



**THE NELSON A.  
ROCKEFELLER INSTITUTE OF GOVERNMENT**

*The public policy research arm of the State University of New York*



**Evaluation of New York's Federal-State Health  
Reform Partnership (F-SHRP) Medicaid Section 1115  
Demonstration**

September 16, 2015

**Submitted by:**

**The Nelson A. Rockefeller Institute of Government  
State University of New York**

Executive Summary .....	3
Introduction.....	13
Events Leading Up to the F-SHRP Waiver .....	15
The F-SHRP Waiver .....	24
The Evaluation Plan and How It Was Developed .....	35
Goal 1: Acute Care Restructuring.....	38
Goal 2: Long-term Care Restructuring .....	89
Goal 3: Health Information Technology.....	123
Goal 4: Managed Care Expansion .....	158
Goal 5: Expanded Managed Long-Term Care.....	177
Report Appendices.....	224
Report Endnotes.....	296

## Executive Summary

New York operates the nation's largest Medicaid program, the federal-state program of health care for the poor and medically needy. In 2006, New York entered into the Federal-State Health Reform Partnership (F-SHRP) Section 1115 waiver agreement with the Centers for Medicare and Medicaid Services (CMS), which expired on March 31, 2014. The New York State Department of Health (DOH) selected the Rockefeller Institute of Government of the State University of New York to conduct a required evaluation of F-SHRP, in accordance with an evaluation plan developed by DOH and approved by CMS. The evaluation plan emphasizes assessment of F-SHRP according to a specific set of measures that examine the status of health care and the health care industry. The plan recognizes that other historical, demographic, economic, and public policy determination factors existing both before and during the F-SHRP period impacted the measurable outcomes relevant to the achievement of the waiver's goals. This report presents the results of our evaluation.

The F-SHRP waiver sought to dramatically change health care delivery in New York by reducing excess institutional capacity in hospitals and nursing homes, and increasing the use of services in clinical and home and community-based settings, managed care, and health information technology. As described in the evaluation plan, F-SHRP had five main goals:

- **Goal 1: Acute care restructuring:** including closure, downsizing, and merger of hospitals, and increased emphasis on delivering ambulatory and primary care services in non-acute clinical settings.
- **Goal 2: Long-term care restructuring:** including closure, downsizing, and merger of nursing homes, and increased emphasis on community-based settings.
- **Goal 3: Health information technology expansion:** including expanded use of e-prescribing and electronic medical records, and promoting greater use of system-wide data sharing and data gathering.
- **Goal 4: Managed care expansion:** including expansion of mandatory mainstream managed care to 14 additional counties and to additional populations.
- **Goal 5: Expanded managed long-term care:** including phased expansion of mandatory managed long-term care, increased quality of care, improved satisfaction, and reduced nursing home admissions.

We begin this Executive Summary with our overall assessment and then we describe the F-SHRP waiver and our conclusions for each of the five goals. Citations, analytic results, and additional details are included in the subsequent chapters.

## **Overall Assessment of the F-SHRP Program**

Our analysis indicates that the F-SHRP goals were met, based on a review of annual changes during the F-SHRP period in the aggregate-level measures that were specified in the analysis plan:

- Goal 1: The main objectives of acute care restructuring were met, with 19 hospitals and 5,956 hospital certified beds eliminated for declines of 7.7 and 9.7 percent, and there were substantial hospital conversions and reconfigurations, and targeted debt reduction.
- Goal 2: The main objectives of long-term care (LTC) restructuring and increased use of Home and Community-Based Services were met: 35 nursing homes and 6,679 nursing home beds were eliminated for declines of 5.3 and 5.5 percent, there were targeted debt reductions, the number of Medicaid managed care Home and Community-Based Services (HCBS) recipients more than tripled, and the number of HCBS visits increased by 19.9 percent.
- Goal 3: The main objectives of health IT expansion were met, and important lessons were learned about how to encourage and manage performance of health information technology (IT) implementation. Seventy-four HEAL-NY grants for health IT were awarded, totaling \$412.7 million; 75.7 percent supported electronic health records and 87.8 percent supported health information exchange; most projects were fully executed; and peer-reviewed research suggests that health IT promotion improved the quality and value of health services delivery.
- Goal 4: The main objective of substantial expansion of Medicaid managed care was met: F-SHRP mainstream managed care enrollment quadrupled to 472,980 at the end of 2013, and accounted for 13.5 percent of mainstream Medicaid managed care enrollment.
- Goal 5: The main objectives of managed LTC expansion have been met: There was a 186 percent increase in managed LTC enrollment between 2011 and 2013; quality of care, access, and satisfaction were high; and there was low growth in per-member per-month cost.

## **F-SHRP History, Key Activities, and Expected Outcomes**

The five major goals of the F-SHRP waiver were designed to collectively reduce costs and improve quality, satisfaction, and access. The acute and long-term care restructuring goals aimed to reduce costs by lowering more expensive inpatient and nursing home care, with high fixed costs, and incentivizing less expensive outpatient care. Acute care restructuring may improve quality and efficiency by reducing unnecessary services without lowering patient satisfaction, as procedures are increasingly being performed on an outpatient basis. Decreasing nursing home occupancy and encouraging home and community based care should also enhance satisfaction since aging at home and in the community matches public preferences and produces equivalent or better outcomes.



Expanding health IT should improve cost, quality, and satisfaction by gathering more precise and timely information to refine health care policies, monitoring health status and safety and assist in guiding medical decisions. Health IT can reduce costs by replacing expensive paper systems with an integrated health information exchange, and by preventing duplicative tests.

Shifting to managed care for both mainstream Medicaid and LTC populations should reduce costs and improve quality by promoting more coordinated care for beneficiaries. Managed long-term care programs have been shown to reduce the use of institutional services and to increase access to home and community-based services without compromising satisfaction since the preferences of individuals are generally to stay at home rather than move to a facility.

### **Goal 1: Acute Care Restructuring**

The first goal of F-SHRP was to restructure various aspects of New York's acute care system. Within this broad goal, one objective was to decrease the excess bed capacity and consequently increase the occupancy rates for the acute care hospitals. The F-SHRP implementation targeted rightsizing the health care delivery system through various hospital reconfigurations including conversions and downsizings. Most hospital conversions involved converting bed types, service types, and facility types. The Commission on Health Care Facilities in the 21<sup>st</sup> Century (commonly known as the "Berger Commission" after its chairperson) recommended various conversions targeting 14 hospitals and the Health Care Efficiency and Affordability Law for New Yorkers HEAL-NY program provided grants to 31 hospitals for various conversions. Most of the hospital conversions were targeted to hospitals in the New York City, Hudson Valley, and Western regions. In recent years New York implemented various policies targeted towards increasing physician participation in Medicaid Managed Care (MMC) with the objective of improving health care access for Medicaid beneficiaries. The last component of the acute care restructuring goal was to reduce hospital debt.

Our analysis indicates that after the implementation of F-SHRP there was a significant decrease in the number of beds and an increase in the occupancy rates for the hospitals that were targeted by the Berger Commission recommendations. However, the opposite trend occurred among the hospitals that were not directly impacted by the F-SHRP. Between 2006 and 2014, 19 hospitals and 5,956 hospital certified beds were eliminated, for declines of 7.7 percent and 9.7 percent, respectively, with the sharpest declines among hospitals targeted by the Berger Commission recommendations. The number of hospital certified beds declined by 11.6 percent among hospitals affected both by the Berger Commission recommendations and HEAL-NY capital grants (excluding the health IT grants), compared with a 5.9 percent decline among other facilities. Certified beds in hospitals affected by Berger Commission recommendations declined by 28.8 percent. The declines were steepest in the Western and New York City regions and smallest in the Long Island and Central regions.<sup>1</sup> The number of hospital certified beds declined at an average annual rate of 1.3 percent between 2000 and 2006 (before F-SHRP) and between 2006 and 2014 (during F-SHRP).

Our analysis also shows a robust growth in the number of primary care and specialist physicians participating in MMC in the period following F-SHRP implementation. Between 2008 and 2013, the number of primary care physicians participating in MMC increased by 53.9 percent while the number of specialist physicians increased by 11.2 percent. The evaluation also required an analysis of the trends in primary and specialty care per member per month (PMPM) visits. Our analysis indicates stronger growth both in primary care and specialty care PMPM visits before the F-SHRP implementation, and much weaker average annual growth after the F-SHRP implementation.

The HEAL-NY program provided nearly \$700 million to 39 hospitals for debt retirement. However, adjusted long-term hospital debt appears to have been increased by \$4.4 billion between 2006 and 2012. While our analysis indicates increased hospital debt overall, F-SHRP did encourage and achieve substantial debt reduction to specific facilities through HEAL-NY grants. The increase in total debt is likely attributable to the new debt incurred at various hospitals that went through expansions and various reconfigurations.

Finally, the evaluation requires a calculation of potential Medicaid expenditure savings with a measure called the “value of averted hospital admissions,” which estimates how much higher Medicaid expenditures would have been if hospital discharges had not fallen relative to enrollment. It reflects fee-for-service savings, offset partially by increased hospital discharges in Medicaid managed care plans. The number of Medicaid fee-for-service discharges declined by 62.4 percent between 2006 and 2013, suggesting substantial savings: annual statewide federal and state Medicaid savings in 2013 of \$3.3 billion, and cumulative savings from 2007 through 2013 of \$8.5 billion. These savings occurred in each region, with New York City having the largest share of savings.

## **Goal 2: Long-Term Care Restructuring**

The second goal of the F-SHRP Demonstration was to improve the efficiency of the long-term care system by implementing Berger Commission’s recommendations for closing or modifying institutional facilities, and shifting emphasis in long-term care from institutional-based to community-based settings. To meet this goal, the Health Care Efficiency and Affordability Law for New Yorkers (HEAL-NY) capital grants were used to ease the implementation of the Berger Commission recommendations and expand the use of Home and Community-Based Services (HCBS).

Our analysis shows dramatic changes in the long-term care industry in the period following F-SHRP. Between 2006 and 2014, 35 nursing homes and 6,679 nursing home beds were eliminated, for declines of 5.3 percent and 5.5 percent, respectively. The declines were sharpest among nursing homes targeted by F-SHRP, either through Berger Commission recommendations that mandated restructuring or by HEAL-NY capital grants that supported restructuring: the number of nursing home beds declined by 18.4 percent among affected facilities, compared with a 2.8 percent decline among other facilities. The declines were steepest in the Western and

Northern regions of the state, and smallest in New York City and Long Island. Declines began well before the start of F-SHRP, although the pace of bed reduction accelerated in the post-2006 period.

As the number of nursing homes and nursing home beds declined, the use of HCBS grew dramatically between 2006 and 2013. In this period, the number of Medicaid managed care HCBS recipients more than tripled, and the number of HCBS visits increased by 19.9 percent. HCBS played an increasing role in the delivery of long-term care, with the number of HCBS days increasing by 10.2 million (21.4%) while institutional days declined by 8.5 percent, and the relative contribution of HCBS to total long-term care days of service rose from 59 to 65 percent. The number of Medicaid managed care recipients receiving the two most commonly used services — physical medical rehabilitation services and in-home nursing care — increased by 264 percent and 472 percent, respectively. Finally, as the number of HCBS recipients has grown and they have transitioned into managed long-term care, their age distribution has been changing, with the growing pool of managed care HCBS recipients becoming somewhat older on average and the shrinking pool of fee-for-service HCBS recipients becoming somewhat younger on average.

One objective of F-SHRP was reducing nursing home debt. As calculated in the first of two required evaluation measures for this goal, adjusted long-term nursing home debt appears to have been reduced by \$1.4 billion between 2006 and 2012. The second required evaluation measure for this goal suggests that this debt reduction resulted in combined federal and state Medicaid expenditure savings of \$398 million cumulatively between 2006 and 2012. We caution that institutions may have incurred substantial new debt since then for expansion and reconfiguration.

By other measures, it is not clear that the financial health of the nursing home industry improved. Debt fell as a percent of assets, but other long term liabilities rose. Total debt per nursing home day was rising before F-SHRP, and continued its rise in 2007 and 2008. Debt per nursing home day fell in 2009 and 2010 but then resumed its rise and as of 2012 it was higher than in 2006. This is likely to continue as debt is spread over a shrinking number of nursing home bed days. Nursing home operating margins are negative across most of the state, and have worsened in the Western, Central, and Northern regions. Occupancy rates had been falling before F-SHRP and have continued to fall, although they do remain much higher than hospital occupancy rates.

Finally, the evaluation requires a calculation of potential Medicaid expenditure savings with a measure called the “value of averted Medicaid nursing home admissions,” which estimates how much higher Medicaid expenditures would have been if nursing home days had not fallen relative to enrollment. It reflects fee-for-service savings, offset partially by increased nursing home bed days paid for by managed care plans. The number of Medicaid fee-for-service nursing home days declined by 9.8 percent between 2006 and 2013, and this required evaluation measure shows substantial savings in each region: annual statewide federal and state Medicaid savings in 2013 of \$657 million, and cumulative savings from 2007 through 2013 of \$2.5 billion. These

savings only include expenditures for nursing homes; they are not offset to reflect any increased HCBS expenditures for services in the home or community. Medicaid fee-for-service nursing home days were declining before F-SHRP, although the decline accelerated after F-SHRP was implemented.

To sum up, the goals of reducing nursing home capacity and usage and increasing availability and use of HCBS services were achieved. The reduction in nursing home usage led to very substantial reductions in Medicaid nursing home expenditures, but we do not have estimates of how much HCBS spending increased. HEAL-NY grants helped reduce nursing home debt at institutions receiving grants, but total industry-wide debt was not reduced, and it is not clear that the financial health of the nursing home industry has improved.

### **Goal 3: Health Information Technology**

The third goal of F-SHRP was to “expand the adoption of advanced health information technology (IT),” particularly the use of e-prescribing, electronic health records (EHRs), and health information exchange (HIE). Health IT has the potential to reduce duplicative care, costs, and medical errors; increase quality, value, and consumer empowerment; and facilitate the use of data for monitoring public health and health care quality, bioterrorism surveillance, and research. Health IT is most valuable when it is interoperable and health information can be exchanged seamlessly, allowing providers to access patients’ complete treatment histories from multiple locations across the state. However, health IT implementation is costly and there are few market-based incentives to adopt interoperable health IT, rather than stand-alone systems. Realizing the potential benefits of interoperable health IT, New York invested substantially in this area via the Health Care Efficiency and Affordability Law for New Yorkers (HEAL-NY) grant program. The HEAL-NY program was the mechanism that the New York State Department of Health (DOH) used to meet the third goal of the F-SHRP Demonstration.

The evaluation plan requests analyses of grant-making activities and of grantees’ self-reported outcomes related to e-prescribing, electronic medical records, and system-wide data sharing and gathering. This was accomplished by reviewing the grant announcements published by DOH, grant applications, grant activity reports prepared by DOH and awardees, and peer-reviewed evaluation studies from an academic research collaborative group that received HEAL-NY funds to assess how the adoption of health IT in New York affected various clinical outcomes.

Seventy-four awards were made from 2006 to 2013 across five phases, totaling \$412.7 million. Three-quarters of all grants (75.7%) supported the adoption or promotion of EHRs, and most (87.8%) supported the adoption or promotion of HIE. Among the EHR grants, 76.8 percent (43/56) supported the implementation of EHRs among providers that did not already use electronic systems, and 58.9 percent (33/56) funded the expansion of capabilities of existing EHRs, such as adding new interfaces to connect to the public health department immunization registries, clinical decision software, and consumer portals. Among the HIE grants, 38.4 percent (25/65) promoted consumer-mediated HIE such as web portals. Only a minority of grants (16.2

percent) had a primary focus on e-prescribing. However, many of the grants that focused on EHR implementation supported robust systems that also contained e-prescribing capabilities.

Many grants were aimed at multiple activities. For example, early grants helped Regional Health Information Exchange Organizations (RHIOs) become established so they could support activities in all three areas (e-prescribing, interoperable EHRs, and HIE). Early grant phases allowed grantees to implement health IT systems that were later improved upon for more complex uses such as supporting HIE among new patient-centered medical homes and helping providers meet new federal Meaningful Use standards.

Overall, most projects were fully executed, and academic studies suggest that New York improved in all three health IT domains of the F-SHRP Demonstration, and that these had an impact on the quality and value of health services delivery. For example, several studies documented substantial reductions in medication errors as a result of e-prescribing, and others showed that the quality and efficiency of care improved among providers receiving HEAL-NY funding for EHRs or HIE. Whether health IT reduces health care costs continues to be unclear due to limited evidence, although the Rochester RHIO did experience an annual savings of \$375,000 during the HEAL-NY program as a result of decreased patient admissions when the HIE system was accessed during emergency department visits.

By aligning the grants with New York's Framework for Health Information Technology Strategy, the different phases allowed DOH to successfully develop the Statewide Health Information Network for New York (SHIN-NY), currently the largest HIE in the country, and deploy EHRs to a large proportion of providers. Currently RHIOs provide services to every area of the state, and 83 percent and 81 percent of federally qualified health centers and hospitals, respectively, access or supply data. Requiring that grantees actively participate in the Statewide Policy Guidance process ensured that these policies were relevant to stakeholders and encouraged collective activities that would support the vision of an interoperable statewide HIE. Similarly, requiring grantees to provide matching funds will likely improve the sustainability of these health IT systems as funding is phased out. Finally, state leadership strongly supported these health IT activities, and having a public/private state-designated entity (the New York eHealth Collaborative) facilitate the development of a collective vision for health IT and implementation of HEAL-NY grants was critical to the program's success.

There continue to be providers that either have no EHRs or else have EHRs that are not connected to a RHIO, but several policies currently underway might improve adoption among providers and private practices, including the new Delivery System Reform Incentive Payment (DSRIP) Program that requires connection to a RHIO.

#### **Goal 4: Managed Care Expansion**

The fourth goal of the F-SHRP demonstration was to “slow the growth of Medicaid expenditures through reduced medical costs and greater administrative efficiencies, achieve more efficient

service delivery for Medicaid beneficiaries, and promote high quality integrated systems of care.” To achieve this, the state committed to “expand comprehensive managed care services to 14 additional counties and also extend mandatory managed care to the aged and blind from the Partnership Plan Demonstration to the F-SHRP Demonstration.”

F-SHRP, while an important expansion of mainstream managed care, was a relatively small share of total managed care enrollment and was part of a much larger and longer-term trend. Statewide F-SHRP enrollment was 120,257 at federal fiscal year-end 2006 when aged and disabled beneficiaries were transferred from the Partnership Plan to F-SHRP. Total F-SHRP enrollment quadrupled to 472,980 at the end of 2013, and accounted for 13.5 percent of mainstream Medicaid managed care enrollment.

The evaluation measures required by the evaluation plan are focused on F-SHRP enrollment patterns. Thus, the measures and questions help describe the extent of enrollment growth during the course of F-SHRP, and how that fits into the larger Medicaid managed care context. These measures do not address the broader objectives of Goal 4 to reduce costs, improve efficiency, and promote high quality systems of care. F-SHRP required that enrollment be tracked for the following groups: (1) children up to age 20 and adults age 21-64 eligible under Temporary Assistance for Needy Families (TANF), and (2) low-income disabled under age 65, and low-income aged 65 or older, who are eligible under Supplemental Security Income (SSI).

F-SHRP aged and disabled enrollment tripled between 2006 and 2013, from 120,057 to 352,607. Enrollment of adults and children, which accounted for 86 percent of the total in 2013, increased by 175 percent. Enrollment of the elderly increased by 409 percent. The greatest growth in numbers of enrollees was in New York City. The greatest growth in percentage terms was in the Northern region, where overall enrollment quadrupled.

By 2013, F-SHRP TANF child enrollment in the 14 expansion counties rose to 88,829 and adult enrollment rose to 31,544, for total F-SHRP TANF enrollment of 120,373. Even after offsetting the decline in Partnership Plan TANF enrollment, net TANF enrollment was up by 97,896. Children accounted for approximately three quarters of the F-SHRP TANF total. F-SHRP TANF enrollment in the 14 expansion counties was dominated by the Hudson Valley and Northern regions.

While the evaluation measures cannot answer whether the F-SHRP mainstream managed care expansion reduced costs, achieved more efficient service delivery, or promoted high quality integrated systems, they do suggest a very substantial expansion occurred. By year-end 2013 total F-SHRP enrollment, including aged and disabled enrollment and F-SHRP TANF enrollment in the 14 expansion counties, had risen to 472,980.

### **Goal 5: Expanded Managed Long-Term Care**

The fifth goal of F-SHRP was “to make managed LTC available to a greater number of eligible Medicaid recipients.” The managed LTC program offers coordinated care to provide

comprehensive services to people who are chronically ill or disabled and who wish to live at home in their communities. Under managed LTC plans, the Medicaid program contracts with a managed care organization that provides long-term care benefits on a risk basis, meaning that the plan receives a fixed “capitated” payment for each enrollee rather than reimbursement on a fee-for-service basis. Beginning in September 2012, the state had authority under the F-SHRP waiver to phase in mandatory managed LTC; before that it was voluntary. Encouraging chronically ill or disabled Medicaid beneficiaries to transition to a managed LTC program is in line with consumers’ increasing preference for living at home in the community and receiving support and services necessary for independent living.<sup>2</sup> Aging in place with managed LTC, rather than through institutional care, was also expected to improve quality of care and patient safety, consumer satisfaction, and cost savings.<sup>3</sup>

The evaluation plan requests measures to document the degree to which managed LTC was successfully expanded to eligible individuals, and it also requires measures of health care access, quality, satisfaction, and cost. Specific measures included growth in managed LTC enrollment and the number of managed LTC plans, the demographic composition, functional disability levels and need for care of members, various quality of care indicators, patients’ self-reported satisfaction with care, and per-member per-month costs.

During the managed LTC expansion period, there was substantial growth in managed LTC enrollment and the availability of managed LTC plans. New York State’s managed LTC system expanded 186 percent, from 45,976 enrollees in 2011 to 131,303 enrollees in 2013. The number of plans available steadily increased from 17 in 2007 to 42 in July 2013, and has continued to grow, reaching 48 at the time of this report.

Most beneficiaries are older (with an average age of 76.5 years) and very disabled, requiring assistance with instrumental activities of daily living (IADLs) such as meal preparation, shopping, laundry, housekeeping, and transportation, and activities of daily living (ADLs) tasks such as bathing, ambulation, and dressing the lower body. Urinary incontinence and cognitive function impairments add to these needs and necessitate effective care coordination to delay nursing home entry. The ethnic and racial makeup of the managed LTC population is diverse: 30 percent of the enrollees are white, 26 percent are Hispanic, and 18 percent are black, and 26 percent reflect other ethnicities.

Quality of care increased on some measures although in some areas New York continues to be below the national average. About 72 percent of managed LTC enrollees received flu shots within the last year, lower than the New York State long-stay nursing home average of 96 percent.<sup>4</sup> Only one in five received dental care in the prior year, much lower than the national average for all adults aged 65 and over (61.8%).<sup>5</sup> Member perception of access to care is generally very good with the exception of dentistry, foot, and eye care. Patient safety, measured by managing one’s own medication and by fall rates, also experienced some modest progress although there continues to be room for improvement. Only about 31 percent of the enrollees

could independently manage their oral medications in 2007; this rate declined to 28 percent in 2013. Most (85%) did not experience any falls; this statistic has remained stable during the managed LTC expansion period.

Patient satisfaction, which was expected to improve with the rollout of managed long-term care, was overall positive. Most managed LTC recipients are very satisfied with the timeliness and quality of care provided by home health aides and personal care aides. However, nearly one-third of managed LTC recipients were not satisfied with the timeliness of care managers and nurses, indicating that there may be areas of the program that warrant further attention.

Managed LTC costs have grown modestly. Prior to F-SHRP and in the program's first two years, the per-member per-month (PMPM) claims had a declining trend, from \$4,088 in 2004 to \$3,740 in 2008. However, this trend later reversed and thereafter increased to \$3,899 in 2013. This represented a moderate increase of \$159 or 4 percent in five years. The PMPM cost in NYC, where 90 percent of managed LTC enrollees reside, was \$316 higher than the rest of the state, perhaps reflecting differences in case mix and cost of living.

Overall, the state significantly expanded access to managed LTC for Medicaid enrollees needing long-term care services and supports while maintaining high levels of patient safety, quality of care, and member satisfaction. We have not evaluated cost savings, but growth in per-member per-month costs has been slow. The expansion is clearly due to the mandatory nature of managed LTC under F-SHRP. Our data do not allow us to separate the effect of F-SHRP on patient safety, quality of care, and member satisfaction from other factors such as the changing composition of the rapidly expanding managed LTC population.



## Introduction

New York operates the nation's largest Medicaid program, the federal-state program of health care for the poor and medically needy. The federal government establishes the rules that govern Medicaid but has authority to waive rules to allow states to run experimental, demonstration, and pilot programs that further the objectives of Medicaid while not increasing federal expenditures.<sup>6</sup> (States may choose to increase their own expenditures, however.) These waivers are contingent upon a formal agreement between the federal government and a state; the federal government then monitors the waiver's implementation and requires that the program be evaluated.

In 2006, New York entered into the Federal-State Health Reform Partnership (F-SHRP) waiver agreement with the Centers for Medicare and Medicaid Services (CMS), the federal agency that administers Medicaid. The F-SHRP waiver was intended to cause dramatic changes in health care delivery in New York by reducing excess institutional capacity in the hospital and nursing home industries, increasing delivery of services in clinical and home and community-based settings, increasing the use of managed care, and expanding capacity and use of health information technology.

As described in the state's evaluation plan, F-SHRP had five main goals<sup>7</sup>:

- **Goal 1: Acute care restructuring:** including closure, downsizing, and merger of hospitals, and increased emphasis on delivering ambulatory and primary care services in non-acute clinical settings.
- **Goal 2: Long-term care restructuring:** including closure, downsizing, and merger of nursing homes, and increased emphasis on community-based settings.
- **Goal 3: Health information technology expansion:** including expanded use of e-prescribing and electronic medical records, and promoting greater use of system-wide data sharing and data gathering.
- **Goal 4: Managed care expansion:** including expansion of mandatory mainstream managed care to 14 additional counties and to additional populations.
- **Goal 5: Expanded managed long-term care:** including phased expansion of mandatory managed long-term care, increased quality of care, improved satisfaction, and reduced nursing home admissions.

The Special Terms and Conditions (STC) of the F-SHRP waiver agreement require that the waiver be evaluated according to an evaluation design developed by the Department of Health and approved by CMS.<sup>8</sup> The evaluation plan is focused primarily on specific quantitative measures that can be computed with available data, but also seeks to address broader questions about the overall effectiveness of F-SHRP and the extent to which it may have caused changes in health care delivery. The Department of Health selected the Rockefeller Institute of Government

of the State University of New York to conduct an independent evaluation. This report presents the results of our evaluation.

The report begins by describing and analyzing events leading up to the F-SHRP waiver and the state's response, including the important role of the *Commission on Health Care Facilities in the 21st Century* (commonly known as the "Berger Commission" after its chairperson), and then describing the waiver and its implementation. After that, it describes the waiver evaluation plan and the Rockefeller Institute's approach to the evaluation.

Five separate chapters address the individual goals listed above. Finally, appendices address detailed questions of data and methods, and provide extensive tables.

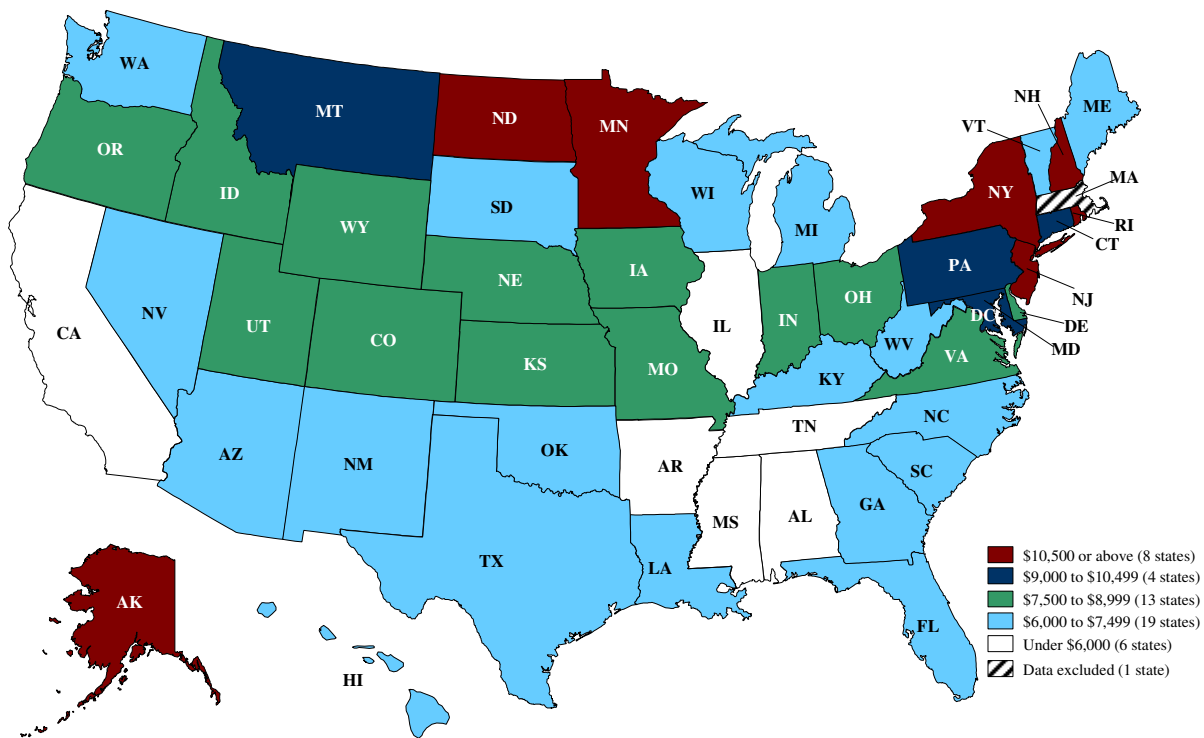
# Events Leading Up to the F-SHRP Waiver

This section discusses New York's health care delivery system, its major problems, and the reasons the Section 1115 waiver was implemented, which are important for understanding the purpose and development of F-SHRP's five main goals.<sup>9</sup>

## New York's Health Care Delivery System

New York State has among the most expensive Medicaid programs in the country. According to a report from the Government Accountability Office based on 2008 data, New York was one of eight states in which per enrollee spending on Medicaid was over \$10,500 — the highest rates in the country.<sup>10</sup> By contrast, in six states, including California, the cost per enrollee was less than \$6,000. California's program was the least expensive by this measure, at \$3,800 per Medicaid enrollee. Thus, in comparison with California, a comparable state in terms of size and diversity, New York's Medicaid program is more than twice as expensive per enrollee.<sup>11</sup>

Figure 1. Estimated Medicaid Spending per Enrollee



Sources: GAO analysis for Centers for Medicare & Medicaid Services data; Map Resources (map). | GAO-14-456

The exact causes of the divergence in state Medicaid expenditures remain a source of debate and speculation,<sup>12</sup> but New York State has a number of unique features that contribute to high costs.

New York's health system is known for its focus on hospital and institution-based care,<sup>13</sup> its disproportionate reimbursement rates favoring specialists and institutions versus primary care gatekeepers<sup>14</sup> and a high cost of living that commands higher provider salaries.<sup>15</sup> New York has more teaching hospitals than any other state and at least part of New York's institutional bias and high expenditures stems from the success of organized interest groups including academic medical centers, nursing homes and labor unions at protecting emergency care and hospital-stay revenue from cuts.<sup>16</sup>

New York State's Medicaid program is also quite generous compared with other states — one in four New Yorkers is on Medicaid, and 70 percent of this coverage is not required by federal law.<sup>17</sup> Even after accounting for federal matching funds, Medicaid is now the largest part of the New York state budget, eating up nearly a quarter of the budget. These costs are at least partly driven by deliberate choices that New York State has made to increase enrollment and create new benefits, making the Medicaid program relatively generous, rather than solely by rising underlying medical costs.<sup>18,19</sup>

A 2007 report by Public Citizen systematically ranking states in terms of their overall Medicaid generosity ranked New York State as the eighth most generous state in the nation (California ranks 14<sup>th</sup> by comparison).<sup>20</sup> New York ranked first in the scope of services covered by Medicaid. It excludes only a few services (e.g., chiropractor and podiatrist services, nurse anesthetists) and imposes little or no cost-sharing on most services. New York ranked third in its eligibility generosity, with a relatively high federal poverty level threshold for its enrollees and for its coverage of the medically needy. New York ranked 13<sup>th</sup> with respect to quality of care, losing points on nursing home care. However, New York was 49<sup>th</sup> in its reimbursement policy, where reimbursement rates for physicians were well below the national average. This low reimbursement makes it less likely that providers will accept Medicaid, forcing Medicaid populations into care with a small set of safety net providers. This in turn has contributed to and reinforced New York's institutional bias and heavy reliance on disproportionate share hospitals<sup>21</sup> for the treatment of Medicaid patients.<sup>22,23</sup>

### **Important Trends, Cost Pressures, and Other Key Challenges**

As an extremely large and diverse state with respect to demographics, rural versus urban settings, and socioeconomic characteristics, New York faces additional challenges in designing a uniform state Medicaid policy. New York is simultaneously one of the richest and poorest states in the nation with among the highest per capita GDP, but also with a high percentage of the population living in poverty (19.5% compared with 17.5% nationally).<sup>24</sup> Though New York is one of the most populous states in the US, over 40 percent of the population lives in New York City and only 9 percent of the population lives in a nonmetropolitan area compared with 16 percent nationally.<sup>25</sup> With New York City accounting for such a large portion of the state's population, another unique challenge to New York's Medicaid program is the high level of participation of immigrant populations. Immigrants make up 21 percent of New York's population compared

with 12 percent nationally and New York has been relatively more generous at providing benefits to individuals made ineligible after the 1996 welfare reform, at expense to the state.<sup>26,27</sup> Like most states, New York is aging and facing an increasing population of low-income seniors and younger persons with long-term disabilities who are dually eligible for Medicaid and Medicare services. These “dual eligible” have complex health care needs, are among the poorest and sickest beneficiaries, and account for a large share of spending in both programs.<sup>28</sup>

Given the unique challenges posed by New York’s health care environment, some of the major perceived problems with New York’s Medicaid program leading up to the waiver included:

1. The state’s institutional bias and large number of medical institutions (its “oversized” health care system);
2. Perceived problems with fraud and abuse in the system, and associated costs;
3. The high cost of Medicaid to the state budget; and
4. Medicaid enrollees’ challenges with accessing high-quality care, due to low reimbursement rates that make it difficult for many providers to accept these patients.

### ***New York’s Institutional Bias — High Dependence on Hospitals and Nursing Homes and Declining Occupancy Rates***

Overall, the United States health care system has had an institutional bias, dating back to the Hill-Burton Act enacted in 1946, which provided federal funding to build up tertiary care facilities. This led to the construction of nearly 400,000 hospital beds across the country and a reinforcement of inpatient hospital care.<sup>29</sup> New York State is no exception. New York City has three hospital beds for every 1,000 residents, which is more than the national average of 2.6 beds, according to the American Hospital Association’s 2010 survey (this rate is actually somewhat lower than that of some other large cities, including Phoenix, with 4.7 beds per 1,000 residents, and Dallas with 4.4 beds).<sup>30</sup>

This institutional bias is reinforced by New York’s reimbursement policy, which has among the highest reimbursement rates to hospitals and nursing homes in the country, but reimbursement rates for physicians in primary care are 40 percent less than the national average (only New Jersey and Rhode Island have lower physician reimbursement rates).<sup>31</sup> This system has been accused of failing to incentivize the use of outpatient primary care.<sup>32</sup>

An oversupply of hospital beds and acute care infrastructure is one factor that is believed to contribute to cost-inflation both in New York and more broadly.<sup>33</sup> Roemer’s Law, a widely cited principle in health care policy, states that hospital beds that are built tend to be used — “if you build them, they will come.”<sup>34</sup> In other words, hospitalizations expand in relation to the number of available beds. This is believed to occur because unused capacity creates pressure to admit patients solely in order to generate revenue. Similarly, greater numbers of expensive tests and procedures are performed when resources like imaging machines, diagnostic labs and surgical suites are available and need to generate revenue to offset the fixed expense of purchasing and maintaining the machines. Areas with excess capacity repeatedly demonstrate higher rates of

hospital admission and services that cannot be explained by differences in rates of illness or age.<sup>35</sup>

New York has one of the highest densities of hospital beds in the country (ranked 16<sup>th</sup> nationally in 2004), but with an occupancy rate of only 65.3 percent in 2004, shortly before implementation of F-SHRP.<sup>36</sup> Excess capacity across New York State was estimated to be more than 19,000 hospital beds in 2004. According to the Commission on Health Care Facilities in the 21st Century, the statewide hospital occupancy rate had fallen from 83 percent of certified beds in 1983 to 65 percent in 2004.<sup>37</sup> Hospital occupancy levels have been declining for several reasons including technological advances that have allowed for more outpatient procedures, and a decrease in the average length of stay (ALOS) due to prospective payment reform and the introduction of managed care.<sup>38</sup> Nursing home occupancy rates have also fallen substantially at least partly due to changing requirements and preferences for home and community-based care (“aging in place”). These reasons are discussed in more detail in chapter 5.

The number of hospital beds has traditionally been regulated in most states under the Certificate of Need (CON) process, which decides the number of hospitals that can be built or expanded through a process of state approval.<sup>39</sup> New York State was a pioneer in the CON process when New York became the first state, in 1964, to enact a statute granting the state government power to determine whether there was a need for a new hospital or nursing home before it was approved for construction.<sup>40</sup> By 1978, 36 states had enacted Certificate of Need laws. Many states have since relaxed or eliminated CON requirements, but New York State retains its CON process.

The CON process only applies to the construction and expansion of facilities that will generate additional capacity. Traditionally, there have been few available means to close facilities or reduce capacity and the process of closing facilities has been politically contentious. Communities frequently rally to resist the closure of local hospitals. Instead, the market has tended to dictate closures. In response to declining demand for hospital inpatient services due to more advanced surgical procedures, substitution of drugs for surgery, and related trends, as well as increasing competition for payers and diminishing government subsidies, hospitals have been closing, downsizing, and merging into networks.<sup>41</sup>

### ***Concerns About Fraud and Abuse as an Underlying Cost Driver***

Fraud and abuse became a particular flash point leading up to the F-SHRP waiver with a flurry of news articles reporting on fraud and waste in the New York Medicaid program. The true extent of fraud is difficult to discern, but it is clear that it is perceived as a persistent problem. The Government Accountability Office in Washington and others have estimated that 10 percent of all health care spending nationally is lost to “fraud and abuse.”<sup>42</sup> A particularly devastating *New York Times* article in 2005 exposed the fraud and abuse in the system.<sup>43</sup> At least part of the perceived problem stems from the retrospective payment system used in fee-for-service Medicaid with concomitant difficulties in tracking fraudulent charges, though health providers

that have been the subject of strict audits contest the degree to which claims are fraudulent versus legitimate and the truth is difficult to prove.

As attorney general, Andrew Cuomo (now governor) originally led the charge in subpoenaing records from home-health agencies regarding their Medicaid billing practices to recover unnecessary or unjustifiable Medicaid payments. In order to receive \$1.5 billion in federal F-SHRP funding, the state was asked to increase its annual fraud recoveries by more than 50 percent, and recover an additional \$1.6 billion in Medicaid dollars over five years. CMS made the receipt of F-SHRP funds contingent on the recovery of these funds.<sup>44 45</sup>

### ***Problems with New York's Medicaid Program and Managed Care as a Solution***

Since the 1970s, managed care has been touted as a means of controlling costs and was prominently featured in both the Nixon and Clinton failed efforts at national health reform. New York began experimenting with managed care for its Medicaid population as early as the 1970s and 1980s, but only 2,000 of its two million Medicaid beneficiaries were enrolled in a managed care plan at that time.<sup>46</sup> This was partly due to the low penetration of managed care in New York State, compared with California, for instance, with large managed care organizations like Kaiser Permanente.

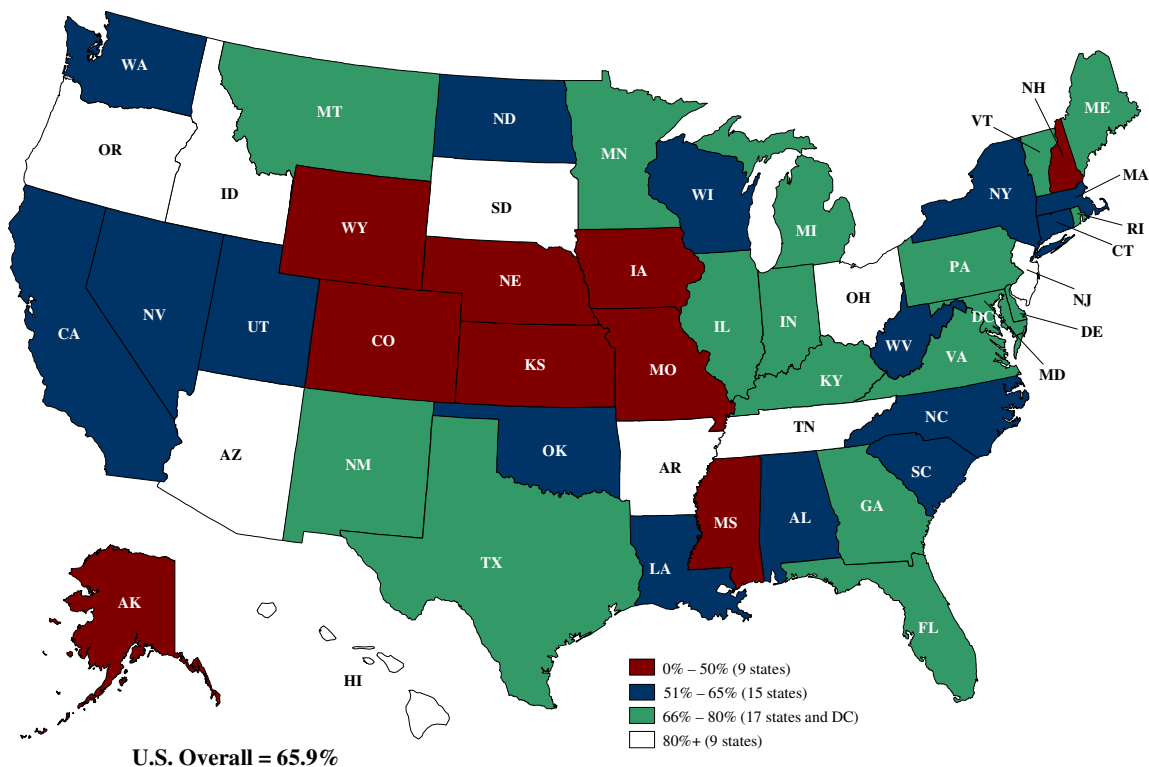
Expansion of managed care in the state was slow and initially voluntary. In 1991, a new law was enacted, which promised that 50 percent of beneficiaries would be in managed care by the end of the decade.<sup>47</sup> With Medicaid eating up 24 percent of the state budget and an economic downturn in the early 1990s, managed care for Medicaid became seen as a way to simultaneously improve quality of care while reducing costs. The use of primary care case management with physician gatekeepers was seen as a way of increasing access to preventive services and avoiding expensive emergency room visits.

This expansion of Medicaid managed care was initially hindered by influential interest groups that opposed Medicaid managed care since New York City's public hospitals and academic medical centers relied heavily on Medicaid funds received for emergency room care. An emphasis on managed care would substantially reduce those funds.<sup>48</sup> Organized labor worried that if managed care hurt the hospital sector, nonprofessional hospital workers would be the first to lose their jobs. Consumer advocates argued that managed care would reduce access to care, citing as evidence scandals in California's implementation of Prepaid Health Plans in the early 1970s, involving allegations of illegal marketing, inadequate access, poor quality, and use of nonprofit shells to funnel Medicaid funds to related for-profit corporations.<sup>49</sup> But with enrollment in managed care voluntary, participation rates remained low.

All states except Alaska, New Hampshire, and Wyoming reported operating comprehensive Medicaid Managed Care programs as of 2010. Thirty-six states (including Washington, DC) contract with managed care organizations (MCOs) and 31 operate a Primary Care Case Management (PCCM) program.<sup>50</sup> In addition, one-half the states, including those with MCOs

and/or PCCM programs, contract with health plans that provide specific categories of services, such as behavioral health care, dental care, nonemergency transportation, or prescription drugs.<sup>51</sup>

Figure 2. Comprehensive Medicaid Managed Care Penetration



Note: Includes enrollment in MCOs and PCCMs. Most data as of October 2010.

Source: The Kaiser Commission on Medicaid and the Uninsured/Health Management Associates Survey of Medicaid Managed Care, September 2011.

In a majority of states, enrollment is mandatory for children with disabilities, children with special health care needs, and seniors and adults with disabilities who are not dually eligible for Medicare and Medicaid in at least one MMC program or geographic area. In addition to New York, both California and Texas have received waivers to mandate managed care for a large portion of their Medicaid population.<sup>52</sup>

Expanding Medicaid managed care in New York and other states is primarily limited by the availability and penetration of managed care plans in certain geographic regions. Consequently, the roll-out of mandatory Medicaid managed care expansion in New York has occurred incrementally, beginning first with counties with adequate managed care plan coverage.

Given the perceived problems with New York's Medicaid system (cost, quality, fraud, reimbursement asymmetry) and available solutions (Medicaid managed care, hospital closures, fraud reduction), several developments from 1997-2006 set the stage for development of the F-SHRP waiver. The first was the receipt of a waiver to implement an expansion of Medicaid



managed care and to make it mandatory in the 1990s. The second was the introduction of a commission to manage excess capacity in the tertiary care sector — commonly referred to as the “Berger Commission.”

### **History of Medicaid Waivers — New York State**

The use of Federal Medicaid waivers expanded under President Clinton in the wake of failed national health reform. State Medicaid policy became viewed as an alternative to national reform as a means of expanding coverage and controlling costs. There are two types of waivers available. Section 1115 waivers are designed to allow states to develop “innovative solutions to a variety of health and welfare problems,” as long as these solutions do not add to federal spending and are deemed “budget neutral.” Section 1115 waivers have allowed states to experiment with different health-care service delivery, financing, and coverage options. States have used Section 1115 waivers to expand or limit eligibility criteria, services and benefits offered, and cost. Over time, Section 1115 waivers have allowed state governments increased input into the shape of their Medicaid programs.<sup>53</sup>

In addition to Section 1115 waivers, Section 1915 of the Social Security Act allows CMS to grant more-targeted waivers that do not require ongoing evaluation but allow for alternative health care delivery and payment systems and the provision of services in a home or community-based setting rather than a larger institution. Section 1915 waivers helped overcome Medicaid’s bias toward institutional care and increased the number of people who received care in outpatient settings.<sup>54</sup>

New York has a history of Medicaid waivers, starting with the Partnership Waiver (Section 1115 Waiver). In March 1995, newly elected Governor George Pataki requested permission from federal officials to require nearly all Medicaid beneficiaries to enroll in managed care. The Partnership Plan was initiated in 1995 and in July 1997 federal officials approved the state’s plan to begin requiring most of the state’s 2.5 million Medicaid clients to enroll in managed care.<sup>55,56</sup> In New York City, each of four planned implementation phases was allowed to proceed only after successful completion of a federal readiness review, designed to gauge the capacity of managed care plans and government agencies to handle large-scale enrollment. Mandatory enrollment began in Albany and four other upstate counties in October 1997, and was projected to begin in New York City in early 1998. New York City’s first phase ultimately did not begin until August 1999; the second phase began in April 2001.<sup>57</sup>

The initial term of the Partnership Plan waiver was five years, and it was due to expire on March 31, 2003,<sup>58</sup> but New York received multiple extensions of the waiver. On September 29, 2006, CMS approved a new five-year Section 1115 Demonstration program entitled the Federal-State Health Reform Partnership (F-SHRP), the subject of this evaluation. The Demonstration began October 1, 2006.<sup>59</sup>

More recently, in 2014, the state was approved for another Medicaid Section 1115 waiver amendment that aims to enable the state to fully implement the Medicaid Redesign Team action plan to facilitate innovation, lower health care costs over the long-term, and save essential safety net providers from financial ruin. The waiver, known as the Delivery System Reform Incentive Payment (DSRIP) program allows the state to reinvest over a five-year period \$8 billion of the \$17.1 billion in estimated federal savings generated by Medicaid Redesign reforms. The DSRIP program will promote community-level collaborations and focus on system reform, specifically a goal to achieve a 25 percent reduction in avoidable hospital use over five years.

Although F-SHRP was intended as a continuation of the original Section 1115 Partnership Plan Waiver, it became a separate waiver because CMS wanted the state to identify sources of new savings. The major source of new savings identified was the reduction of hospital beds, but this would largely produce savings to Medicare, not necessarily Medicaid. It was determined that a five-year waiver with additional goals beyond Medicaid managed care was necessary to produce enough savings.<sup>60</sup> Applying would also ensure that the state could retain the savings that it had earned from the Partnership Plan.<sup>61</sup>

### **Berger Commission Report on Hospitals and Nursing Homes**

The Commission on Health Care Facilities in the 21<sup>st</sup> Century (popularly called the “Berger Commission” after its chairman, Steven Berger) was a nonpartisan panel established to review New York State’s acute and long-term care systems.<sup>62</sup> The Berger Commission was initiated by the Pataki administration as a means of resolving the longstanding concern that one of the cost drivers in the health care system was the excess capacity in the hospital and inpatient care system.

The most common way that excess capacity is estimated is based on the federal target of 85 percent hospital bed occupancy.<sup>63</sup> Occupancy rates in New York State have declined closer to 65 percent.

The increasing cost pressures and high profile closures of non-competitive hospitals inspired the development of a process to facilitate closures in a controlled manner. To that end, the Commission on Health Care Facilities in the 21<sup>st</sup> Century was created as part of the 2005 state budget process. It began its work in the summer 2005, and a tight deadline called for its final report by December 1, 2006. The report was released on November 28. Patterned after the federal Base Realignment and Closure Commission (BRAC), the state created the Berger Commission so that its recommendations became law unless they were rejected by the governor before December 5, 2006, or by both Houses of the New York State Legislature by December 31, 2006.<sup>64</sup>

Ultimately, the Berger Commission recommended the closure of nine hospitals and the downsizing of an additional 48 hospitals, as well as the closing of eight nursing homes and a

total reduction of nursing home beds of 3,000, or 2.6 percent of the state's supply, and the creation of more than 1,000 non-institutional long-term care slots.<sup>65</sup>

New Jersey and Maryland are the only two other states that have held rightsizing commissions similar to the Berger Commission. However, a key difference is that in neither of these cases were the recommendations made mandatory in the same manner as in New York. New Jersey's commission could only make recommendations about hospital closures, but was not authorized to require hospitals to close. Maryland is the only other state apart from New York and New Jersey to have convened a statewide commission to recommend changes in the state's hospital system, but it established a financing mechanism — a revolving bond issue — to support the voluntary transition of hospitals out of acute care, which was a voluntary fund.<sup>66</sup>

### **F-SHRP as an Outgrowth of New York's Medicaid Experience**

Given the history of state Medicaid waivers, starting with the Partnership Plan waiver, the managed care expansion goals of the F-SHRP waiver, discussed in the next section, were largely a continuation of ongoing state efforts aimed at cost control and quality improvement in Medicaid. Similarly, the goals to rightsize the acute care and nursing home industries grew out of ongoing reforms, the work of the Berger Commission, and other concerns that were salient at the time.

## The F-SHRP Waiver

On September 29, 2006, CMS approved a new five-year Section 1115 Demonstration program entitled the Federal-State Health Reform Partnership (F-SHRP). Under this Demonstration, New York is obligated to implement a significant restructuring of its health care system. The Demonstration became effective on October 1, 2006.

The goals of the F-SHRP waiver request included shrinking its hospital and nursing home component while increasing outpatient care and the use of managed care plans and better integrating the health system through investments in health information technology and electronic health records. As part of F-SHRP, the federal government provided the state with \$1.5 billion over five years to close or stabilize existing hospitals and ease their transition into a new system. In exchange for this sum, the state had to agree to curb Medicaid costs and strengthen its fraud detection and recovery efforts.

The five primary goals of the waiver request were: (1) Acute care restructuring; (2) Long-term care restructuring; (3) Health information technology; (4) Managed care expansion; (5) Expanded managed long-term care. These were largely codependent and interlinked. For instance, acute care and long-term care restructuring were each viewed as a means of countering New York's perceived institutional bias and reducing costs to the Medicaid system. The introduction of mandatory managed care, both mainstream and for long-term care, was viewed as a means of simultaneously improving quality while cutting costs, and as a way to avoid cutting eligibility for Medicaid. Investments in health information technology would promote better coordination of care across settings, improving quality and health outcomes while reducing costs.

The five goals were also included for practical reasons in order to make the waiver budget neutral and to earn back the several million dollars in funds that had been saved from the Partnership Plan Waiver from the managed care transition to reinvest in the system.<sup>67</sup>

Since waivers must be budget-neutral, the state needed to identify and project savings by identifying per-member costs without the waiver, and compare those to actual per-member costs. These savings could then be used for other investments, such as state programs that do not currently get federal matching funds like health information technology and acute care restructuring. Since the federal government does not return savings, state-funded programs need to be identified to receive matching funds.

In turn, much of the financing for each of the F-SHRP goals came from the Health Care Efficiency and Affordability Law for New Yorkers (HEAL-NY) Capital grants, passed in 2004.<sup>68</sup> HEAL-NY became the mechanism for delivering funding for various F-SHRP goals.

There were 22 phases within HEAL-NY and each phase had a specific goal. HEAL 1, 5, 10, 17 and 22 grants funded Health Information Technology (HIT); HEAL 2, 4, 6, 7, 9, 11, 14, 16, 18, and 21 financed acute care restructuring; HEAL 4, 7, 9, 14, and 21 covered long-term care restructuring as well as HEAL 8, 12, and 20.

### **Five Main Goals of F-SHRP**

As described above, the major issues with New York's health system that the F-SHRP waiver was envisioned to address included the problems of excess capacity in the acute and long-term care systems; the need to shift long-term care emphasis from institution-based to community-based settings for improved outcomes, satisfaction, and cost savings; the need to expand health information technology adoption to promote information sharing and improve outcomes; and the expansion of Medicaid managed care to additional populations and counties to reduce costs and improve quality.

#### ***Goals 1 and 2: Acute Care and Long-Term Care Restructuring***

Goals 1 and 2, to reduce excess capacity in the acute care and long-term care (nursing home) systems, are related and both grew out of the general trends and changes in medicine that had generated excess capacity including the appearance of more ambulatory surgery centers, declining demand for inpatient care, and managed care plans encouraging an overall reduction in length of stay as the appearance of new technologies facilitated these trends. Nursing homes were experiencing similar trends with increasing demands for more short-term stays and declining need/demand for 24-hour care in an institutional setting.<sup>69</sup> Increased competition in the system was putting financial pressures on institutions, but failing facilities had not been allowed to close in line with these trends, often propped up by public funds in order to save failing facilities.<sup>70</sup>

Goal 1's focus on acute care restructuring or "rightsizing" the health care system grew out of the Berger Commission, which served as an impetus for the waiver. The idea of "rightsizing" resonated with the agenda of the Pataki administration at the time and responded to broader changes in the health care system, pushing the system away from inpatient towards outpatient care.<sup>71</sup>

Goal 2's long-term care restructuring grew out of the same cost pressures and concerns about institutional bias as the acute care restructuring goal, and also was an outgrowth of the Berger Commission. Long-term care is the single greatest cost in Medicaid constituting over 30 percent of costs, at least in part due to the high needs of the long-term care population and the predominance of facility-based care. Home and community-based long-term care is increasingly being viewed as a means of simultaneously reducing costs and meeting the preferences of individuals to stay at home rather than move to a facility. New York State has long had an institutional bias in its long-term care programs and a high density of nursing homes with declining occupancy rates. Changes in the nursing home industry have led to a decreased need for long-term care and an increase in short-term stays.<sup>72</sup>

Overall, 31.5 percent of Medicaid’s \$400 billion in shared federal and state spending for the nation as a whole goes to long-term care for the elderly and the disabled.<sup>73</sup> Twenty-six states, including New York, California, Illinois and Texas, have sought waivers that are aimed at cutting costs by shifting Medicaid clients to managed long-term care. Managed long-term care involves paying a managed care organization a fixed amount per enrollee, called a “capitation” payment, to manage and pay for a defined set of health care and social services that may include doctor and hospital visits, help at home, and nursing home placement.<sup>74</sup> Because the managed care organization bears the risk if an enrollee's costs are high, this can create incentives to provide care in less expensive settings.

The specific mechanism for achieving Goal 1 grew out of an ongoing effort in the state at the time aimed at “rightsizing” the health care system through a mechanism one interviewee termed “planned obsolescence” — facilitating the closure of facilities targeted through an explicit and transparent process rather than allowing the market to dictate facility closure. A portion of the funds from the F-SHRP waiver would be used to finance the recommendations of the Berger Commission report through the HEAL-NY grant process. Under the waiver the federal government shared in this cost; absent the waiver there would not have been federal financial participation.

In this sense, F-SHRP was the mechanism that brought funding to implement the Berger Commission recommendations.<sup>75</sup> The waiver agreement required a state to certify that there are no state statutory impediments to implementation of the Commission's recommendations on reconfiguring the state’s general hospital and nursing home bed capacity.<sup>76</sup> In turn, the funds provided through the waiver would be disbursed through the HEAL-NY grant process to provide funding to facilitate the closures and reorganization. The goal was therefore to make the reorganization process more rational through a planned obsolescence process rather than “market-driven” obsolescence.<sup>77</sup> The Commission largely chose institutions that were likely to close anyway due to their financial situation and made efforts to avoid exclusively closing/restructuring facilities that service the poor, which is what the market model was largely producing.

### ***Goal 3: Expand Health IT Adoption***

Goal 3’s focus on health information technology was part of a larger national movement, which was made visible in 2004 when President Bush called for most Americans to have interoperable electronic health records within 10 years and established a new National Coordinator for Health Information Technology to guide health IT adoption.<sup>78</sup> Its inclusion in F-SHRP was based on an overarching agreement between the state and hospital industry that in exchange for participation in other reforms, the state would make grants available to promote other system reforms, including funds to develop health information technology.<sup>79</sup> The Berger Commission report also recommended the promotion of increased use of health information technologies that would

ensure that these systems are able to communicate, using open architecture and embracing the principle of interoperability.<sup>80</sup>

Early on, New York State policy leaders had a strong interest in promoting the use of health information technology at the point of care and to link health data systems across the state. New York's health IT governance and policy framework dovetailed with concurrent national efforts. Because New York was such an early adopter of health IT, the federal government is now looking to New York to develop standards for incorporating their "meaningful use" standards of health information technology.<sup>81</sup>

One of the two primary objectives of the HEAL-NY program is to develop an interconnected health information infrastructure to support the delivery of high quality care. Starting in 2006, the HEAL-NY program has supported five grant rounds for health IT, which have been used to promote the adoption of interoperable EHRs and the development of health information exchanges. Having these systems in place in turn allowed for activities such as e-prescribing; allowing multiple providers and facilities to coordinate patient care; implementing clinical decision support tools (such as pop-up reminders, tracking health status over time, and automatically checking for medication errors); and enabling patients to view and update their own personal health information, thereby making them more active participants in their care.

