at low levels (Figure 25). Physicians who have a high level of participation in the Medicaid managed care program are almost equally as likely (48%) to be age 50 or older as those physicians who have a low level of...
Figure 23. Race/Ethnicity of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City by Level of Program Participation

- Under-represented Minority
- Asian Pacific/Islander
- White

Figure 24. Level of Participation in the Medicaid Managed Care Program of Primary Care Physicians in New York City by Race/Ethnicity

- High Managed Care Program Participation
- Low Managed Care Program Participation
- All Other Primary Care Physicians
- All Other Primary Care Physicians
Figure 25. Percentage of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City Above Age 50 by Level of Program Participation

Figure 26. Percentage of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City that Are IMGs by Level of Program Participation
participation in the program (46%). However, regardless of level of participation, those that participate in the Medicaid managed care program are younger than those that do not. Both groups of physicians are less likely than those who do not participate in the Medicaid managed care program to be age 50 or older (54%).

**Education**

There are no substantial differences between physicians who participate at high levels and those who participate at low levels in the Medicaid managed care program in the location of their medical education (Figure 26). Primary care physicians that have a high level of participation the Medicaid managed care program in New York City are almost equally as likely (64%) to have attended a medical school outside the United States and Canada as those physicians that have a low level of participation in the program (60%). Both groups, however, are far more likely to be IMGs than primary care physicians that do not participate in the Medicaid managed care program (50%).

**Figure 27. Percentage of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City that Have Completed Accredited Residency Programs and Are Board Certified in Primary Specialty by Level of Program Participation**

<table>
<thead>
<tr>
<th>Participation Level</th>
<th>Completed an Accredited Residency</th>
<th>Board Certified in Primary Specialty</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Managed Care Program Participation</td>
<td>99%</td>
<td>85%</td>
</tr>
<tr>
<td>Low Managed Care Program Participation</td>
<td>98%</td>
<td>81%</td>
</tr>
<tr>
<td>All Other Primary Care Physicians</td>
<td>91%</td>
<td>68%</td>
</tr>
</tbody>
</table>
Physicians who have high levels of participation in the Medicaid managed care program in New York City are slightly more likely (99%) to have completed an ACGME-accredited residency program than those who have low levels of participation in the Medicaid managed care program (98%), as well as those who do not participate in the managed care program at all (91%) (Figure 27). Further, primary care physicians who have high levels of participation in the Medicaid managed care program are slightly more likely (85%) to be board certified in their primary specialty than those who have low levels of participation (81%), as well as those primary care physicians who do not participate in the Medicaid managed care program (68%).

**Practice Characteristics**

Primary care physicians participating at high levels in the Medicaid managed care program in New York City are almost equally likely (96%) as those participating at low levels (97%) to have admitting privileges at one or more hospital (Figure 28). However, both groups of physicians are far more likely to have hospital admitting privileges than those primary care physicians who do not participate in the Medicaid managed care program at all (77%).

*Figure 28. Percentage of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City that Have Hospital Admitting Privileges by Level of Program Participation*
Importantly, there are no significant differences in terms of the ability to accept new patients among the primary care physicians who participate in the Medicaid managed care program in New York City by level of program participation. Moreover, there are no significant differences between these two groups of physicians and the physicians who do not participate in the Medicaid managed care program. (See Figure 11 for the distribution of the ability to accept new patients of participating and non-participating physicians.)

Primary care physicians participating at high levels in the Medicaid managed care program in New York City are most likely (61%) to specialize in pediatrics, rather than internal medicine (25%), family practice (12%), or general practice (2%) (Figure 29). Physicians participating at low levels in the Medicaid managed care program are most likely (59%) to specialize in internal medicine, rather than pediatrics (29%), family practice (10%), or general practice (2%). Those physicians who do not participate in the managed care program are also most likely (69%) to specialize in internal medicine, rather than pediatrics (17%), general practice (8%), or family practice (6%).

![Figure 29. Medical Specialty of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City by Level of Program Participation](image-url)
Figure 30. Level of Participation in the Medicaid Managed Care Program in New York City by Medical Specialty, Primary Care Physicians

Figure 31. Level of Participation in the Medicaid Managed Care Program in New York City by Borough, Primary Care Physicians
Examining the specialty of primary care physicians participating in the Medicaid managed care program in New York City at varying levels somewhat differently (Figure 30), it is clear that pediatricians (35%) and family practitioners (22%) are most likely to participate in the Medicaid managed care program at high levels. Similarly, family practitioners (46%) and pediatricians (39%) are most likely to participate in the Medicaid managed care program at low levels as well. On the other hand, general practitioners (76%) and internists (53%) are most likely not to participate in the Medicaid managed care program at all.