The goal of developing the state's health IT infrastructure is to ensure that clinical information can be collected and utilized in a way that can guide medical decision making and support the delivery of coordinated, preventive, patient-centered and high quality care.<sup>82</sup> Health IT can gather more precise and timely information about what works in the real world to refine health care policies, monitor health status and safety, and guide physician and patient treatment choices. Although many providers are adopting EHRs that include capabilities such as e-prescribing, this is generally being undertaken in a decentralized, piecemeal manner, with different providers adopting different systems that may not be able to share information with each other. These stand-alone data systems are expensive and of limited value. An integrated infrastructure allows for seamless health information exchange for many clinical and public health purposes such as reporting immunization information or facility-level quality measures. This type of integrated Health IT can provide timely information about choices, prices, quality, and outcomes.<sup>83</sup>

New York has gone a long way towards developing "interoperable" systems that are able to speak to one another and share information in a seamless manner. New York started developing interoperable systems at a local level using Regional Health Information Organizations (RHIOs). As an increasing number of private practices, nursing homes, clinics, and hospitals begin to digitize their records, they have the option to connect to information hubs in their region of the state. These RHIOs collect health record data from the health care providers in their area, and, with patient consent, allow this information to be shared securely with other providers in the region. However, research with stakeholders found that patients generally do not stay within a single regional hub for their care. This is especially true in New York City. Based on this, the

state realized that providers would have to connect to multiple RHIOs to get patient information. Currently, the state is connecting these 10 regional hubs into one private and secure network spanning the entire state of New York — the State Health Information Network (SHIN-NY).<sup>84</sup>

Thus, health IT grants were included as an F-SHRP goal due to their potential to improve patient care and reduce costs in the long term and as a means of sustaining matching funds from the federal government.

#### ***Goals 4 and 5: Mandatory Mainstream Medicaid Managed Care Expansion and Managed Long-Term Care Expansion***

The goals of expanding mandatory Medicaid managed care and mandatory managed long-term care to additional populations and counties were also related, much like the restructuring goals. Goal 4's Medicaid managed care goal was the most direct continuation of the original Section 1115 Partnership Plan waiver. It expanded mandatory managed care to additional populations including Supplemental Security Income (SSI) populations and the counties where managed care affiliation had not already been made mandatory, and can be viewed as completing the unfinished business of expanding mainstream managed care. The goal was intended to include additional savings in F-SHRP, to offset costs and help meet the required budget neutrality. (While managed care is often viewed as having the potential to generate savings, a recent systematic review of the literature on Medicaid managed care found little benefit for cost, quality, or access.<sup>85</sup>)

Goal 5's focus on managed long-term care was not part of the original Section 1115 F-SHRP waiver, and was added in an amendment in 2012<sup>86,87</sup> Managed long-term care plans provide services, such as home care or adult day care and many consumers prefer these options over institutionalization. By contrast, traditional Medicaid has not paid for home or adult day care, but does pay for institutionalization in nursing homes. F-SHRP served as a vehicle to finance this transition to home and community-based care.<sup>88</sup>

#### **Population Groups Impacted by the Demonstration**

A number of different population groups are impacted by this Demonstration. Most prominently, certain Medicaid enrollees are required under F-SHRP to enroll in mainstream managed care, including low-income children and adults in 14 expansion counties and certain SSI populations statewide, including SSI recipients that had been enrolled in managed care under the Partnership Plan.

The previous mandatory managed care program under the Partnership Plan provided Medicaid State Plan benefits through mandated comprehensive managed care organizations to Medicaid recipients living in New York City and 23 other counties in the following eligibility categories:<sup>89</sup>



*Table 1. F-SHRP Expanded Eligibility Categories*

<b>State Plan Mandatory and Optional Groups</b>	<b>FPL Level and/or Other Qualifying Criteria</b>
Children under age 1	Up to 200 % FPL
Children 1 through 5	Up to 133% FPL
Children 6 through 18	Up to 100% FPL
Children 19-20	Monthly income standard (determined annually)
Adult (21-64) AFDC-related family members	Monthly income standard (determined annually)

Under the F-SHRP Demonstration, this was expanded so that recipients in the above categories living in the following 14 counties were also required to enroll in managed care organizations: Allegany, Cortland, Dutchess, Fulton, Montgomery, Putnam, Orange, Otsego, Schenectady, Seneca, Sullivan, Ulster, Washington, and Yates.

In addition, under the F-SHRP Demonstration, implementation of mandatory enrollment of the SSI population was expanded to include individuals with serious and persistent mental illness (SPMI). Finally, in a 2012 amendment, F-SHRP was expanded to allow mandatory managed long-term care for individuals in need of more than 120 days of community-based long-term care, phased in geographically.<sup>90</sup>

Apart from the mandatory Medicaid managed care expansion, however, other F-SHRP goals will affect a broad swath of population groups. For instance, under the acute and long-term care restructuring goals, anyone that uses facilities that are being restructured, even outside of the Medicaid population, will be affected. Furthermore, these reforms will affect capacity at other institutions that will take on patients that previously went to other institutions for care. With the expansion of RHIOs and the SHIN-NY, everyone in the state who receives health care may be impacted, but more specifically, hospitals and hospital EDs, urgent care clinics, primary care providers, medical homes, specialty clinics including behavioral health service providers, and home and community-based services.

Below is a list that summarizes the population groups likely to have been newly impacted under the five F-SHRP goals.

- Medicaid clients in the 14 counties to which mandated managed care was expanded.
- SSI population, particularly those with severe and persistent mental illness.
- Anyone in the catchment area of facilities being closed or otherwise restructured, or who use those facilities from outside those catchment areas.
- Providers and patients using health information technology (including electronic health records, e-prescribing, and data exchange).
- Other stakeholders (interest/advocacy groups, organized labor, managed care organizations, current fee-for-service Medicaid providers).

**Logic Model: Mechanism of Effect and Expected Outcomes**

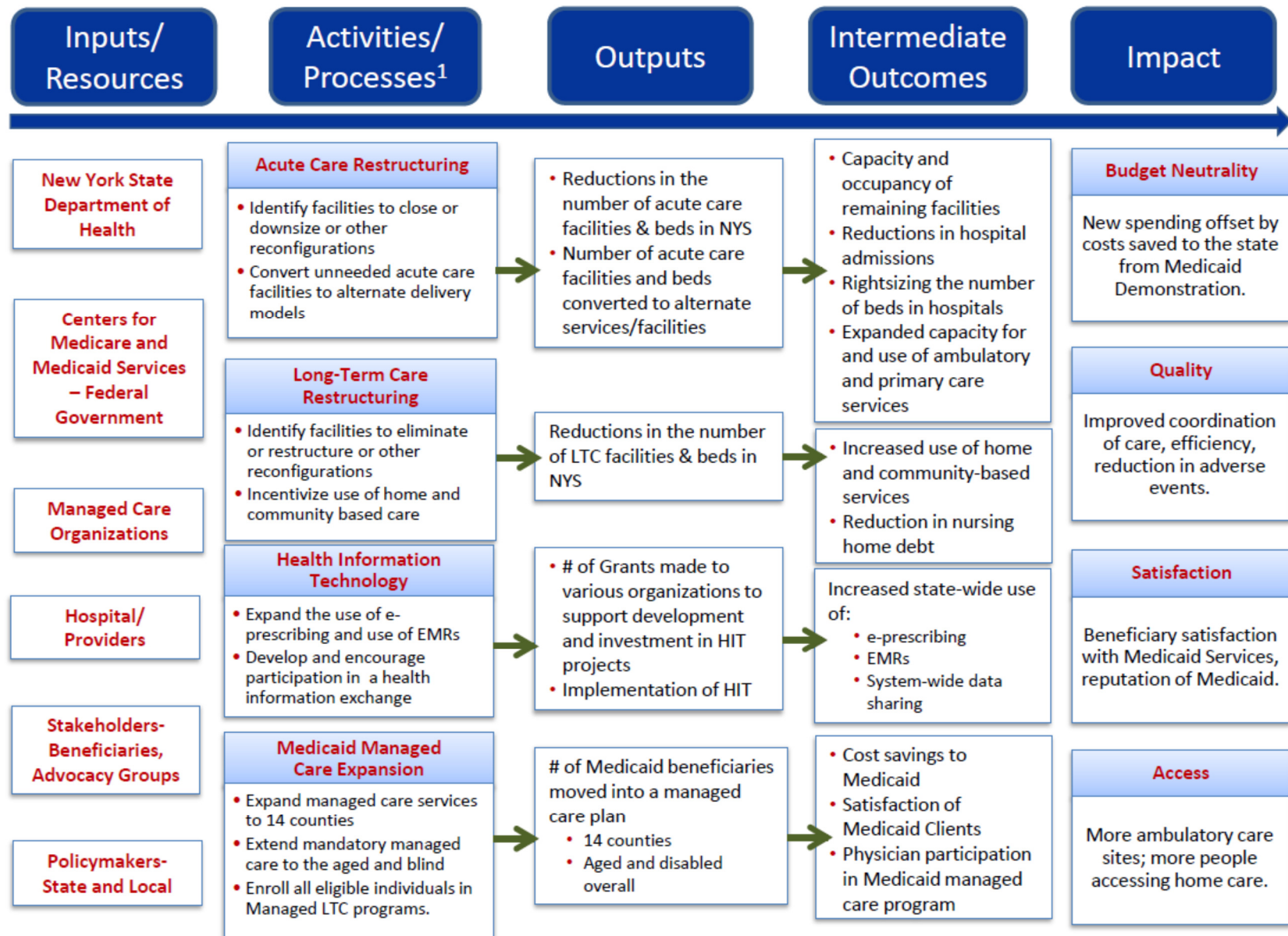
The five major goals of the F-SHRP waiver are designed to reduce costs and improve quality, satisfaction, and access. The mechanisms of effects and expected outcomes are summarized in the logic model and text below.

The first two goals, acute and long-term care restructuring, are expected to reduce costs by reducing more expensive inpatient and nursing home care, with high fixed costs, and incentivizing less expensive outpatient care. Acute care restructuring may improve quality by reducing unnecessary services (as theorized by Roemer's law) and should not infringe on patient satisfaction since procedures are increasingly being performed on an outpatient basis and the average length of stay has been decreasing. Decreasing nursing home occupancy and encouraging home and community-based care should also enhance satisfaction since aging at home and in the community has also been found to match public preferences and also to produce equivalent or better outcomes.

Expanding health IT should improve cost, quality, and satisfaction by gathering more precise and timely information to refine health care policies, monitoring health status and safety, and assist in guiding physician and patient treatment choices. Health IT can reduce costs by replacing expensive paper systems with an integrated infrastructure to allow for health information exchange.

Shifting to managed care both for mainstream Medicaid and LTC was intended to reduce costs and improve quality by offering the prospect for improved coordination of care for Medicaid beneficiaries. Managed long-term care programs have been shown to reduce the use of institutional services and to increase access to home and community-based service without compromising satisfaction since the preferences of individuals are generally to stay at home rather than move to a facility.

Figure 3. F-SHRP Logic Model



<sup>1</sup>Although the FSHRP waiver lists 5 goals, including expanding and improving primary care infrastructure, few activities specifically pertain to this goal, or rather achievement of this goal is viewed as a byproduct of the 4 specific activities undertaken as part of FSHRP.

## **Implementation of F-SHRP**

We discuss the implementation of F-SHRP in detail in the chapters on the individual goals, and an appendix provides a detailed chronology of events related to F-SHRP. In this section we provide a Gantt chart (*Figure 4*) to highlight important pieces of the chronology, and we discuss implementation issues that cut across goals.

Figure 4. Gantt Chart of F-SHRP-Related Chronology

	1997 2003	2003 2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Partnership Plan in Effect, As Extended</b>											
<b>FSHRP Waiver in Effect</b>											
<b>Goal 1: Acute Care Restructuring Implementation</b>											
Berger Commission Goes into Effect			Apr 2005- Dec 2006								
Berger Commission Mandate Carried Out (period of Special Authority)			Jan-07	Jun-08							
Continuation of Berger Commission Mandate past special authority											
<b>Goal 2: LTC Restructuring Implementation</b>											
Phase 8: Residential Health Care Facility (RHCF) Rightsizing				Aug-08							
Phase 12: Alternative Long Term Care Initiatives					Sep-09						
Phase 20: Alternative Long Term Care Initiatives #2					Oct-09						
Continuation of Rightsizing and HCBC initiatives											
<b>Goal 3: HIT Grants</b>											
HEAL 1 HIT grants (Pre-FSHRP)		May-06									
HEAL 5 HIT grants				Apr-08							
HEAL 10 HIT grants					Sep-09						
HEAL 17 HIT grants						Sep-10					
HEAL 22 HIT grants (Post-FSHRP)								Oct-12			
<b>Goal 4: Mandatory Medicaid Managed Care</b>											
First 5 counties made mandatory	Oct-97										
Additional counties	Oct-97	Jan-04									
14 FSHRP counties made mandatory			Jan-May 2007								
Additional post-FSHRP counties (managed care made mandatory in all counties Nov 2012)								Nov-12			
Expansion to SPMI population (different counties phased in incrementally)											
Expansion to PLWHA							Oct-11				
<b>Goal 5: MLTC Expansion</b>											
Mandatory enrollment of dual eligible recipients, 21 years of age or older needing more than 120 days of community based long term care services (gradual expansion across counties)								Sep-12			
All Medicaid recipients, age 21 or older, who become permanent nursing home residents will be required to enroll in a managed long-term care plan (phase-in schedule starting from NYC)										Apr-14	
<b>MRT &amp; DSRIP Waiver Amendment</b>											

A few overarching themes regarding the implementation of F-SHRP, including principal challenges and successes include the following:

1. Federal and state matching funds allocated to accomplish specific goals through the Health Care Efficiency and Affordability Law for New Yorkers (HEAL-NY) process (providing carrots to supplement the sticks provided through the Berger Commission process).
2. Special executive authority to achieve goals.
3. Centralized decision making complemented with community feedback/ participation.

A specific feature of F-SHRP that likely increased its effectiveness across goals was the use of federal and state matching funds, which provided important carrots to incentivize behavior apart from sticks. As implied in the title, much of the Federal-State Health Reform Partnership (F-SHRP) was implemented as a state-federal partnership with the federal government providing \$1.5 billion and the state using matching funds in the form of HEAL-NY grants to finance reforms to the system. Thus, F-SHRP was implemented simultaneously with a number of HEAL-NY grants that together financed reforms to the system.

In addition, statute gave the Department of Health special super powers to implement the recommendations related to the first and second restructuring goals, which lasted from January 2007-June 2008. This period of extraordinary authority allowed the Department of Health to have executive authority in the closing and restructuring of facilities that allowed it to bypass normal protocols that tend to hold up the process. Under normal circumstances, opposition to facility closing can hold the process up by inciting the state to intervene to prop up failing hospitals. But under the special authority of the Berger Commission, this was not an option.

In addition, across goals, stakeholders were involved in different ways that enhanced implementation. Feedback from stakeholders — clients, providers, managed care plans — was regularly integrated into implementation of the different goals.

Below we describe the details of the implementation of each goal that are relevant to explaining both successes and challenges to implementation as well as describing any simultaneous changes that were occurring within the system that may affect the interpretation of the evaluation of F-SHRP.

## The Evaluation Plan and How It Was Developed

The Special Terms and Conditions (STC) of the F-SHRP waiver required the Department of Health (DOH) to develop the design for the waiver evaluation and have it approved by CMS.<sup>91</sup> DOH developed the evaluation plan with technical assistance from a health care management consulting and research firm.<sup>92</sup> The plan was reviewed with CMS and was finalized toward the end of the F-SHRP Demonstration period.<sup>93</sup> The Rockefeller Institute of Government was not involved in developing the evaluation plan.

The overall goal of the F-SHRP evaluation is to assess the degree to which the key goals of the waiver have been achieved and the key activities of the waiver have been implemented.<sup>94</sup> It does not require an analysis of budget neutrality, but some required measures are related to Medicaid expenditures.

### Goals, Questions, and Measures

The evaluation plan identifies the five major goals of the waiver and the key activities associated with each goal. The plan includes a list of questions for each goal, a set of measures intended to address each question, and suggested DOH data sources for constructing the measures. For example, for Goal 1 (acute care restructuring) the first evaluation question is, “To what extent has the Demonstration resulted in reductions in the number of acute care facilities and beds?” The first measure associated with that question requires analysis of the number and type of acute care facilities eliminated or restructured, and the second requires analysis of beds associated with eliminated or restructured facilities.

*Table 2* in the next section lists the five major goals of F-SHRP and the evaluation questions associated with each goal.

Several measures were prescribed in the STC, including requirements to calculate potential expenditure savings from averting nursing home admissions and reducing hospital and nursing home debt, and to describe characteristics of managed long-term care enrollees and their access to care, but most measures were developed by DOH. The evaluation plan includes 38 separate measures in total, some of which require several pages of tables. Where the required measures are extensive, we summarize them in the text and provide full details in appendices.

DOH intentionally developed evaluation measures that could be produced with existing non-confidential data, or with summaries of confidential data that DOH would produce upon request.<sup>95</sup> One great strength of this approach is that it ensures that evaluation measures are calculable and that the evaluation is tractable. One disadvantage is that because the evaluation plan was not developed and integrated with the waiver from the start, data specifically designed for evaluation were not collected during the course of the waiver. In addition, many important questions about causality cannot be answered without use of confidential person-level data that allow comparisons of affected individuals to otherwise-similar control groups. Thus, the

evaluation plan generally does not include measures that can be used to assess the extent to which F-SHRP caused observed changes in the delivery of, access to, or quality of health care.

The evaluation plan does request that the evaluation address broader questions.<sup>96</sup> Among other things, it requests that the evaluator develop a theoretical framework depicting how specific Demonstration goals, tasks, and activities are causally connected; attempt to isolate the Demonstration's contribution to any observed outcomes and describe the relative contributions of other factors influencing those outcomes; and compare performance with state and national benchmarks where relevant and feasible.<sup>97</sup> The Department of Health emphasized that the evaluation should assess F-SHRP according to a specific set of aggregate measures, given that it would not be feasible to assess causality or isolate the role of F-SHRP due to the extraordinary data that would be needed to create appropriate control groups. (Because F-SHRP and other policy factors were statewide, there was no clear internal control group that might be constructed from regions that implemented F-SHRP initiatives at different time periods. Alternative approaches to constructing control groups, such as comparing New York to other states, also would have had prohibitive data needs, such as a merged dataset with detailed implementation measures and outcome measures terms before and during the waiver period in New York and other states.)



## Questions Included in the Evaluation Plan

*Table 2. Key F-SHRP Waiver Goals and Questions Included in the Evaluation Plan*

### **Goal 1: Acute care restructuring**

- 1.1) To what extent has the Demonstration resulted in reductions in the number of acute care facilities and beds?
- 1.2) What impact has acute care restructuring had on the capacity and occupancy of remaining facilities?
- 1.3) To what extent have acute care facilities been converted to alternate uses?
- 1.4) What have been the impacts of acute care restructuring on access to primary and specialty care?
- 1.5) To what extent has acute care restructuring reduced financial burdens associated with excess capacity?
- 1.6) To what extent has reduced excess bed capacity resulted in reductions in hospital admissions?

### **Goal 2: Long-term care restructuring**

- 2.1) To what extent has the Demonstration resulted in reductions in and reconfigurations of long-term care facilities - and services?
- 2.2) What have been the impacts of long-term care restructuring on the availability and use of home and community - based services?
- 2.3) To what extent has the Demonstration yielded reductions in debt payments for nursing homes?
- 2.4) To what extent have Medicaid nursing home admissions been averted as a result of the Demonstration?

### **Goal 3: Health Information Technology**

- 3.1) What Demonstration activities have aimed to improve the adoption or promote the use of e-prescribing?
- 3.2) What Demonstration activities have aimed to improve the adoption or promote the use of electronic medical - records (EMRs)?
- 3.3) What Demonstration activities have aimed to promote systemwide data sharing and gathering to support higher - quality care, transparency, and error reduction? -

### **Goal 4: Expand mainstream Medicaid managed care**

- 4.1) How many aged and disabled Medicaid beneficiaries (previously participating in the Partnership Plan) did the F-SHRP Demonstration affect?
- 4.2) How many Medicaid beneficiaries were affected by the expansion of mandatory managed care enrollment to 14 - additional counties? -

### **Goal 5: Expand Medicaid managed long-term care**

- 5.1) How has enrollment in MLTC plans increased over the length of the demonstration? -
- 5.2) What are the demographic characteristics of the MLTC population? Are they changing over time?
- 5.3) What are the functional and cognitive deficits of the MLTC population? Are they changing over time?
- 5.4) Are the statewide and plan-specific overall functional indices decreasing or staying the same over time? -
- 5.5) Are the average cognitive and plan-specific attributes decreasing or staying the same over time?
- 5.6) Are the individual care plans consistent with the functional and cognitive abilities of the enrollees? (Excluded due to lack of data.)
- 5.7) Access to Care: To what extent are enrollees able to receive access to personal, home care and other services such - as dental care, optometry and audiology?
- 5.8) Quality of Care: Are enrollees accessing necessary services such as flu shots and dental care?
- 5.9) Patient Safety: Are enrollees managing their medications? What are the fall rates and how are they changing over - time?
- 5.10) Satisfaction: What are the levels of satisfaction with the timeliness (how often services were on time/how often - the enrollee was able to see the provider at the scheduled time) and quality of network providers?
- 5.11) Costs: What are the per-member per-month (PMPM) costs of the population?

## Goal 1: Acute Care Restructuring

### Summary of the Chapter

The first goal of F-SHRP was to restructure various aspects of New York's acute care system. Within this broad goal, one objective was to decrease the excess bed capacity and consequently increase the occupancy rates for the acute care hospitals. The F-SHRP implementation targeted rightsizing the health care delivery system through various hospital reconfigurations including conversions and downsizings. Most hospital conversions involved converting bed types, service types, and facility types. The Commission on Health Care Facilities in the 21<sup>st</sup> Century (commonly known as the "Berger Commission" after its chairperson) recommended various conversions targeting 14 hospitals and the Health Care Efficiency and Affordability Law for New Yorkers (HEAL-NY) program provided grants to 31 hospitals for various conversions. Most of the hospital conversions were targeted to hospitals in the New York City, Hudson Valley, and Western regions. In recent years, New York implemented various policies targeted towards increasing physician participation in Medicaid Managed Care (MMC) with the objective of improving health care access for Medicaid beneficiaries. The last component of the acute care restructuring goal was to reduce hospital debt.

Our analysis indicates that after the implementation of F-SHRP there was a significant decrease in the number of beds and an increase in the occupancy rates for the hospitals that were targeted by the Berger Commission recommendations. However, the opposite trend occurred among the hospitals that were not directly impacted by the F-SHRP. Between 2006 and 2014, 19 hospitals and 5,956 hospital certified beds were eliminated, for declines of 7.7 percent and 9.7 percent, respectively, with the sharpest declines among hospitals targeted by the Berger Commission recommendations. The number of hospital certified beds declined by 11.6 percent among hospitals affected both by the Berger Commission recommendations and HEAL-NY capital grants (excluding the health IT grants), compared with a 5.9 percent decline among other facilities. Certified beds in hospitals affected by Berger Commission recommendations declined by 28.8 percent. The declines were steepest in the Western and New York City regions and smallest in the Long Island and Central regions.<sup>98</sup> The declines were a continuation of trends that began well before the start of F-SHRP: the number of hospital certified beds declined with an average annual rate of 1.3 percent between 2000 and 2006 as well as between 2006 and 2014.

Our analysis also shows a robust growth in the number of primary care and specialist physicians participating in MMC in the period following F-SHRP implementation. Between 2008 and 2013, the number of primary care physicians participating in MMC increased by 53.9 percent while the number of specialist physicians increased by 11.2 percent. The evaluation also required an analysis of the trends in primary and specialty care per member per month (PMPM) visits. Our analysis indicates stronger growth both in primary care and specialty care PMPM visits before the F-SHRP implementation, and much weaker average annual growth after the F-SHRP implementation.

The HEAL-NY program provided nearly \$700 million to 39 hospitals for debt retirement. However, adjusted long-term hospital debt appears to have been increased by \$4.4 billion between 2006 and 2012. The increase in debt resulted in combined cumulative federal and state Medicaid expenditures of \$286 million between 2006 and 2012 (*Table 24*). For reasons we give in the text related to data limitations, we caution against interpreting this as true costs to Medicaid, or attributing it to F-SHRP. While our analysis indicates increased hospital debt overall, F-SHRP did encourage and achieve substantial debt reduction to specific facilities through HEAL-NY grants. The increase in total debt is likely attributable to the new debt incurred at various hospitals that went through expansions and various reconfigurations.

Finally, the evaluation requires a calculation of potential Medicaid expenditure savings with a measure called the “value of averted hospital admissions,” which estimates how much higher Medicaid expenditures would have been if hospital discharges had not fallen relative to enrollment. It reflects fee-for-service savings, offset partially by increased hospital discharges in MMC plans. The number of Medicaid fee-for-service discharges declined by 62.4 percent between 2006 and 2013, suggesting substantial savings: annual statewide federal and state Medicaid savings in 2013 of \$3.3 billion, and cumulative savings from 2007 through 2013 of \$8.5 billion. These savings occurred in each region, with New York City having the largest share of savings.

### **Overview of the Goal**

Goal 1 of the F-SHRP Demonstration was “to create a more efficient acute care system in New York that promotes access to high quality, cost effective care.”<sup>99</sup> Key elements of the goal included implementing the Berger Commission recommendations for closing or modifying institutional facilities, and converting unneeded acute care facilities to alternate delivery models. The F-SHRP Demonstration also put a high emphasis on ensuring that more services are rendered in non-acute clinical settings by expanding ambulatory and primary care services.<sup>100</sup> These and several other elements also are described in the Special Terms and Conditions (STC) of the F-SHRP waiver.<sup>101</sup>

### **Motivation and Context**

As discussed in more detail in Chapter 4, New York is widely believed to have an oversupply of unused hospital beds that contribute to the overall expense of the health system including high Medicaid costs and the deteriorating financial condition of hospitals causing declining operating margins and, ultimately, hospital closings. Some of the intersecting trends that have led to a perceived “overbedding” problem include:

- A growth in ambulatory, or outpatient care centers made possible, in part, by new, more versatile medical technologies;
- Declining average length of stay as managed care principles and changes in payment mechanisms have expanded throughout the insurance market;
- Changing consumer preferences and demand for more outpatient care.

In regards to the growth of outpatient or ambulatory care, due to advances in technology, health care professionals now perform more procedures safely on an outpatient basis. This new capability saves both time and money, as patients do not have the expense of spending additional time in the hospital. Procedures conducted increasingly on an outpatient basis include blood tests, X-rays, endoscopy, some biopsies, catheterizations, and minor surgery. The use of ambulatory care has increased dramatically in recent years, with some estimates claiming 60 to 70 percent of all surgical procedures in the US are as outpatient. Revenues from ambulatory care are growing more rapidly than those from inpatient care.<sup>102</sup>

Hospital length of stay has also been declining over the past two decades as managed care companies discovered they could achieve significant cost savings by reducing the average length of stay on their commercial group per diem hospital contracts.<sup>103</sup> The advent of the Diagnostic Related Group (DRGs) in 1983 also created incentives to reduce the average length of stay,<sup>104</sup> though whether or not average length of stay lowers cost remains a source of debate.<sup>105</sup> Hospitals facing fixed operating costs and excess capacity (due to lower length of stay) have reduced per diem revenue and, consequently, have increased incentives to increase admissions which offsets some of the cost savings from shorter lengths of stay. In addition to the financial incentives from payers to reduce length of stay, this outcome is increasingly viewed as an indicator of quality, as following evidence-based guidelines on length of stay can reduce practice variation thereby increasing quality.<sup>106</sup> In response to increasing economic pressures, to achieve economies of scale, during the 1990s, the hospital industry consolidated through a series of mergers, acquisitions, and consolidation.<sup>107</sup>

Just prior to the approval of F-SHRP, excess capacity across New York was estimated to be more than 19,000 hospital beds. According to the Commission on Health Care Facilities in the 21st Century, the statewide hospital occupancy rate had fallen from 83 percent of certified beds in 1983 to 65 percent in 2004. Excess capacity is generally estimated based on a federal target of 85 percent hospital bed occupancy.<sup>108</sup>

Overall, the problem of oversupply is believed to be more acute in urban centers. Examining hospital bed density per 1,000 residents for regions of New York, the higher density areas are located in parts of New York City, including Manhattan and the Bronx. However, rural and urban areas face different challenges. In rural areas, hospital closings may generate a geographic shortage of hospitals that may pose a particular challenge, requiring rural residents to travel further for their hospital care.

As a result of the trends above, many hospitals in New York were facing bankruptcy or significant financial stress. Although market forces have somewhat addressed the issue, these trends have continued up to 2006, including concerns about how the market approach may affect safety net institutions that serve much of the most vulnerable, medically indigent population.

To stabilize hospital closures and reduce costs to the health care system, the Commission on Health Care in the 21st Century was formed with the mission of making informed recommendations to guide the process of hospital mergers and closings. The Commission Report requires the reconfiguration and/or closure of 57 hospitals, or 25 percent of all hospitals in the state.

The Commission's recommendations, in turn, were negotiated to be included as part of the F-SHRP waiver. Assuming the recommendations were not rejected by the Legislature, the Commission had been given special powers to implement all recommendations in a manner that waived normal protocol. In turn, CMS made receipt of federal funds conditional on the Legislature accepting the Berger Commission report recommendations in their entirety. HEAL-NY grants would be made available to facilities to facilitate the implementation of Commission recommendations.

### **F-SHRP Activities That Further the Goal**

As illustrated in the logic model (*Logic Model: Mechanism of Effect and Expected Outcomes*), the state intended to achieve acute care restructuring by identifying facilities to eliminate or restructure, and providing incentives for this purpose and for greater reliance on the MMC program. These activities were intended to reduce the number of hospitals and hospital beds in New York, reduce hospital debt and associated debt payments, avert hospital admissions and associated expenditures, and increase the use of MMC. This, in turn, was expected to help the state achieve budget neutrality without negatively affecting quality of care, access to care, or patient satisfaction with care.

The main F-SHRP activities intended to further Goal 1 were:

- Implementation of the Berger Commission recommendations for downsizing, closure, merger, and conversion of acute care hospitals.
- HEAL-NY grants intended to ease implementation of the Berger Commission recommendations.

The Berger Commission was created to review and strengthen New York's acute care delivery system. The Berger Commission made binding and nonbinding recommendations in a final report it issued in December 2006.<sup>109</sup> The binding recommendations were related to rightsizing health care institutions, which included consolidations, closures, conversions, and restructuring of 57 hospitals, or one-quarter of all hospitals in the state. The nonbinding recommendations were related to streamlining regulatory processes, for changes to the hospital and nursing home reimbursement systems. Thus, for the Legislature to reject the recommendations would have been tantamount to turning down \$1.5 billion in federal funds. As the governor approved the recommendations and the Legislature did not disapprove the report, it became binding as a matter of law in January 2007 and the Department of Health certified to CMS that there was no legislative impediment to implementing the report.

The implementation timeline for Berger Commission recommendations was very short: all recommendations had to be implemented before the Commission's super powers ran out after two years. Ultimately, all recommendations for Berger-identified facilities were implemented within two years or at least a binding plan was made. By the end of 2009, nine hospitals had been closed and almost 2,800 beds eliminated from the system.

The implementation of Berger recommendations was facilitated by several features of the Commission. First, to facilitate facility closing, hospitals were offered HEAL-NY grants to ease the closing of facilities rather than having them simply go bankrupt. This meant that a number of facilities that were struggling voluntarily accepted HEAL-NY grant money to ease the closure. The HEAL-NY grants were noncompetitive, but an awards committee needed to determine funding allocations and evaluate compliance. To accomplish this, the HEAL-NY unit established both technical and financial review teams that made recommendations to the awards committee. The awards committee, comprised of members of the core monitoring team described above, staff from the HEAL-NY unit and staff from the Dormitory Authority of the State of New York, was responsible for developing a distribution strategy for grants to Commission facilities.

The first set of facilities to close were facilities that wanted to comply and receive funds to close voluntarily. The next fiscal year was primarily comprised of facilities that were reluctant to close, but accepted funds to smooth the process of closing. Other facilities were more reluctant to close.<sup>110</sup>

A second feature of the Berger Commission that facilitated implementation was the heavy involvement throughout the process of different stakeholders that helped to address community concerns. Although the process of merging and closing facilities was contentious, disputes were mitigated by the involvement of Regional Advisory Committees (RACs) of local stakeholders that were formed to foster discussions and conduct public hearings so that they could solicit input from local stakeholders. The RACs were tasked with developing and justifying recommendations, identifying timelines, specifying necessary investments, and issuing a report to the Commission.<sup>111</sup> The Commission was required to collaborate with the RACs to solicit input. In addition, the Commission was required to formally solicit recommendations from health care experts, county health departments, community-based organizations, state and regional health care industry associations, labor unions, and other interested parties in each region of the state, and to take that input, and the RAC recommendations, into account during its deliberations. The involvement of these stakeholders helped to legitimize the Commission process.

Merger recommendations were often as contentious as closures. For instance, recommendations that Catholic and nonsectarian facilities had to merge created controversy in spite of the facilities being offered funds to facilitate the merger. Although ultimately the decision to close or restructure a hospital was a centralized one outlined in the Berger report, there was a lot of work done through the RACs and with the local districts to ease the transition.<sup>112</sup>

In spite of the involvement of stakeholders, resistance to closure and restructuring was universal. All facilities made the case that closure was not necessary, offered other proposals, and made the case that they were vital to their communities. Overall, hospital closures and restructuring were more contentious than nursing home closures and restructuring. Nevertheless, all Berger Commission recommendations were carried out in compliance with the law.

The short time frame for implementation (within two years) meant a tight turn-around was necessary for implementation. Although ultimately all Berger Commission recommendations were implemented, a longer time horizon may have further smoothed what was a difficult and contentious process. On the other hand, because of the short time frame for implementation, there was less time and there were fewer opportunities for the restructuring process to be held up.

In 2008, DOH issued a report on its implementation of these recommendations, termed the “implementation report” in the text below.<sup>113</sup> The restructuring of health care institutions was partially supported through HEAL-NY grant awards.

As described in other chapters, HEAL-NY grants were rolled out in multiple phases and for different purposes. Phase 4 of the HEAL-NY program was exclusively dedicated to implementing the Berger Commission’s recommendations for hospital and nursing home restructuring. Phase 6 supported primary care expansions and was also relevant to this goal of acute care restructuring. According to data received from the Department of Health, 537 grant contracts were issued to various health care institutions in the total amount of over \$3 billion. About 53 percent of the 537 grant contracts were awarded to hospitals in the total amount of \$1.9 billion, or 64 percent of all HEAL-NY grant awards. In Phase 4, 38 contracts were awarded to hospitals in the amount of \$477.5 million, and 11 contracts were awarded to nursing homes in the amount of \$63.4 million. In Phase 6, hospitals were awarded 22 contracts in the amount of \$19.2 million for hospital reconfigurations to expand primary care, services, transitioning from emergency departments to urgent care centers, and strengthen quality improvements.

### **Other Activities and Trends That Affected the Goal**

Assessing the direct impact of F-SHRP and the implementation of Berger Commission recommendations on excess capacity in the hospital system is complicated by several concurrent trends in the hospital sector.

First, the motivation for the Berger Commission was the effect that market forces were already having on the financial performance of hospitals, including the amount of capital debt being carried by general hospitals, which was causing hospitals to close, but in an unplanned, haphazard manner that was often harmful to surrounding communities. A particular concern that motivated the Berger Commission was that the facilities that were closing were disproportionately facilities that provide services to low-income Medicaid clients and the uninsured. These were the facilities that were the most unstable financially. By contrast to market-driven closures, the Berger Commission tried to identify facilities that were not primarily

reliant on Medicaid. Instead, the Commission looked for facilities with some private payers in order to avoid penalizing facilities that service the poor. In this sense, the process aimed to be a form of “planned obsolescence” rather than market-driven obsolescence.<sup>114</sup> The Commission also chose institutions that were likely to close anyway to assist them in this process in a planned way. In addition, through the Berger process, it was possible to preserve certain needed services — such as St. Vincent’s Midtown AIDS program.

These concurrent changes to the hospital sector create some practical implications for interpreting the results from the evaluation of Goal 1. First is the question of how to isolate the changes that were purely waiver driven (i.e., the Berger Commission recommendations) from those that were market driven. For this report, we view only the facilities identified by the Berger Commission for closing and restructuring as F-SHRP driven and other facility closures as market driven, even though in practice both types of facilities may have similar profiles.

Second is that we would expect that as bed capacity decreases in a given catchment area, that bed occupancy rates should increase in surrounding catchment areas or in other facilities in the same catchment area. If capacity decreases, but occupancy rates do not increase elsewhere, it is possible to interpret this in one of two ways. First, it could be that patients are not seeking out needed care because of the hospital closure or reduced capacity/longer wait times. Alternatively, Roemer’s law would suggest that excess utilization (provider-induced demand) has been brought under control. Thus, lower capacity reduced unnecessary or excess care as opposed to displacing needed care.

We might also be particularly concerned about how facility closures and restructuring, whether market or Berger driven, impact Medicaid populations as opposed to private payers.

Another feature to consider is the fact that some HEAL-NY grants were aimed at converting in-patient facilities to outpatient facilities, depending on the HEAL phase. For instance, activities within HEAL 7 include service expansion (e.g., ER, urgent care, outpatient care), treatment room creation (39 rooms) and hospital consolidation. HEAL 16 supported an urgent care facility and other health care services in Greenwich Village for patients displaced by the closure of St. Vincent's Catholic Medical Center due to bankruptcy. Thus, capacity was redirected and not simply reduced. Again, market forces had already been pushing facilities to offer these types of shifts towards outpatient care and the HEAL-NY grants can be seen as a mechanism for achieving/incentivizing this ongoing process. More recent HEAL-NY grants actually increased some capacity. HEAL 21 grant contributed to medical redesign, which generated 240 beds (192 were nursing home beds and 48 were psychiatric beds).

The economic crisis, which began in 2007 during the height of the implementation of F-SHRP, may have had some independent impact on the restructuring of the hospital system. However, it is difficult to judge the independent impact of the crisis since the facilities identified by the Berger Commission, and other facilities, were already having financial trouble prior to the crisis.



In addition, it is important to bear in mind that the Berger Commission made its recommendations in 2006, working off 2004 data, but by 2008, the data were four years old. Consequently, more facilities ended up needing to close than had been expected from 2004 data.

Finally, the simultaneous implementation of Goal 4 (Mandatory Medicaid Managed Care), could have implications for the financial viability of safety net facilities if Medicaid clients that typically went to safety net providers now “move up” and out of safety net hospitals with their new private coverage with a more limited provider network.

## **Evaluation Questions and Measures**

### ***Overview***

The evaluation plan asks six main questions about Goal 1:

1. To what extent has the Demonstration resulted in reductions in the number of acute care facilities and beds?
2. What impact has acute care restructuring had on the capacity and occupancy of remaining facilities?
3. To what extent have acute care facilities been converted to alternate uses?
4. What have been the impacts of acute care restructuring on access to primary and specialty care?
5. To what extent has acute care restructuring reduced financial burdens associated with excess capacity?
6. To what extent has reduced excess bed capacity resulted in reductions in hospital admissions?

### ***Question 1.1. To What Extent Has the Demonstration Resulted in Reductions in the Number of Acute Care Facilities and Beds?***

The evaluation plan requires us to examine changes in acute care hospitals and beds, and distinguish between facilities that were directly affected by F-SHRP and those that were not. We defined facilities that were affected by F-SHRP as those that were either included in a Berger Commission mandate, or were a beneficiary of a HEAL-NY grant.

We used the Health Facilities Information System (HFIS) data to estimate the number of hospitals closed before and after the Demonstration as well as the number of certified beds that had been eliminated as a result of the acute care facility closures.<sup>115</sup> The HFIS records whether an acute care facility was closed any time during the given calendar year, and relevant dates.

*Table 3* below shows that 71 hospitals have been closed since 1986, of which 19 closed since 2006. While hospital closings are not a new development, the data indicate that recent closings have affected larger hospitals. From 1986 to 2014, about 8,574 beds were closed, of which 3,686 beds or 43 percent of the beds were closed since 2006. Twelve out of 19 hospitals that closed

between 2006 and 2014 were hospitals with over 150 beds (see *Table 6*). For example, St. Vincent’s Manhattan Hospital, which closed in 2011, had 727 beds that represented about 20 percent of all 3,686 beds that were closed between 2006 and 2014.

*Table 3. Number of Hospitals Closed and Types of Beds Closed, Selected Years*

Period	# Hospitals Closed	Types of Beds Closed						Total Beds
		Medical/Surgical	Pediatric	Maternity	Psychiatric	Neonatal	Other	
1986-1990	16	843	46	19	30	0	65	1,003
1991-1995	8	374	36	31	0	0	76	517
1996-2000	11	551	0	18	81	0	173	823
2001-2005	17	1,785	119	66	135	15	425	2,545
2006-2014	19	2,448	77	106	215	16	824	3,686
<b>Total (1986-2014)</b>	<b>71</b>	<b>6,001</b>	<b>278</b>	<b>240</b>	<b>461</b>	<b>31</b>	<b>1,563</b>	<b>8,574</b>
<i>Share of Post-FSHRP Closures</i>	<i>26.8%</i>	<i>40.8%</i>	<i>27.7%</i>	<i>44.2%</i>	<i>46.6%</i>	<i>51.6%</i>	<i>52.7%</i>	<i>43.0%</i>

Source: Rockefeller Institute analysis of HFIS data.

In our analysis, we have classified the hospitals into three groups:

1. Hospitals that were directly affected by Berger Commission recommendations (many of which received HEAL-NY grants to assist in implementing the recommendations);
2. Hospitals that were not affected by Berger Commission recommendations but were recipients of HEAL-NY grants (in this section we excluded hospitals that were recipients of HEAL-NY grants related to Health Information Technology (health IT) as those facilities are the focus of the discussion for goal 3);
3. Hospitals that were neither part of Berger Commission recommendations nor recipients of HEAL-NY grants.

The Berger Commission recommendations involved 57 hospitals. In total, 134 hospitals received HEAL-NY nonhealth IT grants, of which 48 hospitals were part of the Berger Commission recommendations. Therefore, there were 86 hospitals that were HEAL-NY nonhealth IT grant recipients and were not part of the Berger Commission recommendations.

In total, 19 hospitals were closed between 2006 and 2014, of which 12 hospitals were part of the Berger Commission recommendations. Of the remaining hospitals, 10 also received HEAL-NY grants, and only one was not part of the Berger Commission recommendations. Six out of 19 closed hospitals were neither part of the Berger Commission recommendations nor HEAL-NY grant recipient.

*Measure 1.1.1. Number and Type of Acute Care Facilities Eliminated or Restructured*

As mentioned above, the number of hospitals in New York had been decreasing before F-SHRP was implemented, from 265 in 2000 to 248 in 2006. Another 19 facilities were eliminated after F-SHRP’s implementation, down to 229 in 2014, a decline of 7.7 percent from 2006 (see *Table 4*). According to our analysis, the decline of the number of facilities did not accelerate since the implementation of F-SHRP.

The declines in the acute care facilities were greatest among facilities that had been targeted by F-SHRP, either through recommendations of the Berger Commission, or by HEAL-NY grants. There was a 9.1 percent reduction in the number of these facilities, compared with a 5.7 percent reduction in the number of other facilities. Among facilities affected by the Berger Commission recommendations, there was a 21.1 percent reduction (see *Table 4*).

*Table 4. Number of Hospitals in New York by F-SHRP Status, 2006 vs. 2014*

<b>Hospitals</b>	<b>2006</b>	<b>2014</b>	<b>Change</b>	<b>Percent Change</b>
<b>NYS Total</b>	<b>248</b>	<b>229</b>	<b>(19)</b>	<b>-7.7%</b>
<b><i>Facilities Directly Affected by F-SHRP</i></b>	<b><i>143</i></b>	<b><i>130</i></b>	<b><i>(13)</i></b>	<b><i>-9.1%</i></b>
Berger Commission	57	45	(12)	-21.1%
HEAL-NY Only	86	85	(1)	-1.2%
Facilities not Directly Affected by F-SHRP	105	99	(6)	-5.7%
Source: Rockefeller Institute analysis of HFIS data.				

*Table 5* below shows the number of acute care hospitals by region as well as the change between 2006 and 2014. The fastest reduction in the number of acute care facilities occurred in New York City, with a loss of 15.3 percent. The Northern region had the slowest declines in the number of acute care facilities.

*Table 5. Number of Hospitals in New York by Region, 2006 vs. 2014*

<b>Regions</b>	<b>2006</b>	<b>2014</b>	<b>Change</b>	<b>Percent Change</b>
<b>NYS Total</b>	<b>248</b>	<b>229</b>	<b>(19)</b>	<b>-7.7%</b>
Central	53	51	(2)	-3.8%
Northern	28	27	(1)	-3.6%
Western	31	29	(2)	-6.5%
Hudson Valley	40	38	(2)	-5.0%
Long Island	24	23	(1)	-4.2%
New York City	72	61	(11)	-15.3%
Source: Rockefeller Institute analysis of HFIS data.				

Table 6 below provides a detailed listing of hospitals that were closed since 2006. Eleven of 19 hospitals closed were located in New York City.

*Table 6. Listing and Details of Hospitals Closed Since 2006, Sorted by Closing Date*

<b>Hospital Name</b>	<b>Hospital Classification</b>	<b>County</b>	<b>Region</b>	<b>Closing Date</b>	<b>Total # of Beds Before the Closure</b>
Brunswick Hospital Center Inc.		Suffolk	Long Island	5/23/2007	64
Manhattan Eye Ear and Throat Hospital	Berger / HEAL-NY	New York	NYC	1/31/2008	150
St. Vincent's Midtown Hospital	Berger / HEAL-NY	New York	NYC	3/10/2008	250
Victory Memorial Hospital	Berger / HEAL-NY	Kings	NYC	6/5/2008	243
Cabrini Medical Center	Berger / HEAL-NY	New York	NYC	6/16/2008	452
Parkway Hospital	Berger	Queens	NYC	11/7/2008	251
St. John's Queens Hospital		Queens	NYC	3/6/2009	227
Mary Immaculate Hospital		Queens	NYC	3/6/2009	189
Eddy Cohoes Rehabilitation Center		Albany	Northern	3/31/2009	37
Albert Lindley Lee Memorial Hospital	Berger / HEAL-NY	Oswego	Central	4/26/2009	67
St. Francis Hospital - Beacon Division	HEAL-NY grant	Dutchess	Hudson Valley	9/18/2009	100
North General Hospital	Berger	New York	NYC	7/9/2011	200
SVCMC-St Vincent's Manhattan	Berger / HEAL-NY	New York	NYC	8/5/2011	727
ORMC — Middletown Campus	Berger	Orange	Hudson Valley	8/5/2011	276
The Heart Institute		Richmond	NYC	2/1/2012	0
Millard Fillmore Hospital	Berger / HEAL-NY	Erie	Western	3/31/2012	169
Peninsula Hospital Center	Berger /	Queens	NYC	4/9/2012	173

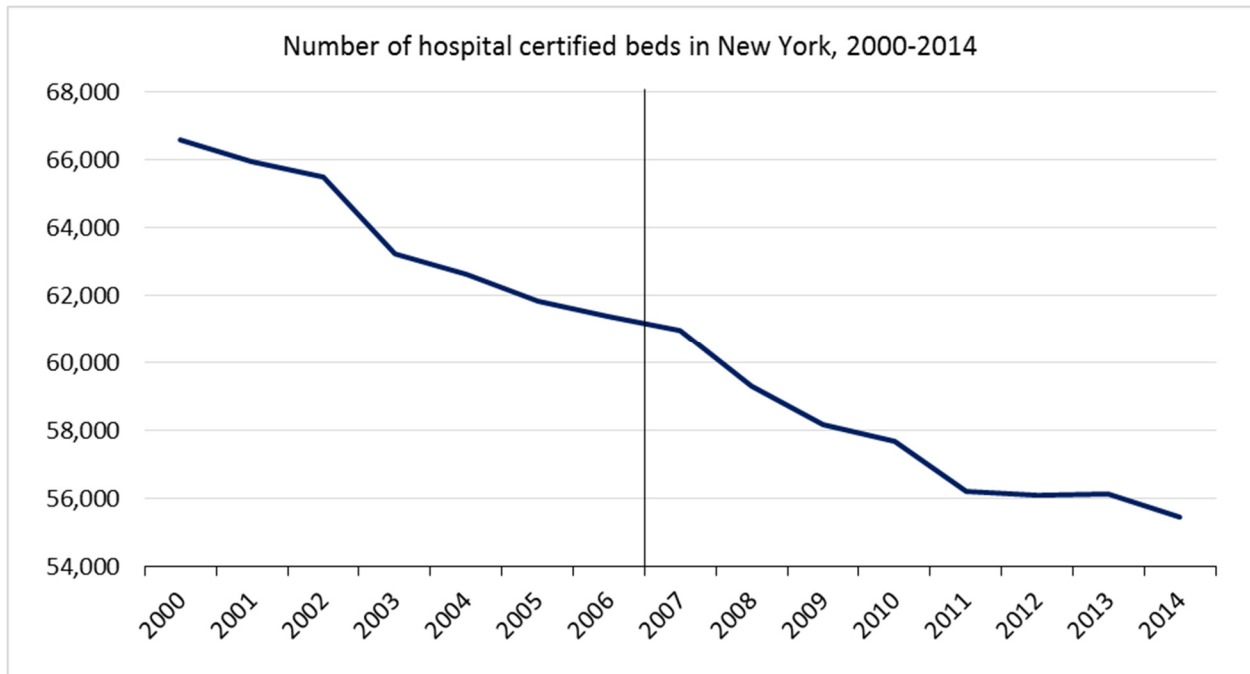
Hospital Name	Hospital Classification	County	Region	Closing Date	Total # of Beds Before the Closure
	HEAL-NY				
Sheehan Memorial Hospital	Berger / HEAL-NY	Erie	Western	5/31/2012	50
Lakeside Memorial Hospital		Monroe	Central	4/26/2013	61

Source: Rockefeller Institute analysis of HFIS data, Berger Commission recommendations, and HEAL-NY grant data.

*Measure 1.1.2. Number of Beds Associated with Eliminated/Restructured Facilities*

The ongoing decline in the number of certified hospital beds did not accelerate after F-SHRP implementation. As shown in *Figure 5*, the number of beds declined by 5,195 beds, or 7.8 percent from 2000 to 2006, an average annual decline of 1.3 percent.<sup>116</sup> The declines in hospital certified beds continued showing similar trends after the implementation of the F-SHRP. From 2006 to 2014 the number of certified beds declined by 5,956 beds, or 9.7 percent, again with an average annual decline of 1.3 percent.

*Figure 5. Reduction in Hospital Beds Continued After the F-SHRP Implementation*



Although the overall decline of the number of hospital beds did not accelerate after the F-SHRP implementation, these declines were greatest among facilities that had been targeted by F-SHRP. There was an 11.6 percent reduction among affected facilities from 2006 to 2014, compared with

a 5.9 percent reduction in beds at other facilities. Among facilities affected by the Berger Commission recommendations, there was a 28.8 percent reduction from 2006 to 2014. The declines in the number of certified beds increased dramatically for Berger Commission hospitals in the post-F-SHRP period (see *Table 7*).

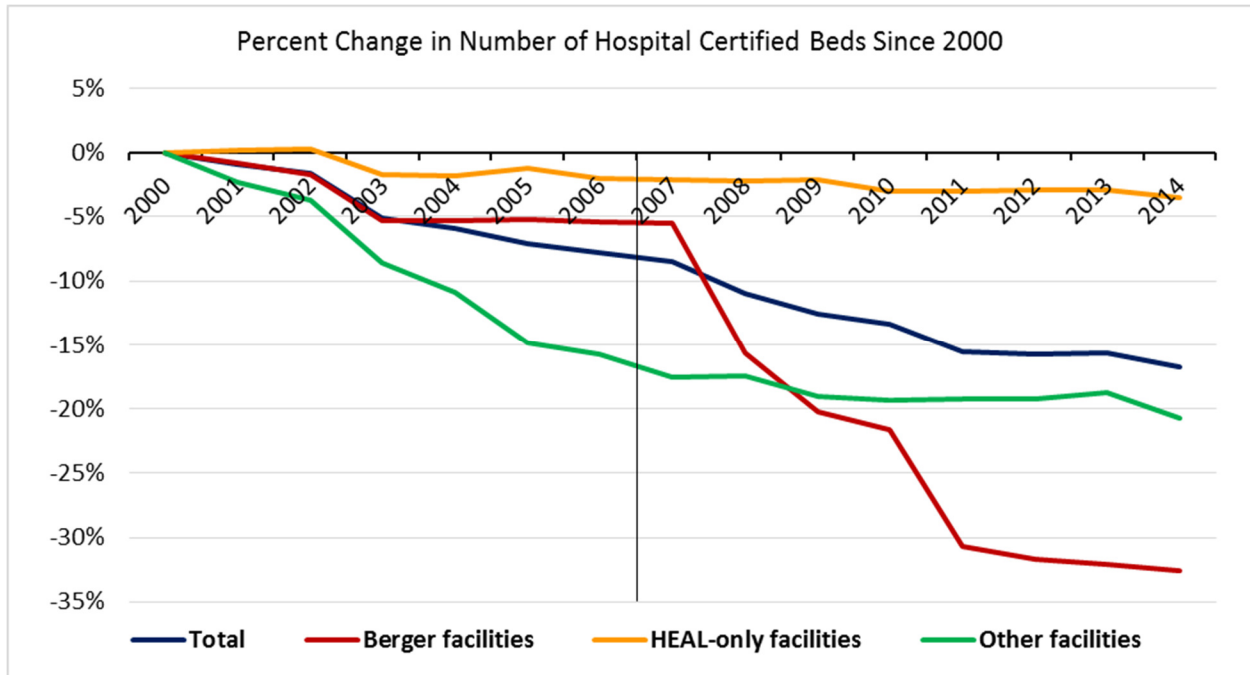
*Table 7. Number of Hospital Certified Beds in New York, by F-SHRP Status*

Hospitals	2000	2006	2014	Change, 2000-06	Change, 2006-14	% Change, 2000-06	% Change, 2006-14
<b>NYS Total</b>	<b>66,606</b>	<b>61,411</b>	<b>55,455</b>	<b>(5,195)</b>	<b>(5,956)</b>	<b>-7.8%</b>	<b>-9.7%</b>
<i>Facilities Directly</i>							
<i>Affected by F-SHRP</i>	<i>42,659</i>	<i>41,238</i>	<i>36,475</i>	<i>(1,421)</i>	<i>(4,763)</i>	<i>-3.3%</i>	<i>-11.6%</i>
Berger Commission	16,146	15,272	10,881	(874)	(4,391)	-5.4%	-28.8%
HEAL-NY Only	26,513	25,966	25,594	(547)	(372)	-2.1%	-1.4%
<i>Facilities Not Directly</i>							
<i>Affected by F-SHRP</i>	<i>23,947</i>	<i>20,173</i>	<i>18,980</i>	<i>(3,774)</i>	<i>(1,193)</i>	<i>-15.8%</i>	<i>-5.9%</i>
Source: Rockefeller Institute analysis of HFIS data.							

*Figure 6* shows the total percentage change in the number of certified hospital beds for hospitals affected by the Berger Commission, hospitals affected by HEAL-NY grants, the remaining hospitals, and the statewide total, relative to 2000. Two points are clear:

- Between 2000 and the start of F-SHRP, the number of certified beds at Berger Commission hospitals declined at a lower rate compared to certified beds at hospitals unaffected by F-SHRP. The facilities that were affected only by HEAL-NY grants, but not the Berger Commission recommendations, did not see as much decline in the number of certified beds prior to F-SHRP implementation.
- After F-SHRP began, the number of certified beds at Berger Commission facilities fell dramatically, declining by nearly 27 percent in the first five years of F-SHRP. In contrast, beds at HEAL-NY-only facilities had modest declines. The number of beds at other facilities declined at a relatively steady rate since F-SHRP implementation.

Figure 6. Dramatic Declines in Beds at Berger Facilities after F-SHRP Implementation



The sharp decline in the number of beds at Berger Commission facilities reflects the Commission’s recommendations to downsize or close certain hospitals and the power of DOH to quickly enforce the Commission’s recommendations. However, it is important to emphasize that the Commission’s recommendations for downsizing and closure carefully took into consideration each individual hospital’s regional and local circumstances, and financial and programmatic characteristics (and sometimes those of neighboring facilities). In 2006, the number of beds at the Berger Commission facilities represented 24.9 percent of the total number of hospital beds in New York. By 2014, the share of beds at the Berger Commission facilities had declined 5.3 percentage points to 19.6 percent.

Table 8 presents regional variation in the number, change, and percent change of certified beds before and after F-SHRP implementation. The greatest reduction in certified beds after the implementation of F-SHRP occurred in the Western and New York City regions, at 15.2 and 13.0 percent, respectively. The Western region also saw the largest decline in the number of certified beds before F-SHRP. However, declines in the number of certified beds in New York City were not as sharp before F-SHRP implementation compared to the post-F-SHRP period. The Long Island and Central regions had the smallest declines in certified beds between 2006 and 2014, at 3.2 and 3.3 percent, respectively.

Table 8. Number of Hospital Certified Beds in New York by Region, 2006 vs. 2014

Region	2000	2006	2014	Change, 2000-06	Change, 2006-14	% Change, 2000-06	% Change, 2006-14
<b>NYS Total</b>	<b>66,606</b>	<b>61,411</b>	<b>55,455</b>	<b>(5,195)</b>	<b>(5,956)</b>	<b>-7.8%</b>	<b>-9.7%</b>
Central	9,000	8,296	8,020	(704)	(276)	-7.8%	-3.3%
Northern	4,635	4,432	4,115	(203)	(317)	-4.4%	-7.2%
Western	5,949	4,956	4,205	(993)	(751)	-16.7%	-15.2%
Hudson Valley	7,930	7,284	6,653	(646)	(631)	-8.1%	-8.7%
Long Island	8,272	7,781	7,530	(491)	(251)	-5.9%	-3.2%
New York City	30,820	28,662	24,932	(2,158)	(3,730)	-7.0%	-13.0%
Source: Rockefeller Institute analysis of HFIS data.							

We also analyzed the trends in the number of hospital beds for the following six types of beds: (1) medical/surgical, (2) pediatric, (3) obstetric, (4) psychiatric, (5) neonatal, and (6) all the other types. As depicted on *Table 9*, the medical/surgical beds constitute the largest share of all beds across all types of facilities. Among Berger Commission hospitals, medical/surgical beds had the largest declines from 2006 to 2014 at 34.5 percent. Among HEAL-NY hospitals, the largest declines were reported for pediatric beds at 16.5 percent and among the remaining hospitals, for psychiatric beds at 17.8 percent. For the state as a whole, the largest decline was reported for pediatric beds, at 16.4 percent from 2006 to 2014.



Table 9. Hospital Certified Beds by Bed Type and by F-SHRP Status

	Med/ Surgical	Pediatric	Obstetric	Psychiatric	Neonatal	Other	Total
<b>Number of Hospital Beds by Bed Type, 2014</b>							
Berger	6,421	371	546	1,134	351	2,058	10,881
HEAL-							
NY	15,507	1,125	1,559	2,915	798	3,690	25,594
Other	11,343	750	1,178	1,382	566	3,761	18,980
<b>Total</b>	<b>33,271</b>	<b>2,246</b>	<b>3,283</b>	<b>5,431</b>	<b>1,715</b>	<b>9,509</b>	<b>55,455</b>
<b>Percent Distribution of Hospital Beds, 2014</b>							
Berger	59.0%	3.4%	5.0%	10.4%	3.2%	18.9%	100.0%
HEAL-							
NY	60.6%	4.4%	6.1%	11.4%	3.1%	14.4%	100.0%
Other	59.8%	4.0%	6.2%	7.3%	3.0%	19.8%	100.0%
<b>Total</b>	<b>60.0%</b>	<b>4.1%</b>	<b>5.9%</b>	<b>9.8%</b>	<b>3.1%</b>	<b>17.1%</b>	<b>100.0%</b>
<b>Percent Change in Hospital Certified Beds, 2006 vs 2014</b>							
Berger	-34.5%	-29.7%	-21.2%	-12.6%	1.7%	-20.9%	-28.8%
HEAL-							
NY	1.2%	-16.5%	-10.1%	0.8%	1.3%	-4.9%	-1.4%
Other	-4.6%	-7.6%	-4.4%	-17.8%	9.1%	-6.7%	-5.9%
<b>Total</b>	<b>-10.1%</b>	<b>-16.4%</b>	<b>-10.3%</b>	<b>-7.5%</b>	<b>3.8%</b>	<b>-9.6%</b>	<b>-9.7%</b>
Source: Rockefeller Institute analysis of HFIS data.							

### Summary and Conclusions Related to Question 1.1

There were significant changes in the hospital industry in the period following F-SHRP. Between 2006 and 2014, 19 hospitals and 5,956 hospital beds were eliminated, corresponding to declines of 7.7 and 9.7 percent, respectively. The declines were sharpest among hospitals targeted by F-SHRP, particularly those subject to Berger Commission recommendations. Overall, the number of hospital beds declined by 11.1 percent among those hospitals, compared with a 5.9 percent decline among other facilities. Certified beds in hospitals affected by Berger Commission recommendations declined by 28.8 percent. The hospital bed declines were steepest in the Western and New York City regions, and smallest in Long Island and Central regions between 2006 and 2014; the decline accelerated particularly in New York City during that period. Moreover, the decline was concentrated in medical/surgical beds for the facilities affected by the Berger Commission. While hospital and bed reductions were occurring throughout the state well before F-SHRP implementation, the pace of bed reduction significantly accelerated after F-SHRP implementation for hospitals affected by Berger Commission recommendations.

***Question 1.2. What Impact Has Acute Care Restructuring Had On the Capacity and Occupancy of Remaining Facilities?***

The Berger Commission argued that the number of hospitals and bed capacity far outpace the demand in New York. The Commission stated that excess bed capacity is the cause for declining hospital occupancy rates. According to the Commission, statewide hospital occupancy rate dropped from 82.8 percent of certified beds in 1983 to 65.3 percent in 2004, a decrease of 17.5 percent.<sup>117</sup> The analysis conducted by the Commission also suggested that occupancy rates were particularly low in Western, Northern, and Central regions. The recommendations provided by the Berger Commission were targeted towards increasing the occupancy rates by restructuring hospitals and reducing bed capacity.

The evaluation plan asks us to describe the impact of acute care restructuring on the capacity and occupancy of hospitals that were not directly impacted by F-SHRP, with the objective of understanding whether acute care restructuring had led to higher occupancy rates and reduced excess bed capacity. We examine the impact of acute care restructuring on affected and nonaffected hospitals by analyzing changes over time in the number of beds, occupancy rates, and average length of stay (ALOS).<sup>118</sup> In addition, we also provide analysis for various regions of the state. The analysis is based on HFIS data as well as on data retrieved from the Institutional Cost Reports (ICRs). The time period for available ICR data is years 2000 through 2012.

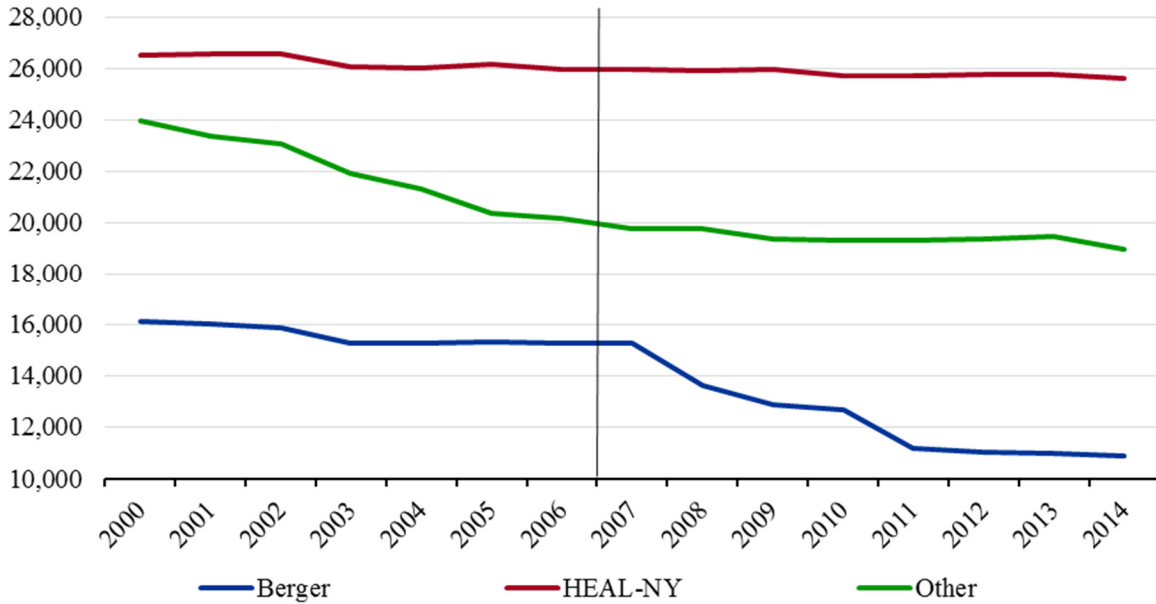
***Measure 1.2.1. Average Capacity and Occupancy of Remaining Facilities***

**Bed Capacity**

As discussed above, the declines in hospital beds accelerated for hospitals that were directly impacted by F-SHRP implementation, but softened significantly for hospitals that were not. There was a 5.9 percent (1,193) reduction in the number of beds among nonaffected facilities from 2006 to 2014, compared to 15.8 percent (3,774 beds) reduction that occurred between 2000 and 2006. Among hospitals that were directly impacted by F-SHRP implementation, the reduction in beds was 11.6 percent (4,763 beds) from 2006 to 2014, compared to a 3.3 percent (1,421 beds) reduction that occurred between 2000 and 2006. Our analysis indicates that before F-SHRP implementation, hospital bed reductions were mostly occurring in hospitals that were not part of F-SHRP implementation. However, after F-SHRP implementation, hospital bed reductions shifted from nonaffected facilities to affected facilities (see *Table 7*).

The shift in downsizing from nonaffected to affected hospitals is illustrated in *Figure 7*, which shows hospital bed capacity for affected and nonaffected hospitals from 2000 through 2014. Bed capacity has been relatively stable either before or after F-SHRP implementation among hospitals that were recipients of the HEAL-NY grants, but not part of the Berger Commission recommendations. Berger Commission hospitals had stable bed capacities before F-SHRP implementation, followed by large declines. Opposite trends were observed for the remaining hospitals: relatively sharp declines before F-SHRP implementation and more stable trends after implementation.

Figure 7. Hospital Bed Capacity by F-SHRP Status, 2000-2014



### Occupancy Rates

The hospital occupancy rate is defined as the percentage of beds that are occupied at a given time. The occupancy rate was computed by dividing hospital inpatient days by hospital bed days available.<sup>119</sup>

The occupancy rate for New York in 2012 was 76.1 percent, down from 76.6 percent in 2006.

Figure 8 shows occupancy rates for affected and nonaffected hospitals for 2006 vs. 2012.

Occupancy rates increased among hospitals that were part of the Berger Commission recommendations, which was quite anticipated due to implementation of various restructurings that included downsizing of hospital beds. However, the occupancy rates continued to fall for the remaining hospitals, including those that were recipients of HEAL-NY grants but not part of the Berger Commission recommendations.

Figure 8. Hospital Occupancy Rate by F-SHRP Status, 2006 vs. 2012

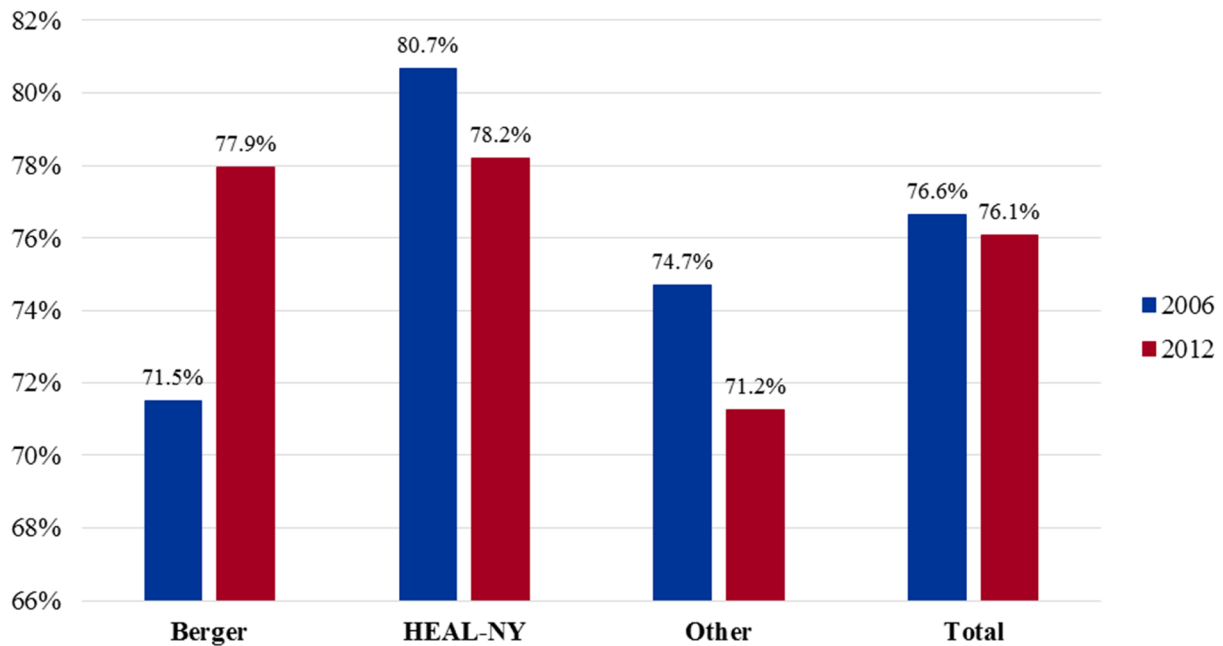


Figure 9 shows hospital occupancy rates for affected and nonaffected hospitals as well as for the state.<sup>120</sup> As with the bed capacity, occupancy rates were increasing before F-SHRP implementation, growing from 67.8 percent in 2000 to 76.6 percent in 2006 for the state. However, since F-SHRP implementation, the occupancy rates were mostly downward for hospitals that were not directly affected by F-SHRP implementation while the rates for Berger hospitals saw increased growth. The statewide hospital occupancy rates did not see significant increases in the post-F-SHRP period. Overall, there was a slight decline in occupancy rates from 2011 to 2012 for all groups of hospitals.

Figure 9. Trends in Hospital Occupancy Rates by F-SHRP Status, 2000-2012

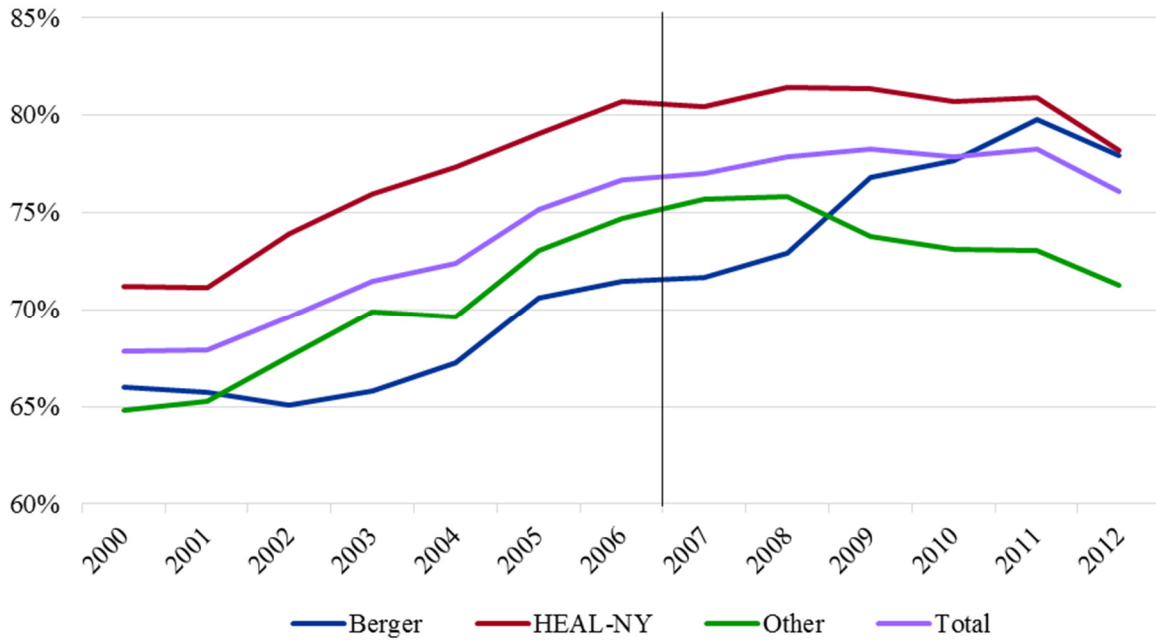
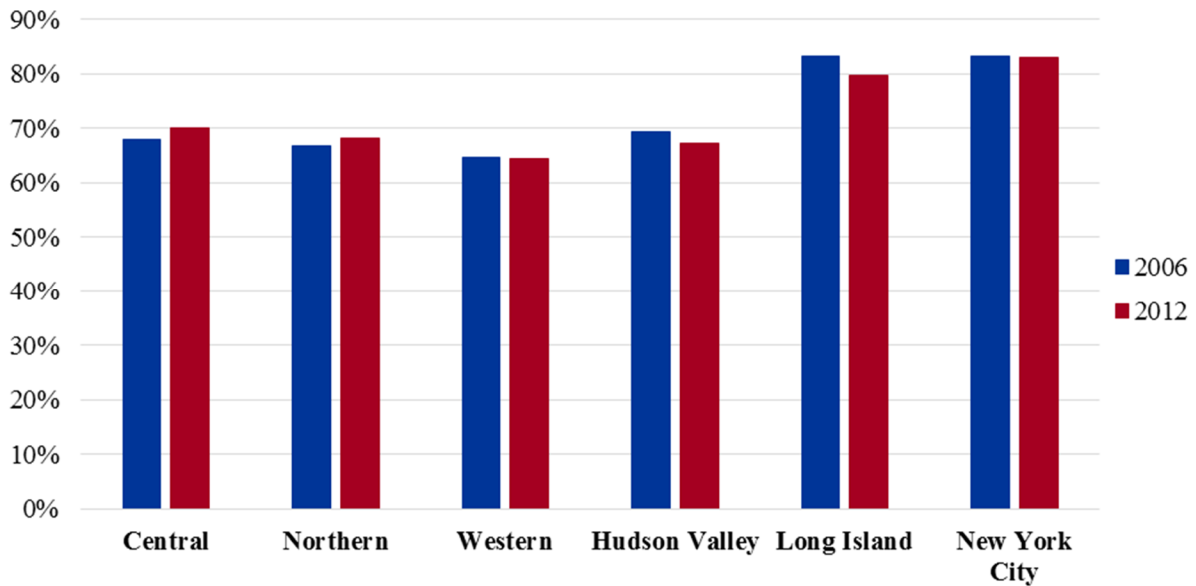


Figure 10 shows occupancy rates by region for 2006 vs. 2012. There was an unremarkable increase in occupancy rates in the Central, Northern, and Western regions between 2006 and 2012, while it declined in the other regions. The largest decline was in the Long Island region, where the occupancy rate declined from 83.1 percent in 2006 to 79.6 percent in 2012.

Figure 10. Hospital Occupancy Rate by Region, 2006 vs. 2012



### Average Length of Stay (ALOS)

Average length of stay is defined as the average number of days a patient spends in the hospital. It is computed by dividing hospital inpatient days by hospital discharges.<sup>121</sup>

The ALOS for New York in 2012 was 5.1 days, down from 5.3 days in 2006. *Figure 11* shows ALOS for affected and nonaffected hospitals for 2006 vs 2012. The ALOS declined in both affected and nonaffected hospitals, although the declines were as marked.

Figure 11. Hospital Average Length of Stay by F-SHRP Status, 2006 vs. 2012

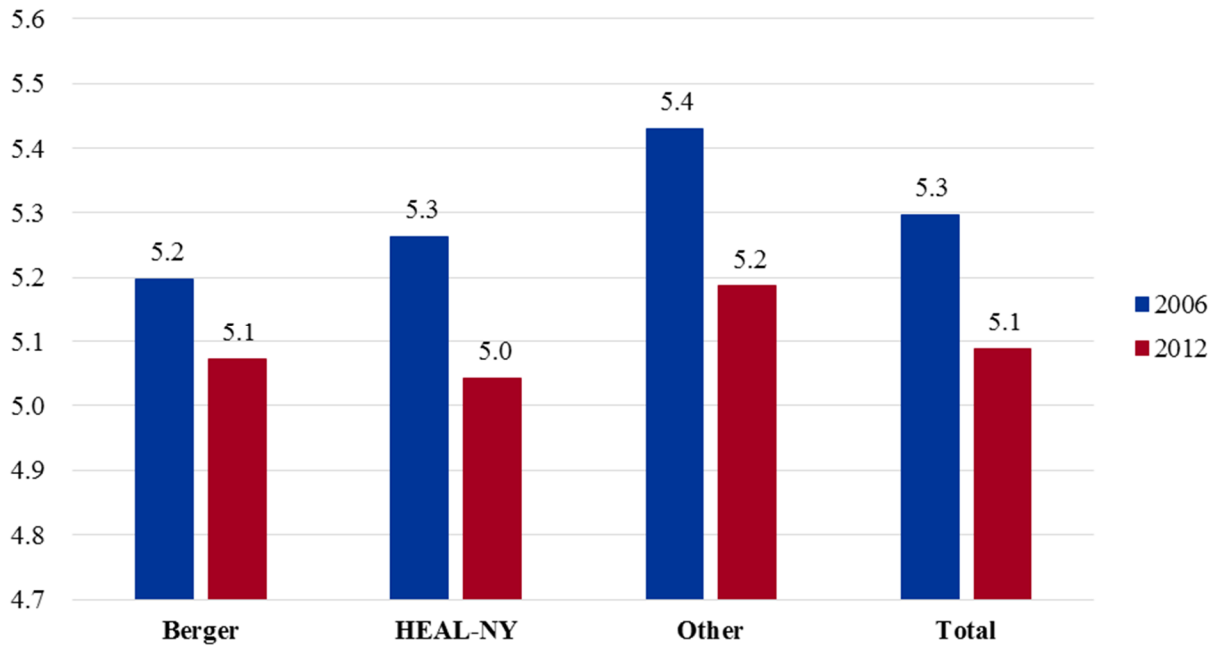


Figure 12 shows hospital ALOS for affected and nonaffected hospitals as well as for the state as a whole. The analysis indicates that the trends in ALOS were already downward before F-SHRP implementation, dropping from 5.8 days in 2000 to 5.3 days in 2006 for the state. There was a precipitous drop in the ALOS from 2008 to 2009 followed by a return to the statewide trend from 2010 to 2011 for both affected and nonaffected hospitals. Overall, the declines in ALOS were larger before F-SHRP implementation.

Figure 12. Trends in Hospital ALOS by F-SHRP Status, 2000-2012

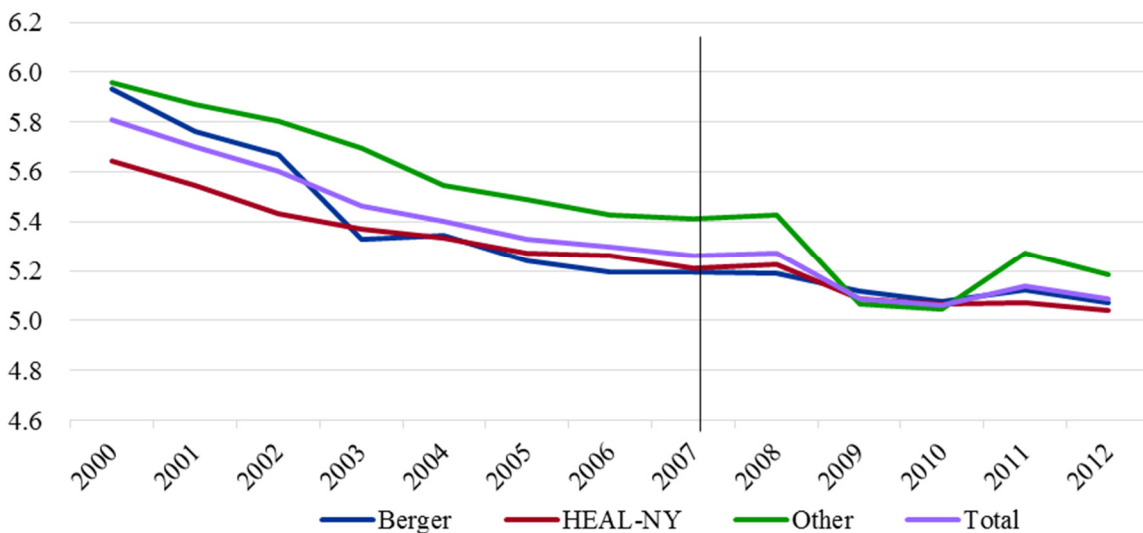
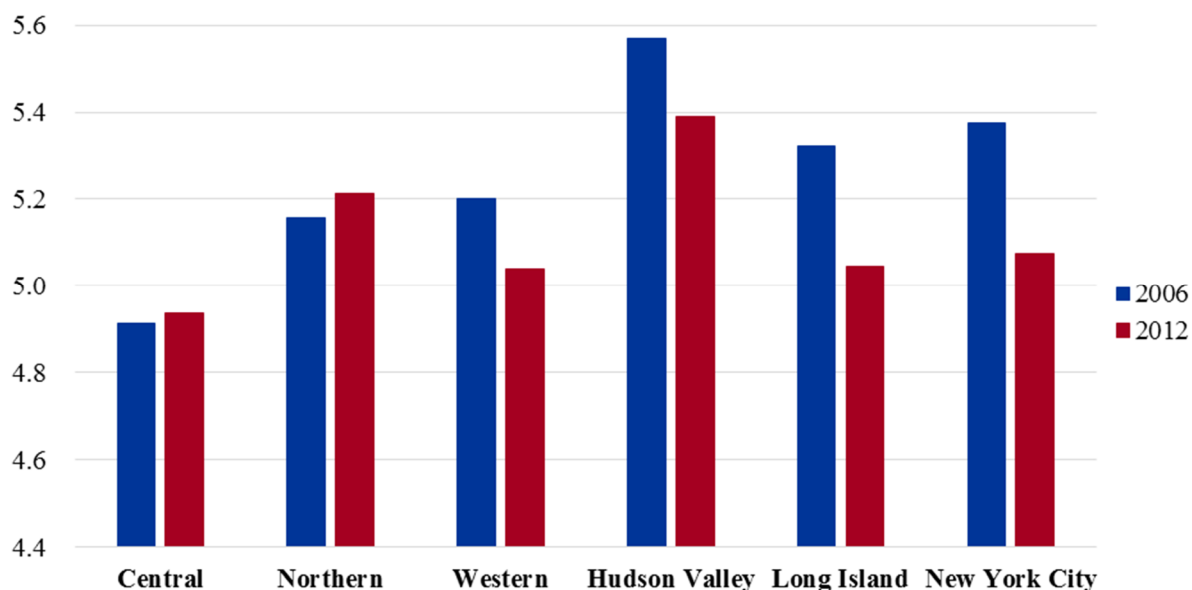


Figure 13 shows ALOS by region, again for 2006 vs. 2012. There was an unremarkable increase in ALOS in the Central and Northern regions between 2006 and 2012, while it declined in the rest of the regions.

Figure 13. Hospital Average Length of Stay by Region, 2006 vs. 2012



The Berger Commission analysis indicated that New York hospitals had higher ALOS compared to the national average and the high ALOS was not due to patient severity. Therefore, one of the Berger Commission recommendations was to reduce the ALOS, which would lead to significant cost benefits for the hospitals. While the ALOS declined in the post-F-SHRP period, the declines appear to be largely the continuation of a prior trend.

#### *Summary and Conclusions Related to Question 1.2*

Our analysis for hospital bed capacity, hospital occupancy rates, and hospital ALOS indicate similar trends before and after F-SHRP implementation across the state. The Berger Commission recommended lowering bed capacity and hospital ALOS and increasing occupancy rates. The analysis provided above indicates that both bed capacity and the ALOS were already decreasing, while the occupancy rates were rising before the F-SHRP implementation period, between 2000 and 2006. The overall statewide trends did not change dramatically in the post-F-SHRP period. However, there was a shift in the trends for the affected and nonaffected hospitals.

#### ***Question 1.3. To What Extent Have Acute Care Facilities Been Converted to Alternate Uses?***

The evaluation plan asks us to describe the impact of F-SHRP on acute care facility conversions. Our description of acute care facility conversions is based on the Berger Commission Recommendations and Implementation report descriptions, as well as the HEAL-NY grant data that was provided to us by DOH.



*Measure 1.3.1. Number of Acute Care Facilities Converted to Alternate Services/Facilities, e.g., Innovative Approaches to Emergency Services in Rural Areas and Other Ambulatory Care Uses*

First we used the Berger Commission recommendations and the descriptions provided in the implementation report to encode hospital conversions. In addition, we also used the HEAL-NY electronic grant data files and selected HEAL-NY grant descriptive materials to describe the acute care facilities that have been converted to alternative services/facilities.<sup>122</sup> These files served as the major sources for acute care hospital conversion information. We coded the hospitals as having gone through conversion based on the following two methods:

1. Based on the project award type documented by DOH. If the major award type indicated that the facility received the grant to facilitate conversion, a conversion coding was assigned.
2. Based on the descriptive sources. We carefully read the descriptions of the HEAL-NY grant contracts and assigned a conversion coding in the following three cases:
  - i. Conversion of **bed** types, for example, conversion of medical/surgical beds to pediatric beds.
  - ii. Conversion of **service** type, such as conversion of inpatient services to outpatient services.
  - iii. Conversion of **facility** type, such as conversion of acute care hospital to critical care hospital.

However, the following activities were not coded as conversion:

- a. Change of hospital ownership, such as from for-profit to not-for-profit.
- b. Conversion of double beds to single beds (or vice versa).
- c. Conversion of private rooms to semiprivate rooms (or vice versa).

Based on our coding of Berger Commission recommendations and implementation report descriptions, in total 14 hospitals were recommended for various conversions. *Table 10* provides a listing of hospitals and recommended type of conversions for each facility per Berger Commission recommendations and per the implementation report.

Table 10. Berger Commission and Implementation Report Recommended Hospital Conversions

Hospital	County	Region	Conversion Type	
			Berger	Implementation
Albert Lindley Lee Hospital	Oswego	Central	Service	Service
Beth Israel Medical Center — Petrie Campus	New York	NYC	Beds	Beds
DeGraff Memorial Hospital	Niagara	Western	Facility	Facility
J.T. Mather Memorial Hospital	Suffolk	Long Island	Beds	<b>No conversion</b>
Mt. Vernon Hospital	Westchester	Hudson Valley	Beds	Beds
ORMC (Arden Hill Hospital)	Orange	Hudson Valley	Facility	Facility
ORMC Middletown campus (Horton Medical Center)	Orange	Hudson Valley	Facility	Facility
Sound Shore Medical Center	Westchester	Hudson Valley	Beds	Beds
St. Charles Hospital	Suffolk	Long Island	Beds	<b>No conversion</b>
TLC Health Network — Lake Shore Hospital	Chautauqua	Western	Facility	Facility
TLC Health Network — Tri-County Memorial Hospital	Cattaraugus	Western	Beds	<b>No conversion</b>
Victory Memorial Hospital	Kings	NYC	Facility	Facility
Westfield Memorial Hospital	Chautauqua	Western	Service	Service
St. Joseph Hospital of Cheektowaga, New York	Erie	Western	<b>No conversion</b>	Facility
Source: Rockefeller Institute Analysis of Berger Commission Recommendations and Implementation Report.				

Based on our coding, a total of 30 HEAL-NY grant contracts were awarded to 28 hospitals to support conversions. Two hospitals, Orange Regional Medical Center and Sheehan Memorial Hospital, received two contracts each for various conversions. As shown in *Table 11*, eleven contracts involved bed conversions, five contracts involved changing part of hospital services to better address the needs of the community, and three contracts involved converting hospital facilities from one type to another. Based on the limited description of the contracts in the electronic documents we were provided, we were unable to determine the precise nature and type of the conversions for the remaining 14 hospitals.

Table 11. HEAL-NY Grant Contracts for Acute Care Facility Conversions

Types of Conversion	Number of Contracts
Conversion of Bed Type	11
Conversion of Service Type	5
Conversion of Facility Type	3
Unknown Conversion	14
<b>Total Contracts</b>	<b>33</b>
Source: HEAL-NY grant data.	

Table 12 represents the regional distribution of the 28 acute care facilities that went through conversions, as well as the grant amounts received for various conversions. The 30 hospitals received around \$209.7 million in support of various conversions. However, in some cases the contract amounts were not exclusively dedicated to conversion only and involved other activities as well, such as debt retirement, downsizing of hospitals, expansion of hospitals, etc. A majority of these facilities were located in New York City, followed by the Western and Hudson Valley regions. The Central, Long Island, and Northern regions had the fewest acute care facilities that went through conversions. While New York City had the largest share of hospitals receiving grants for various conversions, it received only 30.8 percent of the total grant amounts for various conversions. The Hudson Valley received the largest share of the grant amounts for the seven hospitals that went through various conversions.

Table 12. Acute Care Facility Conversions by Region (HEAL-NY)

Region	# Hospitals	% of Hospitals	Contract Amount	% of Contract Amounts
Central	3	9.7%	\$11,704,170	4.2%
Northern	1	3.2%	\$2,121,752	0.8%
Western	6	19.4%	\$44,024,203	15.9%
Hudson Valley	7	22.6%	\$121,200,000	43.8%
Long Island	2	6.5%	\$26,971,308	9.7%
New York City	12	38.7%	\$70,721,202	25.6%
<b>Total</b>	<b>31</b>	<b>100.0%</b>	<b>\$276,742,635</b>	<b>100.0%</b>
Source: HEAL-NY grant data.				

Table 13 repeats the same analysis displayed in Table 12, at the county level. The hospitals that received HEAL-NY grants for various conversions were located in 16 counties. Kings County had the largest share of hospitals receiving HEAL-NY grants for conversions. However, hospitals in Orange County received the largest share of the total grant amount for various conversions at 17.7 percent.

Table 13. Acute Care Facility Conversions by County (HEAL-NY)

County	# Hospitals	% of Hospitals	Contract Amount	% of Contract Amounts
Allegany	1	3.2%	1,067,258	0.4%
Chautauqua	2	6.5%	8,147,461	2.9%
Delaware	1	3.2%	1,500,000	0.5%
Erie	2	6.5%	22,184,484	8.0%
Orange	2	6.5%	49,100,000	17.7%
Suffolk	1	3.2%	3,000,000	1.1%
Westchester	3	9.7%	27,100,000	9.8%
Kings	5	16.1%	36,749,089	13.3%
New York	4	12.9%	26,872,113	9.7%
Cattaraugus	1	3.2%	12,625,000	4.6%
Clinton	1	3.2%	2,121,752	0.8%
Jefferson	1	3.2%	7,971,000	2.9%
Nassau	1	3.2%	23,971,308	8.7%
St. Lawrence	1	3.2%	2,609,000	0.9%
Steuben	1	3.2%	1,124,170	0.4%
Ulster	1	3.2%	43,500,000	15.7%
Queens	3	9.7%	7,100,000	2.6%
<b>Total</b>	<b>31</b>	<b>100.0%</b>	<b>276,742,635</b>	<b>100.0%</b>
Source: HEAL-NY grant data.				

*Table 14* lists the type of conversions for each facility. For bed conversions, most facilities have converted their medical/surgical beds to alternative uses, e.g., detox beds or psychiatric beds. These facilities includes: Champlain Valley Physicians Hospital Medical Center, Kingsbrook Jewish Medical Center, Nassau Health Care Corporation, TLC Health, and Sound Shore Medical Center. For the five acute care facilities involving service conversions, all of them converted their inpatient services to outpatient services. As for the facility type conversion, three projects had closed existing hospitals and replaced them with other facilities and in one project, a facility was converted to a critical access hospital.

Table 14. Details of Acute Care Facility Conversions

#	Hospital Name	Contract Amount	County	Region	Type	Conversion	
						From	To
1	Champlain Valley Physicians Hospital Medical Center	\$2,121,752	Clinton	Northern	Bed	M/S	Private Progressive Care I
2	Kingsbrook Jewish Medical Center	\$6,542,846	Kings	New York City	Bed	M/S	Psychiatric
3	Nassau Health Care Corp.	\$23,971,308	Nassau	Long Island	Bed	M/S	Psychiatric & Substance Abuse
4	Sound Shore Medical Center	\$12,400,000	Westchester	Hudson Valley	Bed	M/S	MICA unit & Detox
5	TLC Health Network*	\$12,625,000	Cattaraugus	Western	Bed	M/S	Detox
6	Beth Israel Medical Center	\$5,000,000	New York	New York City	Bed	Detox	Psychiatric
7	Forest Hills Hospital	\$3,500,000	Queens	New York City	Bed	—	—
8	NYC HHC — Elmhurst Hospital Center	\$1,500,000	Queens	New York City	Bed	—	—
9	NYC HHC — Queens Hospital Center	\$2,100,000	Queens	New York City	Bed	—	—
10	The New York and Presbyterian Hospital	\$7,800,000	Westchester	Hudson Valley	Bed	OASAS	OMH
11	The Woman's Christian Association of Jamestown	\$3,100,000	Chautauqua	Western	Bed	—	—
12	Brookdale Hospital Medical Center	\$4,000,000	Kings	New York City	Service	Inpatient	Outpatient
13	Samaritan Medical Center	\$7,971,000	Jefferson	Central	Service	Inpatient	Outpatient
14	Sheehan Memorial Hospital	\$7,184,484	Erie	Western	Service	Inpatient	Outpatient
15	Westfield Memorial Hospital	\$5,047,461	Chautauqua	Western	Service	Inpatient	Outpatient & Urgent Care
16	Woodhull Medical and Mental Health Center	\$1,975,613	Kings	New York City	Service	Inpatient	Outpatient
17	Bertrand Chaffee Hospital	\$4,500,000	Erie	Western	Facility	Converted to a critical access hospital	
18	New York Eye and Ear Infirmary	\$3,205,446	New York	New York City	Facility	Constructed new operating room	
19	Manhattan Eye, Ear & Throat Hospital	\$12,500,000	New York	New York City	Facility	Closed acute hospital and converted to an ambulatory care facility	
20	Orange Regional Medical Center	\$48,600,000	Orange	Hudson Valley	Facility	Closed 2 existing hospitals and replace with 1 inpatient focused facility	
21	Claxton-Hepburn Medical Center	\$2,609,000	St. Lawrence	Central		Unknown	
22	Delaware Valley Hospital	\$1,500,000	Delaware	Hudson Valley		Unknown	
23	Ira Davenport Memorial Hospital, Inc.	\$1,124,170	Steuben	Central		Unknown	
24	Lutheran Medical Center	\$13,230,630	Kings	New York City		Unknown	
25	Maimonides Medical Center	\$11,000,000	Kings	New York City		Unknown	
26	St. Charles Hospital*	\$3,000,000	Suffolk	Long Island		Unknown	
27	St. Luke's Cornwall Hospital	\$500,000	Orange	Hudson Valley		Unknown	
28	The Memorial Hospital of William F. & Gertrude F. Jones	\$1,067,258	Allegany	Western		Unknown	

\* The recommendation of conversion was contingent on OASAS and OMH approval.  
Source: HEAL-NY grant data.

### Summary and Conclusions Related to Question 1.3

Our analysis indicates that most of hospital conversions occurred in the New York City, Hudson Valley, and Western regions. These were also the regions receiving the most HEAL-NY funding, although not all HEAL-NY grants were dedicated to hospital conversions. Overall, the majority of conversions involved reconfigurations of bed types and service types. F-SHRP implementation for hospital conversions helped to address regional health care needs.

### Question 1.4. What Have Been the Impacts of Acute Care Restructuring on Access to Primary and Specialty Care?

The MMC provides comprehensive health care services to low-income uninsured individuals. F-SHRP implementation purported to promote and expand mandatory enrollment in the MMC program, as well as promote various policy changes designed to increase access to care and meet standards for physician to enrollee ratios.<sup>123</sup>

The evaluation plan asks us to describe physician participation in the MMC program by specialty as well as the number of primary and specialty care PMPM visits, with the objective of understanding the benefits achieved as a result of the MMC expansion. In this section, we analyze the trends in physician participation in MMC for primary care and specialist physicians as well as physician to MMC enrollee ratios. We also examine trends over time in MMC enrollment as a share of total enrollment and trends in primary and specialty care visits. The analysis is based on data summarized by DOH at our request. The time period for available data is from 2008 to 2013 for physicians and from 2000 to 2013 for primary and specialty care visits.

*Measure 1.4.1. Physician Participation in Medicaid Managed Care Program, by Specialty*

Increasing the number of qualified physicians participating in the MMC program is one of the key objectives of F-SHRP. Increased physician participation in MMC would help to improve health care access for Medicaid beneficiaries in New York. DOH has taken several steps and implemented various policy changes in recent years to achieve the goal of having more participating physicians in the MMC program. For example, in 2009, the state increased physicians' Medicaid reimbursements by 80 percent over the 2007 levels.<sup>124</sup>

Table 15 shows the number of primary care and specialist physicians as well as the number of total physicians participating in the MMC program from 2008 to 2013. These data indicate a significant increase in the total number of physicians participating in the MMC program. From 2008 to 2013, the number of total physicians increased by 31,561, or 63.4 percent, with an average annual growth of 10.3 percent. The number of primary care physicians increased by 10,387, or 53.9 percent, while the number of specialists increased by 18,207, or 69.8 percent. There has been a slight shift from primary care physicians to specialists: primary care physicians as a share of total physicians dropped by 2.2 percentage points from 38.7 percent in 2008 to 36.5 percent in 2013 while the share of specialist physicians increased by 2 percentage points from 52.4 percent to 54.5 percent.

*Table 15. Primary Care and Specialist Physicians Participating in MMC Program, 2008-2013*

<b>Physicians</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>Change, 2008-13</b>	<b>Change, 2008-13</b>
Primary Care	19,270	21,334	22,291	22,291	29,056	29,657	10,387	53.9%
Specialists	26,096	29,072	28,081	29,907	43,061	44,303	18,207	69.8%
<b>Total Physicians</b>	<b>49,784</b>	<b>56,558</b>	<b>53,535</b>	<b>55,910</b>	<b>78,565</b>	<b>81,345</b>	<b>31,561</b>	<b>63.4%</b>
Primary Care Share	38.7%	37.7%	41.6%	39.9%	37.0%	36.5%	-2.2%	-5.8%
Specialists Share	52.4%	51.4%	52.5%	53.5%	54.8%	54.5%	2.0%	3.9%

Source: Rockefeller Institute analysis of physician data summarized by DOH.  
Notes: 1/ The number of total physicians is higher than the sum of primary care and specialists due to the fact that not all of the physicians are categorized as primary or specialty given the MCCOR guidelines.  
2/ Data are as of the last quarter of the Federal Fiscal Year.  
3/ Physicians that have been sanctioned are excluded.

Table 16 shows the number of primary care and specialist physicians participating in the MMC program in 2008 and 2013 by region, as well as the growth rate for the period by region. While all regions saw significant growth in the number of primary care and specialist physicians, the growth was not evenly distributed. The largest growth for primary care physicians was recorded

in the Northern region at 95 percent, while the largest growth for specialists was recorded in Long Island at 134 percent. Overall, the Central and Western regions reported the softest growth both in primary care and specialist physician participation in MMC.

*Table 16. Primary Care and Specialist Physicians Participating in MMC Program by Region, 2008-2013*

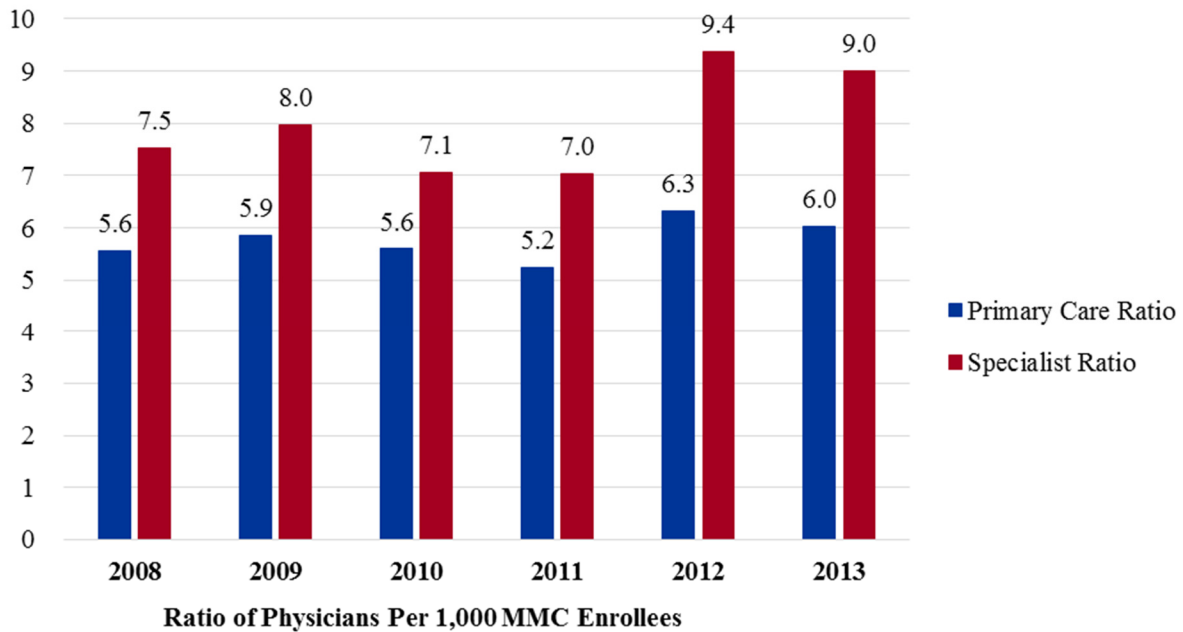
Region	Primary Care				Specialists			
	2008	2013	Change	% Change	2008	2013	Change	% Change
Central	2,808	4,114	1,306	46.5%	3,994	6,761	2,767	69.3%
Northern	1,301	2,536	1,235	94.9%	2,511	4,671	2,160	86.0%
Western Hudson Valley	1,691	2,596	905	53.5%	2,882	3,916	1,034	35.9%
Long Island	2,525	4,248	1,723	68.2%	3,829	7,926	4,097	107.0%
NYC	3,062	5,468	2,406	78.6%	4,419	10,340	5,921	134.0%
<b>NYS Total</b>	<b>11,977</b>	<b>19,689</b>	<b>7,712</b>	<b>64.4%</b>	<b>17,110</b>	<b>32,670</b>	<b>15,560</b>	<b>90.9%</b>
<b>NYS Total</b>	<b>23,364</b>	<b>38,651</b>	<b>15,287</b>	<b>65.4%</b>	<b>34,745</b>	<b>66,284</b>	<b>31,539</b>	<b>90.8%</b>

Source: Rockefeller Institute analysis of physician data summarized by DOH.  
Note: The total number of physicians reported in this table is greater than the ones reported in Table 10 due to duplicated physician data that were reported on a county level and aggregated to regional level. In other words, the counts of physicians were duplicated for those physicians who were simultaneously practicing in multiple counties.

The ratio of primary care physicians to 1,000 MMC enrollees increased from 5.6 in 2008 to 6.0 in 2013, while the ratio of specialty physicians to 1,000 MMC enrollees increased from 7.5 to 9 in the same period, as shown in *Figure 14*. The primary care physician to enrollee ratio dropped in 2010 and 2011, but resumed growth in 2012 and 2013. A similar pattern occurred for specialist physicians. Despite the drop in physician to enrollee ratios between 2009 and 2011, the number of physicians continued to grow for the same time period both for primary care and specialist physicians. It is possible that the drops in the physician to enrollee ratios in 2010 and 2011 were attributable to larger growth rates in MMC enrollment between 2009 and 2010.<sup>125</sup>



Figure 14. Primary Care and Specialist Physician Ratio per 1,000 MMC Enrollees

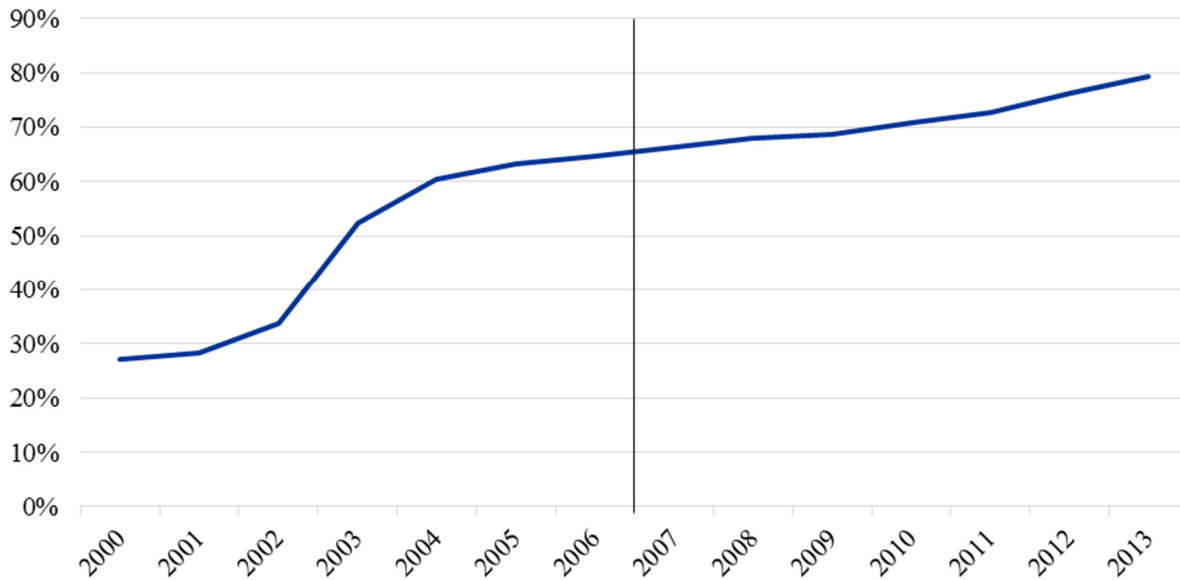


*Measure 1.4.2. Number of Primary and Specialty Care Visits PMPM*

Between 2000 and 2013, mainstream MMC enrollment continuously made up over 95 percent of total MMC enrollment. Therefore, we provide analysis of aggregated data for mainstream and nonmainstream MMC enrollment.

The growth in MMC enrollment as a share of total enrollment that began before F-SHRP was implemented did not accelerate afterward. As shown on *Figure 15*, MMC enrollment as a share of total enrollment grew from 27 percent in 2000 to 65 percent in 2006. MMC enrollment as a share of total enrollment showed continuous but much softer growth after implementation of F-SHRP. By 2013, MMC enrollment made up 79 percent of total enrollment.

Figure 15. MMC Enrollment as Share of Total Enrollment



The greatest growth in MMC enrollment as a share of total enrollment before F-SHRP implementation occurred in New York City and Long Island. The Central and Western regions had the softest growth in MMC enrollment as a share of total enrollment for the period between 2000 and 2006. After the implementation of F-SHRP, the Northern and Central regions experienced the largest growth, while New York City and the Western region reported the weakest growth in MMC enrollment (see *Table 17*).

Table 17. Total and MMC Enrollment by Region, Selected Years

Region	Total Enrollment			MMC Enrollment			MMC Enrollment as Share of Total Enrollment		
	2000	2006	2013	2000	2006	2013	2000	2006	2013
Central	398,206	586,260	747,898	138,668	274,878	522,394	34.8%	46.9%	69.8%
Northern	162,077	242,817	320,807	46,764	98,225	221,310	28.9%	40.5%	69.0%
Western	219,999	307,314	381,668	105,995	189,686	275,125	48.2%	61.7%	72.1%
Hudson Valley	229,791	337,493	486,458	61,671	174,617	365,695	26.8%	51.7%	75.2%
Long Island	182,315	321,137	479,036	43,360	192,048	362,350	23.8%	59.8%	75.6%
NYC	2,222,842	3,396,856	3,800,097	529,833	2,430,470	3,176,443	23.8%	71.6%	83.6%
<b>NYS Total</b>	<b>3,415,230</b>	<b>5,191,877</b>	<b>6,215,964</b>	<b>926,291</b>	<b>3,359,924</b>	<b>4,923,317</b>	<b>27.1%</b>	<b>64.7%</b>	<b>79.2%</b>

Source: Rockefeller Institute analysis of data summarized by DOH.

Figure 16 shows primary and specialty care PMPM visits for the state from 2000 to 2013. Both primary and specialty care PMPM visits showed nearly continuous growth from 2000 to 2006 before F-SHRP implementation, from 225 to 329 primary care PMPM visits and from 65 to 125 specialty care PMPM visits. Between 2000 and 2006, the average annual growth rate was 6.5 and 11.5 percent for primary care and specialty care PMPM visits, respectively. After F-SHRP implementation, both primary and specialty care PMPM visits showed continuous but weaker growth from 2006 to 2013. Primary care PMPM visits grew from 329 to 401, with an average annual growth of 2.9 percent. Specialty care PMPM visits grew from 125 to 179, with an average annual growth of 5.2 percent. Between 2009 and 2011, primary care PMPM visits decreased slightly, while specialty care PMPM visits showed weaker growth compared to the previous years. In 2011, the growth resumed for primary care PMPM visits, while specialty care PMPM visits declined from 2012 to 2013.

Figure 16. Primary vs. Specialty Care PMPM Visits, 2000-2013

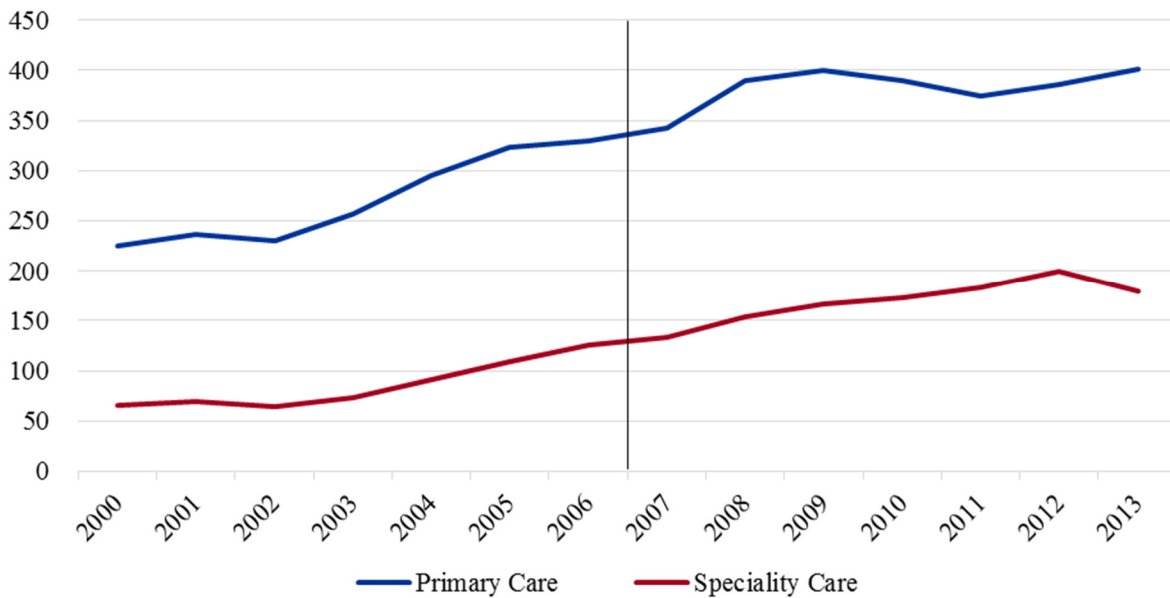


Table 18 below shows that the Long Island and Northern regions had the highest number of primary and specialty care PMPM visits in 2013. Primary care PMPM visits were the lowest in the Western region and the specialty care PMPM visits were the lowest in the Central region in 2013. Overall, the growth rates in both primary care and specialty care PMPM visits were robust for all regions between 2000 and 2006. However, growth softened considerably between 2006 and 2013. Primary care PMPM visits showed the weakest growth in the Western region between 2006 and 2013, while specialty care PMPM visits declined by 23.9 percent in the Northern region. Between 2006 and 2013, New York City reported the largest annual growth rate in both primary and specialty care PMPM visits at 3.2 and 6.9 percent, respectively.

Table 18. Primary vs. Specialty Care PMPM Visits by Region, Selected Years

Region	Primary Care PMPM Visits					Specialty Care PMPM Visits				
	2000	2006	2013	% Change 2000- 06	% Change 2006- 13	2000	2006	2013	% Change, 2000-06	% Change, 2006-13
Central	218	338	387	54.7%	14.7%	63	137	161	118.2%	17.3%
Northern	261	348	423	33.4%	21.8%	121	270	205	123.6%	-23.9%
Western	234	317	318	35.6%	0.2%	74	172	179	133.0%	4.2%
Hudson Valley	251	371	416	47.7%	12.3%	63	148	174	135.6%	17.8%
Long Island	277	370	442	33.6%	19.6%	68	140	192	107.3%	37.0%
NYC	216	323	403	49.5%	24.8%	59	112	179	88.9%	60.0%
<b>NYS Total</b>	<b>225</b>	<b>329</b>	<b>401</b>	<b>46.1%</b>	<b>21.8%</b>	<b>65</b>	<b>125</b>	<b>179</b>	<b>92.5%</b>	<b>42.9%</b>

Source: Rockefeller Institute analysis of data summarized by DOH.

#### *Summary and Conclusions Related to Question 1.4*

There was robust growth in the numbers of primary care and specialist physicians participating in MMC in the period following F-SHRP. Between 2008 and 2013, the number of primary care and specialty care physicians increased by 53.9 and 11.2 percent, respectively. Growth was also observed in primary care and specialist physician ratio per 1,000 MMC enrollees. The growth is largely attributable to various policies that the State implemented to increase physician participation in MMC, thereby improving health care access for Medicaid beneficiaries.

Our analysis indicated stronger growth both in primary care and specialty care PMPM visits before F-SHRP implementation, and much weaker average annual growth after implementation. It is possible that the increase in PMPM visits was caused by the enrollment of sicker people in the MMC program who used more health care services, on average.

#### ***Question 1.5. To What Extent Has Acute Care Restructuring Reduced Financial Burdens Associated With Excess Capacity?***

According to the Berger Commission, New York hospitals are the most heavily indebted in the nation and this debt will further destabilize the health care delivery system.<sup>126</sup> The various recommendations proposed by the Berger Commission on hospital restructuring were intended to assist hospitals with debt retirement.

The evaluation plan asks us to analyze debt retirement of affected facilities as well as describe the debt and type of debt associated with the remaining hospitals. In addition, the evaluation plan requires an assessment of the value of avoided debt payments. In order to assess whether F-SHRP activities were successful in reducing debt and debt payments for hospitals, we need to compare annual reported debt to debt in the base year of 2006 (the year immediately before F-SHRP), and estimate potential Medicaid savings resulting from lower debt payments.

The analysis of the debt retirement of affected facilities is based on the HEAL-NY grant data that were provided to us by DOH. For the analysis of debt and type of debt as well as for calculating the avoided debt payments for hospitals, we relied on data retrieved from ICRs.

*Measure 1.5.1. Debt Retirement/Restructuring of Affected Facilities*

The goal of reducing hospital debt was achieved through the use of HEAL-NY grants. Therefore, in this section we provide an analysis based on the HEAL-NY grant data.<sup>127</sup> For the HEAL-NY file we included a record for each grant recipient. Wherever possible, we associated a Permanent Facility Identifier (PFI) and operating certificate number with a grant recipient. Some hospitals received more than one HEAL-NY grant. In those cases, we aggregated debt amounts at the facility level.

Overall, 74 HEAL-NY grants were awarded for debt retirement, for a total amount of \$810 million. Hospitals received the largest share of the grants: 53 grants were awarded to hospitals with a total amount of \$689.6 million. Of the remaining 20 grants, 17 were for nursing homes and four were for Diagnosis and Treatment Centers (see *Table 19*).

*Table 19. HEAL-NY Grant Recipients for Debt Retirement*

<b>Grant Recipients</b>	<b># Recipients</b>	<b>Amount of Debt Retired</b>	<b>Amount of DASNY Debt</b>
Hospitals	53	\$689,594,584	\$257,316,819
Nursing Facilities	17	\$111,352,095	\$0
D&TCs	4	\$9,078,456	\$0
<b>Total</b>	<b>74</b>	<b>\$810,025,135</b>	<b>\$257,316,819</b>

Note: The grant awarded to Suffolk County Department of Health Services was dedicated for settling long term debt associated with the John J. Foley nursing facility. Therefore, we included it under nursing homes.  
Source: HEAL-NY Grant data provided by DOH.

*Table 20* shows the regional distribution of the unduplicated number of hospitals that received HEAL-NY grants for debt retirement, the number of hospitals that were also part of the Berger recommendations, the amount of debt retired, the amount of debt issued by Dormitory Authority of the State of New York (DASNY), the contract amount, and the debt retired as a share of the total contract amount. Overall, 39 hospitals received HEAL-NY grants for debt retirement, of which 13 hospitals were located in NYC. Twenty-two of 39 hospitals that received HEAL-NY grants were also part of the Berger Commission recommendations. In total, nearly \$690 million was awarded for the debt retirement, of which \$257 million, or 37 percent, was issued by DASNY. New York City and the Hudson Valley region received the largest grants. New York City received \$372 million, or 54 percent, of the statewide grant amount for debt retirement and Hudson Valley received \$122 million, or 18 percent. The Western region received the lowest

amount at \$25 million. The Northern region was the only region that was not provided with DASNY debt.

*Table 20. HEAL-NY Grants for Debt Retirement/Restructuring, by Region*

<b>Region</b>	<b># Hospitals (Unduplicated)</b>	<b>Berger Hospitals</b>	<b>Amount of Debt Retired</b>	<b>Amount of DASNY Debt</b>	<b>Contract Amount</b>	<b>Debt Retired as % of Contract Amount</b>
Central	6	1	\$56,408,707	\$9,569,207	\$57,483,707	98.1%
Northern	5	4	\$77,811,674	\$0	\$93,716,268	83.0%
Western Hudson Valley	6	5	\$25,224,389	\$3,614,336	\$32,734,281	77.1%
Long Island	7	5	\$122,412,505	\$2,482,250	\$152,815,107	80.1%
NYC	2	2	\$36,075,000	\$6,900,000	\$52,200,000	69.1%
<b>NYS Total</b>	<b>39</b>	<b>22</b>	<b>\$689,594,584</b>	<b>\$257,316,819</b>	<b>\$728,830,186</b>	<b>94.6%</b>

Note: Several hospitals received multiple grants for debt retirement. We aggregated data as appropriate.  
Source: HEAL-NY Grant data provided by DOH.