Kings county has the highest proportion (25%) of its primary care physicians participating at high levels in the Medicaid managed care program in New York City (Figure 31). It is followed by Bronx (18%), Queens (12%), Richmond (12%), and New York (10%). Richmond county has the highest proportion (63%) of its primary care physicians participating at low levels in the Medicaid managed care program. It is followed by Queens (47%), Kings (42%), Bronx (40%), and New York (27%). Finally, New York county has the highest proportion (62%) of its physicians not participating at all in the Medicaid managed care program. It is followed by Bronx (42%), Queens (41%), Kings (33%), and Richmond (24%).

**Figure 32. Level of Participation in the Medicaid Managed Care Program in New York City by Practice Setting, Primary Care Physicians**

- **Private Office**: 40% High, 12% Low, 48% All Other
- **CHC/D&TC**: 26% High, 22% Low, 22% All Other
- **Hospital**: 35% High, 22% Low, 43% All Other
There are significant differences in the level of Medicaid managed care program participation of primary care physicians in various practice settings (Figure 32). Physicians in CHC/D&TCs are most likely (26%) to have high levels of participation in the Medicaid managed care program. They are followed by primary care physicians practicing in hospitals (22%) and those in private offices (12%). Physicians in CHC/D&TCs are also most likely (52%) to have low levels of participation in the Medicaid managed care program. They are followed closely by primary care physicians in private offices (40%) and those in hospitals (35%). Physicians in private offices are most likely (48%) to not participate in the Medicaid managed care program at all. They are followed by primary care physicians practicing in hospitals (43%) and those in CHC/D&TCs (22%).

Reimbursement
Figure 33 presents the percentage of primary care physicians receiving reimbursement with selected characteristics by level of Medicaid managed care program participation. Beginning with managed care reimbursement, primary care physicians who have high levels of participation in the managed care program are more likely (58%) to have a majority of their patients covered by managed care than those who participate at low levels (48%) and those that do not participate at all (34%). In

![Figure 33. Reimbursement Characteristics of Primary Care Physicians Participating in the Medicaid Managed Care Program in New York City by Level of Program Participation](image-url)
terms of Medicare reimbursement, primary care physicians participating at high levels in the managed care program are far less likely (19%) to have 30% or more of their patients covered by Medicare than those physicians who participate at low levels (37%) and those that do not participate at all (52%). In terms of Medicaid reimbursement, primary care physicians participating at high levels in the managed care program are far more likely (91%) to have at least 10% of their patients covered by Medicaid than those physicians who participate at low levels (68%) and those that do not participate in the program at all (56%). In terms of self-paying patients, primary care physicians participating at high levels in the managed care program are almost equally likely (32%) to have at least 10% of their patients paying out-of-pocket for services as those physicians with low levels of participation in the program (31%). However, both of these groups are less likely to have at least 10% of their patients paying out-of-pocket for services than those physicians who do not participate in the managed care program at all (45%). Finally, for other reimbursement types, physicians who participate at high levels in the Medicaid managed care program are slightly less likely (35%) to have a majority of their patients have other reimbursement methods than those who participate at low levels (38%) and those that do not participate in the Medicaid managed care program at all (39%).
D. Geographic Distribution of Primary Care Physicians Participating in the Medicaid Managed Care Program Relative to Mandatory Program Phase-In Schedule and Need

In order to better understand the geographic distribution of the primary care physicians participating in the Medicaid managed care program in New York City, physician practice addresses were geocoded and mapped against both the mandatory medicaid managed care phase-in schedule and areas of greatest need in the city. To more accurately depict the service delivery levels at any particular geographical point in the city, physician panel sizes were summed by address to obtain a total patient panel in at a particular site. As was the case in the previous analyses, only the most active 30%\(^5\) of these sites were included in the current analysis. The results of these efforts can be found in Maps 1 and 2. In order to assess how much capacity might be available to areas as the mandatory Medicaid managed care program is phased in, practice locations where physicians who have signed up to participate in the program, but have empty patient panels were also geocoded and mapped against the phase-in schedule. The results of these efforts can be found in Map 3.