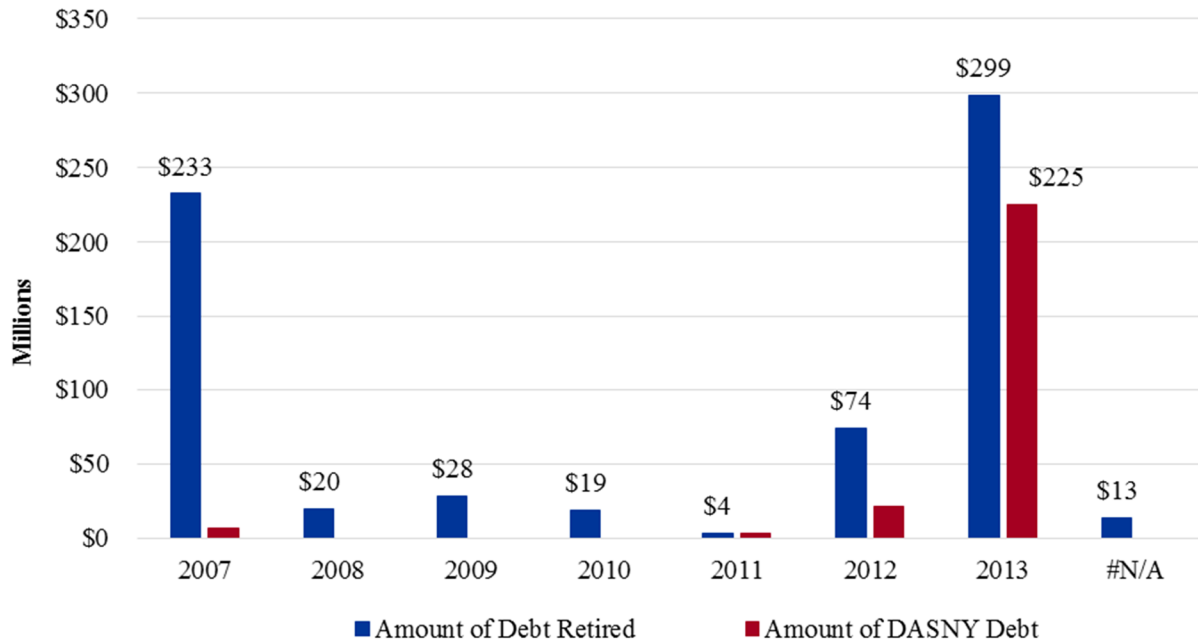
*Table 21* shows that Kings County received the largest share of the HEAL-NY grant amount for debt retirement. Moreover, 85 percent of the total grant amount issued by DANSY was for the hospitals in Kings County. There are large disparities across regions and at the county level.

Table 21 HEAL-NY Grants for Debt Retirement/Restructuring, by County

County	# Hospitals (Unduplicated)	Berger Hospitals	Amount of Debt Retired	Amount of DASNY Debt	Contract Amount
Allegany	1		\$3,614,336	\$3,614,336	\$3,614,336
Bronx	2	1	\$12,000,000	\$12,000,000	\$13,435,033
Cattaraugus	1	1	\$12,330,626	\$0	\$12,625,000
Chautauqua	2	2	\$4,762,423	\$0	\$8,810,461
Chemung	1	1	\$18,825,000	\$0	\$19,000,000
Erie	2	2	\$4,517,004	\$0	\$7,684,484
Fulton	1	1	\$1,640,133	\$0	\$4,500,000
Jefferson	1		\$9,814,010	\$670,010	\$9,814,010
Kings	7	1	\$283,902,090	\$218,402,090	\$247,164,571
Montgomery	1		\$20,000,000	\$0	\$20,000,000
Nassau	2	2	\$36,075,000	\$6,900,000	\$52,200,000
New York	2	2	\$60,661,283	\$0	\$64,182,283
Oneida	2		\$13,370,500	\$0	\$14,270,500
Onondaga	1		\$3,600,000	\$3,600,000	\$3,600,000
Orange	1	1	\$24,000,000	\$0	\$24,000,000
Queens	1	1	\$750,000	\$0	\$750,000
Richmond	1		\$14,348,936	\$4,348,936	\$14,348,936
Schenectady	3	3	\$56,171,541	\$0	\$69,216,268
St. Lawrence	1		\$10,799,197	\$5,299,197	\$10,799,197
Sullivan	1		\$14,969,250	\$2,369,250	\$14,969,250
Ulster	3	2	\$45,843,255	\$113,000	\$72,075,357
Westchester	2	2	\$37,600,000	\$0	\$41,770,500
<b>NYS Total</b>	<b>39</b>	<b>22</b>	<b>\$689,594,584</b>	<b>\$257,316,819</b>	<b>\$728,830,186</b>
Note: Several hospitals received multiple grants for debt retirement. We aggregated data as appropriate.					
Source: HEAL-NY Grant data provided by DOH.					

We have aggregated the debt amounts by year based on the grant start dates. In general, most of the grants for debt retirement were initiated in 2007 and 2013 (see *Figure 17*). Around \$233 million, or 34 percent, of the statewide grants for debt were initiated in 2007 and \$299 million, or 43 percent, in 2013. The remaining 23 percent, or \$158 million, of the grants were spread out between 2008 and 2012. DASNY issued small grants for debt retirement between 2007 and 2012. In 2013, DASNY issued \$225 million in grants, which represents 88 percent of the total amount issued by DASNY for hospital debt retirement between 2007 and 2013.

Figure 17. HEAL-NY Grants for Debt Proposed to be Retired, by Year



F-SHRP encouraged substantial debt reduction through HEAL-NY grants. However, it is possible that hospitals incurred some new debt since implementation for expansions and various reconfigurations.

*Measure 1.5.2. Debt and Type of Debt Associated With Remaining Institutions*

The measure requires that we describe the debt and type of debt associated with the remaining hospitals. For this measure, we divided hospitals into two groups: those that were HEAL-NY grant recipients for debt retirement and the rest of the hospitals. *Table 22* shows mortgage liabilities, long-term liabilities, and total assets for the two groups of hospitals. We also present mortgages as a share of long-term liabilities, and long-term liabilities as a share of total assets. There have been some fluctuations in mortgages for the hospitals that were HEAL-NY grant recipients, while mortgages have been on the rise for the remaining hospitals since 2006. However, mortgages as a share of long-term liabilities have been generally declining for both groups of hospitals in the post F-SHRP implementation period. Long-term liabilities in comparison to total assets generally declined in the last few years for the hospitals that were not HEAL-NY grant recipients, while the opposite trend is observed for the HEAL-NY grant recipient hospitals.



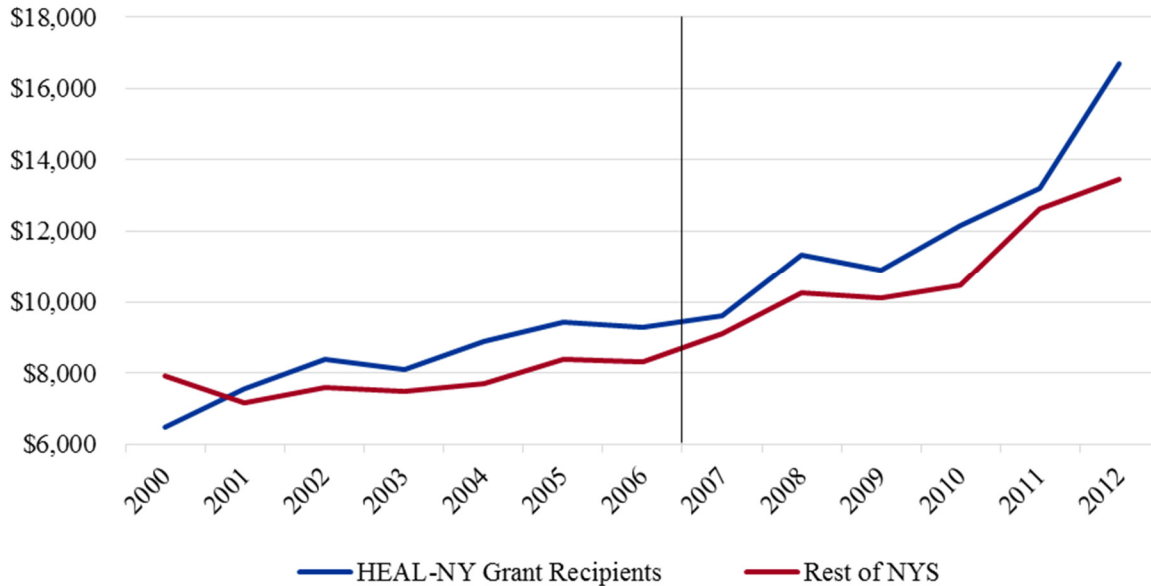
Table 22. Debt and Type of Debt for HEAL-NY Grant Recipients vs. Remaining Hospitals

Year	HEAL-NY Grant Recipients for Debt Retirement (Amounts are in \$ millions)					Rest of NYS (Amounts are in \$ millions)				
	Mortgage	LTL	Total Assets	Mortgage as % of LTL	LTL as % of Total Assets	Mortgage	LTL	Total Assets	Mortgage as % of LTL	LTL as % of Total Assets
2000	\$738	\$1,981	\$3,888	37.3%	51.0%	\$6,452	\$14,552	\$28,840	44.3%	50.5%
2001	\$1,197	\$2,346	\$4,188	51.0%	56.0%	\$6,167	\$13,274	\$25,705	46.5%	51.6%
2002	\$1,230	\$2,591	\$4,364	47.5%	59.4%	\$5,568	\$14,312	\$26,535	38.9%	53.9%
2003	\$1,481	\$2,779	\$4,738	53.3%	58.7%	\$6,057	\$14,179	\$27,287	42.7%	52.0%
2004	\$1,422	\$2,936	\$4,994	48.4%	58.8%	\$5,537	\$14,790	\$28,387	37.4%	52.1%
2005	\$1,350	\$3,124	\$5,209	43.2%	60.0%	\$5,777	\$16,085	\$30,223	35.9%	53.2%
2006	\$1,240	\$3,074	\$5,344	40.3%	57.5%	\$5,610	\$15,875	\$36,835	35.3%	43.1%
2007	\$1,143	\$3,097	\$5,430	36.9%	57.0%	\$5,994	\$17,264	\$39,741	34.7%	43.4%
2008	\$923	\$3,692	\$5,681	25.0%	65.0%	\$5,991	\$19,519	\$40,510	30.7%	48.2%
2009	\$1,170	\$3,534	\$5,712	33.1%	61.9%	\$6,417	\$19,091	\$43,154	33.6%	44.2%
2010	\$956	\$3,805	\$6,312	25.1%	60.3%	\$6,608	\$19,757	\$46,768	33.4%	42.2%
2011	\$813	\$3,535	\$5,847	23.0%	60.5%	\$7,050	\$23,336	\$52,756	30.2%	44.2%
2012	\$1,349	\$4,841	\$6,864	27.9%	70.5%	\$7,065	\$24,732	\$57,594	28.6%	42.9%

Source: Rockefeller Institute analysis of ICR data.

Figure 18 shows long-term liabilities per hospital discharge. Overall, long-term liabilities per discharge rose for all hospitals, particularly in the post-F-SHRP period. The growth in long-term liabilities per discharge is mostly attributable to the declines in total discharges. As the decline in hospital discharges continues, debt and the costs of servicing debt must be spread over fewer discharges, and rates per discharge must rise to recover those costs.

Figure 18. Long-Term Liabilities per Discharge



*Measure 1.5.3. Value of Avoided Inpatient Debt Payments*

The evaluation plan requires a calculation of the “Value of avoided debt payments,” shown below, with bracketed terms added by us to clarify what was intended by the calculation:

“Value of avoided inpatient debt payments” = the reduction in the [adjusted] total inpatient debt [payment] per [total hospital] discharge from Base Year (BY) level  
 \* Medicaid [hospital] discharges

The formula attempts to estimate combined federal plus state Medicaid expenditure savings from a reduction in debt payments associated with a reduction in debt. It assumes that debt payment reduction results in reduction in payments to hospitals (i.e., reduction in revenue to hospitals), and calculates the Medicaid share of those reductions based on Medicaid hospital inpatient discharges as a share of total hospital inpatient discharges.

We use data retrieved from ICRs to produce the required measure.

First, we adjusted hospital debt to exclude newly issued debt and compared the adjusted debt with debt in the base year. The first column in *Table 23* shows total long-term liabilities as reported in Exhibit 23 (Worksheet G) Balance Sheet of the ICRs.<sup>128</sup> Total long-term liabilities have increased by \$10.6 billion, or 60.6 percent, between 2006 and 2012, the last year of available data. The second column shows the amount of new or increased debt taken on since the base year, as reported in Exhibit 25, Statement of Cash Flows.<sup>129</sup> We caution that these amounts do not necessarily reflect just new issuances of debt — other actions that increase reported debt could be included as well, but the available data do not describe these details. In the next two

columns we report the cumulative reported new debt and then subtract it from reported long-term liabilities to generate a measure of long-term debt adjusted to exclude all new debt. In the final two columns we show the total change in adjusted debt from the 2006 base year and the percentage change. According to this calculation, adjusted debt increased by \$4.4 billion, or 25 percent, between 2006 and 2012.

*Table 23. Hospital Debt Adjusted for New Debt, Compared to Base Year*

Year	Reported Debt		Adjustment to Reported Debt		Change in Adjusted Debt From 2006 Base Year	
	Long-Term Liabilities	New or Increased Debt After Base Year	Cumulative New or Increased Debt After Base Year	Long-Term Debt, Adjusted to Exclude New Debt After Base Year	\$ Change	% Change
2006	\$17,550			\$17,550	\$0	0.0%
2007	\$19,351	\$1,786	\$1,786	\$17,564	\$14	0.1%
2008	\$22,294	\$546	\$2,332	\$19,962	\$2,412	13.7%
2009	\$21,684	\$442	\$2,774	\$18,910	\$1,359	7.7%
2010	\$21,534	\$803	\$3,577	\$17,957	\$407	2.3%
2011	\$25,335	\$1,000	\$4,577	\$20,758	\$3,207	18.3%
2012	\$28,187	\$1,642	\$6,219	\$21,967	\$4,417	25.2%

Note: In this table, we report data for voluntary hospitals only, since those were the only hospitals reporting data for new or increased long-term liabilities.  
Source: Rockefeller Institute analysis of ICR data.

*Table 24* provides calculations for the value of avoided inpatient debt payments. The first five columns pertain to all payors. The first and second columns reproduce adjusted long-term debt and the change in adjusted debt from the base year reported on *Table 23*. The third column is estimated reduction in debt payments from that assumed reduction in adjusted debt. The ICRs do not have data on debt payments for this particular debt. However, we constructed an estimated payment based on an assumption that the relationship between debt payments and debt outstanding would be similar to those reported for nursing homes, which averaged 11.1 percent between 2006 and 2012.<sup>130</sup> The next two columns show the total number of hospital inpatient discharges and the implied reduction in debt payments per discharge (i.e., the estimated reduction in debt payments divided by total number of discharges).<sup>131</sup> It shows an increase in payment per hospital inpatient discharge that rises from \$0.8 in 2006 to \$265.5 in 2012.

The remaining columns pertain to Medicaid only. The first column shows the number of Medicaid discharges.<sup>132</sup> The second column multiplies the reduction in hospital payments per

discharge by the number of Medicaid discharges to produce an estimate of Medicaid savings. The final column shows the cumulative value of avoided debt calculated in this manner since 2006. By this measure, combined federal and state Medicaid spending through 2012 has increased cumulatively by \$285.5 million, and the single year increase in 2012 was \$111.6 million.

*Table 24. Value of Avoided Debt Payments Relative to Base Year*

Year	All Payors					Medicaid Only		
	Long-Term Debt, Adjusted to Exclude New Debt After Base Year (\$ millions)	Change in Adjusted Debt From 2006 Base Year (\$ millions)	Estimated/ Assumed Reduction in Debt Payments (\$ millions)	Total Discharges	Reduction per Discharge	Medicaid Discharges	Calculated Value of Avoided Hospital Debt Payments (\$ millions)	Cumulative Value of Avoided Debt Payments (\$ millions)
2006	\$17,550	\$0	\$0	1,998,307		423,679		
2007	\$17,564	\$14	\$2	1,910,127	\$0.8	389,765	\$0.3	\$0.3
2008	\$19,962	\$2,412	\$268	1,929,543	\$138.7	390,212	\$54.1	\$54.5
2009	\$18,910	\$1,359	\$151	1,929,507	\$78.2	407,755	\$31.9	\$86.3
2010	\$17,957	\$407	\$45	1,848,530	\$24.4	404,202	\$9.9	\$96.2
2011	\$20,758	\$3,207	\$356	1,824,292	\$195.2	398,240	\$77.7	\$173.9
2012	\$21,967	\$4,417	\$490	1,846,303	\$265.5	420,089	\$111.6	\$285.5

Note: In this table, we report data for voluntary hospitals only, since those were the only hospitals reporting data for new or increased long-term liabilities.

Source: Rockefeller Institute analysis of ICR data.

While the calculations show increases in debt payments overall, F-SHRP may have reduced some hospital debt locally. The HEAL-NY discussion above demonstrates that the state invested substantial resources, nearing \$700 million, into reducing debt at specific hospitals. However, debt reduction often was accompanied by expansion and restructuring elsewhere, some of which was accompanied by the issuance of new debt. Moreover, long-term liabilities went up by \$10.6 billion, or 60.6 percent, between 2006 and 2012. In addition, total discharges declined by nearly 10 percent and Medicaid discharges declined by 4.2 percent between 2006 and 2012. Thus, even though the HEAL-NY grants certainly helped some hospitals with debt retirement, overall payments in debt per discharge increased due to increases in total long-term liabilities and decreases in discharges.

### *Summary and Conclusions Related to Question 1.5*

One objective of F-SHRP was reducing hospital debt. Overall, F-SHRP did encourage and achieve substantial debt reduction through HEAL-NY grants.<sup>133</sup> Since F-SHRP implementation, 53 HEAL-NY grants were awarded to 39 hospitals in the total amount of \$690 million for debt retirement. However, it is possible that many hospitals have incurred substantial new debt due to expansions and various reconfigurations. Our analysis indicates that the long-term liabilities continued to grow both for the hospitals that were recipients of the HEAL-NY grants for debt retirement as well as for the remaining hospitals.

The calculations presented in this section indicate that adjusted long-term liabilities appear to have increased by \$4.4 billion between 2006 and 2012. This, in turn, suggests combined federal and state Medicaid expenditure costs of \$286 million cumulatively between 2006 and 2012.

### ***Question 1.6. To What Extent Has Reduced Excess Bed Capacity Resulted in Reductions in Hospital Admissions?***

The evaluation plan requires a specific measure of the value of hospital discharges averted, but before we present the results of that calculation we discuss how Medicaid discharges and expenditures have changed over the period from 2000 through 2013.

Even before F-SHRP was implemented, Medicaid fee-for-service discharges had been declining, but that decline continued and accelerated after F-SHRP. Between 2000 and 2006, Medicaid fee-for-service discharges declined at a 4.7 percent annual rate, and between 2006 and 2013 they declined at a 13.0 percent rate. The decline in Medicaid fee-for service discharges was substituted with the growth in MMC discharges (see *Figure 19* and *Table 25*). Medicaid fee-for-service hospital expenditures rose \$1.2 billion between 2000 and 2004 and then fell between 2004 and 2006 by \$2.4 billion. Overall, Medicaid fee-for-service expenditures declined at a 3.7 percent average annual rate between 2000 and 2006. After F-SHRP implementation, the Medicaid fee-for-service expenditures showed downward trends, declining by \$2.3 billion between 2006 and 2013 and with an average annual rate of 10.1 percent (see *Figure 20* and *Table 25*).

Figure 19. Continued Decline in Medicaid Fee-for-Service Discharges, 2000-2013

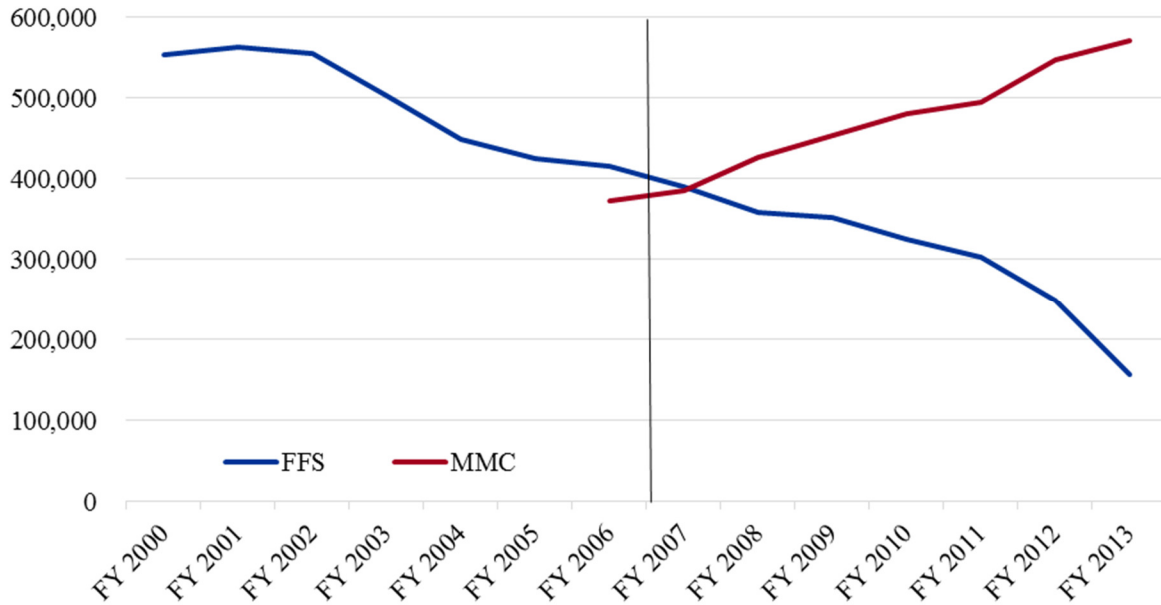


Figure 20. Continued Decline in Medicaid Fee-for-Service Expenditures, 2000-2013

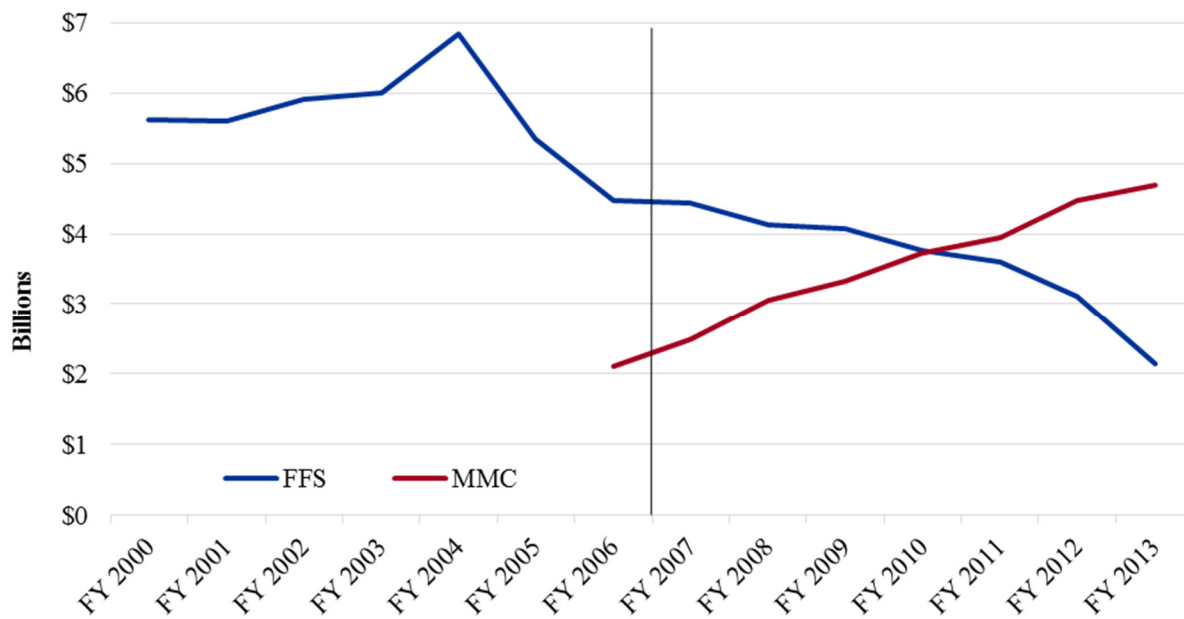


Table 25 shows Medicaid hospital discharges and expenditures for fee-for-service enrollees, managed care enrollees, and in total. The number of managed care hospital discharges has risen dramatically by 198,489, or 53.3 percent, between 2006 and 2013. Between 2006 and 2013, fee-for-service hospital discharges declined by 258,895, or 62.4 percent, resulting in a net reduction in hospital discharges of 60,406, or 7.7 percent. In recent years, managed care grew substantially

and is playing a significant role in hospital care. As shown in *Table 25*, the cost per fee-for-service hospital discharge is still slightly higher compared to the cost of per MMC hospital discharge. Overall, the total Medicaid cost per discharge rose at a 1.6 percent annual rate between 2006 and 2013.

Table 25. Medicaid Hospital Discharges and Expenditures in New York

	Federal Fiscal Year			Change		Compound Annual Percent Change	
	2000	2006	2013	2000 to 2006	2006 to 2013	2000 to 2006	2006 to 2013
<b>Fee For Service — Medicaid</b>							
Hospital Discharges	554,027	415,211	156,316	(138,816)	(258,895)	-4.7%	-13.0%
Hospital Expenditures (\$ millions)	\$5,621	\$4,482	\$2,134	(\$1,139)	(\$2,348)	-3.7%	-10.1%
Cost per FFS Discharge	\$10,145	\$10,794	\$13,652	\$649	\$2,858	1.0%	3.4%
<b>Managed Care — Medicaid</b>							
Hospital Discharges	NA	372,104	570,593	NA	198,489	NA	6.3%
Hospital Expenditures (\$ millions)	NA	\$2,105	\$4,686	NA	\$2,580	NA	12.1%
Cost per MMC Discharge	NA	\$5,658	\$8,212	NA	\$2,554	NA	5.5%
<b>FFS and MMC — Medicaid</b>							
Hospital Discharges	NA	787,315	726,909	NA	(60,406)	NA	-1.1%
Hospital Expenditures (\$ millions)	NA	\$6,587	\$6,820	NA	\$233	NA	0.5%
Cost per Discharge	NA	\$8,366	\$9,382	NA	\$1,015	NA	1.6%
Note: Managed care discharges and expenditures for 2000 are not available.							
Source: Rockefeller Institute analysis of Medicaid claims data, after summarization by DOH.							

Table 26 shows large declines in fee-for-service Medicaid discharges and large, simultaneous increases in MMC discharges. The Northern region had the largest declines in fee-for-service discharges and the largest growth in MMC discharges.



Table 26. Medicaid Fee-for-Service and MMC Discharges in New York, by Region

Region	Fee-for-Service Medicaid Discharges				Medicaid Managed Care Discharges			
	FFY 2006	FFY 2013	Change	Percent Change	FFY 2006	FFY 2013	Change	Percent Change
Central	47,471	18,711	(28,760)	-60.6%	24,992	58,639	33,647	134.6%
Northern	22,192	7,787	(14,405)	-64.9%	10,554	25,458	14,904	141.2%
Western	16,907	7,302	(9,605)	-56.8%	22,816	33,956	11,140	48.8%
Hudson Valley	31,782	11,417	(20,365)	-64.1%	22,410	43,505	21,095	94.1%
Long Island	27,748	12,697	(15,051)	-54.2%	24,920	46,656	21,736	87.2%
New York City	269,111	98,402	(170,709)	-63.4%	266,412	362,379	95,967	36.0%
<b>NYS Total</b>	<b>415,211</b>	<b>156,316</b>	<b>(258,895)</b>	<b>-62.4%</b>	<b>372,104</b>	<b>570,593</b>	<b>198,489</b>	<b>53.3%</b>

Source: Rockefeller Institute analysis of DOH data.

*Measure 1.6.1. Value of Averted Hospital Admissions*

The evaluation plan requires calculation of a very specific measure called “value of averted hospital admissions,” quoted below:<sup>134</sup>

“Value of averted hospital admissions” = The reduction in the number of Demonstration Year (DY) discharges per enrollee below Base Year (BY) level \* average cost per discharge \* DY Medicaid enrollees

The calculation is intended to estimate the annual Medicaid expenditure savings (federal and state combined) attributable to a reduction in Medicaid hospital discharges relative to the 2006 base year (before F-SHRP was implemented). It is similar to a calculation that was included in the quarterly F-SHRP reporting by DOH to CMS.<sup>135</sup> It essentially asks a “what if” question. For fee-for-service Medicaid, the question is: “What if Medicaid discharges as a share of enrollment had not fallen - how much higher would Medicaid expenditures have been if the rate of fee-for-service discharges as a share of enrollment had stayed at their 2006 level?” It asks a similar “what if” question for Medicaid managed care.

We present three tables below: one for Medicaid fee-for-service (*Table 27*), one for Medicaid managed care (*Table 28*), and one that adds the two results together (*Table 29*). They implement the calculation described above. *Table 27* suggests that Medicaid fee-for-service hospital expenditures were about \$3.5 billion lower in 2013 than they would have been if utilization rates had not fallen since 2006. *Table 28* suggests that Medicaid managed care hospital expenditures were about \$248 million higher in 2013 than they would have been if utilization rates had not risen since 2006. *Table 29* combines the final column of *Table 27* and *Table 28*, and shows a net savings of \$3.3 billion in 2013, and cumulative net savings of \$8.5 billion.

Table 27. Value of Averted Admissions: Medicaid Fee-for-Service Hospitals

Federal Fiscal Year	Medicaid FFS Enrollment	Medicaid Discharges	Expenditures (\$ millions)	Average Expenditures per Discharge	Usage Rate: Discharges as Share of Enrollment	Change in Discharges as % of Enrollment From 2006	Value of Averted Admissions (\$ millions)
2006	2,548,681	415,211	\$4,482	\$10,794	16.3%	0.0%	\$0
2007	2,568,349	390,647	\$4,442	\$11,371	15.2%	-1.1%	(\$316)
2008	2,496,073	357,581	\$4,136	\$11,566	14.3%	-2.0%	(\$567)
2009	2,588,965	351,115	\$4,075	\$11,605	13.6%	-2.7%	(\$820)
2010	2,651,750	324,452	\$3,771	\$11,624	12.2%	-4.1%	(\$1,250)
2011	2,645,203	303,137	\$3,605	\$11,894	11.5%	-4.8%	(\$1,520)
2012	2,671,045	248,438	\$3,116	\$12,542	9.3%	-7.0%	(\$2,342)
2013	2,535,435	156,316	\$2,134	\$13,652	6.2%	-10.1%	(\$3,505)

Source: Rockefeller Institute analysis of Medicaid claims data, after summarization by DOH.

Table 28. Value of Averted Admissions: Medicaid Managed Care Hospitals

Federal Fiscal Year	Medicaid Managed Care Enrollment	Medicaid Discharges	Expenditures (\$ millions)	Average Expenditures per Discharge	Usage Rate: Discharges as Share of Enrollment	Change in Discharges as % of Enrollment From 2006	Value of Averted Admissions (\$ millions)
2006	3,311,327	372,104	\$2,105	\$5,658	11.2%	0.0%	\$0
2007	3,332,742	384,482	\$2,481	\$6,452	11.5%	0.3%	\$64
2008	3,416,032	427,205	\$3,048	\$7,135	12.5%	1.3%	\$309
2009	3,594,562	453,498	\$3,320	\$7,321	12.6%	1.4%	\$363
2010	3,930,095	480,864	\$3,729	\$7,755	12.2%	1.0%	\$304
2011	4,196,723	494,809	\$3,950	\$7,983	11.8%	0.6%	\$185
2012	4,529,760	546,991	\$4,475	\$8,180	12.1%	0.8%	\$311
2013	4,809,154	570,593	\$4,686	\$8,212	11.9%	0.6%	\$248

Source: Rockefeller Institute analysis of Medicaid claims data, after summarization by DOH.

Table 29. Value of Net Savings from Averted Admissions

<b>Federal Fiscal Year</b>	<b>Fee for Service (\$ millions)</b>	<b>Managed Care (\$ millions)</b>	<b>Net Impact (\$ millions)</b>
2006	\$0.0	\$0.0	\$0.0
2007	(\$315.7)	\$64.3	(\$251.4)
2008	(\$567.4)	\$309.2	(\$258.2)
2009	(\$820.0)	\$362.9	(\$457.1)
2010	(\$1,250.1)	\$304.2	(\$945.9)
2011	(\$1,520.0)	\$185.3	(\$1,334.7)
2012	(\$2,341.6)	\$310.6	(\$2,031.0)
2013	(\$3,505.0)	\$247.8	(\$3,257.2)
<b>Cumulative</b>	<b>(\$10,319.9)</b>	<b>\$1,784.3</b>	<b>(\$8,535.7)</b>

Source: Rockefeller Institute analysis of Medicaid claims data, after summarization by DOH.

Finally, *Table 30* breaks down the cumulative statewide savings by region and shows that the largest cumulative savings occurred in New York City.<sup>136</sup> The large savings in New York City are mostly attributable to it having larger shares of Medicaid enrollees and discharges. Medicaid discharges declined substantially between 2006 and 2014. In addition, New York City’s hospital costs per discharge are above the statewide average, and so averted hospital discharges generate greater savings there than in the rest of the state.

Table 30. Cumulative Value of Net Savings from Averted Admissions, by Region

<b>Federal Fiscal Year</b>	<b>Fee for Service (\$ millions)</b>	<b>Managed Care (\$ millions)</b>	<b>Net Impact (\$ millions)</b>
Central	(\$759.6)	\$293.3	(\$466.4)
Northern	(\$387.5)	\$91.4	(\$296.1)
Western	(\$347.8)	\$31.7	(\$316.1)
Hudson Valley	(\$955.2)	\$21.3	(\$933.9)
Long Island	(\$1,101.7)	\$235.7	(\$866.0)
New York City	(\$6,768.1)	\$1,110.9	(\$5,657.2)
<b>NYS Total</b>	<b>(\$10,319.9)</b>	<b>\$1,784.3</b>	<b>(\$8,535.7)</b>

Source: Rockefeller Institute analysis of Medicaid claims data, after summarization by DOH.

### Summary and Conclusions Related to Question 1.6

The tables above show calculated cumulative combined federal and state Medicaid savings from averted hospital discharges of \$8.5 billion statewide between 2006 and 2013, and substantial savings in each region, as a result of the fall in Medicaid discharges as a share of enrollees (as evidenced by a 62.4 percent decline in Medicaid fee-for-service discharges between 2006 and

2013). This reflects huge fee-for-service savings, which were offset slightly by increased hospital Medicaid expenditures paid for by managed care plans. Medicaid fee-for-service discharges were declining before F-SHRP was implemented, but the decline did accelerate after F-SHRP began.

### **Overall Assessment**

To sum up, the goals of reducing hospital bed capacity and increasing occupancy rates were achieved for the hospitals that were recommended for various reconfigurations by the Berger Commission. However, for the state as a whole there were no significant changes in terms of occupancy rates and the declines in beds did not accelerate in the post F-SHRP period. The goal of reducing hospital debt was furthered through use of HEAL-NY grants, but industry-wide debt was not reduced, and it is not clear that the financial health of the hospitals has improved. Finally, the F-SHRP accelerated the reduction in fee-for-service Medicaid discharges, which subsequently led to very substantial reductions in Medicaid fee-for-service expenditures.

## Goal 2: Long-Term Care Restructuring

### Summary

The second goal of the F-SHRP Demonstration was to improve the efficiency of the long-term care system by implementing The Commission on Health Care Facilities in the 21st Century (commonly known as the “Berger Commission” after its chairperson) recommendations for closing or modifying institutional facilities, and shifting emphasis in long-term care from institutional-based to community-based settings. To meet this goal, the Health Care Efficiency and Affordability Law for New Yorkers (HEAL-NY) capital grants were used to ease the implementation of the Berger Commission recommendations and expand the use of Home and Community-Based Services (HCBS).

Our analysis shows dramatic changes in the long-term care industry in the period following F-SHRP. Between 2006 and 2014, 35 nursing homes and 6,679 nursing home beds were eliminated, for declines of 5.3 percent and 5.5 percent, respectively. The declines were sharpest among nursing homes targeted by F-SHRP, either through Berger Commission recommendations that mandated restructuring or by HEAL-NY capital grants that supported restructuring: the number of nursing home beds declined by 18.4 percent among affected facilities, compared with a 2.8 percent decline among other facilities. The declines were steepest in the Western and Northern regions of the state, and smallest in New York City and Long Island. The declines were a continuation of trends that began well before the start of F-SHRP, although the pace of bed reduction accelerated in the post-2006 period.

As the number of nursing homes and nursing home beds declined, the use of HCBS grew dramatically between 2006 and 2013. In this period, the number of Medicaid managed care HCBS recipients more than tripled, and the number of HCBS visits increased by 19.9 percent. HCBS played an increasing role in the delivery of long-term care, with the number of HCBS days increasing by 10.2 million (21.4 percent) while institutional days declined by 8.5 percent, and the relative contribution of HCBS to total long-term care days of service rose from 59 to 65 percent. The number of Medicaid managed care recipients receiving the two most commonly used services — physical medical rehabilitation services and in-home nursing care — increased by 264 percent and 472 percent, respectively. Finally, as the number of HCBS recipients has grown and they have transitioned into managed long-term care, their age distribution has been changing, with the growing pool of managed care HCBS recipients becoming somewhat older on average and the shrinking pool of fee-for-service HCBS recipients becoming somewhat younger on average.

One objective of F-SHRP was reducing nursing home debt. As calculated in the first of two required evaluation measures for this goal, adjusted long-term nursing home debt appears to have been reduced by \$1.4 billion between 2006 and 2012. The second required evaluation measure for this goal suggests that this debt reduction resulted in combined federal and state Medicaid

expenditure savings of \$398 million cumulatively between 2006 and 2012. We caution that institutions may have incurred substantial new debt since then for expansion and reconfiguration.

By other measures, it is not clear that the financial health of the nursing home industry improved. Debt fell as a percent of assets, but other long-term liabilities rose. Total debt per nursing home day was rising before F-SHRP, and continued its rise in 2007 and 2008. Debt per nursing home day fell in 2009 and 2010, but then resumed its rise and as of 2012 it was higher than in 2006. This is likely to continue as debt is spread over a shrinking number of nursing home bed days. Nursing home operating margins are negative across most of the state, and have worsened in the Western, Central, and Northern regions. Occupancy rates had been falling before F-SHRP and have continued to fall, although they do remain much higher than hospital occupancy rates.

Finally, the evaluation requires a calculation of potential Medicaid expenditure savings with a measure called the “value of averted Medicaid nursing home admissions,” which estimates how much higher Medicaid expenditures would have been if nursing home days had not fallen relative to enrollment. It reflects fee-for-service savings, offset partially by increased nursing home bed days paid for by managed care plans. The number of Medicaid fee-for-service nursing home days declined by 9.8 percent between 2006 and 2013, and this required evaluation measure shows substantial savings in each region: annual statewide federal and state Medicaid savings in 2013 of \$657 million, and cumulative savings from 2007 through 2013 of \$2.5 billion. While these savings are significant, two factors are not reflected in these numbers. First, the measure only includes expenditures for nursing homes. Individuals diverted from nursing homes, or discharged from nursing homes to the community, likely had HCBS expenditures for services in their home or community that are not included in the measure. Second, while the decline in nursing home usage is very real, the available data cannot allow us to assess the extent to which the decline is attributable to F-SHRP. In particular, Medicaid fee-for-service nursing home days were declining before F-SHRP, although the decline accelerated after F-SHRP was implemented.

To sum up, the goals of reducing nursing home capacity and usage and increasing availability and use of HCBS services were achieved. The reduction in nursing home usage led to very substantial reductions in Medicaid nursing home expenditures, but we do not have estimates of how much HCBS spending increased. HEAL-NY grants helped reduce nursing home debt at institutions receiving grants, but total industry-wide debt was not reduced, and it is not clear that the financial health of the nursing home industry has improved. Many of the trends evidenced after the start of F-SHRP were underway before F-SHRP began. F-SHRP undoubtedly played an important role in these trends, but it is not possible for us to say how much of these changes were attributable to F-SHRP.

### **Overview of the Goal**

Goal 2 of the F-SHRP Demonstration was to “create a more efficient long-term care system in New York State that is consistent with consumers’ increasing preference for less restrictive community-based settings compared to more traditional long-term care models.”<sup>137</sup> Key

elements of the goal included implementing the Berger Commission recommendations for closing or modifying institutional facilities, and shifting emphasis in long-term care from institutional-based to community-based settings.<sup>138</sup> These and several other elements also are described in the Special Terms and Conditions (STC) of the F-SHRP waiver.<sup>139</sup>

### **F-SHRP Activities That Furthered Goal 2**

As illustrated in the logic model (see *Figure 3. F-SHRP Logic Model*), the state intended to achieve long-term care restructuring by identifying facilities to eliminate or restructure, and providing incentives for these purposes and to promote HCBS. These activities were intended to reduce the number of institutional long-term care facilities and beds, reduce nursing home debt and associated debt payments, avert nursing home admissions and associated expenditures, and increase the use of HCBS. This, in turn, was expected to help the state achieve budget neutrality without negatively affecting health care quality, access, or satisfaction.

The specific F-SHRP activities intended to further Goal 2 were:

- Implementation of the Berger Commission recommendations for downsizing, closure, merger, and conversion of long-term care facilities.
- HEAL-NY grants intended to ease implementation of the Berger Commission recommendations
- HEAL-NY grants intended to expand the use of Home and Community-Based Services (HCBS)

### ***Berger Commission Recommendations***

The Berger Commission report included recommendations for downsizing and closing nursing homes, and reconfiguring the long-term care delivery system. It recommended nursing home bed reductions of 3,000, or 2.6 percent of the state's supply, and creation of more than 1,000 noninstitutional long-term care slots.<sup>140</sup>

These recommendations had considerable force behind them. The legislation creating the Commission used a military-base-closing approach:<sup>141</sup> if the governor submitted the Commission facility recommendations to the legislature with his approval, then unless each house of the legislature passed a resolution to reject them in their entirety, the commissioner of health would be given extraordinary temporary authority to implement them.<sup>142</sup> Governor Pataki did submit the recommendations to the legislature with his approval, and neither house rejected them.

In this circumstance, the legislation required that “the commissioner of health shall take all actions necessary to implement, in a reasonable, cost-efficient manner, the recommendations of the commission” regarding facilities and required the commissioner, as needed, to coordinate with other agencies and with local governments, to revoke operating certificates, and to approve expansions. The statute also required the commissioner to take all steps necessary to protect

patient safety, providing limited flexibility to modify recommendations. The extraordinary authority and flexibility were in effect from January 2007 through June 2008.<sup>143</sup>

The recommendations were given further force by the original special terms and conditions of the F-SHRP waiver, which required the state to provide an implementation report with “certification from the State that there are no State statutory impediments to implementation of the Commission’s recommendations on reconfiguring the State’s general hospital and nursing home bed capacity.”<sup>144</sup>

### ***HEAL-NY Grants to Fund F-SHRP Initiatives***

New York passed the HEAL-NY (Health Care Efficiency and Affordability Law for New Yorkers) grant program in 2004 with the purpose of delivering high quality care. HEAL-NY grants were rolled out in multiple phases. According to data received from the Department of Health, 537 grant contracts, exceeding \$3 billion, were awarded to health care institutions and organizations. About 18 percent, or 95 of the 537 grant contracts, were awarded to nursing homes for purposes other than health IT (discussed in the chapter on Goal 3), in the total amount of \$617 million, or 20 percent of all HEAL-NY grant awards. Phase 4 of HEAL-NY was dedicated exclusively to implementing the Berger Commission’s recommendations for hospital and nursing home restructuring, and awarded 11 contracts totaling \$63.4 million to nursing homes. Phases 12 and 20, which funded alternative long-term care initiatives, also were particularly important and provided \$290 million of funding to nursing homes.<sup>145</sup>

### **Other Activities and Trends That Affected the Goal**

Several other initiatives and trends were going on during the F-SHRP period that also may have influenced the objectives of Goal 2. These include:

- The 1999 U.S. Supreme Court *Olmstead* decision, which found that the unjustified segregation of people with disabilities is a form of unlawful discrimination under the Americans with Disabilities Act (ADA). The ADA’s “integration mandate” requires that individuals with disabilities receive services in the most integrated setting appropriate to their needs. In effect, the *Olmstead* decision, which holds that states cannot discriminate against people with disabilities by providing LTC services only in institutions, strongly encourages states to re-evaluate how they can better organize and deliver LTC services that meet the needs of persons with disabilities in the most integrated settings appropriate to their needs. Thus, many of New York State’s efforts to restructure LTC, including the F-SHRP waiver, have their basis at least partially in the *Olmstead* decision. The 2002 New York law establishing the Most Integrated Setting Coordinating Council (MISCC), which is responsible for ensuring compliance with the *Olmstead* decision and Title II of the ADA by developing and implementing a plan to reasonably accommodate the desire of disabled New Yorkers of all ages to avoid institutionalization and be placed in the most integrated setting possible.<sup>146</sup>



- The Money Follows the Person Federal Rebalancing Demonstration Program (MFP), initiated in January 2007.<sup>147</sup> The \$27 million project started January 2008 for a period of five years and aimed to promote a community-based care system and transition nursing home residents back to the community. The MFP Demonstration was subsequently extended to 2016 by Section 2403 of the Affordable Care Act (ACA). MFP focuses on nursing home residents who are unaware of community-based long-term care options to assist them in transitioning out of the nursing home. Disentangling the influence of the MFP program and F-SHRP activities is complicated since both contain the objectives of transitioning residents of LTC facilities to home and community-based care programs. The distinctive influences of F-SHRP are the Berger Commission restructuring mandates and the HEAL-NY funds put towards facilitating restructuring and home and community-based care demonstration projects.

Disentangling the influence of the MFP program and F-SHRP activities is complicated since both have the objectives of transitioning residents of LTC facilities to home and community-based care programs.

Additional initiatives that started subsequent to F-SHRP implementation, but which could affect interpretations of the longer-term impacts of F-SHRP include:

- Changes under the ACA including the Community First Choice Option (CFCO), which New York State adopted in 2012. CFCO boosts federal funding by six percentage points for personal attendant services in the home or community. The CFCO will provide New York State with enhanced federal funding, called Federal Medical Assistance Percentage (FMAP), which will allow New York to generate a net revenue of approximately \$350 million every year if CFCO is implemented as another rebalancing effort.
- The Balancing Initiative Program (BIP), which also began in 2012, increases federal matching funds for states like New York to increase home and community-based services; and
- The Fully Integrated Dual Advantaged program (FIDA), adopted under ACA, is designed to better coordinate who pays for what for individuals who are eligible for both Medicaid and Medicare. FIDA allows CMS and the state Medicaid program to have a joint contract with a state managed care plan and then the managed care plan can decide on the exact reimbursement formula. This creates a three-way contract about who pays for what and when. The intent of the program is to fully utilize people's Medicare benefits and avoid over-reliance on Medicaid. This policy has implications for thinking about cost savings to Medicaid (and consequently state cost savings) versus to Medicare (national savings).
- The simultaneous implementation of Goal 5 (Mandatory Managed LTC Care), may have hastened the decline of nursing home beds since home and community-based care

became newly reimbursable under managed LTC, whereas under fee-for-service, home-based care would not have been paid for.

The existence of these concurrent and subsequent system changes can complicate inferences about the direct impact of the F-SHRP waiver on excess LTC capacity since there were a number of simultaneous initiatives being implemented to try to hasten the transition: mandated facility restructuring and HEAL-NY grants to encourage the development of home and community-based services, were not the only changes leading to a decline in nursing home beds.

## **Evaluation Questions and Measures**

### ***Overview***

The evaluation plan asks four main questions about Goal 2:

1. To what extent has the Demonstration resulted in reductions in and reconfigurations of long-term care facilities and services?
2. What have been the impacts of long-term care restructuring on the availability and use of home and community-based services?
3. To what extent has the Demonstration yielded reductions in debt payments for nursing homes?
4. To what extent have Medicaid nursing home admissions been averted as a result of the Demonstration?

### ***Question 2.1. To What Extent Has the Demonstration Resulted in Reductions In and Reconfigurations of Long-Term Care Facilities and Services?***

The evaluation plan requires us to examine changes in facilities and beds, and distinguish between facilities that were affected by F-SHRP and those that were not. We defined facilities that were affected by F-SHRP as those that were either included in a Berger Commission mandate, or were a beneficiary of a HEAL-NY capital restructuring grant.<sup>148</sup> In the analysis we divided institutions into three groups: (1) those affected directly by Berger Commission recommendations and may have also received HEAL-NY grants, (2) those that were NOT affected by Commission recommendations but were recipients of HEAL-NY grants, and (3) all other facilities. (Most Berger Commission facilities also received HEAL-NY grants. Looking separately at facilities that were affected by Commission recommendations but did not receive HEAL-NY grants was not particularly useful.)

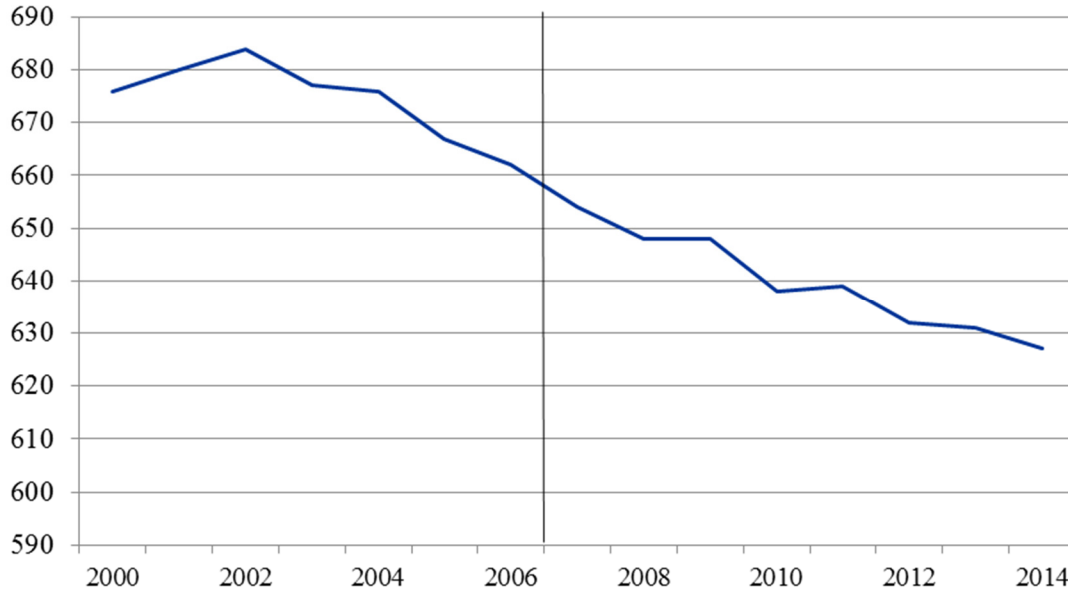
Our analysis of facilities and beds is based on data from the Health Facilities Information System (HFIS). A separate appendix provides information on this data source.

In time series graphs below we include a dashed vertical line to show approximately when F-SHRP began, to aid the reader in interpretation.

*Measure 2.1.1. Number and Types of Facilities Eliminated or Restructured*

The number of nursing homes in New York had been falling before F-SHRP was implemented, from 676 in 2000 to 662 in 2006. Another 35 facilities were eliminated after F-SHRP began, and the number fell to 627 in 2014, a decline of 5 percent from 2006 (*Figure 21*). Although the decline in the number of facilities did not accelerate in the F-SHRP period, the decline in the number of beds did (as discussed in the section on Measure 2.1.2).

*Figure 21. Decline in the Number of Nursing Homes Continued After F-SHRP*



Source: Rockefeller Institute analysis of HFIS data, summarized by DOH.

The declines were greatest among facilities that had been targeted by F-SHRP, either through recommendations of the Berger Commission, or by HEAL-NY grants. There was a 16.3 percent reduction in the number of these facilities, compared with a 3.8 percent reduction in the number of other facilities. Among facilities affected by the Berger Commission recommendations, there was a 37.5 percent reduction (*Table 31*).

Table 31. Number of Nursing Homes by F-SHRP Status

	2006	2014	Change	Percent Change
Total	662	627	(35)	-5.3%
Facilities Directly Affected by F-SHRP	80	67	(13)	-16.3%
Berger Commission	24	15	(9)	-37.5%
HEAL-NY Only	56	52	(4)	-7.1%
Facilities Not Directly Affected by F-SHRP	582	560	(22)	-3.8%
Source: Rockefeller Institute analysis of HFIS data.				

The greatest reduction occurred in the Western and Northern regions of the state — regions identified by the Berger Commission as having the greatest stress. The New York City metropolitan area and its bordering region (New York City, Long Island, and the Hudson Valley) had the smallest declines (*Table 32*).

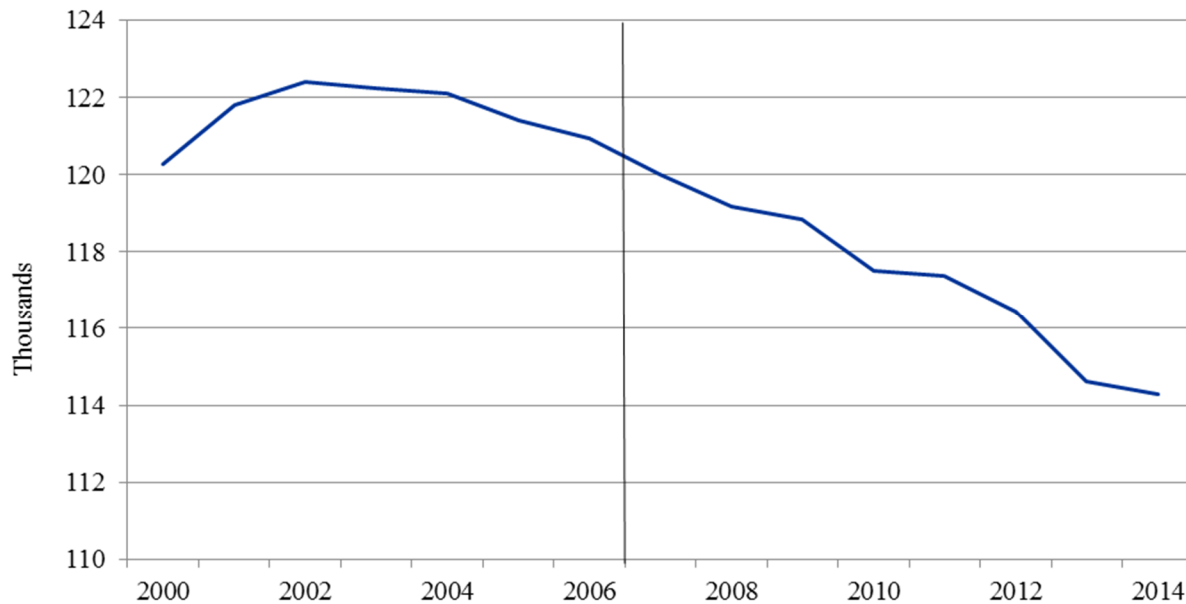
Table 32. Number of Nursing Homes by Region

	2006	2014	Change	Percent Change
Total	662	627	(35)	-5.3%
Central Region	154	145	(9)	-5.8%
Northern Region	71	66	(5)	-7.0%
Western Region	84	73	(11)	-13.1%
Hudson Valley	94	91	(3)	-3.2%
Long Island	78	77	(1)	-1.3%
New York City	181	175	(6)	-3.3%
Source: Rockefeller Institute analysis of HFIS data.				

#### Measure 2.1.2. Number of Beds Associated with Eliminated/Restructured Facilities

The historical decline in the number of certified nursing home beds accelerated after the start of F-SHRP (*Figure 22*). From 2000 to 2002, the number of beds increased slightly (2,159 beds), and then declined by 1,468 beds from the 2002 peak to 2006, a compound annual rate of 0.3 percent.<sup>149</sup> From 2006 to 2014, the number of certified beds declined by 6,679, or 5.5 percent, an average annual decline of 0.7 percent.<sup>150</sup>

Figure 22. Reduction in Nursing Home Beds Has Continued and Accelerated



Source: Rockefeller Institute analysis of HFIS data.

As with numbers of facilities, the declines in the number of certified beds were greatest among facilities that had been targeted by F-SHRP. There was an 18.6 percent reduction among facilities affected by the Berger Commission or receiving HEAL-NY funds, compared with a 2.6 percent reduction in beds at other facilities. Among facilities affected by the Berger Commission recommendations, there was a 35.9 percent reduction (*Table 33*).

Table 33. Number of Nursing Home Certified Beds by F-SHRP Status

	2006	2014	Change	Percent Change
Total	120,947	114,268	(6,679)	-5.5%
Facilities Directly Affected by F-SHRP	21,791	17,732	(4,059)	-18.6%
Berger Commission	6,585	4,224	(2,361)	-35.9%
HEAL-NY Only	15,206	13,508	(1,698)	-11.2%
Facilities Not Directly Affected by F-SHRP	99,156	96,536	(2,620)	-2.6%

Source: Rockefeller Institute analysis of HFIS data.

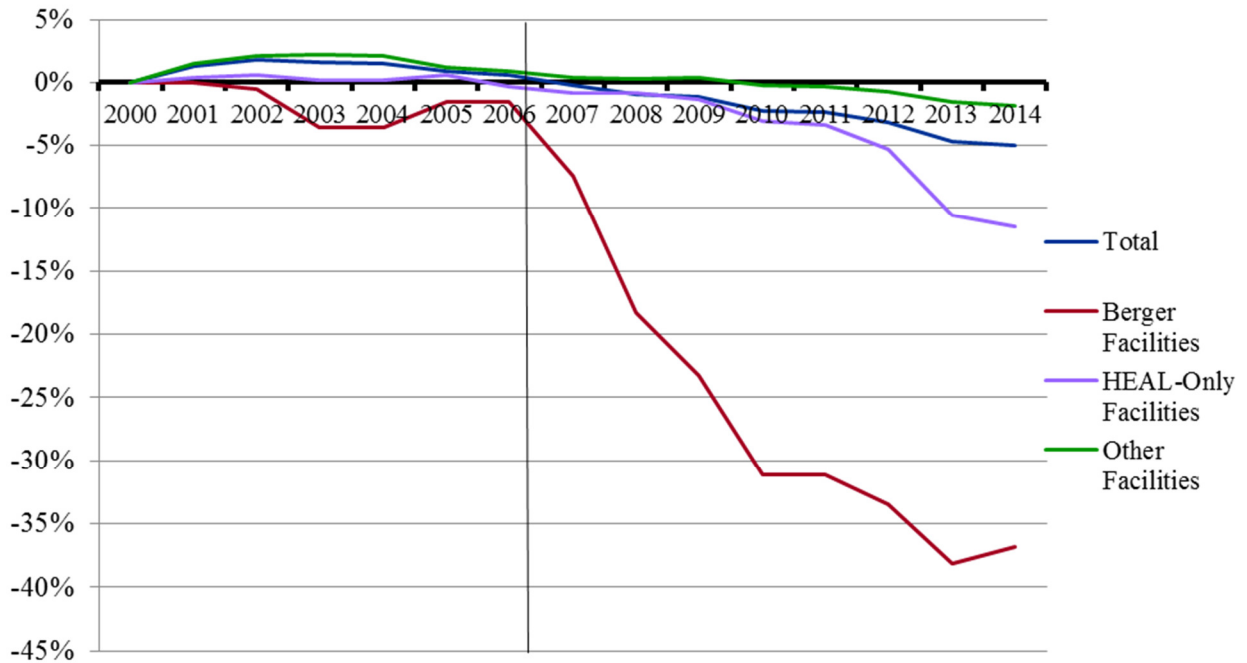
Figure 23 shows the percentage change in the number of certified nursing home beds statewide and for these three categories of facilities, relative to 2000. Two points are clear:

- Between 2000 and the start of F-SHRP, the number of certified beds at Berger Commission facilities had declined. This trend is consistent with the idea that these

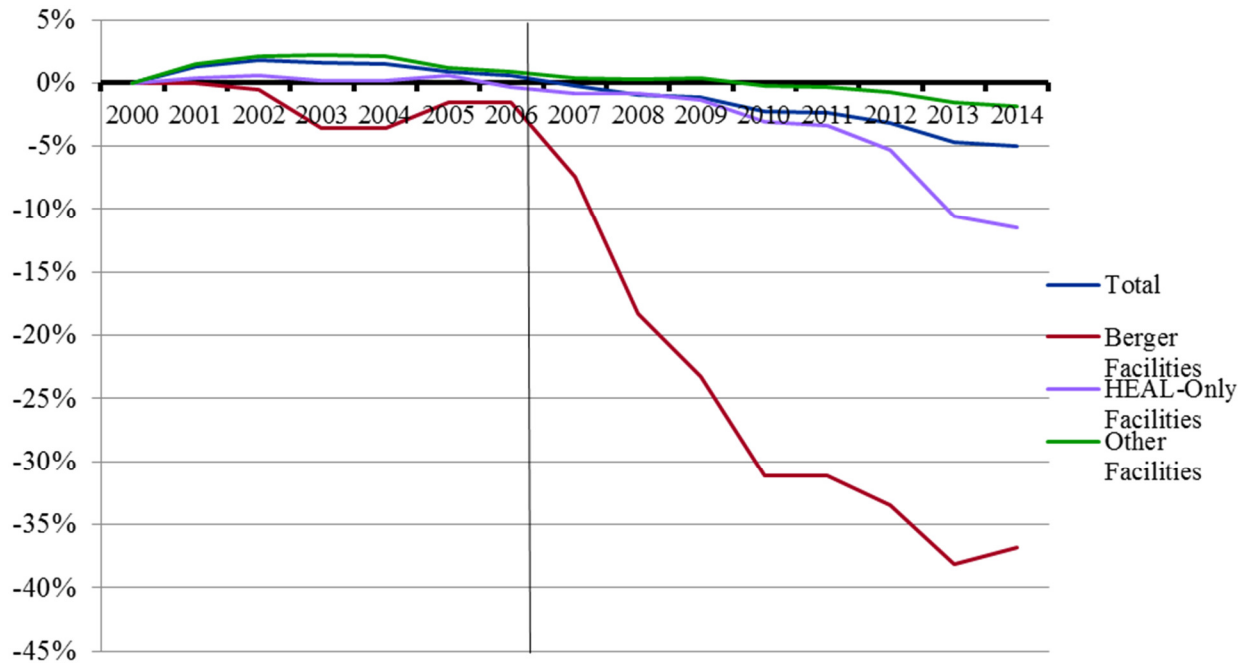
facilities faced greater difficulties than others, which was recognized by the Berger Commission. Furthermore, the facilities that were affected only by HEAL-NY grants did not participate in growth that occurred in other facilities between 2000 and 2003.

- After F-SHRP began, the number of certified beds at the Berger Commission facilities fell dramatically, declining by more than 30 percent in the first four years of F-SHRP, and beds at HEAL-NY-only facilities fell rapidly. The number of beds at other facilities declined only slightly, at a pace consistent with the prior pace of decline.

*Figure 23. Percentage Reduction in Nursing Home Certified Beds Was Greatest for Facilities Directly Affected by F-SHRP*



Source: Rockefeller Institute analysis of HFIS data.



Source: Rockefeller Institute analysis of HFIS data.

The sharp decline in the number of beds at the Berger Commission facilities after 2006 reflects both the fact that these facilities were chosen by the Commission precisely because they were poised for downsizing or closure, and because DOH had the power early in the F-SHRP period to enforce the recommendations of the Commission, as discussed earlier.

As with the number of facilities, the greatest reduction in certified beds occurred in the Western and Northern regions of the state. New York City and Long Island had the smallest declines. (*Table 34*). The Western and Northern regions had been the two weakest regions of the state prior to F-SHRP, with declines in certified beds between 2000 and 2006 of 4.0 percent and 5.1 percent, respectively, compared to statewide growth of 0.6 percent.<sup>151</sup>

*Table 34. Number of Nursing Home Certified Beds by Region*

	<b>2006</b>	<b>2014</b>	<b>Change</b>	<b>Percent Change</b>
Total	120,947	114,268	(6,679)	-5.5%
Central Region	22,265	20,875	(1,390)	-6.2%
Northern Region	9,949	9,118	(831)	-8.4%
Western Region	11,831	10,254	(1,577)	-13.3%
Hudson Valley	14,990	14,011	(979)	-6.5%
Long Island	16,434	15,954	(480)	-2.9%
New York City	45,478	44,056	(1,422)	-3.1%

Source: Rockefeller Institute analysis of HFIS data.

*Summary and Conclusions Related to Question 2.1*

There were dramatic changes in the long-term care industry in the period following F-SHRP. Between 2006 and 2014, 35 nursing homes and 6,679 nursing home beds were eliminated, for declines of 5.3 percent and 5.5 percent, respectively. The declines were sharpest among nursing homes targeted by F-SHRP, either through Berger Commission recommendations or by HEAL-NY grants: the number of nursing home beds declined by 18.4 percent among affected facilities, compared with a 2.8 percent decline among other facilities. Certified beds in nursing homes affected by Berger Commission recommendations declined by 35.9 percent. The declines were steepest in the Western and Northern regions of the state, and smallest in New York City and Long Island. The declines began well before the start of F-SHRP, although the pace of bed reduction accelerated in the post-2006 period.

***Question 2.2. What Have Been the Impacts of Long-Term Care Restructuring On the Availability and Use of Home and Community-Based Services?***

The evaluation plan asks us to describe home and community-based utilization patterns, with the objective of understanding how availability and use of HCBS services have changed. We measured the availability of those services using the number of providers of HCBS services. We measured service utilization via the numbers of HCBS recipients, their frequency of visits with HCBS providers, and the kinds of services used most frequently. We also examine changes in the age distribution of HCBS recipients.

The analysis is based on data on providers and beneficiaries in the Department of Health’s Data Mart, summarized by DOH at our request. We compare Medicaid Managed Care (MMC) and fee-for-service providers and beneficiaries where possible. We needed measures of HCBS availability and use that were as complete as possible, to encompass HCBS services provided

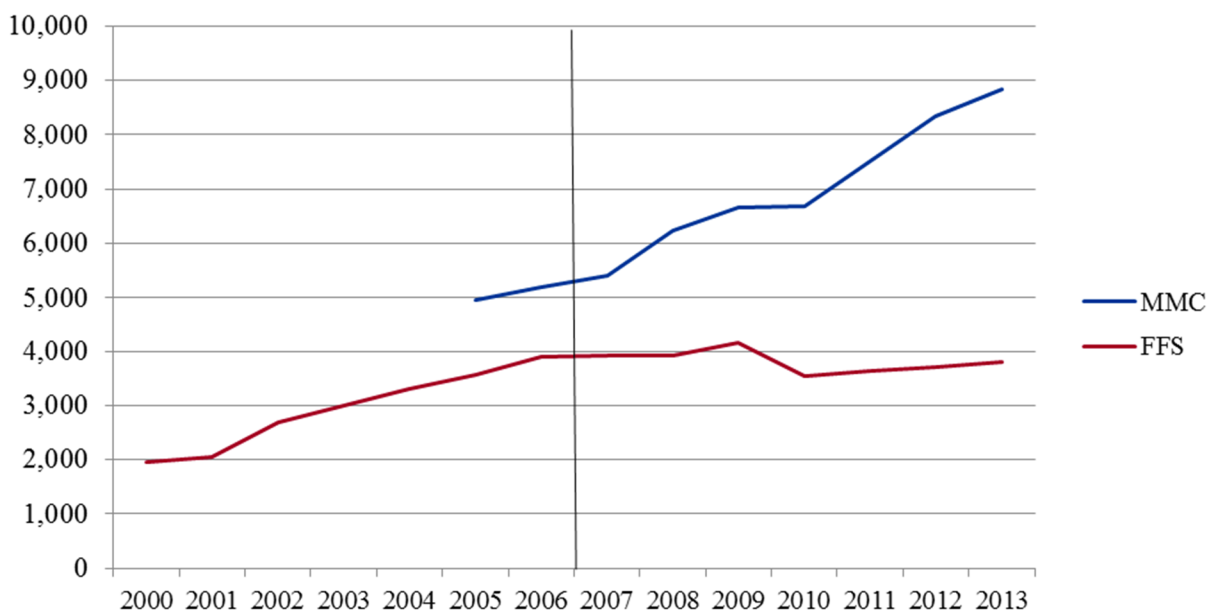


under the earlier DOH Section 1915 HCBS waiver, services provided under managed long-term care, and services provided under other managed care arrangements. Thus, the data provided by DOH include HCBS services provided under the Program of All-Inclusive Care for the Elderly (PACE), managed long-term care (managed LTC), Medicaid Managed Care, Medicaid Advantage, Medicaid Advantage Plus, and partial capitation plan types. HCBS long-term care services were as defined by DOH; the largest utilization categories were physical medical therapy, home health care nursing, personal care, and home health aide services, but many smaller categories were included as well.<sup>152</sup> We examined changes from federal fiscal years 2000 through 2013.

*Measure 2.2.1. Home and Community-Based Utilization: Patterns of Availability*

One indicator of the availability of HCBS is the number of HCBS providers. *Figure 24* shows the number of Medicaid managed care and fee-for-service HCBS providers from 2000 through 2013. The number of managed care HCBS providers nearly doubled, from about 5,000 to almost 9,000. The number of fee-for-service providers also increased until 2010, after which there was a sharp 15 percent decline and then gradual increase to its 2009 level. Based on conversations with DOH staff, we suspect this decline was associated with CMS reimbursement policy changes related to the Affordable Care Act and Accountable Care Organizations. While the number of fee-for-service providers has remained relatively steady since the start of F-SHRP, MMC providers continued to grow. The relative proportions are expected to continue diverging as the health care delivery system increasingly relies on managed care in an effort to contain costs while improving population health.

*Figure 24 Number of HCBS Providers Has Increased, Driven by an Increase in Managed Care Providers*



Source: Rockefeller Institute analysis of provider data summarized by DOH.

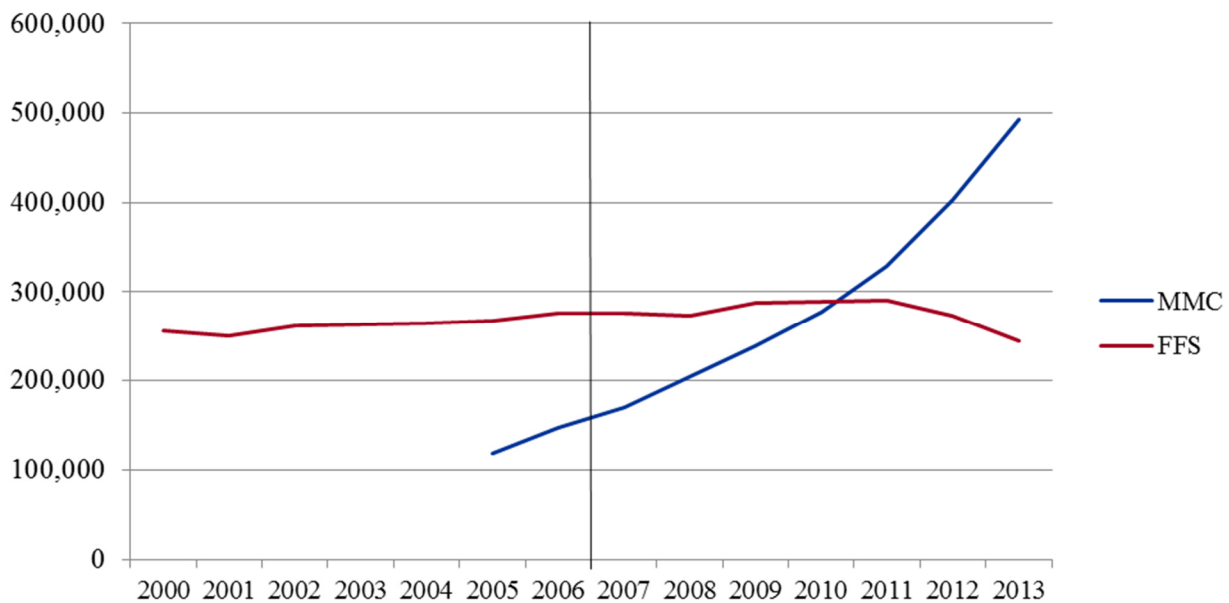
### Measure 2.2.2. Home and Community-Based Utilization: Patterns of Usage

To understand how the use of HCBS services has changed, we examined trends in the number of HCBS recipients, their frequency of provider visits, and number of service days. We also examine the kinds of services used, and the changing age distribution of HCBS recipients.

#### Recipients and Visits

Consistent with trends for the number of MMC and fee-for-service HCBS providers, the number of MMC HCBS recipients increased sharply, surpassing fee-for-service recipients in 2011 (see *Figure 25*). The number of MMC HCBS recipients more than tripled between 2006 and 2013, from 118,719 to 493,684. The number of fee-for-service recipients increased slowly from 256,055 in 2000 to 290,403 in 2011, but has since declined to 244,695.<sup>153</sup>

*Figure 25. Number of HCBS Managed Care Recipients Has Increased Sharply*



Source: Rockefeller Institute analysis of recipient data summarized by DOH.

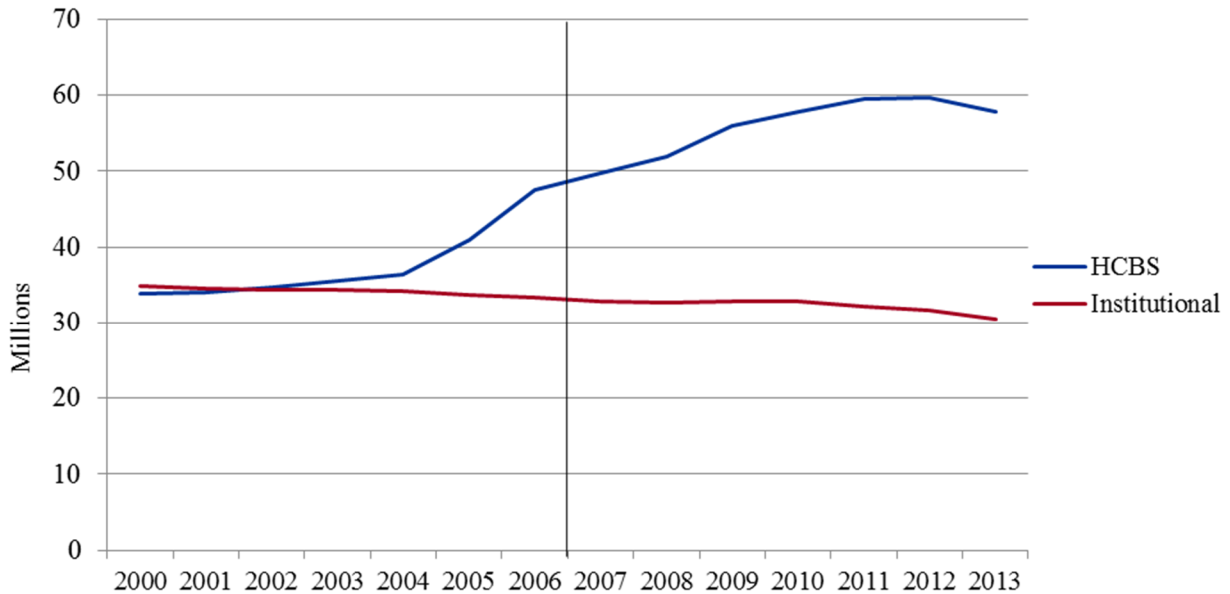
An alternative measure of the changing role of HCBS is the growth in annual visits with HCBS providers. Between 2006 and 2013, the total number of visits grew by 19.9 percent, from 48.8 million to 58.6 million. Fee-for-service visits declined by 12.7 million (27.8%) but MMC visits increased by 22.4 million (a seven-fold increase).

#### The Relative Role of HCBS In the Delivery of Long-Term Care

A measure of the changing role HCBS plays in the delivery of long-term care services is the number of service days, which the Department of Health (DOH) calculated for LTC services delivered in an institutional setting (e.g., nursing home days) and for services delivered in the home or community. DOH calculated service days from Medicaid Management Information System (MMIS) claims data as the length from service begin-date to service end-date (*Figure 26*). Between 2006 and 2013, total institutional days of service decreased by 2.8 million days

(8.5%) while the number of HCBS days increased by 10.2 million (21.4%). The combined total increased by 7.4 million days, or 9.1 percent.<sup>154</sup> The contribution of HCBS to total LTC days of service rose from 59 percent to 65 percent.<sup>155</sup>

*Figure 26. Total Days of Service For Long-Term Care Delivered In Institutional and HCBS Settings*



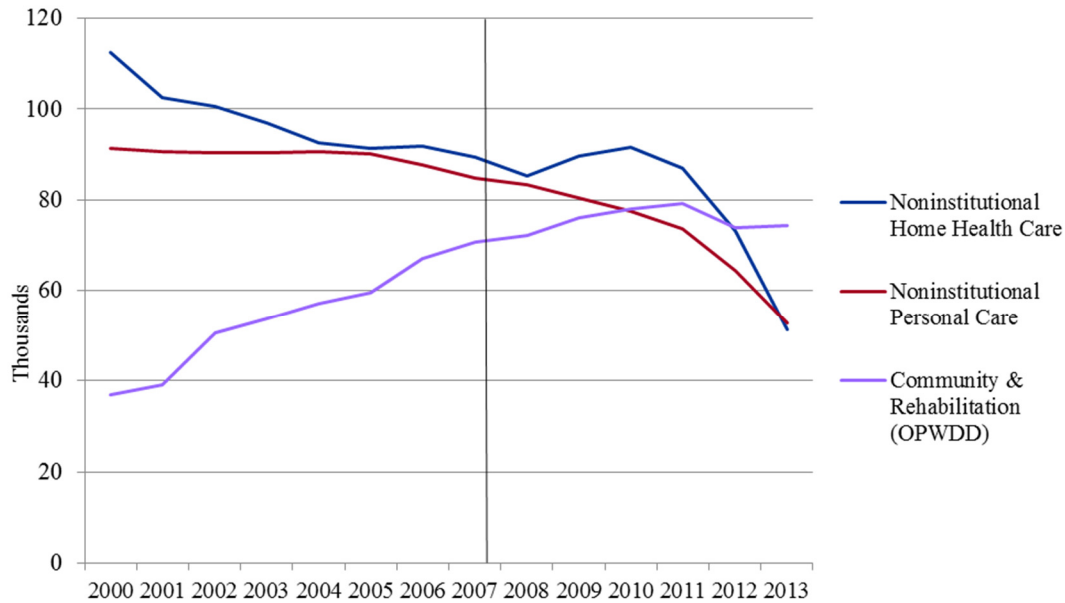
Source: Rockefeller Institute analysis of service data summarized by DOH.

### **Use of Home and Community-Based Long-Term Care Services by Type of Provider**

The number of recipients using different kinds of HCBS long-term care services can indicate which services have higher or lower utilization over time. DOH prepared recipient counts for HCBS long-term care services by type of provider, broken down by fee-for-service and MMC recipients. *Figure 27* shows these counts for the three largest fee-for-service service categories (noninstitutional home health care, noninstitutional personal care, and community and rehabilitation services), and *Figure 28* shows recipient counts for the four largest MMC service categories (physical medical rehabilitation, nursing care in the home, personal care, and housekeeping).

Among fee-for-service recipients, utilization of two of the three major services (noninstitutional home health care and noninstitutional personal care) steadily declined in both the pre- and post-F-SHRP implementation periods. In contrast, community and rehabilitation services provided through the Office for People with Developmental Disabilities (OPWDD) have steadily increased since 2000 (*Figure 27*).

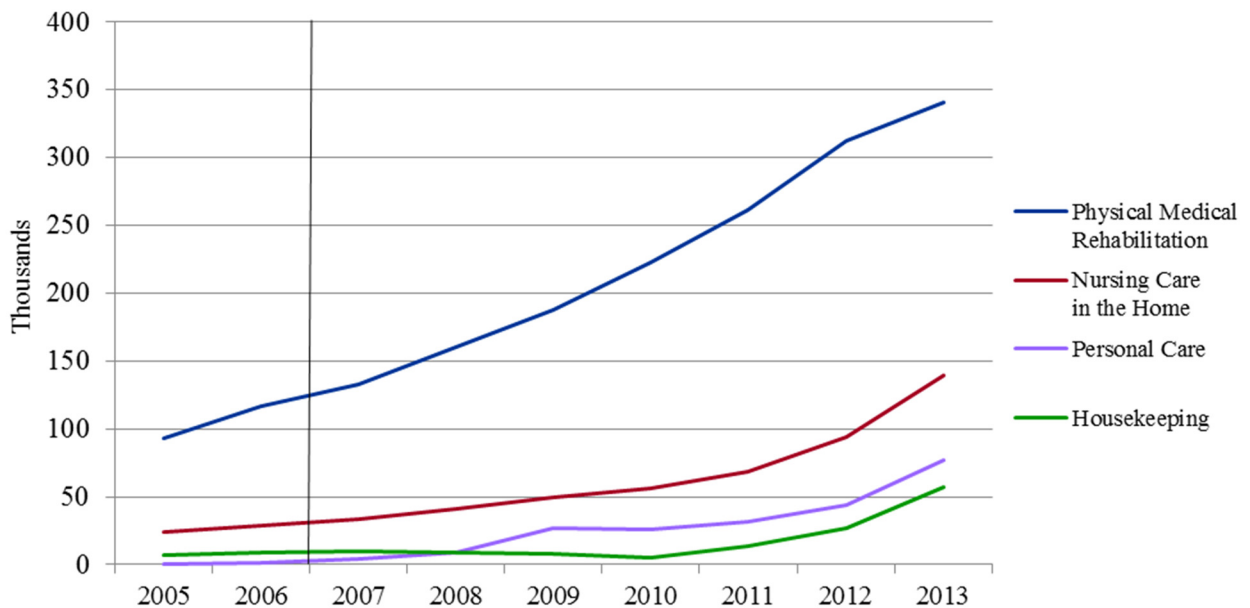
Figure 27. Top HCBS Long-Term Care Services: Number of Fee for Service Recipients



Source: Rockefeller Institute analysis of Data Mart data summarized by

For MMC recipients, physical medical rehabilitation services remained the most widely used service and had a 264 percent growth from 2006 to 2013. The number of MMC recipients using in-home nursing care, personal care, and housekeeping services also grew during this period, although their utilization remained substantially lower than utilization of physical medical rehabilitation (*Figure 28*).

Figure 28. Top HCBS Long-Term Care Services: Number of Medicaid Managed Care Recipients



Source: Rockefeller Institute analysis of Data Mart data summarized by DOH.

### **HCBS Recipients by Age Group**

*Table 35* shows the age distribution of HCBS Medicaid recipients in 2006 and 2013, broken down between fee-for-service recipients and MMC recipients. Overall, the number of managed care recipients increased rapidly and the number of fee-for-service recipients declined. The MMC population using HCBS services was generally younger than the fee-for-service population in both years. However, as recipients transitioned from fee-for-service to MMC during the F-SHRP period, this age gap narrowed. For example, in 2006, 54.6 percent of HCBS MMC recipients were aged 21-54, while only 30.8 percent of fee-for-service recipients were in this age group — a difference of 23.8 percentage points. In 2013, 45.6 percent of managed care recipients were aged 21-54, while only 34.0 percent of fee-for-service recipients were in this group — a difference of 11.6 percentage points.

Findings on changes in age distribution of fee-for-service and MMC beneficiaries suggest that in the 2006 to 2013 period, new managed care HCBS recipients were relatively older, and that relatively older populations were being moved from fee-for-service to managed care.<sup>156</sup>

Table 35. Age Distribution of HCBS Recipients, 2006 and 2013

Age Group	2006 Age Distribution			2013 Age Distribution			Change in Distribution, 2006 to 2013	
	Fee for Service	Medicaid Managed Care	MMC Minus FFS	Fee for Service	Medicaid Managed Care	MMC Minus FFS	Fee for Service	Medicaid Managed Care
Under 21	12.5	16.9	4.3	13.1	11.4	(1.7)	0.5	(5.5)
21-54	30.8	54.6	23.8	34.0	45.6	11.6	3.2	(9.0)
55-64	11.9	15.4	3.5	12.5	17.6	5.1	0.6	2.2
65-74	13.8	4.4	(9.4)	12.1	8.0	(4.2)	(1.7)	3.5
75-84	18.6	5.4	(13.2)	14.9	10.1	(4.9)	(3.6)	4.7
85+	12.4	3.3	(9.1)	13.4	7.4	(6.0)	0.9	4.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>—</b>	<b>100.0</b>	<b>100.0</b>	<b>—</b>	<b>—</b>	<b>—</b>

Source: Rockefeller Institute analysis of data summarized by DOH.

While the number of recipients by age group tells us how many people receive HCBS services, it does not tell who uses them most. HCBS utilization is disproportionately weighted toward the elderly. For example, only one in four MMC enrollees are over the age of 65, but they accounted for 75 percent of MMC HCBS visits in 2013.

### *Summary and Conclusions Related to Question 2.2*

As the number of nursing homes and nursing home beds declined, the use of HCBS grew dramatically. Between 2006 and 2013, the number of Medicaid managed care HCBS recipients more than tripled, and the number of HCBS visits increased by 19.9 percent. HCBS played an increasing role in the delivery of long-term care, with the number of HCBS days increasing by 10.2 million (21.4%) while institutional days declined by 8.5 percent, and the relative contribution of HCBS to total long-term care days of service rose from 59 percent in 2006 to 65 percent in 2013. The number of Medicaid managed care (MMC) recipients receiving the two most- commonly used services — physical medical rehabilitation services and in-home nursing care — increased more rapidly, in percentage terms, than overall MMC enrollment. Finally, as the number of HCBS recipients has grown and they have moved into managed long-term care, their age distribution has been changing, with the growing pool of managed care HCBS recipients becoming somewhat older on average and the shrinking pool of fee-for-service HCBS recipients becoming somewhat younger on average.

### *Question 2.3. To What Extent Has the Demonstration Yielded Reductions in Debt Payments for Nursing Homes?*

The evaluation plan requires two measures intended to indicate whether F-SHRP activities were successful in reducing debt and debt payments for nursing homes: A comparison of annual

reported debt to debt in the base year of 2006 (the year immediately before F-SHRP), and a measure of potential Medicaid savings resulting from lower debt payments.

*Measure 2.3.1. Comparison of Total Nursing Home Debt Reported Annually (Adjusting for New Debt) to Base Year Debt*

The first measure requires us to adjust nursing home debt to exclude newly issued debt and compare the adjusted debt with debt in the base year.

The first column of *Table 36* shows total long-term debt outstanding as reported in Exhibit A Uniform Balance Sheet of the Residential Health Care Facility (RHCF) Cost Reports. Total long-term debt has fallen by \$114 million, or 3.9 percent, between 2006 and 2012, the last year of available data. The second column shows the amount of new or increased debt taken on since the base year, as reported in RHCF Exhibit C Statement of Cash Flows.<sup>157</sup> In the next two columns, we cumulated reported new debt and removed it from reported debt outstanding to arrive at long-term debt adjusted to exclude all new debt. In the final two columns we show the total change in adjusted debt from the 2006 base year (the last pre-F-SHRP year) and the percentage change. According to this calculation, adjusted debt has been lowered by \$1.4 billion, or 47 percent, between 2006 and 2012.

Table 36. Nursing Home Debt Adjusted for New Debt, Compared to Base Year  
(amounts in \$ millions)

	Reported Debt		Adjustment to Reported Debt		Change in Adjusted Debt from 2006 Base Year	
	Long-Term Debt Outstanding	New or Increased Debt After Base Year	Cumulative New or Increased Debt After Base Year	Long-Term Debt, Adjusted to Exclude New Debt After Base Year	\$ Change	% Change
2006	\$2,915			\$2,915	—	—
2007	2,885	\$332	\$332	2,553	(\$363)	(12.4)
2008	3,150	243	575	2,574	(341)	(11.7)
2009	3,054	133	708	2,346	(569)	(19.5)
2010	2,851	194	902	1,950	(966)	(33.1)
2011	2,926	246	1,148	1,778	(1,137)	(39.0)
2012	2,801	104	1,252	1,549	(1,366)	(46.9)

Notes: See appendix for details on use of RHCF Cost Reports.  
Sources: Rockefeller Institute analysis of Residential Health Facility (RHCF) Cost Reports.

Readers should keep two facts in mind when interpreting the table. First, the amounts in *Table 36* do not necessarily reflect just new issuances of debt — other actions that increase reported debt could be included as well. Second, organizations issue new debt and retire old debt on a regular basis, and that happened in the pre-F-SHRP period as well as during F-SHRP. For example, as a check we did the same calculation using 2000 as a base year, and adjusted long-term debt in 2006 was 41 percent lower than it was in 2000. Thus, changes similar to those observed in the F-SHRP period occurred in the pre-F-SHRP period.

### Measure 2.3.2 Value of Avoided Nursing Home Debt Payments

The evaluation plan requires a calculation of the “Value of avoided debt payments,” shown below, with bracketed terms added by us to clarify what was intended by the calculation:

“Value of Avoided Nursing Home Debt Payments” = the reduction in the [adjusted] total nursing facility debt [payment] per [all-payor nursing home] day from Base Year (BY) level \* Medicaid [nursing home] days

The formula attempts to estimate combined federal plus state Medicaid expenditure savings from a reduction in debt payments associated with a reduction in debt. It assumes that debt payment reductions result in reductions in payments to nursing homes (i.e., reductions in revenue to



nursing homes), and calculates the Medicaid share of those reductions based Medicaid nursing home days as a share of all-payor nursing home days.

We implement this formula in *Table 37*. The first five columns pertain to all payors. The first column reproduces, from *Table 36*, both adjusted long-term debt and the change in adjusted debt from the base year. The second column is estimated/assumed reduction in debt payments from that assumed reduction in adjusted debt. The RHCF cost reports do not have data on debt payments for this particular debt. However, we constructed an estimated payment based on the relationship between debt payments (including principal and interest) and debt outstanding as reported in RHCF Schedule 17 Capital Cost Financing, which averaged 11.1 percent between 2007 (the first year of savings) and 2012.<sup>158</sup> The next two columns show the total number of nursing home days and the implied reduction in debt payments per nursing home day (i.e., the estimated reduction in debt payments divided by total number of days).<sup>159</sup> It shows a reduction in payment per nursing home day that rises from \$1.03 in 2007 to \$4.18 in 2012.

The remaining group of columns pertains to Medicaid only. The first column shows the number of Medicaid nursing home days.<sup>160</sup> The second column multiplies the reduction in nursing home payments per day from the prior block by the number of Medicaid days to produce an estimate of Medicaid savings in each year. The final column shows the cumulative value of savings calculated in this manner since 2006. By this measure, combined federal and state Medicaid spending has been reduced cumulatively by \$398 million, through 2012, and the single year savings in 2012 were \$114 million. Because Medicaid days constituted 75 percent of total nursing home days in 2012, this was 75 percent of the total estimated reduction in debt payments.

Table 37. Value of Avoided Debt Payments Relative to Base Year

	All Payors					Medicaid Only		
	Long-Term Debt, Adjusted to Exclude New Debt After Base Year (\$ millions)	Change in Adjusted Debt from 2006 Base Year (\$ millions)	Estimated/ Assumed Reduction in Debt Payments (\$ millions)	Total Nursing Home Days (# millions)	Reduction per Nursing Home Day (\$)	Medicaid Nursing Home Days (# millions)	Calculated Value of Avoided Nursing Home Debt Payments (\$ millions)	Cumulative Value of Avoided Debt Payments (\$ millions)
2006	\$2,915	—	—	39.73		30.32		
2007	2,553	(\$363)	(\$40)	39.09	(\$1.03)	29.59	(\$30)	(\$30)
2008	2,574	(341)	(38)	39.56	(0.96)	29.88	(29)	(59)
2009	2,346	(569)	(63)	38.94	(1.62)	29.62	(48)	(107)
2010	1,950	(966)	(107)	38.47	(2.79)	29.28	(82)	(189)
2011	1,778	(1,137)	(126)	38.8	(3.25)	29.30	(95)	(284)
2012	1,549	(1,366)	(152)	36.28	(4.18)	27.34	(114)	(398)

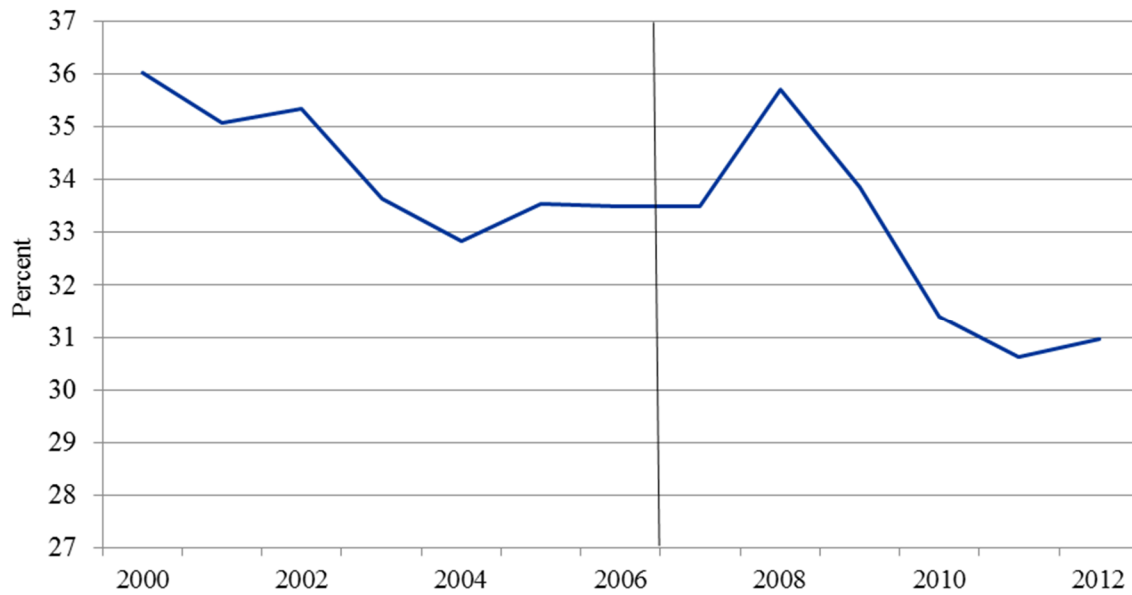
Notes: See appendix for details on use of RHCF Cost Reports. See main text for discussion of calculation methodology.  
Sources: Rockefeller Institute analysis of Residential Health Care Facility (FHCF) Cost Reports.

*Potential Indicators of Nursing Home Financial Health More Generally*

In the graphs below we explore several additional indicators of the financial health of the nursing home industry, several of which played a prominent role in deliberations of the Berger Commission.

Figure 29 shows long-term debt in comparison to assets and indicates that even though nursing home debt has declined only modestly in dollar terms, it has fallen quite substantially relative to overall assets, from 36 percent in 2000, to about 33.5 percent in 2006, and to 31 percent in 2012.

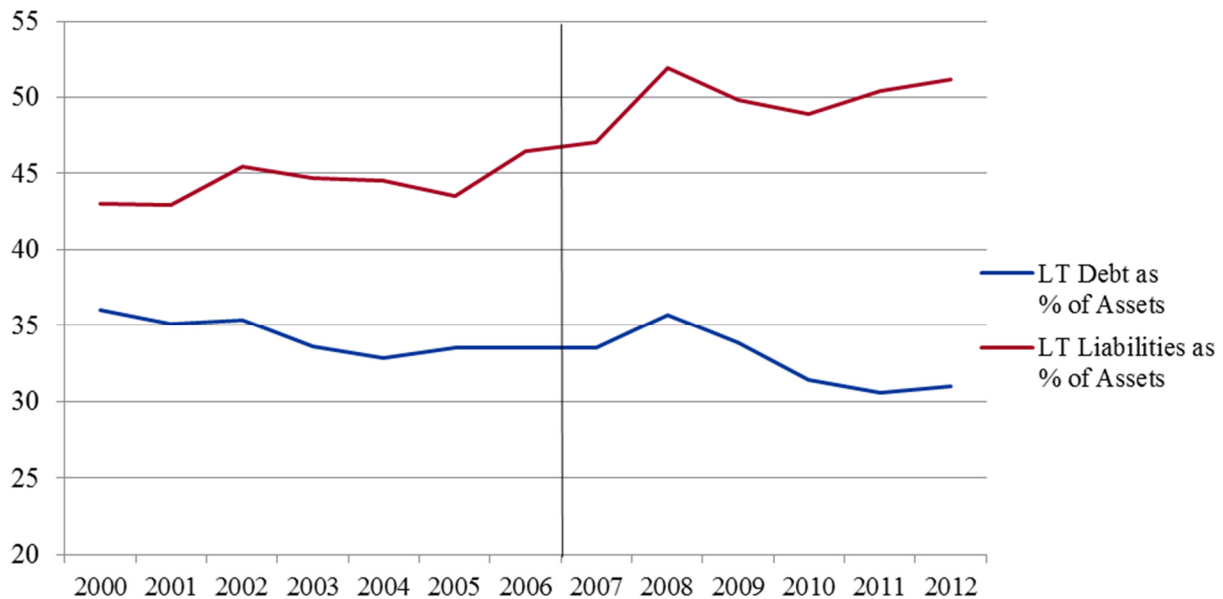
Figure 29. Nursing Home Long-Term Debt as Percent of Assets Has Generally Declined



Source: Rockefeller Institute analysis of Residential Health Care Facility (RHCF) Cost Reports.

Although long-term debt has fallen relative to assets, other forms of liabilities have risen, such as obligations for workforce retirement health care, as *Figure 30* shows.

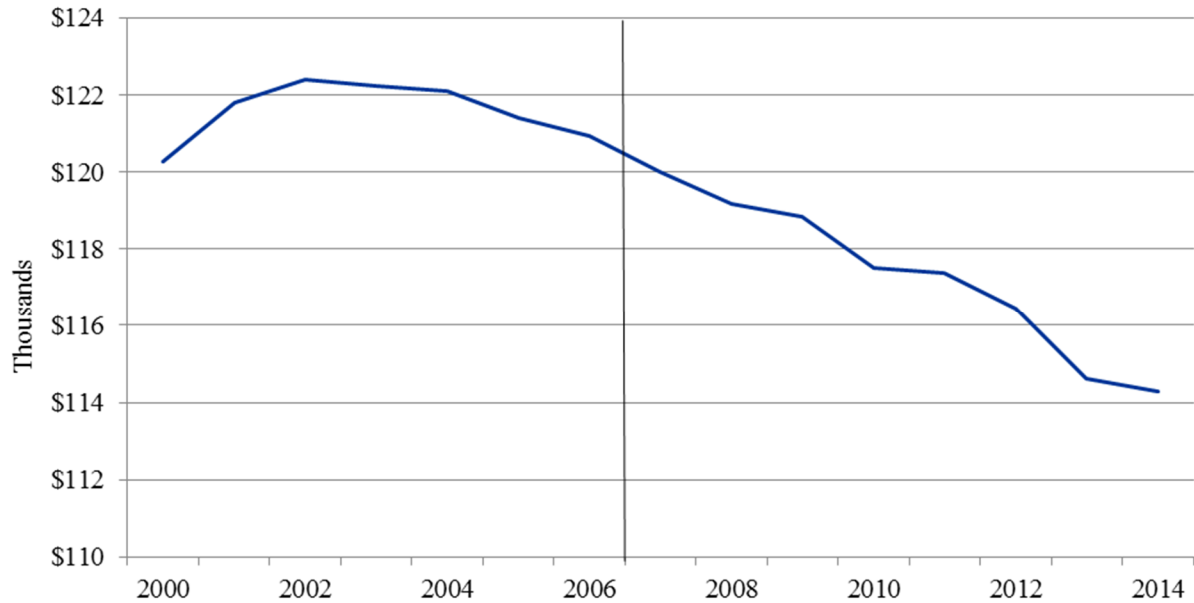
Figure 30. While Nursing Home Debt as Percent of Assets Has Declined, Total Long-Term Liabilities Have Risen



Source: Rockefeller Institute analysis of Residential Health Care Facility (RHCF) Cost Reports.

Figure 31 shows long-term debt per nursing home day. As the decline in nursing home days continues, debt and the costs of servicing debt must be spread over fewer and fewer days, and rates per day must rise to recover those costs.

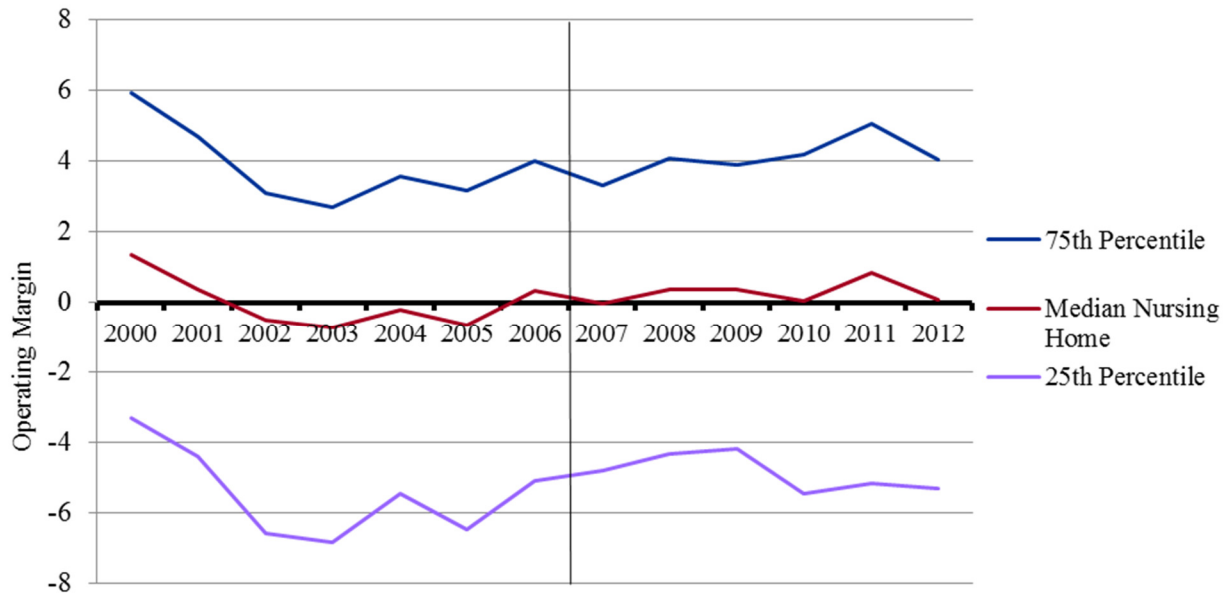
Figure 31. Long-Term Debt Per Nursing Home Day Has Risen



Source: Rockefeller Institute analysis of HFIS data

Operating margins are a measure of the current profitability (or loss) of nursing homes, and are calculated as operating revenue minus operating expenses, as a percentage of revenue. The Berger Commission was concerned about weakness in operating margins and negative operating margins at many nursing homes. Figure 32 shows nursing home operating margins for the median nursing home and nursing homes at the 25<sup>th</sup> and 75<sup>th</sup> percentile. For the industry as a whole, they have remained stable or improved very slightly since 2006, but the median nursing home had an operating margin of approximately zero in 2012.

Figure 32. Nursing Home Operating Margins Are Little Changed Since the Start of F-SHRP



Source: Rockefeller Institute analysis of Residential Health Care Facility Cost Reports.

Table 38 shows the average operating margin for nursing homes in each region. These margins all were negative outside of New York City and Long Island, and deteriorated between 2006 and 2012 in the upstate regions.

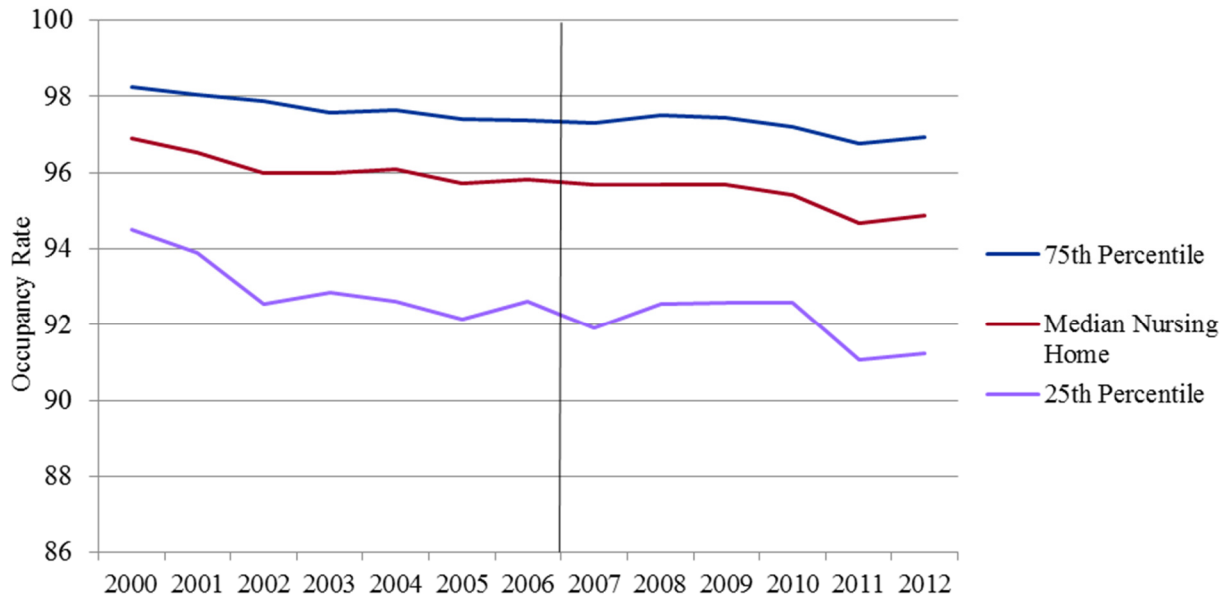
Table 38. Nursing Home Operating Margins Have Deteriorated Outside of NYC and Long Island

	2000	2006	2012	Change	
				2000 to 2006	2006 to 2012
Central Region	0.7	(3.1)	(5.1)	(3.83)	(1.97)
Northern Region	(5.4)	(9.8)	(11.5)	(4.34)	(1.73)
Western Region	(3.9)	(0.4)	(2.5)	3.49	(2.12)
Hudson Valley	(0.7)	(5.3)	(3.2)	(4.62)	2.13
Long Island	3.6	0.3	1.5	(3.35)	1.20
New York City	2.9	(0.4)	0.4	(3.23)	0.76

Source: Rockefeller Institute analysis of Residential Health Care Facility (RHCF) Cost Reports.

Finally, Figure 33 shows occupancy rates for the median nursing home and for nursing homes at the 25<sup>th</sup> and 75<sup>th</sup> percentiles, also a concern during the Berger Commission deliberations. Occupancy rates have continued to decline slightly after the implementation of F-SHRP.

Figure 33. Nursing Home Occupancy Rates Have Continued Their Decline That Begin Before F-SHRP



Source: Rockefeller Institute analysis of Residential Health Care Facility Cost Reports.

The measures discussed above suggest that there has been little to no improvement in the financial health of the nursing home industry, and that in some ways it has even deteriorated.

*Summary and Conclusions Related to Question 2.3*

One objective of F-SHRP was reducing nursing home debt. As calculated in the first of two required evaluation measures, adjusted long-term nursing home debt appears to have been reduced by \$1.4 billion between 2006 and 2012. The second required evaluation measure suggests that this resulted in combined federal and state Medicaid expenditure savings of \$398 million cumulatively between 2006 and 2012, subject to the notes provided earlier. F-SHRP did encourage and achieve substantial debt reduction at specific individual institutions through HEAL-NY grants, although some institutions may have incurred substantial new debt since then for expansion and reconfiguration.

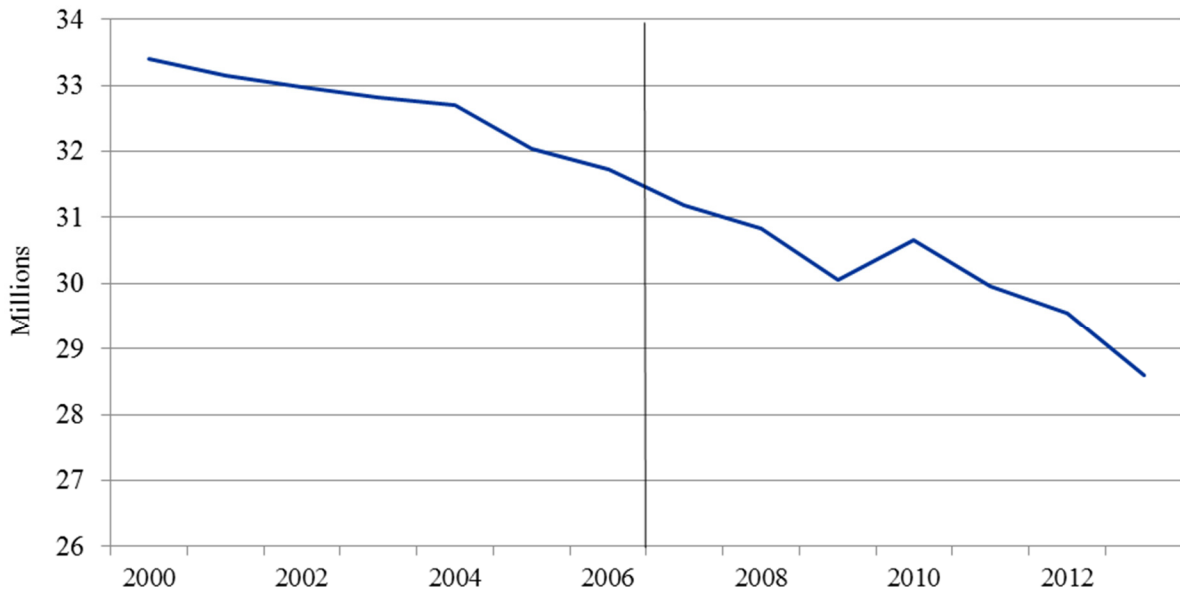
By other measures, it is not at all clear that the financial health of the nursing home industry has improved. Debt has fallen as a percent of assets, but other long-term liabilities have risen. Total debt per nursing home day was rising before F-SHRP, and continued its rise in 2007 and 2008. Debt per nursing home day fell in 2009 and 2010, but then resumed its rise and as of 2012 it was higher than in 2006. This is likely to continue as debt is spread over a shrinking number of nursing home bed days. Nursing home operating margins are negative in most of the state, and have worsened in the Western, Central, and Northern regions. Finally, occupancy rates had been falling before F-SHRP and have continued to fall since then, although they do remain much higher than hospital occupancy rates.

***Question 2.4. To What Extent Have Medicaid Nursing Home Admissions Been Averted as a Result of the Demonstration?***

The evaluation plan requires a specific measure of the value of nursing home admissions averted, but before we present the results of that calculation, we discuss how Medicaid nursing home usage and expenditures have changed over the period from 2000 through 2013.

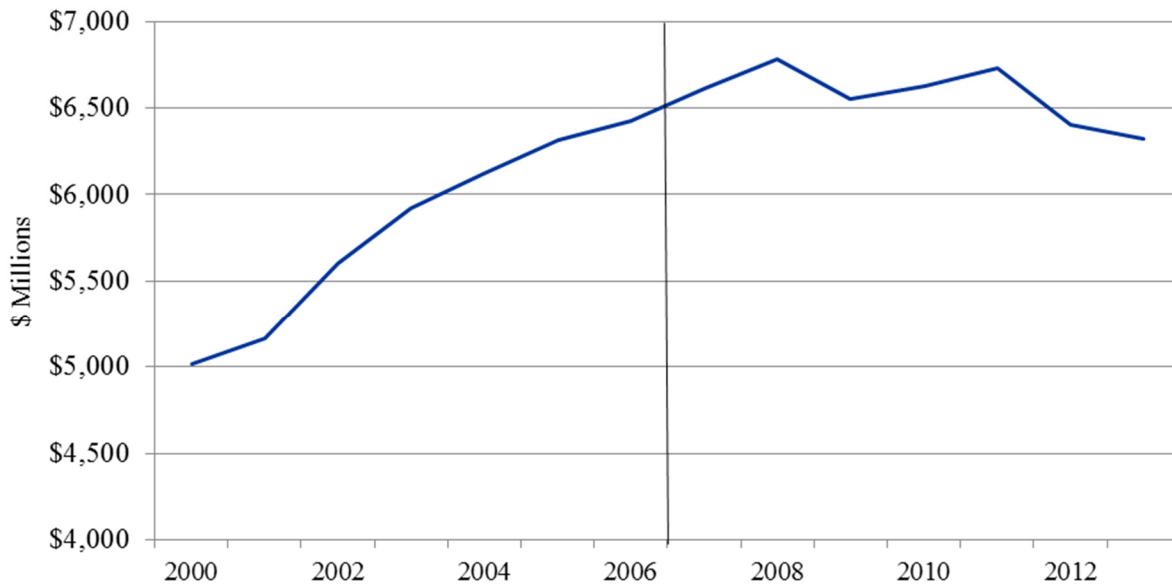
Even before F-SHRP was implemented, fee-for-service nursing home usage had been declining for reasons given earlier, but that decline continued and accelerated after F-SHRP. Between 2000 and 2006, fee-for-service Medicaid days declined at a 0.9 percent annual rate, and between 2006 and 2013 they declined at a 1.5 percent rate (*Figure 34* and *Table 39*). Fee-for-service Medicaid nursing home expenditures rose \$1.4 billion between 2000 and 2006 (a 4.2 percent annual rate), but then actually fell by \$102 million between 2006 and 2013 (a 0.2 percent annual decline) (*Figure 35* and *Table 39*).

*Figure 34. Decline in Fee-for-Service Medicaid Nursing Home Days Has Continued*



Source: Rockefeller Institute analysis of Datamart data summarized by DOH.

Figure 35. Growth of Fee-for-Service Medicaid Nursing Home Expenditures Slowed and Then Reversed



Source: Rockefeller Institute analysis of Medicaid claims data summarized by DOH.

Table 40 shows Medicaid nursing home days and expenditures for fee-for-service enrollees, managed care enrollees, and in total. Although the number of managed care nursing home days has risen dramatically — more than ten-fold between 2006 and 2013 — managed care remains only 3 percent of total Medicaid nursing home days. Between 2006 and 2013, fee-for-service nursing home days declined by 3.1 million, while the number of managed care days increased by 910,000, resulting in a net reduction of 2.2 million nursing home days. While managed care is playing a growing role in financing nursing home care, that role is still fairly small. The more important role may be keeping people out of nursing homes by encouraging the use of home and community-based services. (HCBS expenditures undoubtedly have risen during the course of F-SHRP, but the evaluation plan only requires analysis changes in HCBS utilization, not expenditures.)

The last row of Table 39 shows that the total Medicaid cost per day (for fee-for-service and managed care combined) rose at a 5.1 percent annual rate between 2000 and 2006, but then slowed to a 1.3 percent rate between 2006 and 2013.



Table 39. After Rising Rapidly Before F-SHRP, Total Medicaid Nursing Home Expenditures Rose Only 0.3 Percent Annually Between 2006 and 2013

	Federal Fiscal Year			Change		Compound Annual Percent Change	
	2000	2006	2013	2000 to 2006	2006 to 2013	2000 to 2006	2006 to 2013
<b>Fee-for-Service — Medicaid</b>							
Nursing Home Days (thousands)	33,396	31,722	28,601	(1,674)	(3,122)	-0.9%	-1.5%
Nursing Home Expenditures (\$ millions)	\$5,018.5	\$6,423.6	\$6,321.3	\$1,405.1	(\$102.3)	4.2%	-0.2%
<b>Managed Care — Medicaid</b>							
Nursing Home Days (thousands)	NA	80	990	80	910	NA	43.3%
Nursing Home Expenditures (\$ millions)	NA	\$16.9	\$251.6	\$16.9	\$234.7	NA	47.1%
<b>Fee-for-Service + Managed Care — Medicaid</b>							
Nursing Home Days (thousands)	33,396	31,802	29,591	(1,594)	(2,211)	-0.8%	-1.0%
Nursing Home Expenditures (\$ millions)	\$5,018.5	\$6,440.5	\$6,572.9	\$1,422.0	\$132.4	4.2%	0.3%
Cost per Nursing Home Day	\$150	\$203	\$222	\$52	\$20	5.1%	1.3%
Note: Managed care days and expenditures for 2000 are not available. Table assumes they were zero. Source: Rockefeller Institute analysis of Medicaid claims data, after summarization of DOH.							

*Table 40. Medicaid Fee-for-Service Nursing Home Days Declined Sharply Across the State, Particularly in Western NY*

	<b>2006</b>	<b>2013</b>	<b>Change</b>	<b>Percent Change</b>
Total	31,722	28,601	(3,122)	-9.8%
Central Region	5,452	5,035	(416)	-7.6%
Northern Region	2,521	2,301	(220)	-8.7%
Western Region	2,853	2,411	(442)	-15.5%
Hudson Valley	3,482	3,198	(284)	-8.1%
Long Island	3,720	3,323	(396)	-10.7%
New York City	13,698	12,323	(1,366)	-10.0%
Note: Statewide total includes days that could not be allocated to regions.				
Source: Rockefeller Institute analysis of DOH data.				

*Measure 2.4.1. Value of Averted Medicaid Nursing Home Admissions*

The evaluation plan requires calculation of a very specific measure called “value of averted nursing home admissions,” quoted below:<sup>161</sup>

“Value of averted Medicaid nursing home admissions” = The reduction in the number of Demonstration Year (DY) Medicaid bed-days per enrollee below Base Year (BY) level \* average cost per bed-day \* DY Medicaid enrollees

The calculation is intended to estimate the annual Medicaid expenditure savings (federal plus state combined) attributable to a reduction in Medicaid nursing home days relative to the 2006 base year (before F-SHRP was implemented). It is similar to a calculation that was included in quarterly F-SHRP reporting by DOH to CMS.<sup>162</sup> Essentially it asks a “what if” question. For fee-for-service Medicaid the question is: “What if nursing home usage had not fallen — how much higher would Medicaid expenditures have been if the rate of nursing home usage had stayed at its 2006 level?” It asks a similar what if question for Medicaid managed care, where nursing home usage has risen and so expenditures are higher than they otherwise would have been.