Map 1. Most Active 30% of Practice Sites of Primary Care Physicians in Medicaid Managed Care Program in New York City

\(^5\)This corresponds to a total of 119 or more patients on the Medicaid managed care panels of the physicians at a particular site.
In terms of the phase-in schedule of the mandatory portion of the Medicaid managed care program, it is clear that participation in the program does not correspond to the phase-in schedule. That is, the locations where the most active participation in the Medicaid managed care program are not limited to the areas which correspond to phase 1 and phase 2 of the implementation of mandatory participation in the program (Map 1). In fact, Map 3 shows that there are quite a few sites in which physicians are signed up for the program, yet have no patients on their Medicaid managed care panels. Hence, there appears to be much room for expansion of the program within the phase-in areas. Likewise, there appears to be much room for expansion of the program outside of the phase-in areas as well, if the need for such implementation were to arise in the future.

In terms of the areas with the greatest need for (primary care) services in New York City, the most active sites of Medicaid managed care program participation correspond somewhat better. That is, in areas where the level of need is the greatest, e.g., the South Bronx and northern Brooklyn, quite a few of the sites with the highest levels of participation are located. This is logical in that high volume Medicaid providers may be more likely to practice in areas with concentrations of people in the Medicaid program. Areas deemed to have the second most amount of need in the city are also
areas where sites with the highest levels of participation are located. Aside from high activity levels in the southern part of Brooklyn and in Manhattan, most of the highest activity sites are located within the highest and second highest need areas. This is an encouraging development for the residents of these communities.
CONCLUSIONS

One of the most important findings of this study is that a disproportionately small number of physicians are providing a majority of the services to both Medicaid fee for service patients and Medicaid managed care patients in New York City. Generally, less than half of the physicians participating in the Medicaid programs provide services to 90% of the population served under Medicaid.

We estimate that almost 3,400 primary care physicians are participating in the Medicaid managed care program in New York City. However, almost two-thirds (62%) of the primary care physicians in New York City do not participate in the program at all. Stronger recruitment efforts plus initiatives to improve the attractiveness of the Medicaid managed care program to physicians might increase the level of participation in the program citywide.

Physicians participating in the Medicaid managed care program appear to be well-qualified, with a significantly greater likelihood of being board certified and admitting privileges at one or more hospitals than physicians who do not participate in the Medicaid managed care program. Generally, there are not many differences among Medicaid managed care physicians with respect to practice setting, with the exception that participating physicians practicing in private offices are more likely to be male, younger, and IMGs. Given that almost half of the Medicaid managed care patients are cared for by physicians practicing in private offices, the aging of the office-based participating physician population could have implications for the future availability of services.

A higher percentage of under-represented minority primary care physicians participate in the Medicaid managed care program in New York City than asian/pacific islander or white primary care physicians. This offers further evidence of the important role that under-represented minority primary care physicians play in caring for the underserved. It also suggests, quite convincingly, that programs which encourage the enrollment of under-represented minorities into medical school should be supported and expanded.

The percentage of physicians participating in the Medicaid managed care program who have 10% or more of their patients paying out-of-pocket for services is sharply higher among physicians practicing in CHC/D&TCs and in hospitals compared to those practicing in private offices. This underscores the important role that community health centers and hospitals play in the health safety net in New York City.
There are some differences between primary care physicians participating in the Medicaid managed care program in New York City at high and low levels, but interpretation of these differences is difficult. For example, physicians with lower levels of participation may be more likely to be male, but this may be a reflection of the fact that male physicians are more likely to practice in private offices rather than in organized care settings which have a higher volume of Medicaid patients. Further analysis of the available data is necessary to develop a more-informed interpretation of these findings.

The geographical distribution of practice locations of physicians participating in the Medicaid managed care program presents a rather encouraging picture. Our geographical analyses show that the sites with the physicians most active in the Medicaid managed care program are well-distributed in areas of high need. The areas in phase 2 of the mandatory Medicaid managed care program do not appear to have a high number of these sites, but neither are they the highest need areas. Also of interest are the practice locations of the physicians who are signed up to participate in the Medicaid managed care program but report no patients on their panels. To the extent that these physicians may have recently joined the Medicaid managed care program and represent potential new capacity, this bodes well for expansion of the program in areas of high need around the city.

The implicit question of whether the current system can meet the goal of serving 1.5 million Medicaid managed care patients once the mandatory program is fully implemented remains unanswered. There are almost 3,400 physicians participating in the Medicaid managed care program. If this group of physicians were responsible for the entire population of 1.5 million Medicaid managed care patients, each physician would have to serve approximately 440 patients. Given present levels of participation by physicians in the Medicaid managed care program (average of 50 patients per physician), this suggests that additional incentives will need to be found to increase the participation of existing physicians as well as to enroll new providers into the Medicaid managed care program. At the same time, however, because practice standards suggest that patient panels range from 1,500 to 3,000 patients per physician, there seems to be enough capacity in the city to support the system.