We present three tables below: one for Medicaid fee-for-service (*Table 41*), one for Medicaid managed care (

Table 42), and one that adds the two results together (Table 43). They implement the calculation described above. *Table 42* suggests that Medicaid fee-for-service nursing home expenditures were about \$657 million lower in 2013 than they would have been if usage rates had not fallen since 2006. *Table 42* suggests that Medicaid managed care nursing home expenditures were about \$222 million higher in 2013 than they would have been if usage rates had not risen since 2006. *Table 44* combines the final column of *Table 41* and *Table 42*, and shows a net savings of \$436 million in 2013, and cumulative net savings of \$2.5 billion.

*Table 41 Value of Averted Admissions: Fee for Service (by Federal Fiscal Year)*

<b>Medicaid FFS Nursing Home</b>							
	<b>Medicaid FFS Enrollment (thousands)</b>	<b>Days (thousands)</b>	<b>Expenditures (\$ millions)</b>	<b>Average Expenditures per Day</b>	<b>Usage Rate: Days per Enrollee</b>	<b>Change in Days per Enrollee from 2006</b>	<b>Value of Averted Admissions (\$ millions)</b>
2006	2,541	31,722	\$6,423.6	\$202	12.5	—	\$0.0
2007	2,561	31,176	6,610.2	212	12.2	(0.3)	(168.8)
2008	2,489	30,843	6,784.5	220	12.4	(0.1)	(50.8)
2009	2,580	30,066	6,554.6	218	11.7	(0.8)	(467.5)
2010	2,642	30,652	6,627.2	216	11.6	(0.9)	(504.2)
2011	2,636	29,965	6,732.8	225	11.4	(1.1)	(660.3)
2012	2,663	29,558	6,403.7	217	11.1	(1.4)	(797.4)
2013	2,529	28,601	6,321.3	221	11.3	(1.2)	(657.4)

Source: Rockefeller Institute analysis of Medicaid claims data, after summarization by DOH.

Table 42. Value of Averted Admissions: Managed Care (by Federal Fiscal Year)

Medicaid Managed Care Nursing Home							
	Medicaid Managed Care Enrollment (thousands)	Days (thousands)	Expenditures (\$ millions)	Average Expenditures per Day	Usage Rate: Days per Enrollee	Change in Days per Enrollee from 2006	Value of Averted Admissions (\$ millions)
2006	3,322	80	\$16.9	\$211	0.02	—	\$0.0
2007	3,347	184	40.6	221	0.05	0.03	22.8
2008	3,431	314	76.4	243	0.09	0.07	56.3
2009	3,608	374	94.7	253	0.10	0.08	72.8
2010	3,943	516	128.7	249	0.13	0.11	105.0
2011	4,207	661	170.7	258	0.16	0.13	144.6
2012	4,554	824	205.4	249	0.18	0.16	178.1
2013	4,889	990	251.6	254	0.20	0.16	221.7

Source: Rockefeller Institute analysis of Medicaid claims data, after summarization by DOH.

Table 43. Cumulative Net Savings From Averted Admissions Exceeds \$2.5 Billion (by Federal Fiscal Year)

	Fee for Service	Managed Care (\$ millions)	Net Impact
2006	\$0.0	\$0.0	\$0.0
2007	(168.8)	22.8	(145.9)
2008	(50.8)	56.3	5.5
2009	(467.5)	72.8	(394.7)
2010	(504.2)	105.0	(399.2)
2011	(660.3)	144.6	(515.7)
2012	(797.4)	178.1	(619.3)
2013	(657.4)	221.7	(435.7)
Cumulative	(\$3,306.4)	\$801.3	(\$2,505.1)

Source: Rockefeller Institute analysis of Medicaid claims data, after summarization by DOH.

Finally, *Table 44* allocates the cumulative statewide savings to the state's regions and shows the largest cumulative savings occurred on Long Island.<sup>163</sup> This reflects a combination of two factors: First, Long Island, which had higher nursing home usage than the rest of the state, had a 33 percent decline in Medicaid nursing home days per fee-for-service enrollee. Thus, even

though fee-for-service enrollment increased substantially, the number of Medicaid nursing home days actually declined. Second, Long Island’s nursing home costs per day are above the statewide average, and so a nursing home day averted generates greater savings there than in the rest of the state.<sup>164</sup>

*Table 44. Cumulative Savings Allocated by Region*

	<b>Fee-for-Service</b>	<b>Managed Care</b> (\$ millions)	<b>Net Impact</b>
Statewide Total	(\$3,306.4)	\$801.3	(\$2,505.1)
Central Region	(379.9)	34.5	(345.4)
Northern Region	(145.8)	18.3	(127.5)
Western Region	(328.3)	6.7	(321.5)
Hudson Valley	(236.0)	49.4	(186.6)
Long Island	(1,393.0)	41.1	(1,351.8)
New York City	(823.5)	651.3	(172.1)

Source: Rockefeller Institute analysis of Medicaid claims data, after summarization by DOH.

*Summary and Conclusions Related to Question 2.4*

The “value of averted Medicaid nursing home admissions” calculated above estimates how much higher Medicaid expenditures would have been if nursing home days had not fallen relative to enrollment. It reflects fee-for-service savings, offset partially by increased nursing home bed days paid for by managed care plans. The number of Medicaid fee for service nursing home days declined by 9.8 percent between 2006 and 2013, and so this required evaluation measure shows substantial savings: annual statewide federal and state Medicaid savings in 2013 of \$657 million, and cumulative savings from 2007 through 2013 of \$2.5 billion. The measure shows substantial savings in each region.

As noted, the measure only includes expenditures for nursing homes. Individuals diverted from nursing homes, or discharged from nursing homes to the community, likely had HCBS expenditures for services in their home or community. Those expenditures are not included in the measure. Medicaid fee for service nursing home days began to decline long before F-SHRP was implemented, but the decline did accelerate after F-SHRP began.

**Overall Assessment**

To sum up, the goals of reducing nursing home capacity and usage and increasing availability and use of HCBS services were achieved. The reduction in nursing home usage led to very substantial reductions in Medicaid nursing home expenditures, but we do not have estimates of how much HCBS spending may have increased. The goal of reducing nursing home debt at specific individual institutions was furthered through use of HEAL-NY grants, but industry-wide

debt was not reduced, and it is not clear that the financial health of the nursing home industry has improved.

### **Chapter Appendix: Cleaning and Use of Residential Health Care Facility (RHCF) Data**

We obtained from the Department of Health electronic data files of Residential Health Care Facility (RHCF) Cost Reports for each year from 2000 through 2012. Data for 2013 became available late in the project in a substantially different format, but DOH was not able to provide it in a form similar to the data for earlier years, so these data are not included in the analysis.

We encountered substantial anomalies in the number of beds reported in the RHCF cost report files and adjusted the data when the nature of the anomaly was apparent. For example, there were instances where the reported number of beds for a single institution jumped or fell by thousands from one year to another, and then returned to where they had been. In some cases, spikes and falls for a single institution had large impacts on totals for the state as a whole. In many cases, it was possible to examine data for an individual institution over time and determine what had happened, and correct the data, and when possible we did so. Most of our analysis of beds in this report is based upon HFIS, which we believe is a higher quality source for this purpose, rather than the RHCF cost reports, and so the potential impact of these changes is minimal.

The primary ways in which we used the RHCF data were as follows:

- Analysis of debt was based upon Exhibit A Uniform Balance Sheet, Exhibit C Statement of Cash Flows, and partially upon Schedule 17 Capital Cost Financing.
- Analysis of operating margins was based upon Exhibit E Uniform Statement of Revenue and Expense.
- Analysis of occupancy rates was based on Part I-3 Bed Capacity – Patient Days. We adjusted as needed for the actual length of an institution’s fiscal year.

## Goal 3: Health Information Technology

### Summary

The third goal of F-SHRP was to “expand the adoption of advanced health information technology (IT),” particularly the use of e-prescribing, electronic health records (EHRs), and health information exchange (HIE). Health IT has the potential to reduce duplicative care, costs, and medical errors; increase quality, value, and consumer empowerment; and facilitate the use of data for monitoring public health and health care quality, bioterrorism surveillance, and research. Health IT is most valuable when it is interoperable and health information can be exchanged seamlessly, allowing providers to access patients’ complete treatment histories from multiple locations across the state. However, health IT implementation is costly and there are few market-based incentives to adopt interoperable health IT, rather than stand-alone systems. Realizing the potential benefits of interoperable health IT, New York invested substantially in this area via the Health Care Efficiency and Affordability Law for New Yorkers (HEAL-NY) grant program. The HEAL-NY program was the mechanism that the New York State Department of Health (DOH) used to meet the third goal of the F-SHRP Demonstration.

The evaluation plan requests analyses of grant-making activities and of grantees’ self-reported outcomes related to e-prescribing, electronic medical records, and system-wide data sharing and gathering. This was accomplished by reviewing the grant announcements published by DOH, grant applications, grant activity reports prepared by DOH and awardees, and peer-reviewed evaluation studies from an academic research collaborative group that received HEAL-NY funds to assess how the adoption of health IT in New York affected various clinical outcomes.

Seventy-four awards were made from 2006 to 2013 across five phases, totaling \$412.7 million. Three-quarters of all grants (75.7 percent) supported the adoption or promotion of EHRs, and most (87.8 percent) supported the adoption or promotion of HIE. Among the EHR grants, 76.8 percent (43/56) supported the implementation of EHRs among providers that did not already use electronic systems, and 58.9 percent (33/56) funded the expansion of capabilities of existing EHRs, such as adding new interfaces to connect to the public health department immunization registries, clinical decision software, and consumer portals. Among the HIE grants, 38.4 percent (25/65) promoted consumer-mediated HIE such as web portals. Only a minority of grants (16.2 percent) had a primary focus on e-prescribing. However, many of the grants that focused on EHR implementation supported robust systems that also contained e-prescribing capabilities.

Many grants were aimed at multiple activities. For example, early grants helped Regional Health Information Exchange Organizations (RHIOs) become established so they could support activities in all three areas (e-prescribing, interoperable EHRs, and HIE). Early grant phases allowed grantees to implement health IT systems that were later improved upon for more complex uses such as supporting HIE among new patient-centered medical homes and helping providers meet new federal Meaningful Use standards.

Overall, most projects were fully executed, and academic studies suggest that New York improved in all three health IT domains of the F-SHRP Demonstration, and that these had an impact on the quality and value of health services delivery. For example, several studies documented substantial reductions in medication errors as a result of e-prescribing, and others showed that the quality and efficiency of care improved among providers receiving HEAL-NY funding for EHRs or HIE. Whether health IT reduces health care costs continues to be unclear due to limited evidence, although the Rochester RHIO did experience an annual savings of \$375,000 during the HEAL-NY program as a result of decreased patient admissions when the HIE system was accessed during emergency department visits.

By aligning the grants with New York's Framework for Health Information Technology Strategy, the different phases allowed DOH to successfully develop the Statewide Health Information Network for New York (SHIN-NY), currently the largest HIE in the country, and deploy EHRs to a large proportion of providers. Currently RHIOs provide services to every area of the state, and 83 percent and 81 percent of federally qualified health centers and hospitals, respectively, access or supply data. Requiring that grantees actively participate in the Statewide Policy Guidance process ensured that these policies were relevant to stakeholders and encouraged collective activities that would support the vision of an interoperable statewide HIE. Similarly, requiring grantees to provide matching funds will likely improve the sustainability of these health IT systems as funding is phased out. Finally, state leadership strongly supported these health IT activities, and having a public/private state-designated entity (the New York eHealth Collaborative) facilitate the development of a collective vision for health IT and implementation of HEAL-NY grants was critical to the program's success.

There continue to be providers that either have no EHRs or else have EHRs that are not connected to a RHIO, but several policies currently underway might improve adoption among providers and private practices, including the new Delivery System Reform Incentive Payment (DSRIP) Program that requires connection to a RHIO.

### **Overview of the Goal**

One of the five main goals of F-SHRP was to “expand the adoption of advanced health information technology (IT).”<sup>165</sup> Greater use of health IT applications can reduce duplicative care, lower health care administrative costs, and minimize errors in care. Health IT adoption is also critical for monitoring public health and health care quality, bioterrorism surveillance, and research.<sup>166</sup> Health IT is most valuable when it is interoperable and health information can be exchanged seamlessly among disparate providers, facilities, and health care sectors, allowing any provider to access a patient's complete treatment history including medical records, medication history, laboratory results, and images. In this “consumer centric and information-rich” health care industry, medical information follows consumers and information tools guide medical decisions and electronic ordering of prescriptions and tests.<sup>167</sup> These health IT tools and clinical data can in turn eliminate unnecessary tests, prevent medication errors, monitor patients' health



over time (such as improvements after certain treatments), and flag potential health problems to address during visits. In addition, allowing patients to access their own records can improve their engagement in care, thereby empowering them to be more active participants in their health.

However, health IT implementation is costly and market forces may limit the adoption of interoperable health IT. Fee-for-service payments provide a perverse disincentive to use health IT, as reductions in duplicative tests, readmissions, and clinical services (due to improved health outcomes) decrease providers' income. Although providers bear the burden of purchasing interoperable EHRs, retraining staff, and changing their clinic workflow, the benefits largely accrue to payers and patients. Additionally, there are network effects and economies of scale, whereby early health IT adopters face sizeable economic burdens and few benefits of interoperable EHR adoption, while late adopters benefit from the existing technologies and network.<sup>168</sup> Given the high costs of establishing and maintaining an interoperable health information exchange (HIE) network, a data-sharing infrastructure can be viewed as a public utility.<sup>169</sup>

Realizing the potential benefits of health IT and the important role of government in promoting the development of interoperable health IT, New York made an early policy decision to invest substantially in health IT technology. The Health Care Efficiency and Affordability Law for New Yorkers (HEAL-NY) program was a major mechanism to fund the state's health IT activities. Much like other F-SHRP initiatives, the HEAL-NY grants were used as a mechanism to encourage the participation of facilities in the expansion of the use of health IT. However, unlike Goals 1 and 2, participation in Goal 3 was voluntary and accomplished through requests for proposals from specific providers. HEAL-NY was a multiyear program with 22 phases. Five HEAL-NY phases were specifically related to health IT:

- 1) Phase 1: Health Information Technology (05/2006): \$52.9 million.
- 2) Phase 5: Health Information Technology (04/2008): \$105 million.
- 3) Phase 10: Health Information Technology (09/2009): \$60 million.
- 4) Phase 17: Health Information Technology (09/2010): \$140 million.
- 5) Phase 22: Assistance for Health IT for Mental / Behavioral Health Providers participating in Medicaid Health Homes (10/2012): \$38 million.

The health IT components aimed to:

- Identify and support the development and investment in health IT projects on a regional basis.
- Identify and support the funding of restructuring plans in regional health care service delivery areas that can improve quality, stability, and efficiency.<sup>170</sup>

Specific health IT-related aims of F-SHRP, implemented through HEAL-NY health IT grants, were to “expand the use of e-prescribing, develop and expand the use of electronic medical records, and facilitate the development, implementation and application of interoperable health information exchange across care settings throughout New York.”<sup>171</sup>

### ***Outcome Measures***

There are three specific evaluation questions and six related outcome measures for Goal 3, which are described in this chapter:

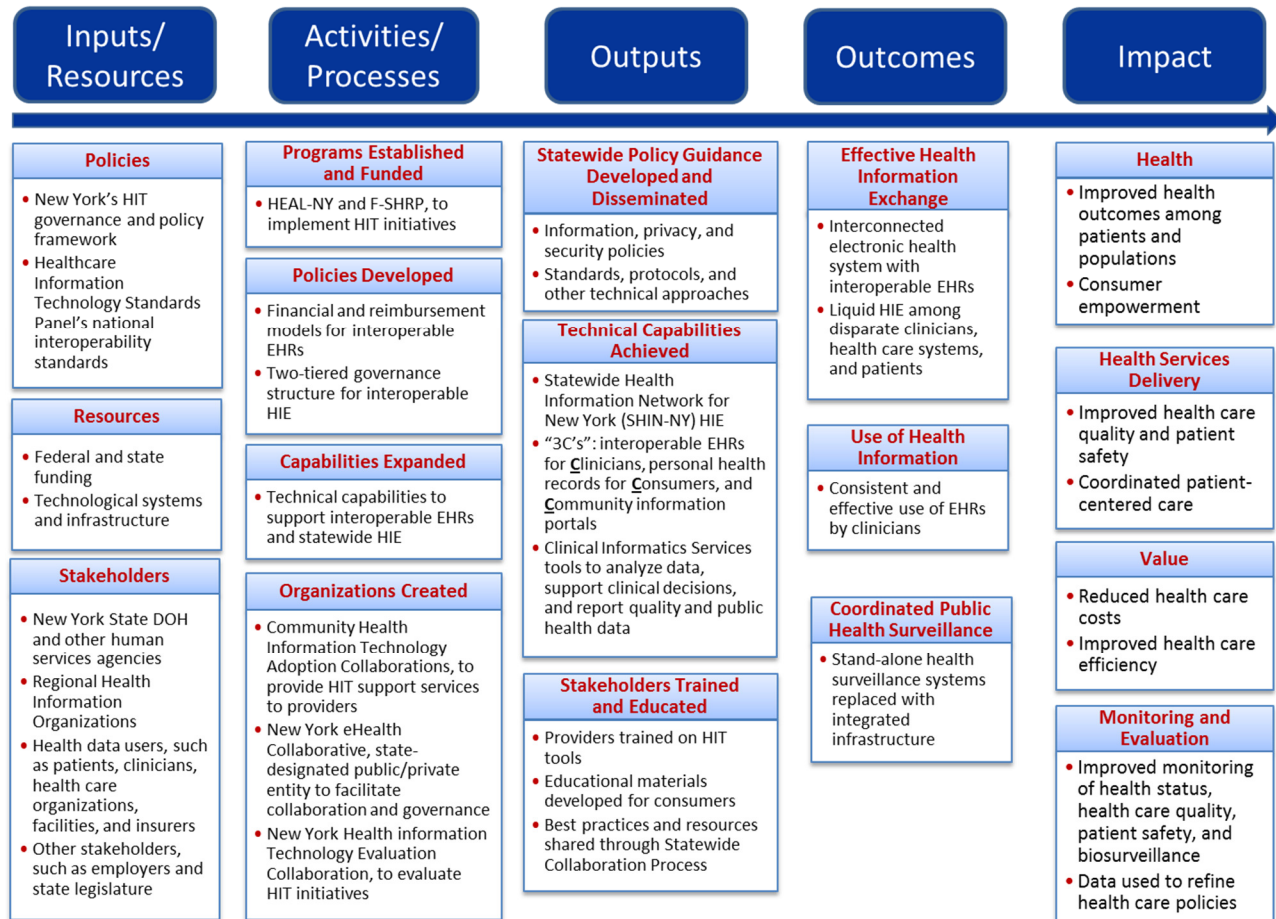
1. What Demonstration activities have aimed to improve the adoption or promote the use of e-prescribing?
  - a. Outcome measure 3.1.1: HEAL-NY grant-making activity related to the adoption or promotion of e-prescribing.
  - b. Outcome measure 3.1.2: HEAL-NY grantees’ self-reported changes in their use of e-prescribing .
2. What Demonstration activities have aimed to improve the adoption or promote the use of electronic medical records?
  - a. Outcome measure 3.2.1: HEAL-NY grant-making activity related to the adoption or promotion of electronic medical records.
  - b. Outcome measure 3.2.2: HEAL-NY grantees’ self-reported changes in their use of electronic medical records.
3. What Demonstration activities have aimed to promote system-wide data sharing and gathering to support higher quality care, transparency, and error reduction?
  - a. Outcome measure 3.3.1: HEAL-NY grant-making activity related to the promotion of system-wide data sharing and gathering to support higher quality care, transparency, and error reduction.
  - b. Outcome measure 3.3.2: HEAL-NY grantees’ self-reported changes in their data sharing and gathering activities.

### ***Motivation for Investment in Health Information Technology Through HEAL-NY Health Information Technology Grants***

F-SHRP and HEAL-NY were a mechanism to implement the vision laid out in New York’s Framework for Health Information Technology Strategy (see *Figure 36*).<sup>172</sup> This vision called for the development of an effective HIE, in which broad implementation of interoperable EHRs across the state would allow for liquid exchange of health information, allowing disparate clinicians, health care systems, and patients to easily and consistently access clinical data when they need it. Along with this new infrastructure, there would be a culture shift whereby clinicians would consistently and effectively use this information in practice. In addition to technological changes in clinical practice, stand-alone health surveillance systems would shift from stand-alone silos to an integrated infrastructure. All of these changes would allow clinicians to provide more coordinated and high-quality patient-centered care, thereby generating better health outcomes.

Allowing patients to access their own data would empower consumers to be more engaged in their own health care. Preventing duplicate tests, medical errors, and unnecessary admissions would reduce unnecessary costs and make health care delivery more efficient and high quality.

Figure 36. Logic Model of New York's Vision for Health Information Technology



Abbreviations: Health Information Technology (HIT), electronic health records (EHRs), Department of Health (DOH), Health Care Efficiency and Affordability Law for New Yorkers (HEAL-NY), Federal-State Health Reform Partnership Demonstration (F-SHRP), health information exchange (HIE). Sources: New York State Health Investment Technology Framework, RGAs for HEAL-NY phases 1, 5, 10, and 17.

Source: Rockefeller Institute of Government's analysis of HEAL-NY grant materials.

In doing this work, New York recognized the challenge of coordinating government agencies, health care facilities, health care sectors (such as managed care plans, primary care providers, and emergency departments), Regional Health Information Exchange Organizations (RHIOs, which are nonprofit organizations that govern HIE among stakeholders within a geographical area), and EHR vendors to promote liquid HIE. To overcome this challenge, New York developed a cohesive governance and policy framework that went beyond national health care interoperability standards. These standards, protocols, technical approaches, and information policies were continually updated with the input of multiple stakeholders, and all HEAL-NY awardees were required to actively participate in the Statewide Collaboration Process.

Financial resources came from multiple federal funding streams, including the Healthcare Information Technology for Economic and Clinical Health (HITECH) Act to promote the adoption and meaningful use of health IT, which was signed into law as part of the American Recovery and Reinvestment Act of 2009. DOH also received funding from the Centers for Disease Control and Prevention health IT grant and the Nationwide Health Information Network (NHIN) trial implementation project to specify, build, and demonstrate the capabilities to enable HIE. In addition to federal resources, New York used its own state funds to support its health IT activities and required all HEAL-NY grantees to contribute matching funds. HEAL-NY grants provided grantees with the resources to develop the technical capabilities to implement interoperable EHRs in clinical practices and connect to the Statewide Health Information Network for New York (SHIN-NY), the state's information exchange. HEAL-NY grants also supported the development of the "3 C's": interoperable EHRs for Clinicians, personal health records for Consumers, and Community information portals as well as technical tools that could manipulate electronic health data to provide clinical decision support (such as pop-up reminders on EHRs and tracking patients' health trajectories over time), generate clinic-level measures of the quality of health services being delivered, and report public health outcomes such as vaccination histories directly to DOH.

Stakeholder engagement was critical to achieving this vision. These included DOH; other human services agencies; RHIOs; health data users (such as patients, clinicians, health care organizations, health facilities, insurers, and health systems); employers; and the legislature. Several new organizations were formed as part of the HEAL-NY health IT grant process. Awardees were required to work with new Community Health Information Adoption Collaborations (CHITAs), which provided health IT adoption and support services to New York providers. The New York eHealth Collaborative was established as a state-designated public/private entity to facilitate collaboration and governance. As a state-designated entity, the New York eHealth Collaborative was eligible to receive federal funding to support health IT efforts. In addition, it played a critical role in working with grantees and other stakeholders to develop, disseminate, and promote adherence to the Statewide Policy Guidance. Another important organization that was formed through HEAL-NY was the New York Health Information Technology Evaluation Collaboration (HITEC), a consortium of academic researchers across multiple New York universities who evaluated the success of the state's health IT initiatives starting with the Phase 5 grants.

### ***Chronology of HEAL-NY Health Information Technology Grants***

All of the requests for grant applications (RGAs) mentioned the broad goals listed in the logic model (*Figure 36*), such as improving health outcomes, patient safety, and health care efficiency. However, each had a slightly different focus and they were designed to build off each other incrementally to achieve the broad vision outlined in the state's health IT framework.

Table 45. Summary of HEAL-NY Grants for Health Information Technology

Phase	Start Year	Application Categories
1	2006	<ul style="list-style-type: none"> <li>- Creating e-prescribing capabilities</li> <li>- Furthering the use of EHRs</li> <li>- Developing community-wide clinical data sharing</li> </ul>
5	2008	<ul style="list-style-type: none"> <li>- Reference architecture and pilot implementations of the Statewide Health Information Network for New York (SHIN-NY)</li> <li>- Pilot implementations of Clinical Informatics Services, automated tools that aggregate, analyze, measure and report clinical data for uses such as quality and population health reporting</li> <li>- Pilot implementations of community-wide interoperable EHRs</li> </ul>
10	2010	<ul style="list-style-type: none"> <li>- Implementing EHRs and facilitate HIE for patient-centered medical homes for patient populations with chronic and complex health conditions</li> </ul>
17	2011	<ul style="list-style-type: none"> <li>- Implementing EHRs and facilitate HIE for patient-centered medical homes for patient populations with chronic mental health conditions</li> </ul>
22	2012	<ul style="list-style-type: none"> <li>- Facilitating EHRs for behavioral health</li> </ul>
Source: Rockefeller Institute of Government's analysis of HEAL-NY grant materials.		

The first phase had a broader set of possible activities for applicants to consider, including creating e-prescribing capabilities, furthering the use of EHRs, and/or developing community-wide clinical data sharing capabilities. In contrast to the other phases described below, e-prescribing received a heavy emphasis because this activity had more advanced standards and clearer quality and efficiency returns than other health IT projects.<sup>173</sup>

Starting with phase 5,<sup>174</sup> the grants were more focused and grounded in the Framework for Health Information Technology Strategy. There were three distinct categories of grants, with corresponding use cases developed by DOH. Collectively, these grant categories and pre-specified use cases were designed to address the “cross-sectional interoperability” outlined in the framework. The first grant category was reference architecture and pilot implementations of the Statewide Health Information Network for New York (SHIN-NY), the state’s HIE. Because the SHIN-NY was still in its infancy, these grants supported the development of 10 regional networks with common HIE software protocols, core services, and standards that could support liquid HIE among multiple stakeholders using different EHR systems. The long-term vision was

that these regional networks would later be connected as a statewide network of networks. The second grant category was pilot implementations of clinical informatics services, automated tools that aggregate, analyze, measure, and report clinical data for uses such as quality and population health reporting. For example, automated tools could analyze the EHR data to measure and report physician- and other facility-level quality indicators to government agencies. The third grant category was pilot implementations of community-wide interoperable EHRs to ensure effective use of this technology and improve patient care. These EHRs were required to include interfaces to the New York State and New York City immunization registries and/or to include quality metrics and reporting capabilities. Overall, this phase increased the penetration of EHRs and supported the development of RHIOs across the state.

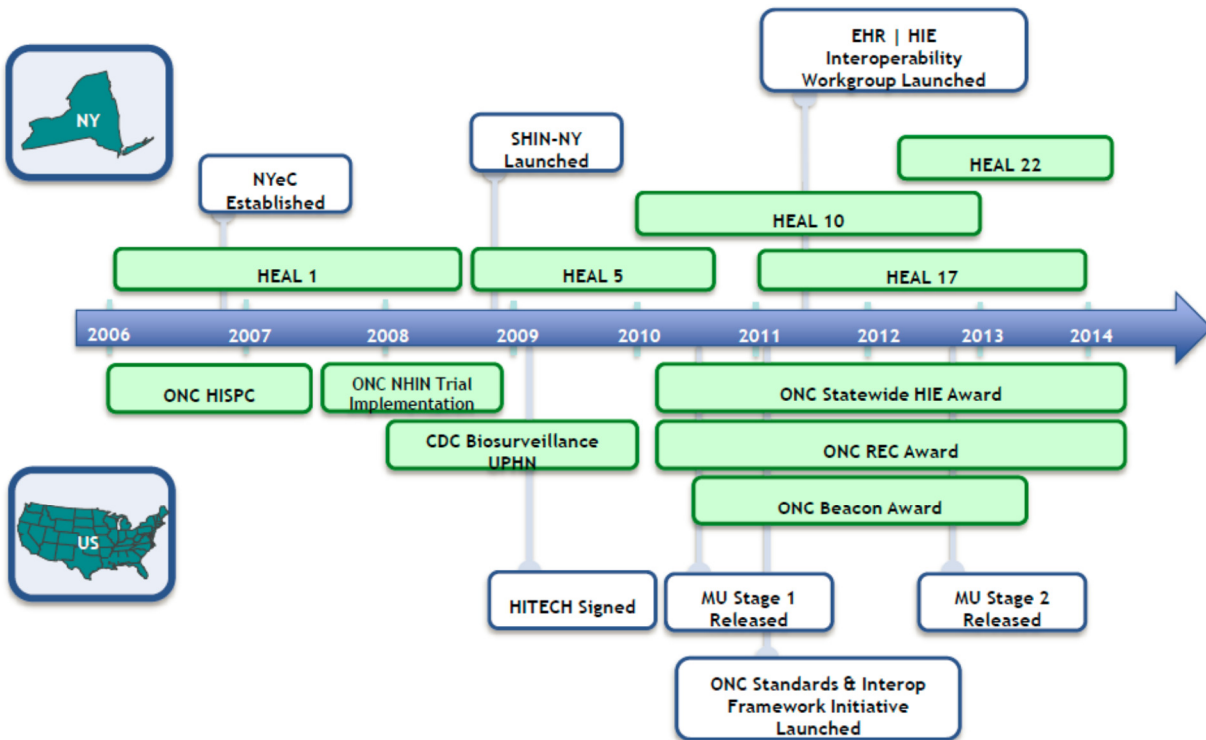
Phase 10 awards were more specific in their focus. They aimed to build and expand health IT capabilities to support patient-centered medical homes. These medical homes were emerging as a new health care delivery system and reimbursement model, and received funding through the Patient Protection and Affordable Care Act. Patient populations with chronic diseases or high-cost diagnoses were being transitioned to patient-centered medical homes, in which primary care physicians coordinate care across multiple specialists. However, this coordinated care requires fully operational and interoperable EHRs to allow multiple providers and facilities to share clinical information. The RGA text explicitly described how this phase was designed to build off earlier phases, “moving [emerging health IT systems] from infancy to childhood.”<sup>175</sup>

Phase 17 awards were similar to phase 10, except they focused on populations with mental health conditions, with a goal of integrating mental health, long-term care, and home health providers into medical homes. Applicants could apply for either “limited” projects that expanded patient-centered medical homes to include one or more mental health diagnoses, or else “expanded” projects that included one or more chronic disease diagnoses that are associated with mental health disorders and include a combination of mental health, long-term care, and home health care providers.

Phase 22 awards were distributed towards the end of the HEAL-NY program. Given the short timing until the grant program expired, two sole-source contracts were distributed to the state’s two regional extension centers<sup>176</sup> to facilitate EHRs for behavioral health. This disease area was selected because there were limited EHRs for behavioral health.<sup>177</sup>

As HEAL-NY health IT grants built off each other, they aligned with several federal grants from the Office of the National Coordinator for Health Information Technology (ONC) (see *Figure 37*). These grants included: Health Information Security and Privacy Collaboration,<sup>178</sup> trial implementations of the Nationwide Health Information Network (NHIN),<sup>179</sup> state HIE cooperative agreements,<sup>180</sup> Regional Extension Centers to provide support and resources for providers’ implementation of EHRs,<sup>181</sup> and Beacon Community cooperative agreements.<sup>182</sup> In addition, the Centers for Disease Control and Prevention funded the development of a universal public health node for biosurveillance.<sup>183</sup>

Figure 37. Chronology of HEAL-NY Health Information Technology Grants



Source: New York State Department of Health<sup>184</sup>

### ***Award Process for HEAL-NY Health Information Technology Grants***

HEAL-NY was jointly administered by DOH and the Dormitory Authority of the State of New York. HEAL-NY funds were awarded on a competitive basis, according to the criteria set forth in the RGAs. Each HEAL-NY phase had a separate RGA that described the goals, priorities, requirements, and how applications would be scored. In addition, up to 25 percent of the awards could be made at the discretion of the commissioner and director of the Dormitory Authority.<sup>185</sup>

The grant review process was similar to typical reviews of other competitive grants administered by government agencies and health foundations. Multiple reviewers used standard rubrics to score each application, with communication among reviewers to resolve discrepancies. After the grants were scored, funding was distributed to the top applicants while making sure that all six Berger Commission regions received funding.

A few requirements of the applications are worth noting. First, starting in phase 5, the RGAs were increasingly specific about the types of projects that could be funded. Second, applicants in all phases were required to engage multiple stakeholders throughout the grant process to improve buy-in and provide valuable feedback on what was needed/wanted in a health IT system. For instance, one helpful piece of input gleaned from stakeholder involvement was that patients do not stay within the delimited boundaries of a RHIO; rather, many patients move across RHIOs, particularly in New York City. Therefore, providers would have to connect to multiple RHIOs to

get patient information. This finding was a large impetus for efforts to try to knit the 10 RHIOs together into one statewide network. Third, applicants were required to provide matching funds and discuss the financial viability and sustainability of the project's business model. This was to ensure that applicants had some skin in the game and be committed to the continued use of health IT after HEAL-NY funds ended. Finally, the implementation of the HEAL-NY grant process evolved over time in ways that made the grants more effective and accountable. The HEAL 1 grants did not require any specific outcome reporting except for a report at the end. By HEAL 5, receiving funds was contingent on achieving specific milestones. According to one DOH official, given that nearly all funds were disbursed, it is possible to say that over 90 percent of projects met their objectives because the projects that failed to do so did not get paid, and nearly all of the funds were disbursed.<sup>186</sup>

Overall, the implementation of the health IT goal was quite successful if assessed in terms of the number of grants disbursed and their effective implementation of project proposals.

#### ***Other Concurrent Changes in the System That May Have Affected Health IT Implementation***

The development of RHIOs, or collaborations that enable the secure and interoperable exchange of health information, predated implementation of F-SHRP but also was related to F-SHRP's implementation since a requirement for certain HEAL-NY grants was that applicants be part of a RHIO. In some cases, only RHIOs were conferred eligibility for grants, contracts for services, and access to various data sources, both public and private.<sup>187</sup> As of 2009, there were nine state RHIOs, which provide coverage to all counties in the state.<sup>188</sup> While 92 percent of hospitals have attached to a RHIO, private practice attachment is lower and rates are higher upstate than downstate.<sup>189</sup> More recently, DSRIP and other alternate delivery systems have required all Medicaid managed care groups to connect to a RHIO. Furthermore, the Department of Health has begun trying to knit the 10 RHIOs together into one statewide network, SHIN-NY.

In addition to these other state initiatives, there have also been federal initiatives related to the ACA and the American Recovery and Reinvestment Act (ARRA) that have been aimed at developing health IT infrastructure. The HITECH Act of 2009 stipulates that health care providers be offered financial incentives for demonstrating "meaningful use" of electronic health records (EHRs). Incentives will be offered until 2015. After that, penalties may be charged for failing to demonstrate such use. The Act also established grants for training centers for the personnel required to support a health IT infrastructure.<sup>190</sup>

Although these federal grants have also been made available in New York State, what New York had already accomplished through its various HEAL-NY initiatives and efforts to build regional and statewide interoperable network capabilities greatly exceeds efforts by the federal government. Whereas policy at the federal level has been primarily concerned about the promotion of meaningful use within a given practice, New York has gone further than the national level by encouraging data sharing on a region and statewide basis through the promotion



of RHIOs and SHIN-NY. Consequently, New York is ahead of the curve in terms of implementation of health IT.

### **Outcome Measures**

The evaluation plan requests an analysis of grant-making activities and grantees' self-reported outcomes related to e-prescribing, electronic medical records, and system-wide data sharing and gathering to support higher quality care, transparency, and error reduction. These three categories of health IT activities were clarified using national definitions, described below.

#### ***HEAL-NY Grant-Making Activity Related to E-Prescribing***

CMS defines e-prescribing as “a prescriber’s ability to electronically send an accurate, error-free and understandable prescription directly to a pharmacy from the point-of-care.”<sup>191</sup> Electronic prescriptions have the potential to improve patient safety and quality of care by eliminating illegibility from handwritten prescriptions and incorporating alert systems (such as drug-drug and drug-allergy interactions); reduce administrative burdens to pharmacies, clinic offices, and patients; increase patient compliance; improve formulary adherence (by encouraging generic substitutions and generic first-line therapies); increase patient convenience; and report quality measures.<sup>192</sup>

Under this definition, a provider’s ability to access or share a patient’s medication information in an EHR system is not sufficient to qualify as e-prescribing. The act of e-prescribing involves the provider entering prescription information into e-prescribing software that automatically transmits the data to participating pharmacies. Some of the later HEAL-NY phases describe the implementation of EHRs with e-prescribing capabilities. Unless the HEAL-NY application had a clear focus on helping providers implement e-prescribing (versus adopting EHRs that had this capability), the grant was not counted in this category.

#### ***HEAL-NY Grant-Making Activity Related to Electronic Medical Records***

Electronic medical records (EMRs) are digital versions of patients’ medical charts that clinicians can use to track clinical outcomes over time, flag when patients are due for certain preventive tests, and monitor the quality of health care. EHRs are a broader collection of health records that include both the EMR data from inside a practice as well as information from other providers, laboratories, and facilities such as nursing homes. Although EMRs can readily be queried within a clinical practice, the information cannot be shared easily to other entities. In contrast, EHRs are designed to allow providers at multiple organizations — as well as patients — the ability to view and share health information. The primary difference between EMRs and EHRs is that EHRs also adhere to nationally recognized interoperability standards, allowing the clinical data to be exchanged and used by different IT systems and software applications.<sup>193</sup>

One of the challenges of reviewing archival grant data on rapidly evolving health IT initiatives is that the EMR term used in the original evaluation plan is not robust enough to capture the complete set of activities that HEAL-NY grants funded. In particular, earlier HEAL-NY grants

focused on promoting adoption of an EMR system among providers, whereas some grantees in later phases focused on expanding the capacities of existing EMR systems to transform them into interoperable EHRs that could share information broadly across larger networks. New federal “meaningful use” standards emerged during the HEAL-NY grant period, which led some of the providers adopting EMRs in the early phases to later upgrade to an updated EHR system. Other capabilities of newer EHRs included supplemental clinical decision support tools to help clinicians assess how specific patients compared to others in the community, modules that allow patients to view their own personal health records, and mechanisms to automate the reporting of quality and public health information to government agencies.

We therefore decided to use the more common term “EHR” to be more consistent with current federal and state health IT policy guidance, and to document two types of EHR adoption:

- *Adoption among providers without any existing system* — where grant funds supported the implementation of a new EMR/EHR system among providers that were currently using paper-based records
- *Expansion of existing EMR/EHR capabilities* — where grant funds were used to expand the features in systems that providers already had in place, such as adding clinical decision support tools, patient portals, or generating automatic quality or public health reports

### ***HEAL-NY Grant-Making Activity Related to System-Wide Data Sharing and Gathering to Support Higher Quality Care, Transparency, and Error Reduction***

The third category of grant activities relates to electronic HIE, which “allows doctors, nurses, pharmacists, and other health care providers and patients to appropriately access and securely share a patient’s vital medical information electronically — improving the speed, quality, safety and cost of patient care.” Sharing patient information can help providers and patients make better decisions at the point of care, thereby avoiding readmissions, avoiding medication errors, improving diagnoses, and decreasing duplicate testing.<sup>194</sup> We examined three categories of HIE:

*Directed exchange* — when providers are able to send and receive secure health information electronically in order to provide coordinated care. This information can include a variety of types of data, including lab results, images, medication lists, patient referrals, discharge summaries, and clinical histories. Sharing these data is critical to enable coordinated care models such as patient-centered medical homes where patients with complex health conditions may receive care from multiple primary care and specialty providers. In addition to this patient-centered application, directed exchange can also be used to support public health surveillance (such as sending patients’ immunization information to public health departments) or to report aggregate provider- or clinic-level quality measures (such as the percentage of patients receiving a particular service) to health systems and government agencies.

*Query-based exchange* — when providers can find or request information on a patient from other providers. This form of HIE allows providers to search for, request, and access clinical information on particular patients at the point of care. One application might be emergency departments who could use the query-based exchange to pull up a patient's medical history to avoid a medication reaction.

*Consumer-mediated exchange* — when patients can access their own health information. In this environment, patients are able to share relevant information with other providers, fix incorrect health or billing information, and monitor their own health. By controlling and managing this information, consumers are enabled to be more active participants in their health and decision-making.

All grants promoting HIE discussed directed and query-based exchange. Our final coding, therefore, only distinguishes directed/query-based exchange and consumer-mediated exchange such as consumer portals.

## **Data Sources**

### ***Grant Activity Data and Grantee Reports***

The original evaluation plan called for the use of HEAL-NY grant activity data and grantee reports to answer these questions. Grant activity data came in the form of electronic “GAP Tool” — Excel spreadsheets for each award for phases 5, 10, and 17.<sup>195</sup> Starting in phase 5, DOH staff took a pay-for-performance approach to grant management. DOH grant staff went through applications in detail after the awards were established. The GAP Tool spreadsheets captured all activities that applicants committed to doing, and were used to track these milestones. Although awardees were not involved in creating the GAP Tools, they were given an opportunity to review the required components of their awards. Ten percent of the grant awards were withheld until all of the deliverables had been completed. Throughout the award period, applicants had to submit specific documentation to demonstrate their completion of specific activities or else demonstrate a technical capability in a webinar with DOH. Each GAP Tool spreadsheet contains a summary tab for the percentage completion for each project.

In addition to the GAP Tools that were generated by DOH staff, applicants submitted narrative interim and final reports. However, discussions with DOH staff managing the HEAL-NY program indicated that grantee reports were neither uniform nor available as a complete set. Consequently, we reviewed them for additional contextual information, but did not consider them to be a primary information source.

Starting in phase 5, grantees no longer conducted their own evaluations. Instead, DOH contracted evaluations to a newly formed New York Health Information Technology Evaluation Collaboration (HITEC). This evaluation group was a consortium of interdisciplinary academic researchers across multiple New York-based universities, and was structured as an independent state-designated entity dedicated to evaluating HEAL-NY health IT initiatives. A list of HITEC’s published abstracts was made available to the Rockefeller Institute of Government, and all original academic publications were located from the library. These evaluations focused on cross-cutting issues (such as use and implementation, costs and utilization, safety and quality, patients, providers, policy, public health, and methods), rather than providing grantee-by-grantee data on changes in specific process and outcome measures due to each award.

### ***Other Data Sources***

Additional archival data used for the evaluation of Goal 3 included:

- Information to applicants about each phase — Request for Grant Applications packets, supplemental Questions and Answers sheets that were published for all applicants, and applicant conference briefing materials such as PowerPoint slides describing the award (electronic documents).
- Original grant applications from the organizations that received funding (electronic documents).

- Excel spreadsheet summarizing major outcomes of awards from the 22 phases, including the facility name, project name, project description, contract amount, and facility type (electronic document).
- Miscellaneous archival material on the HEAL-NY program more generally, such as the duties of the HEAL-NY Unit, process flows for the application reviews, HEAL-NY legislation, and summaries of the 22 awards (electronic and hard-copy documents).

These archival documents were supplemented with phone calls and meetings with DOH staff responsible for managing HEAL-NY grants and the HITEC research group.

Table 46. Summary of Data Used for Measures 3.11, 3.21, and 3.3.1

Phase	Awards, N	Available Electronic Data	Comments
1	26	<ul style="list-style-type: none"> <li>- Short project descriptions from outcomes spreadsheet (N=26)</li> <li>- Supplemental short project descriptions from DOH website (N=23)</li> <li>- RGAs and other information for applicants</li> </ul>	
5	21	<ul style="list-style-type: none"> <li>- Short project descriptions from outcomes spreadsheet (N=21)</li> <li>- Use cases for the types of projects that could be funded under this mechanism (N=6)</li> <li>- Original applications (N=19)</li> <li>- RGAs and other information for applicants</li> </ul>	Applications for the New York eHealth Collaborative and HITEC contracts, which supported broader HEAL-NY health IT implementation and evaluation activities were not available for review.
10	11	<ul style="list-style-type: none"> <li>- Short project descriptions from outcomes spreadsheet (N=9)</li> <li>- Original applications (N=9)</li> <li>- RGAs and other information for applicants</li> </ul>	Applications or project descriptions for the New York eHealth Collaborative and HITEC contracts, which supported broader HEAL-NY health IT implementation and evaluation activities were not available for review.
17	14	<ul style="list-style-type: none"> <li>- Short project descriptions from outcomes spreadsheet (N=14)</li> <li>- Original applications (N=11)</li> <li>- RGAs and other information for applicants</li> </ul>	Applications or project descriptions for the New York eHealth Collaborative and HITEC contracts, which supported broader HEAL-NY health IT implementation and evaluation activities were not available for review. Among other grantees, one application was missing.
22	2	<ul style="list-style-type: none"> <li>- Short project descriptions from outcomes spreadsheet</li> <li>- Contracts (N=2)</li> </ul>	This phase does not have associated RGA documents because it was issued as two sole-source contracts. Applications were not available for review.
Source: Rockefeller Institute of Government's analysis of HEAL-NY grant materials.			

Table 47. Summary of Data Used for Measures 3.1.2, 3.2.2, and 3.3.2

<b>Phase</b>	<b>Awards, N</b>	<b>Available Electronic Data</b>	<b>Comments</b>
1	26	- Final quarterly activity program reports (N=6)	GAP Tool spreadsheets were not used in the first phase.
5	21	- GAP Tool spreadsheets (N=16) - Final quarterly activity program reports (N=19)	Two awards had a list of requirements but no corresponding GAP Tool. Documents for the New York eHealth Collaborative and HITEC contracts, which supported broader HEAL-NY health IT implementation and evaluation activities were not available for review.
10	11	- GAP Tool spreadsheets (N=9) - Final quarterly activity program reports (N=8)	Documents for the New York eHealth Collaborative and HITEC contracts, which supported broader HEAL-NY health IT implementation and evaluation activities were not available for review.
17	14	- GAP Tool spreadsheets (N=11) - Final quarterly activity program reports (N=7)	Documents for the New York eHealth Collaborative and HITEC contracts, which supported broader HEAL-NY health IT implementation and evaluation activities were not available for review.
22	2	- None	This phase does not have any GAP Tools or other evaluation information because it was issued as two sole-source contracts.
Source: Rockefeller Institute of Government's analysis of HEAL-NY grant materials.			

## **Methods**

### ***Classifying Grants into Health IT Categories***

Based on the operational definitions for e-prescribing (measures 3.1.1 and 3.1.2), EHRs (measures 3.2.1 and 3.2.2), and HIE (measures 3.3.1 and 3.3.2), two members of the evaluation team reviewed the material for each grantee to identify which health IT categories were relevant for each grant. Discrepancies were resolved through discussion and consensus.

### ***Summarizing Health IT Grant Activity***

For measures 3.1.1, 3.2.1, and 3.3.1 (the grant activity related to e-prescribing, EHRs, and HIE), grantee-specific data were aggregated to summarize:

- Number of awards related to each HEAL-NY phase (1, 5, 10, 17, and 22), by type of health IT activity (e-prescribing, EHRs, HIE) and Berger commission region.
- Dollar amount of awards related to each HEAL-NY phase (1, 5, 10, 17, and 22), by type of health IT activity (e-prescribing, EHRs, HIE) and Berger commission region.

Narrative grant text provided illustrative examples of grants in the three health IT categories.

### ***Summarizing Self-Reported Changes in Health IT Outcomes***

As noted above, the grant data did not provide complete information about the self-reported success of each grant and evaluation was instead conducted by HITEC. The evaluation plan was modified slightly to account for the available data.

For measures 3.1.2, 3.2.2, and 3.3.2 (grantees' self-reported changes in e-prescribing, EHRs, and HIE), GAP Tool spreadsheets were used to document the fraction of awardees that completed the milestones outlined in their original applications. These GAP Tools contained the completion rates for between 7 to 11 categories of items, such as: data to be exchanged; architecture, software, and hardware; organization and governance; privacy and security; implementation support; and technical plan.

In addition, HITEC studies were summarized to provide additional context for the types of changes in health IT outcomes as a result of the HEAL-NY grants.

### ***Data Analysis Limitations***

There were several limitations to our evaluation of HEAL-NY health IT grants. First, there were missing or incomplete electronic grant data, which may have led to under-reporting or misclassification of certain activities. For example, we only had short summaries of the phase 1 grants and it is likely that several of the applicants had listed additional activities in their narrative that we did not review. Although some of the missing documents for phase 1 grants were available in hard copy, we focused on the electronic documents in order to ensure that multiple evaluation team members could review the materials. Second, it is difficult to classify the grant activities into the three defined dimensions (e-prescribing-3.1, EHRs-3.2, and HIE-3.3)



because most of the grant activities spanned multiple areas. Furthermore, both health IT and the health care delivery system were evolving rapidly during the grant period, so some of the areas emphasized in later grants (such as implementing health IT for patient-centered medical homes in phases 10 and 17) do not align perfectly with the original outcomes of e-prescribing, EHRs, and HIE. In addition, the EHR technology evolved such that in later grants, e-prescribing was a feature of all EHR systems and not a stand-alone grant objective. We addressed this analytic challenge by using clear operational definitions for the three outcomes and having a second member of the evaluation team review the classification decisions. Third, we did not have quantitative data on grant outcomes. However, the pay-for-performance contract management system (applicable to phases 5, 10, and 17) tracked whether the process deliverables mentioned in the grant applications were achieved. Overall, the incomplete grant data and challenges with classifying grants into the three areas likely led us to under-report the amount and breadth of health IT activities funded through the HEAL-NY program.

### **Main Findings**

#### ***HEAL-NY Grant-Making Activity Related to Health Information Technology***

Seventy-four awards were made from 2006 to 2013 across five phases, totaling \$412.7 million (Information Technology Strategy).

Table 48 and *Figure 38 to Figure 41*). Grants lasted from one to six years, with an average contract time of 2.8 years. Grants went to diverse regions, with all six Berger Commission regions receiving awards for phases 1, 5, and 10; and four regions receiving awards in phase 17. Although the NYC region received the largest share of awards (42% of the total funding), it also represents a large proportion of the total state population and had multiple RHIOs supporting local networks.

Three-quarters of all grants (75.7%) supported the adoption or promotion of EHRs, and most (87.8%) supported the adoption or promotion of HIE. Among the EHR grants, 76.8 percent (43/56) supported the implementation of EHRs among providers that did not already use electronic systems, and 58.9 percent (33/56) funded the expansion of capabilities of existing EHRs, such as adding new interfaces to connect to the public health department immunization registries, clinical decision software, and consumer portals. Among the HIE grants, 38.4 percent (25/65) promoted consumer-mediated HIE such as web portals that contain patient health information on a computer chip. Only a minority of grants (16.2 percent) had a focus on e-prescribing. However, this statistic is somewhat misleading. Starting in phase 5, many of the grants that focused on EHR implementation supported robust systems that also contained e-prescribing capabilities. But because the main focus was on supporting the installation and meaningful use of EHRs, these grants were not included as e-prescribing.

Phases 5, 10, and 17 also included one award each for evaluation and implementation. Evaluation was conducted in a centralized fashion through the HITEC academic evaluation center, and the New York eHealth Collaborative received ongoing awards to facilitate implementation in line with the New York Health Information Technology Strategy.

Table 48. Summary Characteristics of HEAL-NY Grants for Health Information Technology

Characteristic	Awards, N (%)	Funding, \$
Phase		
1	26 (35.1)	52,875,000
5	21 (28.4)	104,944,003
10	11 (14.9)	99,914,713
17	14 (18.9)	116,775,701
22	2 (2.7)	38,200,000
Berger Commission Region		
Central	9 (12.2)	35,311,990
Hudson Valley	7 (9.5)	31,985,788
Long Island	9 (12.2)	49,798,625
New York City	25 (33.8)	174,100,093
Northern	8 (10.8)	17,713,669
Western	11 (14.9)	61,494,205
Statewide	5 (6.8)	42,305,047
Types of Health Information Technology		
Adoption or Promotion of E-Prescribing	12 (16.2)	73,070,183
Adoption or Promotion of EHRs	56 (75.7)	312,453,255
Adoption of New EHRs	43 (58.1)	250,824,226
Expanded Capacity of Existing EHRs	33 (44.6)	184,204,077
Adoption or Promotion of Health Information Exchange	65 (87.8)	341,818,279
Adoption or Promotion of Consumer-Mediated Health Information Exchange	25 (33.8)	170,475,694
Evaluation	3 (4.1)	11,820,505
Implementation	3 (4.1)	51,684,542
<b>Total</b>	<b>74 (100)</b>	<b>412,709,417</b>

Source: Rockefeller Institute of Government's analysis of HEAL-NY grant applications.

Figure 38. Number of HEAL-NY Health Information Technology Awards by Phase and Berger Commission Region

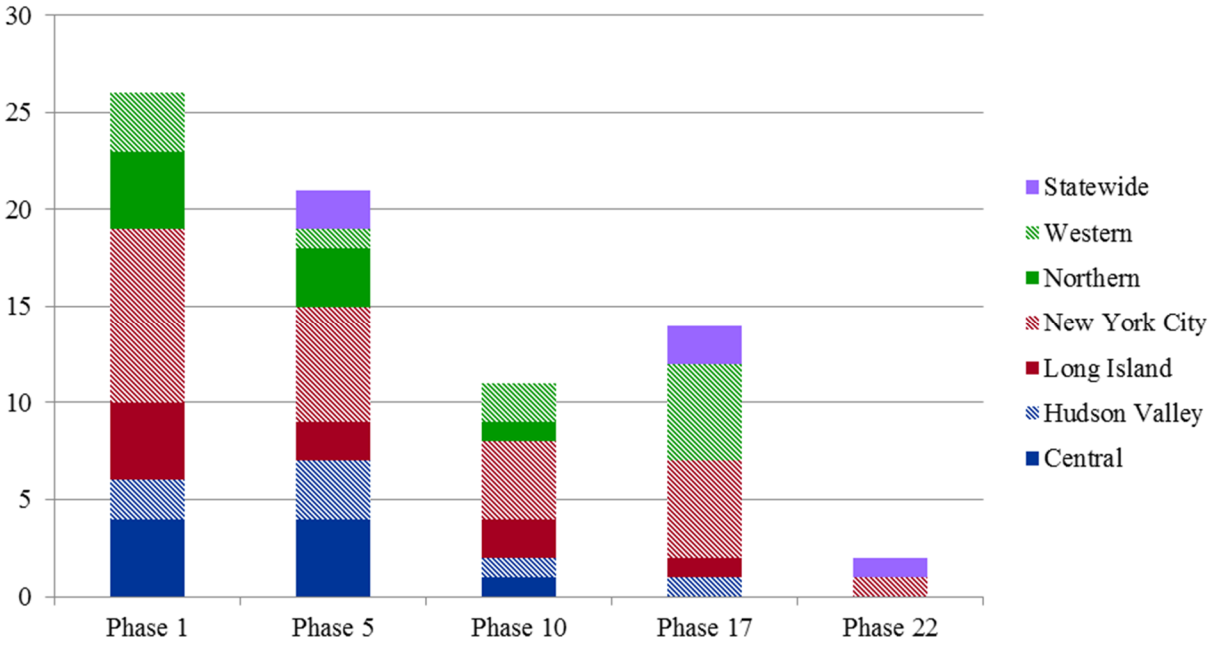


Figure 39. Amount of HEAL-NY Health Information Technology Funding by Phase and Berger Commission Regions

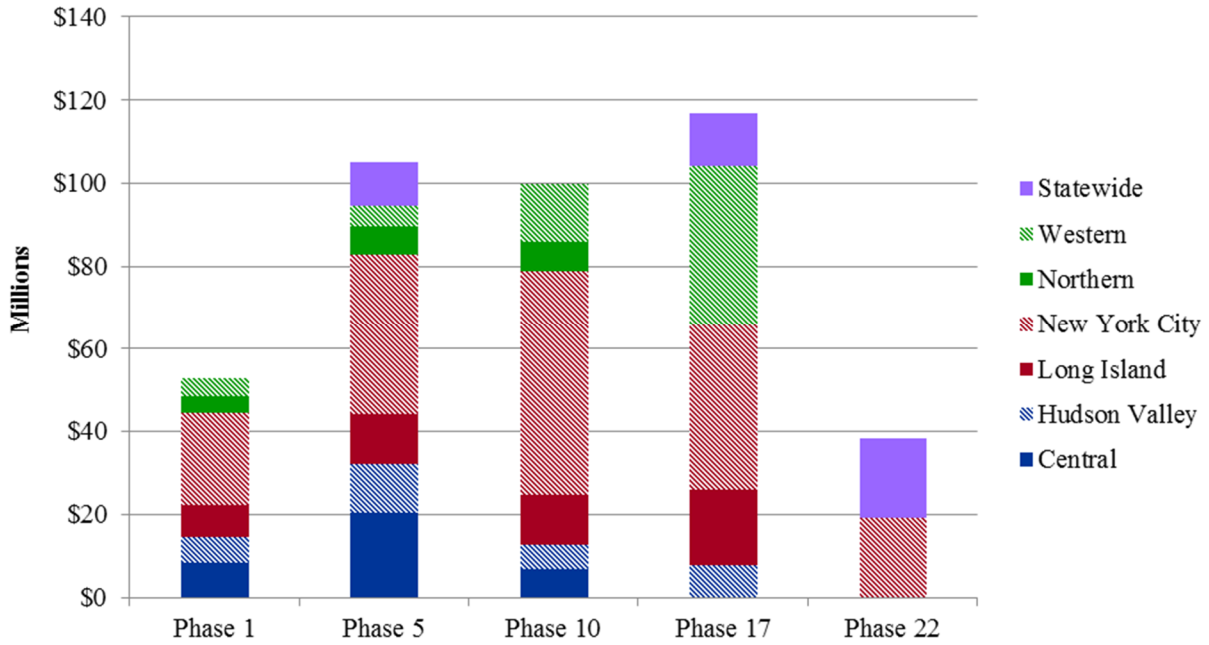


Figure 40. Number of HEAL-NY Health Information Technology Awards by Phase and Type

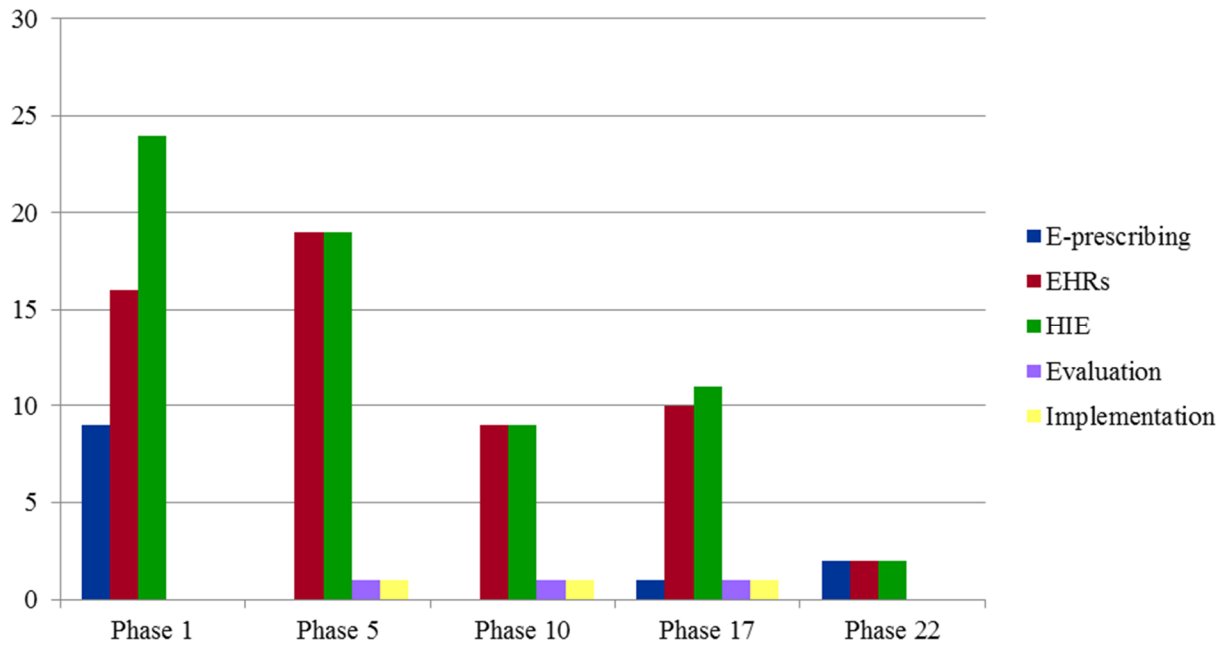
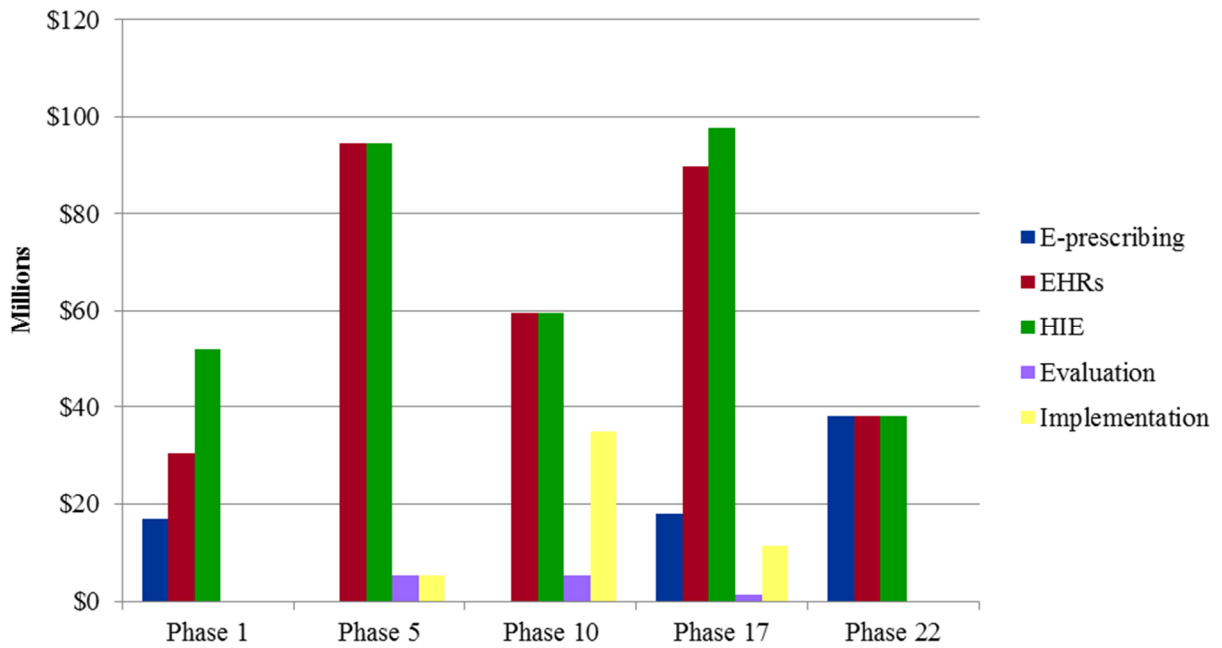


Figure 41. Amount of HEAL-NY Health Information Technology Awards by Phase and Type



*Table 49* provides examples of grants in each category. Many of the grants were aimed at multiple activities. For example, early phase 1 grants helped RHIOs become established so they could support activities in all three areas (e-prescribing, interoperable EHRs, and HIE). Grants in phases 10 and 17, which were related to health IT adoption in patient-centered medical homes, were often related to both EHRs and HIE, with advanced EHRs having e-prescribing capabilities.

A second feature of these grants is that they became more sophisticated over time, showing an incremental adoption of health IT. As an example, one HEAL-NY phase 17 applicant (C026926) described how the award would build on the three prior HEAL-NY phases (1, 5, and 10), a past federal Beacon Community Program award, and initiatives from the Medical Society for the State of New York (MSSNY). The applicant explained:

HEAL 1 provided funding needed to implement HEALHeLINK's Health Information Exchange (HIE) technology platform and to execute ePrescription ("eRx") and Diagnostic Data Exchange (lab and radiology results reporting). Through HEAL 5, HEALHeLINK is accelerating the expansion of the integrated HIE platform in WNY [(Western New York)], standardizing connections and transactions, and leveraging CHiXP [(common health information exchange protocols)] through the SHIN-NY architecture. This supports the transfer of NYS Immunization Records, Medicaid Medication History Information, and Public Health data. HEAL 10 currently supports EHR adoption to: improve chronic care management as demonstrated by improved clinical outcomes performance measures; proactive patient self-management facilitated by patient portals; and increase care coordination.... HEALHeLINK's MSSNY grant is enabling physician practice EHR interoperability by facilitating the two-way flow of patient referral data via Continuity of Care Document (CCD) exchange. Adding HEAL 17 to these initiatives, which by design build on and enhance each other, will have a significant impact on the provision of mental health care in Erie County that can be replicated throughout WNY.

Other applicants in later phases proposed adding very advanced capabilities to existing EHRs, such as generating automatic reports on quality metrics and immunizations to transmit to DOH, pulling Medicaid administrative data into clinical charts, and creating decision tools for clinicians to use at the point of care. These decision tools ranged from simple pop-up reminders to sophisticated algorithms to generate charts to share with patients and statistical forecasting models to predict which patients would be at risk for future complications.

*Table 49. Illustrative Examples of HEAL-NY Grants for E-Prescribing, Electronic Health Records Adoption, and Health Information Exchange*

<b>Outcome</b>	<b>Examples (contract, phase)</b>
E-Prescribing	<ul style="list-style-type: none"> <li>- Integration of e-prescribing capabilities into six for-profit nursing homes (C021849, phase 1)</li> <li>- Creation of a RHIO in Suffolk County to support e-prescription, EHRs, and HIE (C021861, phase 1)</li> <li>- Development of a health IT database and application integration hub for the Greater Rochester RHIO that will allow for HIE across nine counties, and implementation of EHR systems and e-prescribing capabilities (C021851, phase 1)</li> <li>- Provision of e-prescribing support services as needed for behavioral and mental health providers (C028047 and C028048, phase 22)</li> </ul>
Implementation of New EHRs	<ul style="list-style-type: none"> <li>- Establishment of a new EHR system at Niagara Falls Memorial Medical Center (C021848, phase 1)</li> <li>- Implementing new EHR systems to providers participating in a newly formed patient-centered medical home in the North Country, and upgrading systems among providers that already use EHRs (C025945, phase 10)</li> <li>- Implementing new EHR systems to providers participating in a newly formed patient-centered medical home for diabetes care in the Adirondack region, including extensive physician training (C025947, phase 10)</li> </ul>
Enhancing Existing EHR Systems	<ul style="list-style-type: none"> <li>- Extending the interoperability of the Rochester RHIO to include all providers treating diabetes patients in the patient-centered medical home, and adding: additional clinical data elements, improved query functions, applications that summarize data for transitions of care, referral management, ability to report home monitoring results and initiate communications with patients, and ability to summarize data to report community quality measures to DOH (C026925, phase 17)</li> <li>- Enhancing Western New York's interoperable EHR networks with software tools for disease management, such as automatically tracking medical conditions over time, using clinical data to develop regression curves that would identify patients at risk for future complications, and generating graphics of health indicators</li> </ul>

Outcome	Examples (contract, phase)
Health Information Exchange	<p>for clinicians to use at the point of care to communicate with patients and make more informed treatment decisions (C025953, phase 10)</p> <ul style="list-style-type: none"> <li>- Connecting interoperable EHRs to coordinate the care of women with high risk pregnancies, including connecting primary care providers to specialists, labor and delivery units, well baby nurseries, and neonatal intensive care units in three Long Island facilities (C025952, phase 10)</li> <li>- Connecting select Brooklyn outpatient primary care and mental health clinics to the Brooklyn Health Information Exchange and the SHIN-NY to coordinate patient-centered medical and mental home services care of schizophrenic patients, including enabling patients' access to personal health records and supplementing the connectivity with video-conferencing abilities (C025950, phase 10)</li> </ul>
Consumer-Mediated Exchange	<ul style="list-style-type: none"> <li>- Addition of specialized software to EHRs to allow patients with chronic kidney disease to access web-based interfaces to see trends in their disease status (C026923, phase 17)</li> <li>- Addition of viewable personal health records for patients with comorbid diabetes mellitus and clinical depression being treated in a patient-centered medical home at New York-Presbyterian Hospital (C026922, phase 17)</li> </ul>
Source: Rockefeller Institute of Government's analysis of HEAL-NY grant applications.	

***HEAL-NY Grantees' Self-Reported Changes in Health Information Technology Outcomes***

As described above, the GAP Tools were used by DOH to evaluate the extent to which awardees completed the project deliverables stated in the applications. The table below (.



Table 50) summarizes the completion of these awards. Overall, most projects were fully executed. Of the four grants that did not meet all stated deliverables, three grants had only a few items missing from one of the categories.

Table 50. Degree to Which HEAL-NY Health IT Grants Were Fully Completed

Phase	Awards, N	Awards with Full Completion, %	Comments on Awards Without Full Completion
5	16	100%	
10	9	89%	One award was incomplete on all project dimensions (79% completion for project stakeholders, 93% completion for implementation support, 78% completion for technical overview, 94% completion for technical plan, 54% completion for data sharing, 71% completion for RHIO and organizational governance, 63% completion for other goals).
17	11	73%	The three incomplete awards had very few outstanding items. Award A had 1 item missing in the technical plan (99% completion), Award B had 3 items missing in the technical plan (86% completion), Award C had 1 item missing in the project stakeholders' category (94% completion). Each award had perfect completion on all other categories.
Notes: The number of awards is smaller than in <i>Table 46</i> due to missing data. Outcomes for phases 1 and 22 are not reported because these do not have corresponding GAP Tools.			
Source: Rockefeller Institute of Government's analysis of HEAL-NY grant materials.			

Because grants were so diverse, and because of missing data and the final reports' inconsistency in the information reported, the data available to us could not be used to summarize the extent to which these grants changed the penetration of e-prescribing, EHRs, or HIE. Instead, we provide some illustrative examples from the final reports on how these changes were achieved. We supplemented this with a summary of the published work of the HITEC evaluation group, which was specifically designed to conduct rigorous and generalizable evaluations of the HEAL-NY health IT grants.<sup>196</sup>

*Table 51* provides vignettes for how the HEAL-NY grants changed the three outcomes. Similar to our findings above, the early phases allowed grantees to implement health IT systems that were later improved upon for more complex uses such as supporting HIE among new patient-centered medical homes and helping providers meet new federal Meaningful Use standards.

Grants to early adopters allowed health care facilities, RHIOs, and other organizations to develop and pilot new tools, which could later be used by future adopters.

Grantee reports also highlighted some common challenges and reasons for delays, which are common to many IT projects and not necessarily a reflection on the HEAL-NY process. These included:

- vendor consolidations, mergers, acquisitions, product changes, and staff turnover;
- existing health IT solutions being immature, with interfaces and other desired features being more difficult to develop than the vendors originally planned;
- problems with software required to match patient data across systems;
- upfront costs required by providers to implement health IT and upgrade systems, including both financial resources and time;
- importance of analyzing and changing clinical practice workflow rather than just focusing on the technology;
- legal and cultural barriers to sharing information, such as interpretations of patient confidentiality rules from HIPAA, medical ethics codes, and other public health laws, and the threat of litigation;
- emerging standards for EHRs, HIE, and the SHIN-NY, which at times outpaced the available technology and national standards; and general challenges of motivating New York providers to adopt health IT ahead of their peers in other states; and
- delays in setting up contracts with DOH.

*Table 51. Illustrative Examples of How HEAL-NY Grants Improved E-Prescribing, Electronic Health Records Adoption, and Health Information Exchange*

<b>Outcome</b>	<b>Examples (contract, phase)</b>
E-Prescribing	<ul style="list-style-type: none"> <li>- As a result of HEAL-NY phase 1 funds, over 40 Adirondack providers use electronic prescription products that do drug-to-drug interaction and allergy checking and medication history. (C021855, phase 1).</li> </ul>
Implementation of New EHRs	<ul style="list-style-type: none"> <li>- All stakeholders who adopted EHRs through HEAL-NY phase 1 reported better access to accurate patient information in real-time, and that technology has been received well by patients and providers. In addition to clinical benefits, some providers have indicated financial benefits such as being able to see more patients per day, having more accurate billing records, and eliminate transcription costs. However, the upfront costs of EHR implementation are substantial: “if it were not for grants like the HEAL grant, our project would not have been possible. More needs to be done to encourage and/or require payers to help pay for the costs of implementing emr [sic] technology, as its benefits become more clearly established” (C021852, phase 1),</li> <li>- The Sunset Park Health Council in New York City used its HEAL-NY phase 5 funds to create and demonstrate the first interface between a RHIO and the NextGen EHR that was consistent with the Statewide Policy Guidance. The grantee also created numerous tools to assist with various phases of EHR adoption, including EHR Readiness, Implementation, Workflow, and Go-Live. This makes it easier for other health centers in the region to use the NextGen product to adopt these EHRs and connect to the Brooklyn RHIO (C023539, phase 5).</li> <li>- The New York City Department of Health and Mental Hygiene used HEAL-NY phase 5 funds to extend interoperable EHRs with quality reporting and immunization registry capabilities to an additional 540 Medicaid providers. As part of this work, the agency provided significant technical support to facilitate implementation. This included implementation and project management support on helping practices purchase appropriate hardware and migrate data; on-site training by Implementation Specialists, Quality Improvement Specialists, EMR Super Users, and Billing Specialists to improve workflow redesign; discussion forums, including an online social networking program and open</li> </ul>

Outcome	Examples (contract, phase)
Enhancing Existing EHR Systems	<p>houses where providers could share experiences and form informal learning communities (C023540, phase 5).</p> <ul style="list-style-type: none"> <li>- HEAL-NY phase 17 funding accelerated Unity Health System’s efforts to: implement interoperable EHRs; connect entities in the patient-centered medical home and care coordination zone; improve information sharing among providers within Unity Health System and with non-Unity providers; improve quality analysis, reporting, and appropriate changes in clinical protocols; attain Meaningful Use for the hospital and eligible providers; improve communications with patients and caregivers; and achieve Level 3 certification in the patient-centered medical homes (C026925, phase 17).</li> <li>- Using HEAL-NY phase 5 funding, the Bronx RHIO added more critical data elements and data sources that clinicians could use to improve the coordination of care, including discharge summaries, radiology reports, EKG strips, microbiology tests, cardiology reports, medication allergies, and other transcribed reports. The RHIO focused on “high value data” and increasing the number of providers across the full range and continuum of care to improve quality, efficiency, and health outcomes, and to develop the capabilities to use the data to report quality outcomes (C023535, phase 5).</li> </ul>
Health Information Exchange	<ul style="list-style-type: none"> <li>- Through HEAL-NY phase 1, the Rochester RHIO connected five EHR vendor systems to the RHIO and delivered over 16,000 clinical reports monthly into physicians’ EHRs. After establishing these initial connections, the awardee was able to focus on encouraging other practices to use similar EHR systems and to achieve economies of scale. The awardee expected this direct clinical messaging to become a core regional value proposition (C021851, phase 1).</li> <li>- The Long Island Patient Information Exchange aimed to improve care coordination for schizophrenia and diabetes. As part of this work, it added 36 new organizations to the RHIO including patient-centered medical homes, behavioral health facilities, home care agencies, and long-term care facilities. This involved the establishment of 68 new interfaces. Expanding this care</li> </ul>

Outcome	Examples (contract, phase)
Consumer-Mediated Exchange	<p>coordination zone can improve Long Island’s ability to care for these patients with complex health care needs (C026917, phase 17).</p> <ul style="list-style-type: none"> <li>- Using HEAL-NY phase 5 funds, the Brooklyn Health Information Exchange created and deployed a “MyActiveHealth” personal health record where patients can: manage and record their personal health information, create email reminders and calendar entries for appointments, set healthy lifestyle goals, research health topics, monitor health alerts, give designated family members or caregivers permission to view portions of their records, record and view medication history, input clinical data such as weight and blood pressure readings, and track their own clinical data using graphs and charts. The version for HIV patients included additional “Healthy Aging” and “HIV” sections tailored to HIV and geriatric patients (C023528 and C023536, phase 5).</li> </ul>
Source: Rockefeller Institute of Government’s analysis of HEAL-NY grant applications.	

***Published Evaluation Studies From the Health Information Technology Evaluation Collaborative (HITEC)***

As of March 2014, HITEC published over 50 peer-reviewed articles related to evaluating various aspects of the HEAL-NY grant program, in the areas of: adoption, implementation, and use of health IT; costs and health care utilization; safety and quality; patients; providers; health policy; public health; and advances in measurement.<sup>197</sup> Rather than evaluating specific grantees, these analyses focused on cross-cutting themes, using data from multiple grantees or else through new data collection such as surveys. HITEC investigators often looked at long-term impacts such as health care quality, patient safety, and cost, rather than the intermediate outputs and outcomes listed in *Figure 36*. Highlights from these evaluation studies and our own interpretation of how they relate to the implementation of the HEAL-NY grant program follow.

Overall, the HITEC studies provide evidence that New York improved in all three health IT domains of the F-SHRP Demonstration (e-prescribing, EHRs, and HIE), and that these had an impact on the quality and value of health services delivery. Several studies of HEAL-NY phase 1 grantees documented substantial improvements in medication errors as a result of e-prescribing. All HITEC studies on this outcome showed a significant decline in the rate of prescription errors, with error rates for e-prescribing adopters being lowered 1.5-fold (from 26.0 to 16.0 errors per 100 prescriptions) in one study and by seven-fold in another study. In particular, illegibility errors, which are the most common, were eliminated by e-prescribing.<sup>198</sup> These prescription-related error reductions were sustainable over longer periods of time.<sup>199</sup>

It is difficult to distinguish findings between the independent effects of EHRs versus HIE because they are tightly linked: interoperable EHRs are designed to exchange information with information users within and across clinical practice settings. Benefits are realized when providers use EHRs to access information at the point of care, employ clinical decision support tools, and share information with patients and other providers. Yet these activities require both EHRs and HIE. Overall, HITEC studies indicate improvements in the quality and efficiency of care among providers receiving HEAL-NY funding for EHRs or HIE. A few specific examples follow:<sup>200</sup>

- Among commercially insured patients, HEAL-NY funding was associated with higher quality of primary care services and 10 percent fewer hospital admissions.
- Among Medicare patients, HEAL-NY funding was associated with 4 percent lower likelihood of readmission and 8 percent lower total costs.
- Among Medicaid patients, HEAL-NY funding was associated with higher quality services, including 9 percent greater odds of breast cancer screening, 4 percent greater odds of cervical cancer screening, 9 percent greater odds of colorectal cancer screening, and 22 percent greater odds of nephropathy screening for diabetic patients.
- Among patients dually eligible for Medicare and Medicaid, HEAL-NY funding was associated with 7 percent lower odds of readmission.
- Providers who used an HIE portal had a 7 percentage-point increase in the number of quality measures where they performed at or above the regional benchmark, compared to a 1 percentage-point increase among nonusers.
- Automated query-based HIE was able to support care transitions among patients that had sequential encounters in two different health care facilities.
- HEAL-NY health IT grants were instrumental in enabling patient-centered medical homes as a new model of health care delivery.

Whether health IT reduces health care costs continues to be unclear. Although most published articles on the topic report that health IT is associated with financial benefits across different settings and technologies, there are few high-quality studies to support this claim.<sup>201</sup> However, several important studies from the HITEC group showed that the Rochester RHIO did experience cost savings during the HEAL-NY program. The odds of patient admissions was 30 percent lower when the HIE system was accessed during the emergency department visit, which led to an annual savings of \$357,000.<sup>202</sup> Patients recently discharged from Rochester hospitals had a 57 percent lower adjusted odds of readmission if their information was accessed in the HIE system by ambulatory providers within 30 days; these averted readmissions had an estimated annual savings of \$605,000.<sup>203</sup> Finally, the use of the Rochester HIE system to access patient information within 90 days of a first imaging procedure was associated with 27 percent fewer repeat images.<sup>204</sup>

Providers are critical to the implementation of EHRs, e-prescribing, and HIE. HITEC investigators found that New York physicians generally viewed HIE as potentially valuable to improving provider communication, coordination and continuity of care, and efficiency, and most are willing to use HIE. However, multiple physician- and practice-level factors influence the likelihood of successful implementation including practice size, patient mix (such as the fraction who are on Medicaid or uninsured), previous experience with scheduling software, the type of EHR product selected, attitudes towards EHRs, medical specialty, organizational leadership, and resources including start-up costs.<sup>205</sup> Although interoperable EHRs may reduce time for administrators, they may increase the time spent by physicians.<sup>206</sup> During the HEAL-NY program period, many providers who were early adopters of EHRs later transitioned to modernized EHRs that met new federal Meaningful Use requirements. Provider surveys found that although most physicians transitioning to a new EHR system had positive attitudes towards EHRs in general, their satisfaction with the transition process was significantly associated with satisfaction with the new EHR system, highlighting the importance of ensuring there is adequate technology support.<sup>207</sup> The financial and technology adoption barriers encountered during adoption suggest the importance of financial incentives such as HEAL-NY grants and the value in DOH's investment in specialized organizations such as Community Health Information Technology Adoption Collaborations and the New York eHealth Collaborative to facilitate health IT adoption. (See the logic model in *Figure 36*.)

Patients are another key health IT stakeholder, as both users and generators of health data. Most New York patients support the use of HIE and access to personal health records. However, support is not uniform, with important differences by demographics (such as gender, education, and level of internet use), perceptions about the potential benefits of health IT, and whether current communications with physicians are felt to be adequate. Maintaining high privacy and security standards is important to maintaining this support and buy-in.<sup>208</sup> These findings reinforce the strategic decisions by DOH to place a strong emphasis on developing a transparent stakeholder-driven Statewide Policy Guidance and educational materials for consumers.

### **Overall Assessment**

DOH staff asserted in key informant interviews that New York is viewed nationally as being “ahead of the curve” with health IT adoption. Our review of the HEAL-NY health IT grants supports this conclusion. By aligning the grants with New York's Framework for Health Information Technology Strategy, the different phases allowed DOH to successfully develop the SHIN-NY and deploy EHRs to a large proportion of providers in the seven-year period. Currently, RHIOs provide services to every area of the state, and 83 percent and 81 percent of federally qualified health centers and hospitals, respectively, access or supply data.<sup>209</sup> The SHIN-NY is currently the largest HIE in the country.<sup>210</sup> Switching to a strict pay-for-performance contract management was largely successful at keeping applicants on track to meet their stated deliverables. Requiring that grantees actively participate in the Statewide Policy Guidance process ensured that these policies were relevant to stakeholders and encourage collective



activities that would support the vision of an interoperable statewide HIE. Similarly, requiring grantees to provide matching funds will likely improve the sustainability of these health IT systems as funding is phased out. Finally, state leadership strongly supported these health IT activities, and the New York eHealth Collaborative was instrumental in helping to form the vision and facilitate implementation.

DOH staff shared several reflections on areas where they felt successful and remaining gaps.<sup>211</sup> First, starting with phase 5, the RGAs were very pointed and specific. This helped the projects align with DOH's vision and made the contract management process easier. Second, switching to a pay-for-performance contract management system was a "mind shift," and required a sizeable upfront investment to establish a process to identify detailed milestones and solicit proof of completion from grantees. These GAP Tools were rigorous, but ultimately successful at holding contractors accountable. Third, limited funding and short grant times were a challenge, as health IT implementation is more expensive and takes more time than anticipated. Many of the contracts received no-cost time extensions because work could not be completed within the original period. Many of the delays were due to immature technologies that were not yet sophisticated enough to meet grantees' requirements. Fourth, engaging stakeholders early in the process was critical. DOH's bottoms-up approach ensured buy-in throughout the process and stakeholders' real-world experience enhanced the collective work.

Moving forward, there continue to be providers that either have no EHRs or else have EHRs that are not connected to a RHIO. Although most federally qualified health centers and hospitals access or supply data, only 34 percent of home care agencies and 16 percent of physicians regularly participate in HIE.<sup>212</sup> A couple of current policies might improve adoption among providers and private practices: reduced Medicare reimbursement for providers that do not adopt meaningful use by 2017, and the new Delivery System Reform Incentive Payment (DSRIP) Program, which requires that they connect to a RHIO. Forthcoming work includes developing the next set of services to be included in the SHIN-NY and creating a business plan to allow the SHIN-NY to be self-sustaining after three years.

## Goal 4: Managed Care Expansion

### Summary

The fourth goal of the F-SHRP demonstration was to “slow the growth of Medicaid expenditures through reduced medical costs and greater administrative efficiencies, achieve more efficient service delivery for Medicaid beneficiaries, and promote high quality integrated systems of care.” To achieve this, the state committed to “expand comprehensive managed care services to 14 additional counties and also extend mandatory managed care to the aged and blind from the Partnership Plan Demonstration to the F-SHRP Demonstration.”

F-SHRP, while an important expansion of mainstream managed care, was a relatively small share of total managed care enrollment and was part of a much larger and longer-term trend. Statewide F-SHRP enrollment was 120,257 at federal fiscal year-end 2006 when aged and disabled beneficiaries were transferred from the Partnership Plan to F-SHRP. Total F-SHRP enrollment quadrupled to 472,980 at the end of 2013, and accounted for 13.5 percent of mainstream Medicaid managed care enrollment.

The evaluation measures required by the evaluation plan are focused on F-SHRP enrollment patterns. Thus, the measures and questions help describe the extent of enrollment growth during the course of F-SHRP, and how that fits into the larger Medicaid managed care context. These measures do not address the broader objectives of Goal 4 to reduce costs, improve efficiency, and promote high quality systems of care. F-SHRP required that enrollment be tracked for the following groups: (1) children up to age 20 and adults age 21-64 eligible under Temporary Assistance for Needy Families (TANF), and (2) low-income disabled persons under age 65 and low-income persons aged 65 or older who are eligible under Supplemental Security Income (SSI).

F-SHRP aged and disabled enrollment tripled between 2006 and 2013, from 120,057 to 352, 607. Enrollment of adults and children, who accounted for 86 percent of the total in 2013, increased by 175 percent. Enrollment of the elderly increased by 409 percent. The greatest growth in numbers of enrollees was in New York City. The greatest growth in percentage terms was in the Northern region, where overall enrollment quadrupled.

By 2013, F-SHRP TANF child enrollment in the 14 expansion counties rose to 88,829 and adult enrollment rose to 31,544, for total F-SHRP TANF enrollment of 120,373. Even after offsetting the decline in Partnership Plan TANF enrollment, net TANF enrollment was up by 97,896. Children accounted for approximately three quarters of the F-SHRP TANF total. F-SHRP TANF enrollment in the 14 expansion counties was dominated by the Hudson Valley and Northern regions.

While the evaluation measures cannot answer whether the F-SHRP mainstream managed care expansion reduced costs, achieved more efficient service delivery, or promoted high quality

integrated systems, they do suggest a very substantial expansion occurred. By year-end 2013, total F-SHRP enrollment, including aged and disabled enrollment and F-SHRP TANF enrollment in the 14 expansion counties, had risen to 472,980.

### **Overview of the Goal**

Goal 4 of the F-SHRP demonstration was to “slow the growth of Medicaid expenditures through reduced medical costs and greater administrative efficiencies, achieve more efficient service delivery for Medicaid beneficiaries, and promote high quality integrated systems of care.”<sup>213</sup> To achieve this, the state committed to “expand comprehensive managed care services to 14 additional counties and also extend mandatory managed care to the aged and blind from the Partnership Plan Demonstration to the F-SHRP Demonstration.”<sup>214</sup> These and several other elements also are described in the Special Terms and Conditions (STC) of the F-SHRP waiver.<sup>215</sup>

### **Motivation and Context**

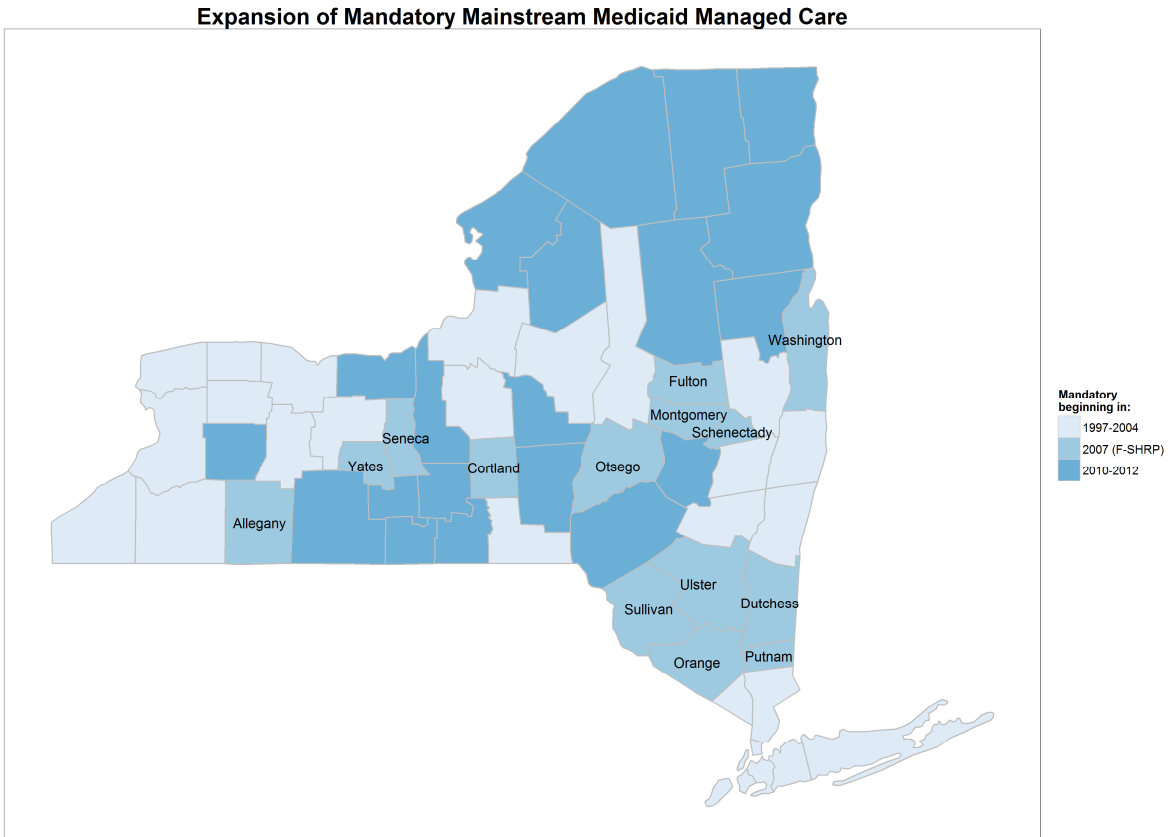
As discussed in *Events Leading Up to the F-SHRP Waiver*, New York and many other states have sought to expand Medicaid managed care in the belief that it will lead to more efficient and effective organization and delivery of health care. Capitated health plans paid on a per-enrollee basis have an incentive to reduce reliance on care provided in hospitals and other institutional settings, which tends to be expensive. By emphasizing primary care and prevention and by educating participants about healthy lifestyles and preventive measures, it holds the promise of improving overall health and reducing costs.

### **F-SHRP Activities That Furthered Goal 4**

As illustrated in the logic model (see *Figure 3* on page 31), the state intended to achieve expansion of mainstream managed care expansion through use of mandatory managed care for two separate groups — (1) clients in 14 counties that did not yet have mandatory managed care, and (2) aged and disabled clients statewide. The 14 mandatory expansion counties were Allegany, Cortland, Dutchess, Fulton, Montgomery, Putnam, Orange, Otsego, Schenectady, Seneca, Sullivan, Ulster, Washington, and Yates.

The expansion in 14 counties was part of a larger and longer-term rollout of mandatory managed care that began prior to F-SHRP in 1997 in five upstate counties (Albany, Columbia, Greene, Rensselaer, and Saratoga), and continued through early 2004 with mandatory enrollment in 23 counties plus New York City. There was then a two-year hiatus in new enrollments until F-SHRP was approved. Mandatory enrollment in all 14 F-SHRP counties commenced at the start of the Demonstration, between January and May 2007. There was a second hiatus until late 2010, after which the state’s remaining 20 counties were enrolled over a two-year period. (See *Figure 42* for a map of the F-SHRP expansion counties.)

Figure 42. F-SHRP Expansion of Mandatory Managed Care Was the Middle of Three Expansion Phases



The decision about which counties to enroll earliest was based in part upon readiness and availability of managed care plans and providers. *Table 52* shows selected characteristics of counties involved in the different phases of mandatory managed care implementation, with the pre-F-SHRP phase divided into two groups — New York City, and all other pre-F-SHRP counties. In general, as the table suggests, the earlier-implementation counties tended to be larger, more racially diverse, and more urban than the later-implementation counties (although there are exceptions). For example, the average pre-F-SHRP county outside New York City had a population of 365,000 and was 82.1 percent white, the average F-SHRP county had a population of 112,000 and was 86.7 percent white, and the average post-F-SHRP county had a population of 64,000 and was 92.2 percent white.

Table 52. Characteristics of F-SHRP Expansion Counties

	Number of Counties	Population (thousands)	Average County Population (thousands)	% of State Population	White- Alone Percent	Black- Alone Percent	Hispanic (Any Race) Percent	Age 65+ Percent	Female Percent
Pre- F-SHRP: New York City	1	8,406	8,406	42.8	53.5	28.1	28.9	12.8	52.3
Pre- F-SHRP: Counties Outside New York City	23	8,399	365	42.7	82.1	10.8	11.5	15.7	51.2
F-SHRP Counties	14	1,572	112	8.0	86.7	8.0	10.9	15.1	50.2
Post-F-SHRP Counties	20	1,274	64	6.5	92.2	3.5	3.1	15.9	49.4
<b>Statewide Total or Average</b>	<b>58</b>	<b>19,651</b>	<b>339</b>	<b>100.0</b>	<b>70.9</b>	<b>17.5</b>	<b>18.4</b>	<b>14.4</b>	<b>51.5</b>

Note: New York City is treated as a single county for purposes of this table.  
Source: Rockefeller Institute analysis of American Community Survey, 2011-2013.

The Special Terms and Conditions of the waiver required DOH to track and report on six separate populations that were enrolled in mainstream Medicaid managed care, as shown in Table 53. The table refers to Temporary Assistance for Needy Families (TANF), the federal-state welfare program, and to Supplemental Security Income (SSI), the federal program that provides aid to low-income people who are aged, blind, or disabled. TANF and SSI recipients and certain related populations are automatically eligible for Medicaid in New York. The Demonstration populations listed in the table below include two age groups for each category: TANF children (up to age 20) and TANF adults (age 21-64), and SSI-related individuals under age 65, and age 65 or older. They are tracked separately by whether they had been enrolled voluntarily in managed care prior to the inception of F-SHRP program and mandatory enrollment (e.g., through the Partnership Plan). Because voluntary TANF enrollment in the 14 expansion counties was not transferred to F-SHRP, that enrollment is not included in these populations. In our analysis below, we examine changes in enrollment for these six population groups and, in the case of TANF enrollment, we also compare to voluntary TANF managed care enrollment.

*Table 53. Demonstration Population Groups Relevant to Goal 4*

<b>Demonstration</b>		
<b>Population</b>	<b>Short Name</b>	<b>Description</b>
1	TANF Child New MC	TANF Child under age 1 through 20 required to enroll in managed care in Allegany, Cortland, Dutchess, Fulton, Montgomery, Putnam, Orange, Otsego, Schenectady, Seneca, Sullivan, Ulster, Washington and Yates counties.
2	TANF Adult New MC	Temporary Assistance to Needy Families (TANF) Adults aged 21 through 64 required to enroll in managed care in Allegany, Cortland, Dutchess, Fulton, Montgomery, Putnam, Orange, Otsego, Schenectady, Seneca, Sullivan, Ulster, Washington, and Yates counties.
3	SSI 0-64 Current MC	Disabled Adults and Children aged 0 through 64 voluntarily enrolled in managed care in those counties participating in the Partnership Plan as of October 1, 2006.
4	SSI 0-64 New MC	Disabled Adults and Children aged 0 through 64 required to enroll in managed care in those counties participating in the Partnership Plan as of October 1, 2006.
5	SSI 65 and above Current MC	Aged or Disabled Elderly voluntarily enrolled in managed care in those counties participating in the Partnership Plan as of October 1, 2006.
6	SSI 65 and above New MC	Aged or Disabled Elderly required to enroll in managed care in those counties participating in the Partnership Plan as of October 1, 2006.

Source: F-SHRP Special Terms and Conditions, April 2013, STC 54.

Several factors eased the implementation of mandatory managed care enrollment:

1. The phased roll-out of managed care with various feedback loops.
2. Stakeholder involvement and feedback.
3. Accommodations and adjustments to address program implementation challenges.

The phased roll-out of mandatory managed care served as a means of pilot testing the program and easing participation. Managed care first became mandatory in New York City and the implementation was phased in. For instance, southwest Brooklyn had gone mandatory early in the 1990s and, by some accounts, between 1992 and early 1995 implementation of the state's managed care initiative proceeded incrementally and relatively smoothly.<sup>216</sup> Incremental roll-out

allowed DOH to conduct a first wave of satisfaction and quality data collection, which showed that clients were getting the care they needed, were happy with the plans, and were able to see Primary Care Providers. These early data helped to waylay concerns about clients not getting care.

In addition, DOH ultimately was successful at selling managed care as a quality improvement initiative — a care management model as opposed to a cost saving strategy — that was able to get consumers access to providers that they may not have previously been able to see. This positive marketing helped to alleviate concerns about the potential impact of this model on low-income and vulnerable populations.

Research from states that did not adopt managed care in such a phased manner and which did not make accommodations for plan availability suggests that these states have seen more difficulties and bumps in the road. For instance, rather than using a phased approach, in New Mexico transition to Medicaid managed care occurred in both urban and rural counties at the same time, whereas in most other states almost all mandatory Medicaid managed care programs were initiated and remained in urban areas. When rural regions were included in these programs, participation was usually voluntary.<sup>217</sup>

Stakeholder involvement also facilitated a smooth implementation. In the planning for the roll-out of mandatory managed care, DOH held a number of meetings with providers and advocates, in addition to meetings with the managed care organizations. This allowed DOH to gather information to identify system issues, gaps, glitches, and eligibility pieces that were not in place.<sup>218</sup> In addition, enrollment brokers did a lot of outreach in advance, including setting up a call center to respond to questions and facilitate the enrollment transition, and county staffs were trained to answer questions.

Finally, accommodations and adjustments were made to address program implementation challenges. For example, one implementation issue that arose in New York City concerned a rule that managed care plans would only reimburse for out-of-network services if there was no provider within 30 miles or 30 minutes of a client's residence. However, what was found through incremental implementation and feedback was that a lot of residents of the boroughs and Staten Island tend to see providers close to where they work (in Manhattan, for instance), rather than where they live. As a consequence, plans adjusted how they developed their networks. In a related example, the rules in the state previously were such that counties with only one plan were not allowed to go mandatory (due to inadequate plan choice/competition). However, under F-SHRP, a slight variation in the enrollment rules was accepted to allow certain counties (particularly rural counties) to go mandatory even though there was only one plan. This change in the rules allowed managed care to go statewide.<sup>219</sup>

### ***Other Concurrent Changes in the System That May Have Affected Managed Care Implementation***

As the shift to mandatory managed care was incremental, F-SHRP is best seen as a progression of ongoing trends rather than a discrete deviation from previous trends. However, the addition of 14 counties into the mandatory managed care fold was a distinct break with the past, as was the addition of new populations, specifically SPMI populations.

One challenge to interpreting how the addition of these counties/populations affected system performance (cost, access, quality/satisfaction) is that these counties share certain common characteristics — they tend to be the less populous, more rural counties where there were fewer managed care plans. For instance, the first five counties that were made mandatory were brought in first due to a confluence of factors, including that they had an adequate number of managed care plans in the counties, they were already part of the voluntary program, they had a sizeable Medicaid population, and had the capacity and infrastructure to be able to manage the transition. Counties added later tended to be rural counties. Furthermore, for counties with only one plan that were nonetheless brought into mandatory managed care, the program might operate differently with only one plan in place compared with when there is greater choice/competition. In these rural settings, the advantages of market competition for cost control, access, and quality assurance may be weakened.<sup>220</sup> On the other hand, the small number of providers in rural areas may lead to an enhanced bargaining position with managed care organizations. Furthermore, rural states have tended to adopt primary care case management, where physicians receive a monthly fee for coordinating patient care but there is no change in basic fee-for-service reimbursement, rather than managed care with capitation as New York has adopted, which may again be more appropriate for rural counties.<sup>221</sup> Thus, managed care may work differently in rural counties that were brought in later under F-SHRP because of these different characteristics of the insurance markets.

### **Evaluation Questions and Measures**

#### ***Overview***

The evaluation plan asks two questions about Goal 4:

1. How many aged and disabled Medicaid beneficiaries (previously participating in the Partnership Plan) were affected by the F-SHRP Demonstration?
2. How many Medicaid beneficiaries were affected by the expansion of mandatory managed care enrollment to 14 additional counties?

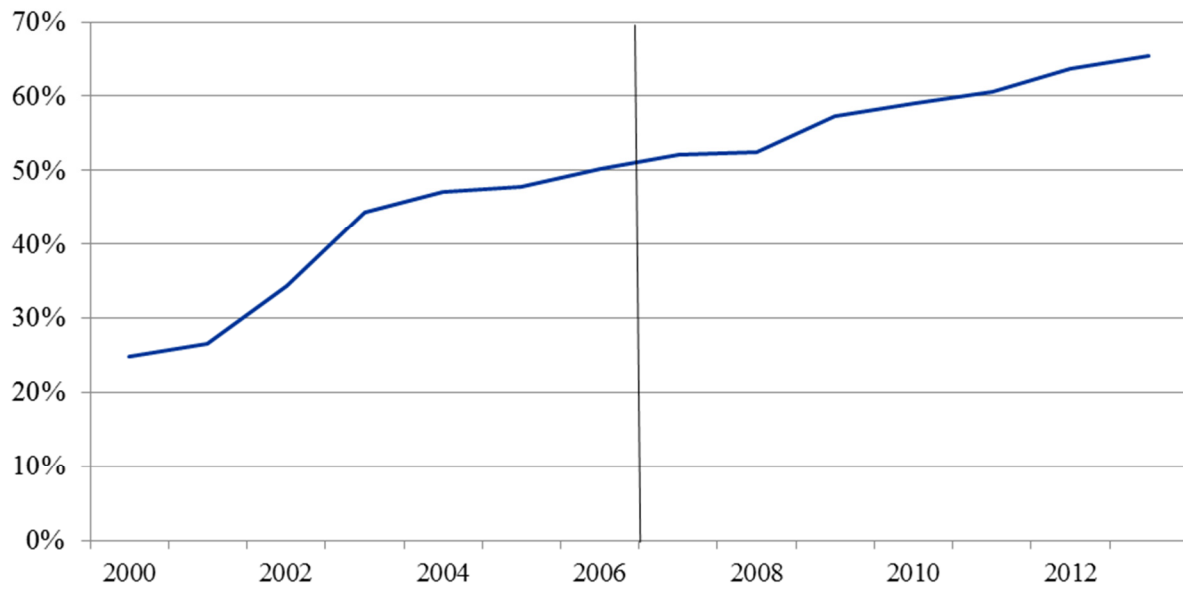
Our analysis below of evaluation measures is based upon F-SHRP enrollment summaries produced by DOH from the managed care enrollment roster, by the population groupings described in *Table 53*. We have supplemented these data in the introductory section below with total mainstream managed care enrollment data from DOH monthly enrollment reports, and total Medicaid enrollment data from enrollment and expenditure reports.<sup>222</sup> In time series graphs



below we include a dashed vertical line to show approximately when F-SHRP began, to aid the reader in interpretation.

In the discussion below, mainstream Medicaid managed care is defined as the sum of TANF adult and child enrollment, SSI aged and disabled enrollment, and safety net enrollment,<sup>223</sup> which is the way it is defined for many DOH reporting purposes. It does not include Family Health Plus enrollment,<sup>224</sup> which as of September 2013 included 270,000 adults with and without children, and it does not include Medicaid long-term care and certain very small managed care programs.<sup>225</sup> It rose from 24.9 percent of Medicaid enrollment in 2000 to 65.4 percent in 2013 (*Figure 43*).

*Figure 43. Expansion of Mainstream Medicaid Managed Care*

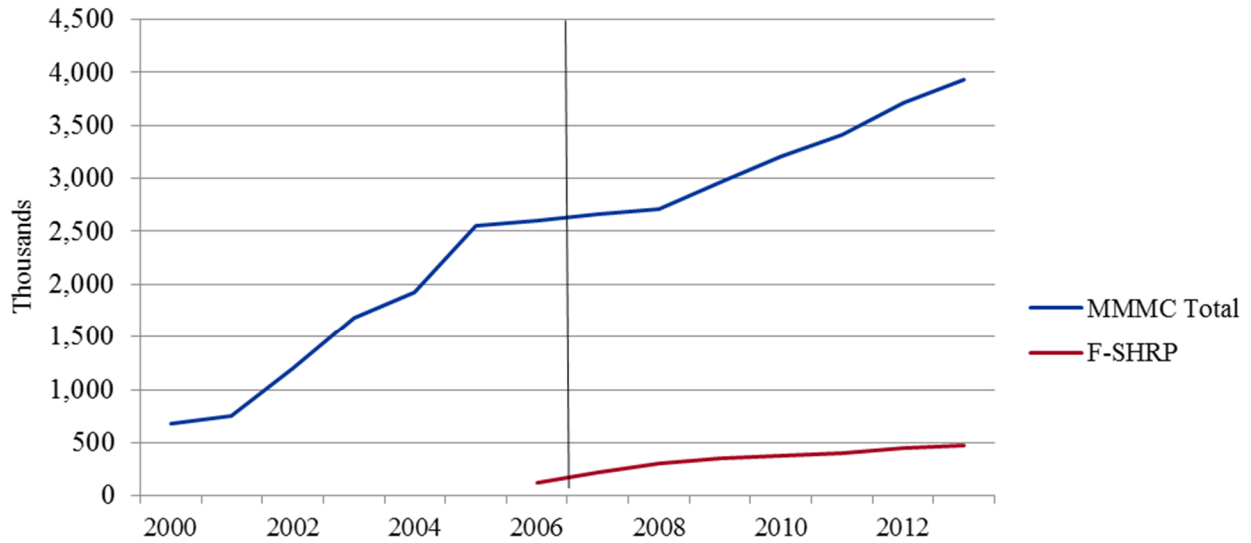


Note: Does not include Family HealthPlus or Managed Long-Term Care Plan (MLTC).  
Source: Rockefeller Institute analysis of monthly enrollment reports for Medicaid and Medicaid managed care.

F-SHRP Goal 4 enrollment is a subset of mainstream Medicaid managed care: it does not include safety net enrollment and, in the case of TANF enrollment, it only includes mandatory TANF child and adult enrollment in the 14 expansion counties. It does not include voluntary pre-F-SHRP enrollment in the 14 counties, or TANF enrollment in other counties.

F-SHRP, while an important expansion of mainstream managed care, was a relatively small share of total managed care enrollment and was part of a much larger and longer-term trend. Statewide F-SHRP enrollment was 120,257 at federal fiscal year-end 2006 when aged and disabled beneficiaries were transferred from the Partnership Plan to F-SHRP. Total F-SHRP enrollment quadrupled to 472,980 at the end of 2013 (*Figure 44*), and accounted for 13.5 percent of mainstream Medicaid managed care enrollment.<sup>226</sup>

Figure 44. F-SHRP Managed Care Was Part of a Larger and Longer-Term Expansion of Mainstream Medicaid Managed Care (MMMC)



Sources: Rockefeller Institute analysis of available DOH monthly managed care enrollment data and F-SHRP enrollment summaries prepared by DOH. F-SHRP enrollment at year-end 2006 reflects enrollment transferred from the Partnership Plan.

The statewide aged and disabled F-SHRP population was considerably larger than the 14-county expansion population, but the latter population rose to 25 percent of the total by year-end 2013 (Table 54).

Table 54. The 14-County Expansion Was a Rising Share of F-SHRP Enrollment

	Statewide Aged and Disabled Expansion	14-County TANF Expansion	F-SHRP Total	14-County TANF Expansion % Share of F-SHRP
2006	120,057	—	120,057	—
2007	185,657	40,058	225,715	17.7
2008	237,532	62,122	299,654	20.7
2009	272,540	75,467	348,007	21.7
2010	291,633	86,037	377,670	22.8
2011	309,793	95,477	405,270	23.6
2012	341,739	108,864	450,603	24.2
2013	352,607	120,373	472,980	25.4
2006 to 2013				
Change	232,550	120,373	352,923	
% Change	193.7%	n.m.	294.0%	

Note: F-SHRP enrollment at year-end 2006 reflects enrollment transferred from the Partnership Plan.  
Source: Rockefeller Institute analysis of enrollment roster summaries prepared by the Department of Health.

The largest share of F-SHRP enrollment was in New York City, which also had the largest growth in F-SHRP enrollment due to an increase of nearly 145,000 in SSI enrollment. The 14-county TANF expansion was dominated by the Hudson Valley and Northern regions (Table 55).

Table 55. F-SHRP Enrollment in 2006 and 2013, by Major Population Groupings and Region

	Statewide Aged and Disabled SSI Population Expansion			14-County TANF Expansion			F-SHRP Total			% Share of Change
	2006	2013	Change	2006	2013	Change	2006	2013	Change	
Central	15,639	46,906	31,267	—	8,535	8,535	15,639	55,441	39,802	11.3
Northern	4,284	17,886	13,602	—	35,064	35,064	4,284	52,950	48,666	13.8
Western	13,148	25,165	12,017	—	3,662	3,662	13,148	28,827	15,679	4.4
Hudson Valley	6,500	21,323	14,823	—	73,112	73,112	6,500	94,435	87,935	24.9
Long Island	6,545	22,479	15,934	—	—	—	6,545	22,479	15,934	4.5
New York City	73,941	218,848	144,907	—	—	—	73,941	218,848	144,907	41.1
<b>Statewide</b>	<b>120,057</b>	<b>352,607</b>	<b>232,550</b>	<b>—</b>	<b>120,373</b>	<b>120,373</b>	<b>120,057</b>	<b>472,980</b>	<b>352,923</b>	<b>100.0</b>

Source: Rockefeller Institute analysis of enrollment roster summaries prepared by the Department of Health.

The evaluation measures required by the evaluation plan are focused on F-SHRP enrollment patterns. Thus, the measures and questions help describe the extent of enrollment growth during the course of F-SHRP, and how that fits into the larger Medicaid managed care context. However, they do not provide information on the broader objectives of reducing costs, improving efficiency, and promoting high-quality systems of care.

***Question 4.1. How Many Aged and Disabled Medicaid Beneficiaries (Previously Participating in the Partnership Plan) Were Affected by the F-SHRP Demonstration?***

*Measure 4.1.1. Aged and Disabled Medicaid Beneficiaries (Previously Participating in the Partnership Plan) Affected by F-SHRP: Number of Beneficiaries Affected, by Beneficiary Type, Age Category, and County*

This question refers to low-income aged and disabled Demonstration Populations 3 through 6 shown in *Table 53*. Question 4.2 in the next section will address the TANF child and adult enrollees included in Demonstration Populations 1 and 2.

*Table 56* shows the number of aged and disabled F-SHRP enrollees broken down by the age groups defined in the STC (adults and children, and elderly), with each age group broken down by the population enrolled before a county became mandatory (the “Current” column — Population 3 for adults and children, and population 5 for the elderly), and the mandatory population (Populations 4 and 6, respectively). During the course of F-SHRP, each voluntary population gradually declined, and the mandatory population increased. The overall child/adult group increased by 175 percent, the elderly group increased by 409 percent, and the aged and disabled F-SHRP enrollment total increased by 194 percent.

Table 56. Number of Aged and Disabled Medicaid Beneficiaries Enrolled in Mainstream Medicaid Managed Care Increased by 194 Percent

	Adults and Children			Elderly			Total
	Population 3: SSI 0-64 Current MC	Population 4: SSI 0-64 New MC	Subtotal: Adults and Children	Population 5: SSI 65+ Current MC	Population 6: SSI 65+ New MC	Subtotal: Elderly	
2006	110,379	9	110,388	9,669	—	9,669	120,057
2007	103,560	61,378	164,938	8,981	11,738	20,719	185,657
2008	99,548	109,050	208,598	8,616	20,318	28,934	237,532
2009	89,866	147,585	237,451	7,841	27,248	35,089	272,540
2010	81,239	170,341	251,580	7,277	32,776	40,053	291,633
2011	73,512	194,548	268,060	5,301	36,432	41,733	309,793
2012	66,827	227,887	294,714	4,457	42,568	47,025	341,739
2013	60,692	242,713	303,405	3,712	45,490	49,202	352,607
2006 to 2013							
Change	(49,687)	242,704	193,017	(5,957)	45,490	39,533	232,550
%							
Change	-45.0%	n.m.	174.9%	-61.6%	n.m.	408.9%	193.7%

Note: n.m. means nonmeaningful.  
Source: Rockefeller Institute analysis of enrollment roster summaries prepared by the Department of Health.

county-level data in the appendix.

Table 57 shows the change and percentage change between 2006 and 2013 for each major group, by region. The largest increase in enrollment for both groups was in New York City, and the largest increase in percentage terms was in the Northern region. The evaluation plan also requires information on the number of enrollees by county. See the appendix, *Aged and Disabled Medicaid Enrollees in Mainstream Medicaid Managed Care by County*, for this information. The enrollment data by county generally appear consistent with county size and demographics and with the implementation schedule for Medicaid managed care. *county-level* data in the appendix.

Table 57 is simply the aggregation, by region, of the county-level data in the appendix.



Table 57. F-SHRP Aged and Disabled Enrollment in 2006 and 2013, by Major Population Groupings and Region

	Adults and Children				Elderly				Total			
	2006	2013	Change	% Change	2006	2013	Change	% Change	2006	2013	Change	% Change
Central	15,391	45,754	30,363	197.3	248	1,152	904	364.5	15,639	46,906	31,267	199.9
Northern	4,186	17,361	13,175	314.7	98	525	427	435.7	4,284	17,886	13,602	317.5
Western Hudson Valley	13,099	24,627	11,528	88.0	49	538	489	998.0	13,148	25,165	12,017	91.4
Long Island New York City	6,005	19,162	13,157	219.1	495	2,161	1,666	336.6	6,500	21,323	14,823	228.0
	5,591	17,700	12,109	216.6	954	4,779	3,825	400.9	6,545	22,479	15,934	243.5
	66,116	178,801	112,685	170.4	7,825	40,047	32,222	411.8	73,941	218,848	144,907	196.0
<b>Statewide</b>	<b>110,388</b>	<b>303,405</b>	<b>193,017</b>	<b>174.9</b>	<b>9,669</b>	<b>49,202</b>	<b>39,533</b>	<b>408.9</b>	<b>120,057</b>	<b>352,607</b>	<b>232,550</b>	<b>193.7</b>

Source: Rockefeller Institute analysis of enrollment roster summaries prepared by the Department of Health.

### Summary and Conclusions Related to Question 4.1

F-SHRP aged and disabled enrollment tripled between 2006 and 2013, from 120,057 to 352,607. Enrollment of adults and children, who accounted for 86 percent of the total in 2013, increased by 175 percent. Enrollment of the elderly increased by 409 percent. The greatest growth in numbers of enrollees was in New York City. The greatest growth in percentage terms was in the Northern region, where overall enrollment quadrupled.

### Question 4.2. How Many Medicaid Beneficiaries Were Affected by the Expansion of Mandatory Managed Care Enrollment to 14 Additional Counties?

#### 4.2.1. Medicaid Beneficiaries Affected by the Expansion of Mandatory Managed Care Enrollment to 14 Additional Counties: Number of Beneficiaries Affected, by Beneficiary Type, Age Category, and County

In section 4.1.1 above, we combined “new” aged and disabled F-SHRP enrollees with previous voluntary enrollees, all of whom were included in F-SHRP because of the transfer of aged and disabled enrollment from the Partnership Plan to F-SHRP. By contrast, for the 14-county TANF expansion, previous voluntary enrollees were not transferred to F-SHRP. However, to present a more-complete picture of how enrollment has changed in the 14 counties, in *Table 58* we present both the F-SHRP enrollment and the related Partnership Plan enrollment. (This table is limited to the 14 expansion counties, and does not include Partnership Plan TANF enrollment in other counties.) Data for Partnership Plan enrollment were provided to the Institute separately; they are not included in F-SHRP enrollment and thus are not included in earlier tables and figures showing F-SHRP enrollment.

By 2013, F-SHRP TANF child enrollment in the 14 expansion counties rose to 88,829 and adult enrollment rose to 31,544, for total F-SHRP TANF enrollment of 120,373. Children accounted

for approximately three quarters of the F-SHRP TANF enrollment. Over that same time period, managed care enrollment in the 14 counties that had been initiated under (and remained accounted for in) the Partnership Plan declined by a total of 22,477. The net effect on TANF enrollment in the 14 expansion counties, including both F-SHRP enrollment and prior Partnership Plan enrollment, was an increase of 70,789 in child enrollment (236 percent) and an increase of 27,107 in adult enrollment (369 percent), for a total increase of 97,896 (262 percent). Again, the F-SHRP-only TANF enrollment increase in the 14 counties was 120,373.

*Table 58. F-SHRP TANF Enrollment, and Prior Partnership Plan Enrollment (14-County Total by Federal Fiscal Year)*

	<u>F-SHRP TANF Children</u>			<u>Prior Partnership Plan TANF Enrollment</u>			<u>F-SHRP Plus Prior Partnership TANF Total</u>		
	<b>Population 1: TANF Child New MC</b>	<b>Population 2: TANF Adult New MC</b>	<b>F-SHRP Total</b>	<b>TANF Child Old MC</b>	<b>TANF Adult Old MC</b>	<b>Partnership Plan Total</b>	<b>Child</b>	<b>Adult</b>	<b>Total</b>
2006	—	—	—	30,003	7,348	37,351	30,003	7,348	37,351
2007	29,988	10,070	40,058	18,508	3,648	22,156	48,496	13,718	62,214
2008	46,900	15,222	62,122	15,348	3,012	18,360	62,248	18,234	80,482
2009	54,659	20,808	75,467	14,041	3,078	17,119	68,700	23,886	92,586
2010	61,733	24,304	86,037	12,857	2,988	15,845	74,590	27,292	101,882
2011	68,441	27,036	95,477	12,037	2,938	14,975	80,478	29,974	110,452
2012	79,261	29,603	108,864	12,218	2,882	15,100	91,479	32,485	123,964
2013	88,829	31,544	120,373	11,963	2,911	14,874	100,792	34,455	135,247
<b>2006 to 2013</b>									
Change	88,829	31,544	120,373	(18,040)	(4,437)	(22,477)	70,789	27,107	97,896
%									
Change	n.m.	n.m.	n.m.	-60.1%	-60.4%	-60.2%	235.9%	368.9%	262.1%

Note: n.m. means nonmeaningful.  
Source: Rockefeller Institute analysis of enrollment roster summaries prepared by the Department of Health.

Table 59 shows F-SHRP-only total enrollment in 2013 by region and county. F-SHRP TANF enrollment in the 14 expansion counties was dominated by the Hudson Valley and Northern region, as noted earlier.

Table 59. F-SHRP TANF Enrollment by Region and County

	<b>Children</b>	<b>Adults</b>	<b>Total</b>
<b>Central Region</b>	6,082	2,453	8,535
Cortland	3,290	1,318	4,608
Seneca	1,627	743	2,370
Yates	1,165	392	1,557
<b>Northern Region</b>	25,288	9,776	35,064
Fulton	3,976	1,577	5,553
Montgomery	4,341	1,745	6,086
Otsego	3,081	1,208	4,289
Schenectady	10,348	3,914	14,262
Washington	3,542	1,332	4,874
<b>Western Region</b>	2,573	1,089	3,662
Allegany	2,573	1,089	3,662
<b>Hudson Valley</b>	54,886	18,226	73,112
Dutchess	10,597	3,421	14,018
Orange	28,151	8,940	37,091
Putnam	1,887	456	2,343
Sullivan	5,948	2,052	8,000
Ulster	8,303	3,357	11,660
<b>14-County Total</b>	<b>88,829</b>	<b>31,544</b>	<b>120,373</b>
Source: Rockefeller Institute analysis of enrollment roster summaries prepared by the Department of Health.			

#### *Summary and Conclusions Related to Question 4.2*

By 2013, F-SHRP TANF child enrollment in the 14 expansion counties rose to 88,829 and adult enrollment rose to 31,544, for total F-SHRP TANF enrollment of 120,373. Even after offsetting the decline in Partnership Plan TANF enrollment, net TANF enrollment was up by 97,896. Children accounted for approximately three quarters of the F-SHRP TANF total. F-SHRP TANF enrollment in the 14 expansion counties was dominated by the Hudson Valley and Northern region.

#### *Overall Assessment*

While the evaluation measures cannot answer whether the F-SHRP mainstream managed care expansion reduced costs, achieved more efficient service delivery, or promoted high-quality integrated systems, they do suggest a very substantial expansion occurred. By year-end 2013, total F-SHRP enrollment, including aged and disabled enrollment and F-SHRP TANF enrollment in the 14 expansion counties, had risen to 352,923.

## Chapter Appendix

### *Aged and Disabled Medicaid Enrollees in Mainstream Medicaid Managed Care by County*

	Adults and Children				Elderly				Total			
	2006	2013	Change	%	2006	2013	Change	%	2006	2013	Change	%
<b>Central Region</b>												
Broome	1,293	3,869	2,576	199.2	8	75	67	837.5	1,301	3,944	2,643	203.2
Cayuga	—	868	868	n.m.	—	12	12	n.m.	—	880	880	n.m.
Chemung	827	1,785	958	115.8	—	3	3	n.m.	827	1,788	961	116.2
Chenango	—	622	622	n.m.	—	4	4	n.m.	—	626	626	n.m.
Cortland	123	618	495	402.4	1	11	10	1,000.0	124	629	505	407.3
Herkimer	226	831	605	267.7	2	5	3	150.0	228	836	608	266.7
Jefferson	—	792	792	n.m.	—	2	2	n.m.	—	794	794	n.m.
Lewis	—	318	318	n.m.	—	—	—	n.m.	—	318	318	n.m.
Livingston	267	656	389	145.7	1	7	6	600.0	268	663	395	147.4
Madison	—	637	637	n.m.	—	4	4	n.m.	—	641	641	n.m.
Monroe	4,369	14,067	9,698	222.0	59	376	317	537.3	4,428	14,443	10,015	226.2
Oneida	2,116	4,540	2,424	114.6	84	177	93	110.7	2,200	4,717	2,517	114.4
Onondaga	3,279	7,745	4,466	136.2	77	375	298	387.0	3,356	8,120	4,764	142.0
Ontario	533	1,015	482	90.4	5	19	14	280.0	538	1,034	496	92.2
Oswego	962	2,100	1,138	118.3	1	15	14	1,400.0	963	2,115	1,152	119.6
Schuyler	32	131	99	309.4	—	1	1	n.m.	32	132	100	312.5
Seneca	205	431	226	110.2	1	3	2	200.0	206	434	228	110.7
St. Lawrence	—	951	951	n.m.	—	5	5	n.m.	—	956	956	n.m.
Steuben	540	1,154	614	113.7	3	10	7	233.3	543	1,164	621	114.4
Tioga	2	384	382	n.m.	—	2	2	n.m.	2	386	384	n.m.
Tompkins	183	779	596	325.7	6	38	32	533.3	189	817	628	332.3
Wayne	303	1,205	902	297.7	—	7	7	n.m.	303	1,212	909	300.0
Yates	131	256	125	95.4	—	1	1	n.m.	131	257	126	96.2
<b>Northern Region</b>												
Albany	1,140	3,460	2,320	203.5	60	270	210	350.0	1,200	3,730	2,530	210.8
Clinton	—	1,111	1,111	n.m.	—	8	8	n.m.	—	1,119	1,119	n.m.
Columbia	283	748	465	164.3	1	16	15	1,500.0	284	764	480	169.0
Essex	—	299	299	n.m.	—	1	1	n.m.	—	300	300	n.m.
Franklin	—	186	186	n.m.	—	4	4	n.m.	—	190	190	n.m.
Fulton	80	1,009	929	1,161.3	—	3	3	n.m.	80	1,012	932	1,165.0
Greene	344	738	394	114.5	4	7	3	75.0	348	745	397	114.1
Hamilton	—	8	8	n.m.	—	—	—	n.m.	—	8	8	n.m.
Montgomery	134	943	809	603.7	—	14	14	n.m.	134	957	823	614.2
Otsego	—	607	607	n.m.	—	8	8	n.m.	—	615	615	n.m.
Rensselaer	752	2,414	1,662	221.0	11	42	31	281.8	763	2,456	1,693	221.9
Saratoga	411	1,367	956	232.6	13	74	61	469.2	424	1,441	1,017	239.9
Schenectady	863	2,987	2,124	246.1	9	70	61	677.8	872	3,057	2,185	250.6
Schoharie	10	268	258	2,580.0	—	8	8	n.m.	10	276	266	2,660.0
Warren	54	444	390	722.2	—	—	—	n.m.	54	444	390	722.2
Washington	115	772	657	571.3	—	—	—	n.m.	115	772	657	571.3
<b>Western Region</b>												
Allegany	110	592	482	438.2	—	2	2	n.m.	110	594	484	440.0
Cattaraugus	664	1,302	638	96.1	1	1	0	0.0	665	1,303	638	95.9
Chautauqua	1,234	2,747	1,513	122.6	4	22	18	450.0	1,238	2,769	1,531	123.7
Erie	8,730	15,508	6,778	77.6	15	475	460	3,066.7	8,745	15,983	7,238	82.8
Genesee	199	567	368	184.9	3	6	3	100.0	202	573	371	183.7
Niagara	1,963	3,264	1,301	66.3	25	30	5	20.0	1,988	3,294	1,306	65.7
Orleans	199	514	315	158.3	1	2	1	100.0	200	516	316	158.0
Wyoming	—	133	133	n.m.	—	—	—	n.m.	—	133	133	n.m.
<b>Hudson Valley</b>												
Delaware	—	182	182	n.m.	—	—	—	n.m.	—	182	182	n.m.
Dutchess	570	2,543	1,973	346.1	14	188	174	1,242.9	584	2,731	2,147	367.6
Orange	1,144	3,634	2,490	217.7	37	324	287	775.7	1,181	3,958	2,777	235.1
Putnam	66	334	268	406.1	3	43	40	1,333.3	69	377	308	446.4
Rockland	577	1,699	1,122	194.5	242	654	412	170.2	819	2,353	1,534	187.3
Sullivan	407	1,218	811	199.3	2	70	68	3,400.0	409	1,288	879	214.9
Ulster	534	2,106	1,572	294.4	5	64	59	1,180.0	539	2,170	1,631	302.6
Westchester	2,707	7,446	4,739	175.1	192	818	626	326.0	2,899	8,264	5,365	185.1
<b>Long Island</b>												
Nassau	2,141	7,541	5,400	252.2	665	3,011	2,346	352.8	2,806	10,552	7,746	276.1
Suffolk	3,450	10,159	6,709	194.5	289	1,768	1,479	511.8	3,739	11,927	8,188	219.0
<b>New York City</b>												
New York City	66,116	178,801	112,685	170.4	7,825	40,047	32,222	411.8	73,941	218,848	144,907	196.0
Statewide	110,388	303,405	193,017	174.9	9,669	49,202	39,533	408.9	120,057	352,607	232,550	193.7

Note: n.m. means nonmeaningful.

Source: Rockefeller Institute analysis of enrollment roster summaries prepared by the Department of Health.

## Goal 5: Expanded Managed Long-Term Care

### Summary

The fifth goal of F-SHRP was “to make managed LTC available to a greater number of eligible Medicaid recipients.” The managed LTC program offers coordinated care to provide comprehensive services to people who are chronically ill or disabled and who wish to live at home in their communities. Under managed LTC plans, the Medicaid program contracts with a managed care organization that provides long-term care benefits on a risk basis, meaning that the plan receives a fixed “capitated” payment for each enrollee rather than reimbursement on a fee-for-service basis. Beginning in September 2012, the state had authority under the F-SHRP waiver to phase in mandatory managed LTC; before that it was voluntary. Encouraging chronically ill or disabled Medicaid beneficiaries to transition to a managed LTC program is in line with consumers’ increasing preference for living at home in the community and receiving support and services necessary for independent living.<sup>227</sup> Aging in place with managed LTC, rather than through institutional care, was also expected to improve quality of care and patient safety, consumer satisfaction, and cost savings.<sup>228</sup>

The evaluation plan requests measures in order to document the degree to which managed LTC was successfully expanded to eligible individuals. It also requires measures of health care access, quality, satisfaction, and cost. Specific measures included growth in managed LTC enrollment and the number of managed LTC plans, the demographic composition, functional disability levels and need for care of members, various quality-of-care indicators, patients’ self-reported satisfaction with care, and per-member per-month costs.

During the managed LTC expansion period, there was substantial growth in managed LTC enrollment and the availability of managed LTC plans. New York State’s managed LTC system expanded 186 percent, from 45,976 enrollees in 2011 to 131,303 enrollees in 2013. The number of plans available steadily increased from 17 in 2007 to 42 in July 2013, and has continued to grow, reaching 48 at the time of this report.

Most beneficiaries are older (with an average age of 76.5 years) and very disabled, requiring assistance with instrumental activities of daily living (IADLs), such as meal preparation, shopping, laundry, housekeeping and transportation, and activities of daily living (ADLs) tasks such as bathing, ambulation and dressing the lower body. Urinary incontinence and cognitive function impairments add to these needs and necessitate effective care coordination to delay nursing home entry. The ethnic and racial makeup of the managed LTC population is diverse: 30 percent of the enrollees are white, 26 percent are Hispanic, 18 percent are black, and 26 percent reflect other ethnicities.

Quality of care increased on some measures, although in some areas New York continues to be below the national average. About 72 percent of managed LTC enrollees received flu shots within the last year, lower than the New York State long-stay nursing home average of 96

percent.<sup>229</sup> Only one in five received dental care in the prior year, much lower than the national average for all adults aged 65 and over (61.8 percent).<sup>230</sup> Member perception of access to care is generally very good with the exception of dentistry, foot, and eye care. Patient safety, measured by managing one's own medication and by fall rates, also experienced some modest progress, although there continues to be room for improvement. Only about 31 percent of the enrollees could independently manage their oral medications in 2007; this rate declined to 28 percent in 2013. Most (85 percent) did not experience any falls; this statistic has remained stable during the managed LTC expansion period.

Patient satisfaction, which was expected to improve with the rollout of managed long-term care, was overall positive. Most managed LTC recipients are very satisfied with the timeliness and quality of care provided by home health aides and personal care aides. However, nearly one-third of managed LTC recipients were not satisfied with care, indicating that there may be areas of the program that warrant further attention.

Managed LTC costs have grown modestly. Prior to F-SHRP and in the program's first two years, the per-member per-month (PMPM) claims had a declining trend, from \$4,088 in 2004 to \$3,740 in 2008. However, this trend later reversed and thereafter increased to \$3,899 in 2013. This represented a moderate increase of \$159, or 4 percent, in five years. The PMPM cost in NYC, where 90 percent of managed LTC enrollees reside, was \$316 higher than the rest of the state, perhaps reflecting differences in case mix and cost of living.

Overall, the state significantly expanded access to managed LTC for Medicaid enrollees needing long-term care services and supports while maintaining high levels of patient safety, quality of care, and member satisfaction. We have not evaluated cost savings, but growth in per-member per-month costs has been slow. The expansion is clearly due to the mandatory nature of managed LTC under F-SHRP. Our data do not allow us to separate the effect of F-SHRP on patient safety, quality of care, and member satisfaction from other factors such as the changing composition of the rapidly expanding managed LTC population.

### **Overview of the Goal**

Expanding managed long-term care program enrollment was not included as a goal of the original F-SHRP waiver. It was added in an F-SHRP Amendment in 2011. On March 31, 2011, a three year extension of F-SHRP was approved by CMS, enabling the demonstration to continue from April 1, 2011, until March 31, 2014.

Long-term care restructuring involves making managed long-term care available to a greater number of eligible Medicaid recipients. The Berger Commission concluded there currently are too few community-based long-term care alternatives within New York, despite the increasing preference of older adults to live at home. Individuals who would otherwise live at home have had to be institutionalized.<sup>231</sup> To foster aging in place and delay or avert institutional care, the Managed Long-Term Care (managed LTC) Implementation and Waiver Redesign Work Group

was created. Through a series of meetings held from July through October of 2011, the managed LTC Implementation and Waiver Redesign Work Group worked to create recommendations to advise the New York State Department of Health on care coordination models, and on how to ensure affordable and high-quality access to individualized services and supports in homes and communities.<sup>232</sup>

Final recommendations from the managed LTC Implementation and Waiver Redesign Work Group were issued on October 28, 2011, and implemented into a mandatory managed long-term care and care coordination model enrollment plan. On August 31, 2012, CMS approved the enrollment plan as Amendment #5 to New York's Medicaid Section 1115 Demonstrations, entitled "Partnership Plan" (11-W-00114/2), and "Federal-State Health Reform Partnership (F-SHRP)" (11-W-00234/2). Amendment #5, effective from August 31, 2012 through March 31, 2014, expanded mandatory Medicaid managed care enrollment to dually eligible individuals over age 21 who received over 120 days of community-based long-term care services. In addition, dually eligible individuals between the ages of 18 and 21, and nursing home-eligible nondual individuals, had the option to enroll in the managed LTC program. This amendment has taken effect in a series of six phases for selected counties throughout New York State starting in New York City.<sup>233</sup>

Factors that facilitated the integration of individuals into managed LTC included the involvement of stakeholders and an active engagement process to get individuals enrolled. Letters were sent to Medicaid recipients explaining how they would get auto-enrolled. In addition, there were outside efforts to do outreach and involve stakeholders to ensure they understood the process. This included weekly phone calls, open forums with advocates and providers, and educational programs.<sup>234</sup> The state set a goal of enrolling 24,000 consumers in managed LTC during the 2013 fiscal year, which means enrolling on average over 3,000 individuals into managed LTC plans each month.<sup>235</sup>

### **Evaluation Questions and Measures**

The evaluation of expanded managed long-term care (Goal 5) is structured around 10 key questions related to the degree to which managed LTC was successfully expanded to eligible individuals, and related to health care access, quality, satisfaction, and cost. The original F-SHRP evaluation plan included 11 key questions, but the approved evaluation plan made Question 5.6, relating to whether individual care plans are consistent with the functional and cognitive abilities of enrollees, contingent upon availability of appropriate data. Appropriate data were not available to address that question and so, with the consent of DOH, we have excluded it from the evaluation.

### ***Data Sources***

Data needed to address Goal 5 were provided by the NYS Department of Health (DOH) in aggregate form (no individual-level information). Four datasets were used: (1) the Managed Long-Term Care (managed LTC) Member Satisfaction Survey, (2) the managed LTC New

Enrollees Satisfaction Survey, (3) the managed LTC Semi-Annual Assessment of Members, and (4) the Data Mart, often known more colloquially as the Medicaid Management Information System. Each data source is summarized briefly below:

1. The Managed LTC Member Satisfaction Survey was field tested and distributed twice by DOH's external quality review organization, Island Peer Review Organization (IPRO). The survey contains three main sections: health plan satisfaction, satisfaction with select providers, and self-reported demographic information. The first survey was distributed in 2011 for managed LTC enrollees with six months of continuous enrollment in 2010. The overall response rate for the first survey was 32 percent. The second survey was distributed in 2013 for managed LTC enrollees who had six months of continuous enrollment in 2012. The overall response rate for the second survey was 27 percent.<sup>236</sup>
2. The Managed LTC New Enrollees Satisfaction Survey was conducted by IPRO. This survey's goal was to determine the level of satisfaction among managed LTC members newly and mandatorily enrolled in managed LTC plans only in New York City. This goal was satisfied by gathering information regarding member satisfaction with the quality, accessibility, and timeliness of services provided by managed LTC plans as compared to services received through Medicaid fee-for-service. Sampling for this survey was done in two phases:
  - a. Phase 1 – Members mandatorily enrolled in a managed LTC plan between 9/1/2012 and 5/1/2013, as well as continuously enrolled through 10/31/2013.
  - b. Phase 2 – Members mandatorily enrolled in a managed LTC plan between 6/1/2013 and 8/1/13, as well as continuously enrolled through 12/31/2013.Members enrolled in a managed LTC plan between 1/1/2011 and 9/1/2012 were not included in the survey. A total of 3,008 surveys were randomly mailed. The overall response rate was 23 percent.
3. The Managed LTC Semi-Annual Assessment of Members (SAAM) is a modified version of the Outcome and Assessment Information Set (OASIS-B). The SAAM is used to gather clinical data to assess eligibility for managed LTC and assist with care planning and outcome monitoring. This assessment is conducted no less than twice a year or upon a significant change in the member's health status. The assessment is submitted twice a year, in January and July. Each submission contains all assessments from the previous six months.<sup>237</sup> Data included in this report were from January 2007 to July 2013. Risk factor data are presented for the period 2009-2013 only. Data prior to 2009 cannot be compared to later years for the following reasons: the high risk factor item option in 2007 was "heavy smoking" instead of "smoking," and changes in the questionnaires were made in 2008, along with other modifications to the survey tools and assessments during 2007-2008.<sup>238</sup>
4. The Data Mart and Medicaid Management Information System (MMIS) data includes all medical claims for New York State's Medicaid population. This data source is integrated with the eMedNY Data Warehouse, which is controlled under the New York State



Department of Health Office of Health Insurance Programs. The eMedNY Data Warehouse has become the central point for reference, research, and analysis in supporting the management of the New York State Medicaid Program. The eMedNY Data Warehouse serves as the “authoritative source for Medicaid data” for other analytical platforms, standardizing Medicaid data for the OHIP Data Mart and other State agency, county and municipal data marts.<sup>239</sup> MMIS Data included in the study were from October 2004 to September 2013, summarized by federal fiscal year.

### ***Outcome Measures***

Specific outcome measures required in the F-SHRP evaluation plan and new variables created for the study are described below:

Enrollees: If an individual was enrolled in managed LTC any time during a given year, the enrollee is counted as one enrollee, even if the individual dropped out or the individual had multiple entries. This measure of enrollment generally will be greater than year-end measures of enrollment, due to “churning,” and thus some of the enrollment data reported in this chapter will be greater than year-end enrollment data reported on the DOH website.

Socio-demographic characteristics: age, race, gender, language, living arrangement.

Health insurance: payment source.

Plan: Plans that participated in the managed LTC program.

Health status: risk factors, top diagnoses (in percent), urinary and bowel incontinence frequency (mean and percent).

Functional disability: Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs).

SAAM Index (proxy case-mix indicator): was developed by NYSDOH in 2007. The SAAM Index is a weighted combination of 13 items from the SAAM instrument including: Incontinence (urinary and bowel), cognitive function, confusion, anxiousness, and activities of Daily Living (ADLs) (Dressing Upper and Lower Body, Bathing, Toileting, Transferring<sup>240</sup>, Ambulation, and Feeding). Points are allocated to the different levels of functioning, with the number of points increasing as the functional deficits increase. The maximum number of points is 51. A SAAM Index of five or more indicates a need for services usually provided in a nursing home. The current statewide average SAAM Index score is 16.

Cognitive deficits: Cognitive Functioning, When Confused, When Anxious, Frequency of Pain, and Depressive Feelings (mean and percent).

Quality of care: Wait time less than one month for routine dentistry, eye care, foot care, and audiology (percent); new enrollees accessing personal care and home care the same or better than it was before joining the plan (percent); received flu immunization within the past year (percent); saw a dentist within the last year (percent).

Patient Safety: percent of enrollees who can manage oral medications independently and fall rate (percent).

Satisfaction: ratings for timeliness of home health aide, care manager, and regular visiting nurse as “usually” or “always,” and quality as “good” or “excellent” (percent).

Dental Recipient: If a managed LTC enrollee used a dental service anytime during a given year, the enrollee is counted as one, regardless of the number of claims.

Cost: Per-member per-month (PMPM) costs are computed as the capitation payment divided by eligible months of managed LTC enrollees.

Regions definition: We used regions as defined in the Berger Commission report. See the appendix section *Appendix B: Regions of New York As Defined for This Report* for details.

ADL and IADL summary variable- calibration/Rescale: We rescaled each ADL and IADL item average to a 0-4 scale. The rescaling method (known as “correct Likert score”) adjusts for differing levels of difficulty across tasks and allows more appropriate comparisons across tasks than do raw scores.<sup>241</sup>

Plan enrollees’ ADL and IADL vs. statewide average: We constructed a summary index for managed LTC plans that existed on July 2013 to compare ADL functioning and IADL functioning across plans for: 1) specific ADLs and IADLs, and 2) each category as a whole. First, the percent of enrollees in each plan who required any human assistance was calculated at each time point for each individual ADL and IADL item. We had 14 separate semiannual assessments from January 2007 through July 2013. For each time point, these percentages were compared to the statewide average. If the plan’s enrollees’ average was below the statewide average, then 1 was assigned to that indicting task (meaning that a plan’s enrollees have, on average, better functioning than the state average at that given time point); otherwise a 0 value was assigned (meaning that a plan’s enrollees have, on average, equal or worse functioning than the state average at that given time point).

Summary measures were created based on these individual task-based indicators. The indicators for each individual task were summed and divided by the number of time points, yielding a measure for that task of whether functioning was below the statewide average, ranging from 0 to 1. For example, if a plan’s average functioning for grooming was below the statewide average in 12 out of 14 time periods, then the plan’s measure for grooming would be 0.857. We then constructed an overall ADL summary measure for each plan by summing the plan’s measures

across ADLs and dividing by the number of ADL tasks for which we had data for that plan. This overall average for a given plan also could range from 0 to 1, with values close to 1 reflecting lower levels of functioning for the plan's enrollees relative to the statewide average and values close to 0 reflecting relatively high levels of functioning. A similar calculation was done for IADL tasks.

The ADL tasks examined were: feeding, grooming, dressing the upper body, dressing the lower body, bathing, toileting, transferring, and ambulation. The IADL tasks examined were: meal preparation, transportation, laundry, housekeeping, shopping, and using the telephone.

### ***Data Analysis Limitations***

This analysis has several limitations. First, approximately 90 percent of the managed LTC population lives in New York City and the characteristics of enrollees and plans may differ significantly from other areas. Second, aggregate data without individual level information do not permit us to do more in-depth analysis such as adjusted multivariate statistics. For example, with respect to an increasing frequency of self-reported pain noted in Figure 5.3.11, the aggregate data do not allow us to answer whether the increase is related to changes in disease stages, pain medications, or other factors.

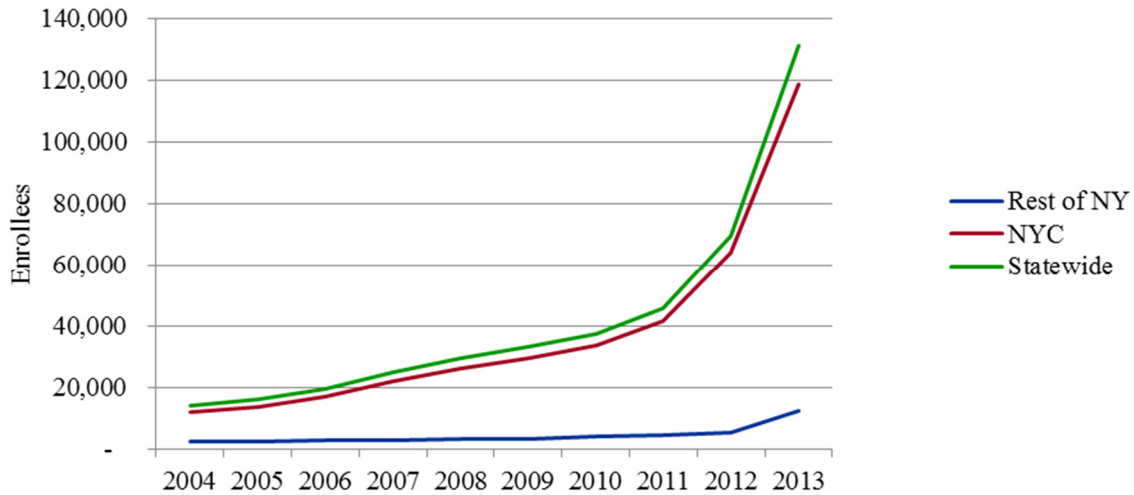
## **Results**

### ***Question 5.1. How Has Enrollment in Managed LTC Plans Increased Over the Length of the Demonstration?***

#### ***Measure 5.1.1. Number of Beneficiaries Enrolled in Managed LTC Plans, by County and Percent Change Over Time***

Figure 45 shows the number of managed LTC enrollees in New York State in the 2004 through 2013 federal fiscal years. (The first year of available data was 2004.) The number of enrollees increased in every year from 2004 to 2013. Prior to the inception of F-SHRP, the number increased by 13 percent from 14,308 in 2004 to 16,190 in 2005, then nearly tripled to 45,976 in 2011. The state began to phase in mandatory managed LTC in 2012, and enrollment nearly tripled again from its 2011 level to 131,303 in 2013.

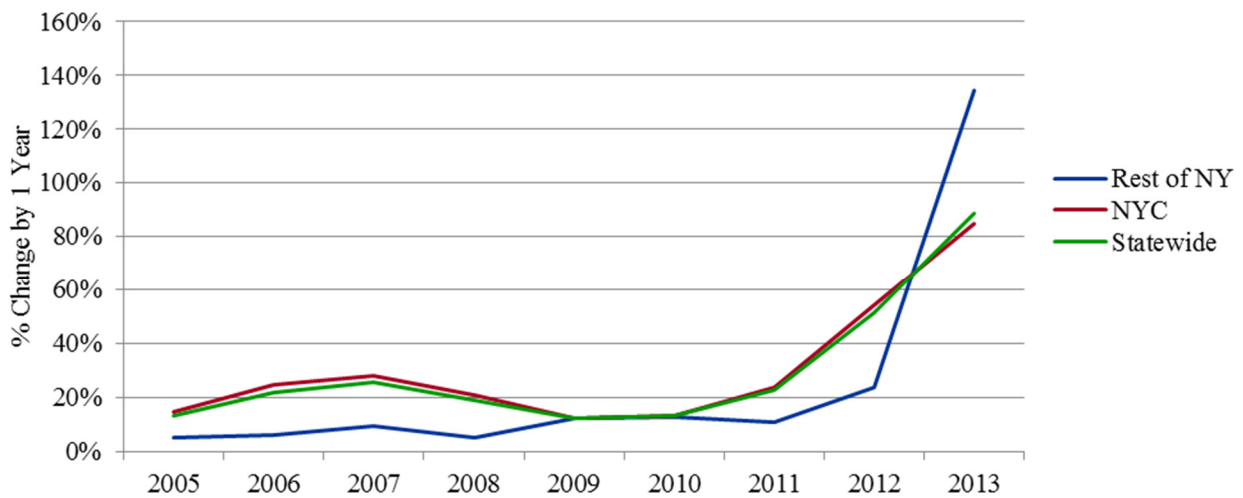
Figure 45. Number of Managed LTC Enrollees by Year, 2004-2013



Data source: MMIS, NYSDOH.

Statewide managed LTC enrollment rates follow New York City trends closely, given that New York City was nearly 90 percent of statewide enrollment in every year. The number of managed LTC enrollees in New York City increased from 11,906 in 2004 to 41,641 in 2011. During 2004-2010, enrollment in New York City grew at an average annual rate of 18.9 percent, compared to the 185 percent growth from 2011 to 2013 (an average annual rate of 68.9 percent). The greatest increase in NYC occurred from 2012 to 2013 with an increase of 64,271 to 118,724 enrollees. In upstate New York, the number of managed LTC enrollees almost doubled over seven years from 2,402 enrollees in 2004 to 4,335 enrollees in 2011, then tripled in just two years to 12,579 in 2013.

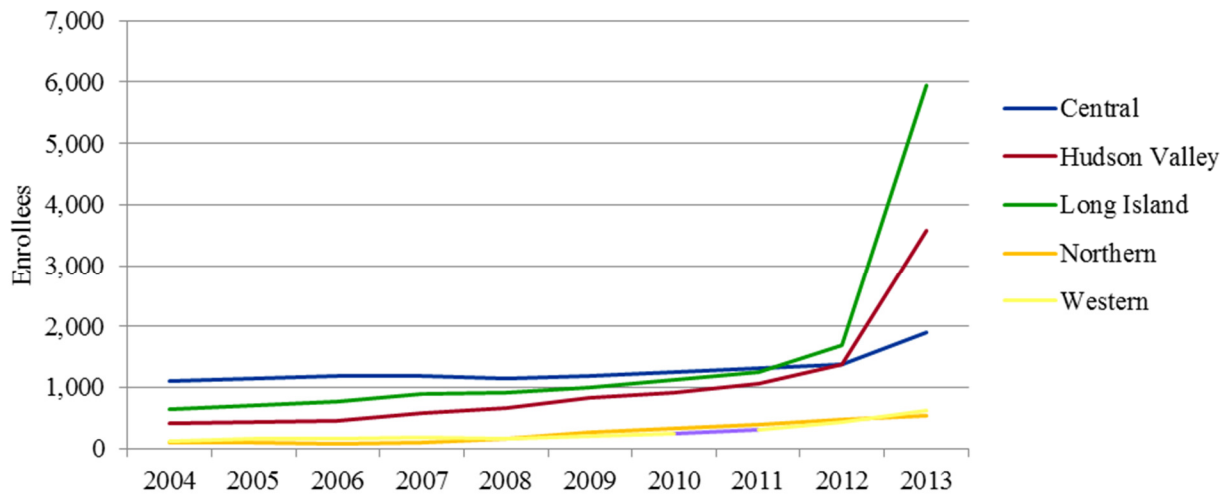
Figure 46. Percent Change by Year in Managed LTC Enrollees, 2005-2013



Data source: MMIS, NYSDOH.

Figure 47 shows that enrollment throughout the rest of New York State remained steady from 2004-2012 and then dramatically increased in 2013, with the Hudson Valley and Long Island regions having the greatest increase of 158 percent and 251 percent, respectively. This change reflects the expansion of mandatory managed LTC to several large counties outside New York City in 2013.

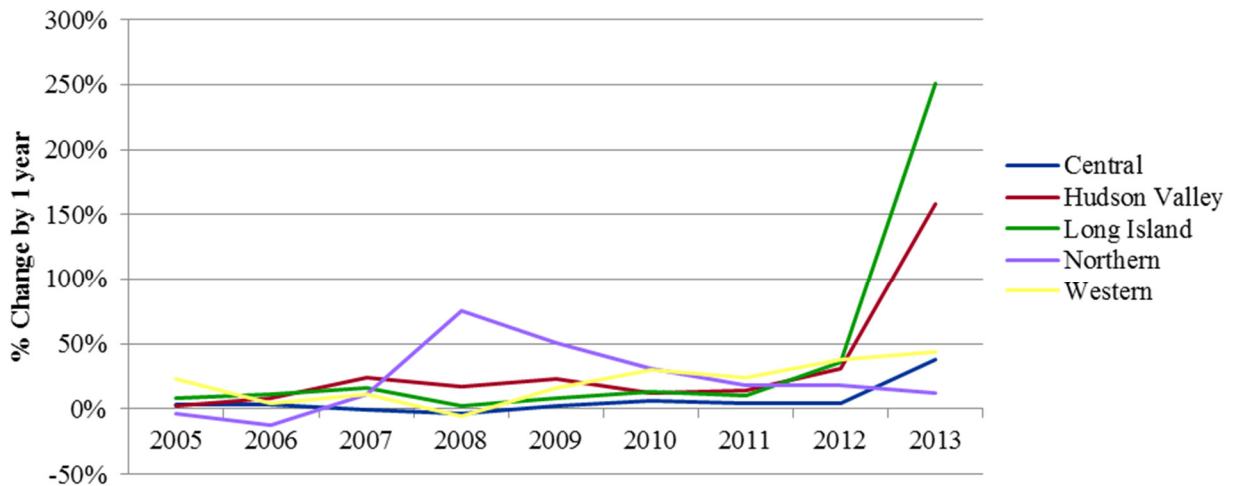
Figure 47. Number of Enrollees by Region (Excluding NYC), 2004-2013



Data source: MMIS, NYSDOH.

The rate of increase in managed LTC enrollment increased from 2009 to 2013 for all regions outside NYC (Figure 48).

Figure 48. Percent Change in Number of Enrollees by Region (Excluding NYC), 2005-2013

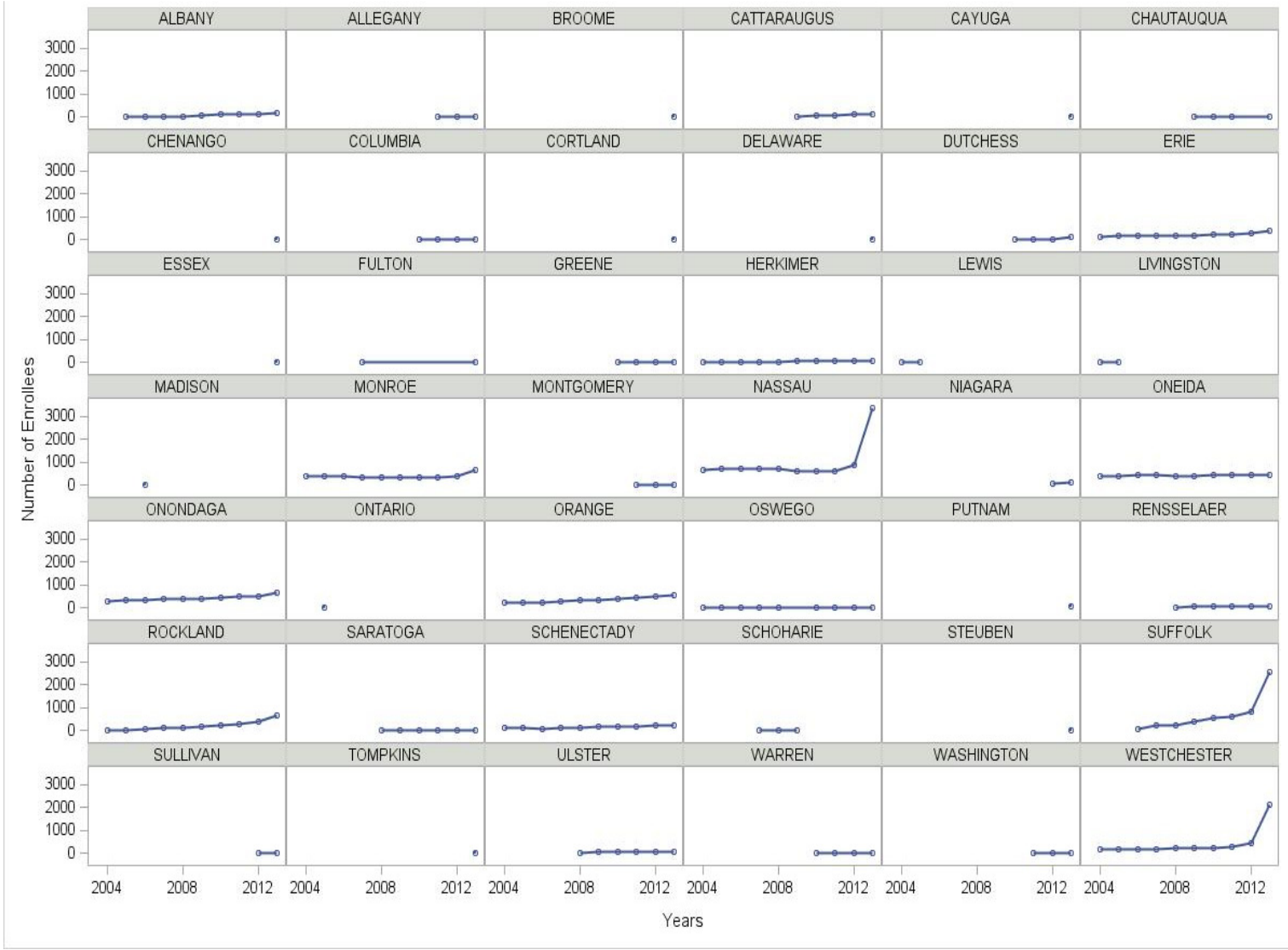


Data source: MMIS, NYSDOH.

*Figure 49* shows managed LTC enrollees by county over time (NYC excluded). Although all counties experienced increases over time, there were varying rates of change across counties and years. This may be due to different managed LTC enrollment schedules. For example, mandatory enrollment began in Long Island in 2013, and consequently there is dramatic growth in Nassau and Suffolk counties.

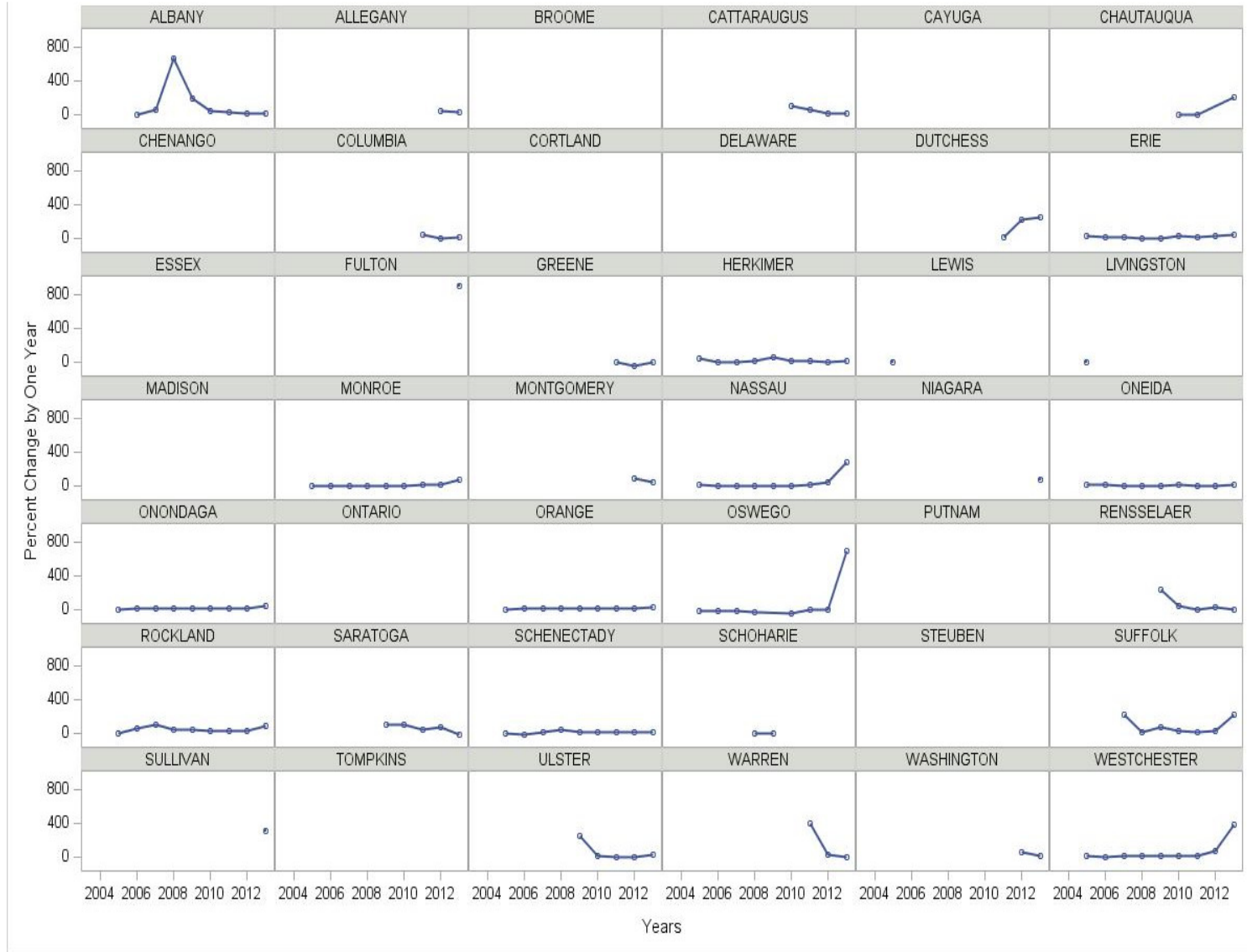
*Figure 50* provides additional detail on the percent change in enrollees by county. In general, in counties with complete data from 2004 to 2013, the percentage change over time is more stable. Some counties have only one data point, so no percent change was calculated (e.g., Broome, Cayuga, Chenango, Cortland). Counties like Ulster and Warren experienced a dramatic initial enrollment period then a recalibration over the intervening years followed by strong double-digit growth during 2013.

Figure 49. Managed LTC Enrollees by County (Excluding NYC Region), 2004-2013



Data source: MMIS data

Figure 50. Percent Change in Number of Managed LTC Enrollees by County (Excluding NYC Region), 2004-2013

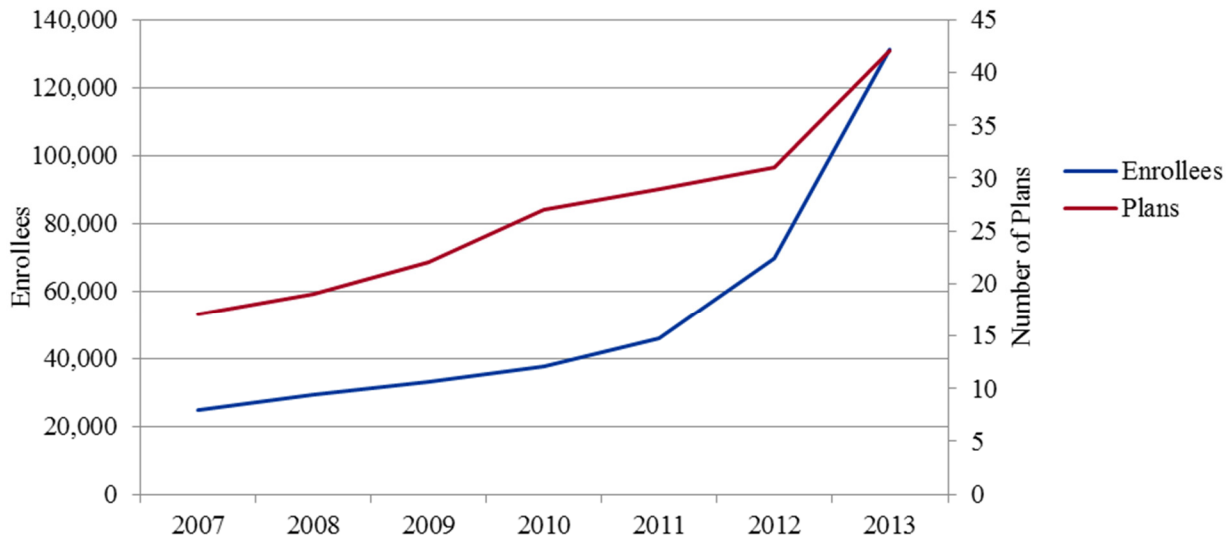


Data source: MMIS data.



The number of plans increased from 17 in 2007 to 42 in July 2013 (the last period for which we have plan-specific SAAM data). The number of plans has since increased to 48. The greatest increase in number of plans was between 2012 and 2013 (35 percent), reflecting the expansions in eligibility and demand for enrollment.

*Figure 51. Number of Enrollees and Plans in Managed LTC, 2007-2013*



Note: At the end of 2013 there were 48 plans.  
Data source: Enrollees (MMIS); Plans (SAAM).

This graph (*Figure 51*) displays the number of enrollees (left Y axis) and number of plans offered (right Y axis). The number of managed LTC enrollees increased about five fold from 24,751 in 2007 to 131,303 in 2013. To provide services to the growing managed LTC population, the number of plans more than doubled from 17 to 42 during the same period of time.

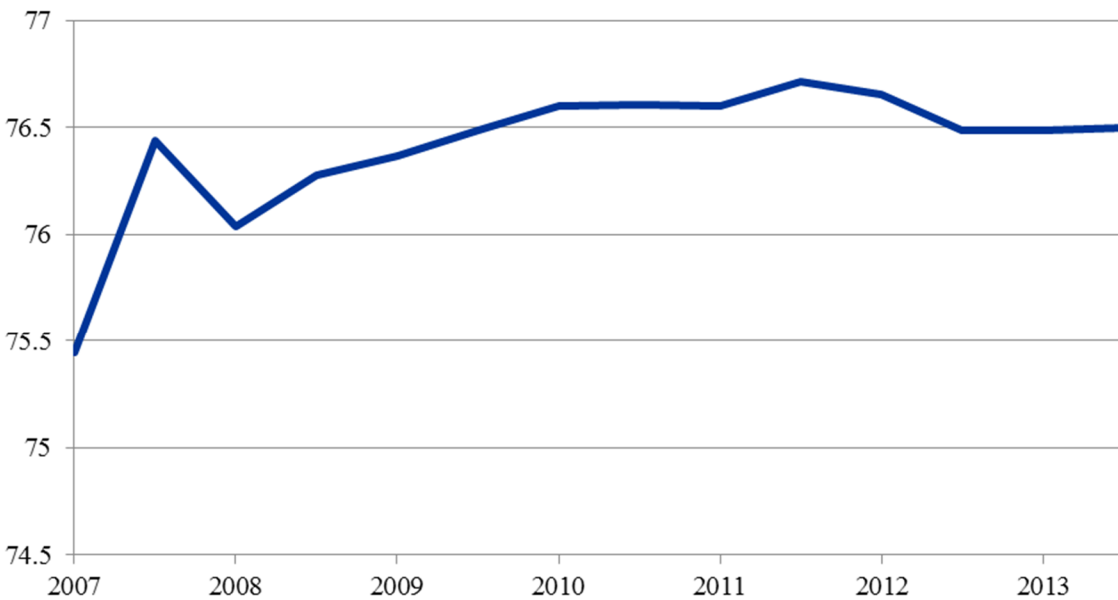
***Question 5.2. What are the Demographic Characteristics of the Managed LTC Population? Are They Changing Over Time?***

***Measure 5.2.1. Year-to-Year Comparison of Demographic Composition of Managed LTC Beneficiaries, Including Age, Race, Gender, Language, Risk Factors, Enrollment, Payment Source, Location, Living Situation, and Top Diagnoses***

**Age**

The average age of managed LTC beneficiaries increased by about one year between 2007 and 2013 from 75.4 to 76.5 (*Figure 52*). This reflects a 2 percent decrease in the 75-84 year old group and a commensurate 2 percent increase in the 85+ group.

Figure 52. Average Age of Managed LTC Beneficiaries, 2007-2013



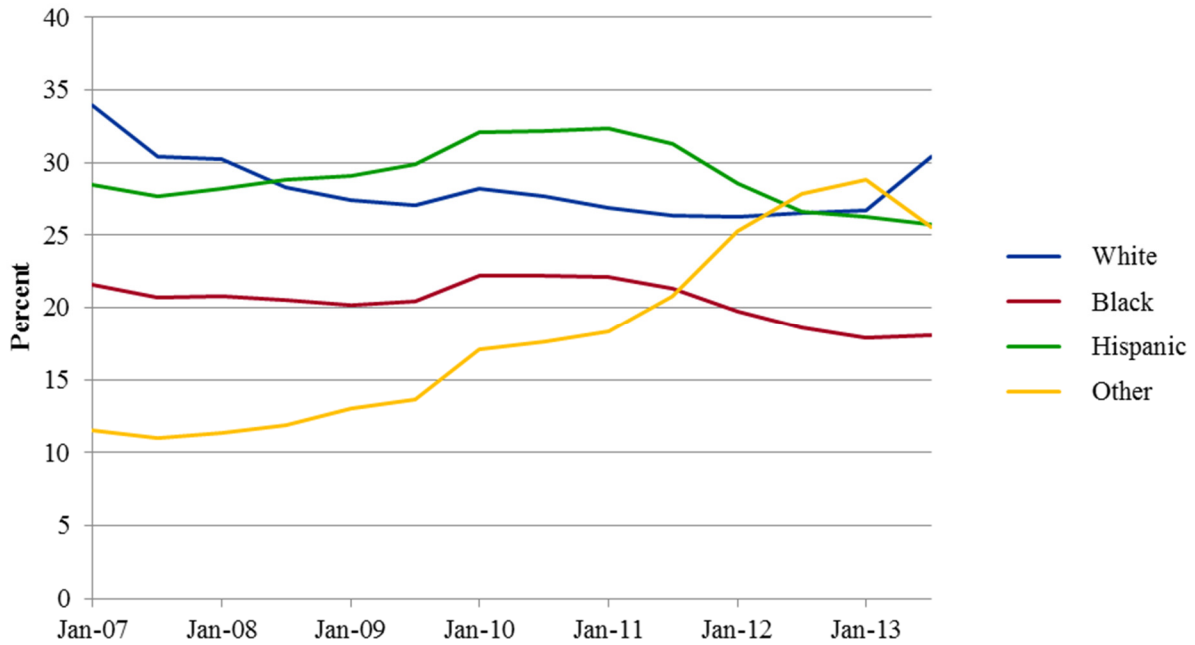
Data source: SAAM data.

The majority (85%) of managed LTC enrollees are adults age 65 and over. More than one-third (36%) of the managed LTC enrollees are age 75-84, followed by age group 85+ (27%), and age 65-74 (22%).

### Race and Ethnicity

The racial and ethnic makeup of the Managed LTC population is growing more diverse (*Figure 53.*) In 2013, 30 percent of the enrollees were White, a slight decrease from 34 percent in 2007. The Black and White populations have declined as a share of total enrollment, while the shares for other races and ethnicities have increased.

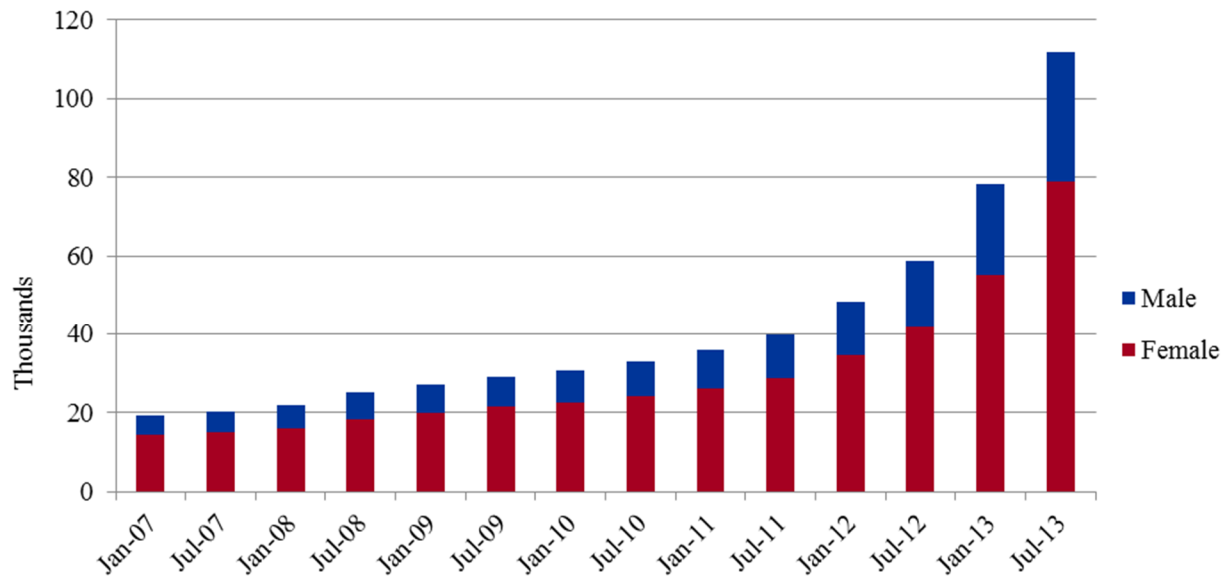
Figure 53. Managed LTC Beneficiaries Race and Ethnicity, 2007-2013



**Gender**

Figure 54 shows the gender distribution of enrollees between 2007 and 2013. The managed LTC population remains predominantly female despite a slight tapering off from 74 percent to 70.5 percent female.

Figure 54. Number of Enrollees by Gender, 2007-2013

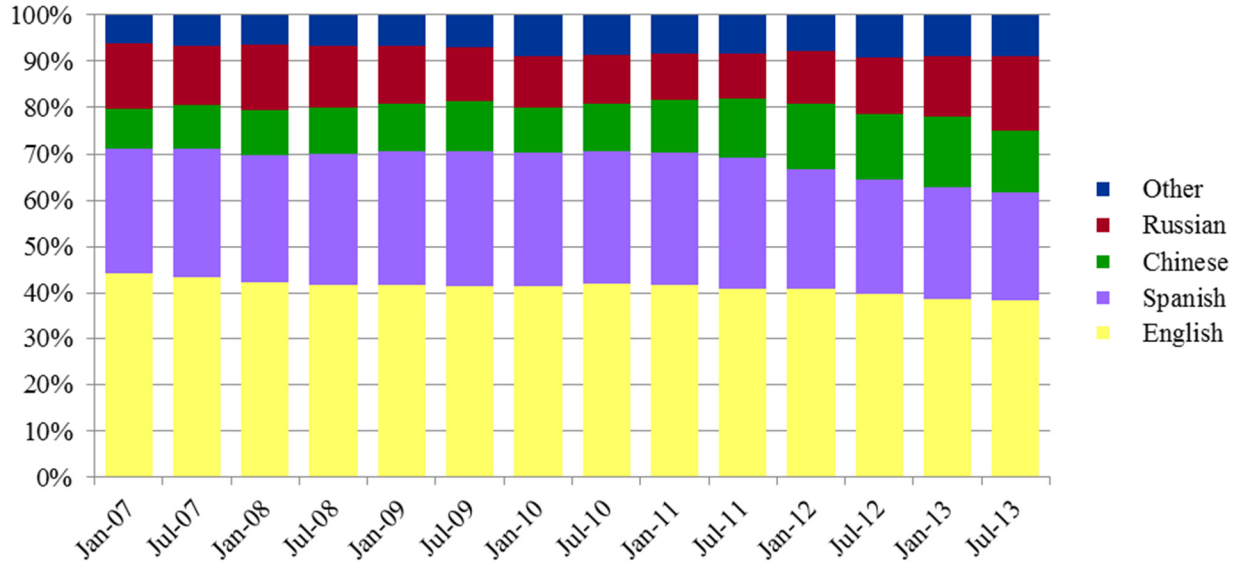


Data source: SAAM data.

## Language

English as the spoken language decreased steadily at a low rate, with the population becoming more diverse (*Figure 55*). The primary other spoken languages were Spanish, Chinese, and Russian, all of which increased slightly between 2007 and 2013.

*Figure 55. Managed LTC Beneficiaries Language, 2007-2013*



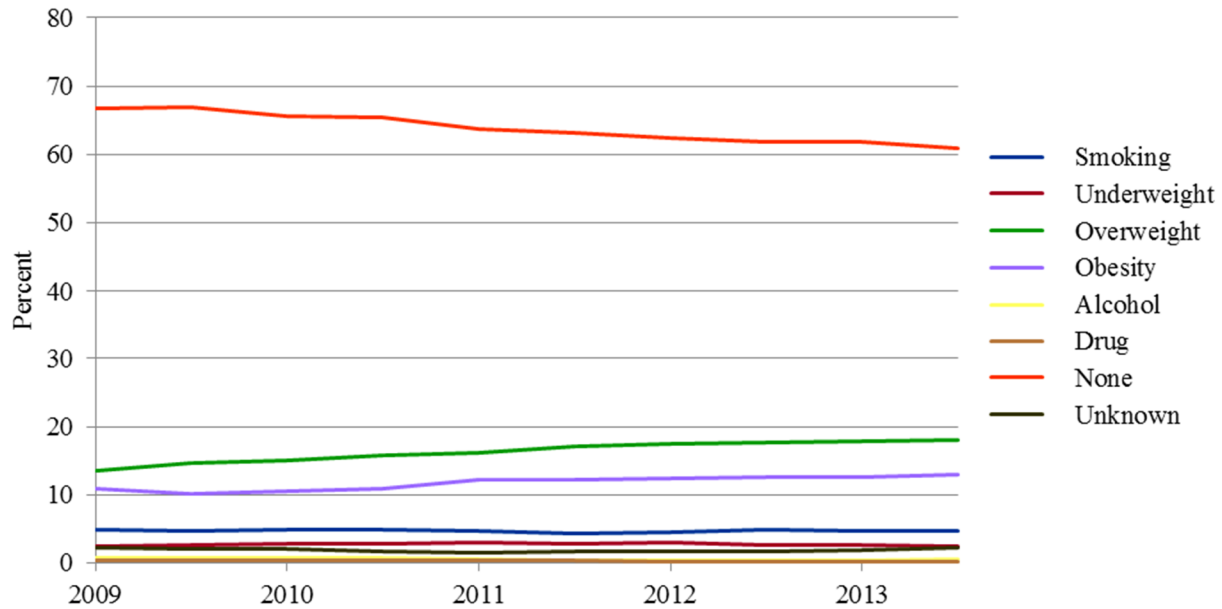
Data source: SAAM data.

## Risk Factors

*Figure 56* presents the proportion of managed LTC beneficiaries having none or any of the six selected risk factors (smoking, underweight, overweight, obesity, alcohol, and drug use). An increasing number of managed LTC enrollees have at least one risk factor. The proportion with at least one risk factor nearly doubled from 20 percent to 39 percent, a fairly substantive finding. The proportion without any risk factors declined over time, from 80 percent in 2007 to 61 percent in 2013.

Of the six selected risk factors, overweight is the most prevalent at 18 percent in July 2013, an increase of nearly 5 percent from 2007. Obesity is the next most prevalent risk factor at 13 percent, up from 11 percent over the same period of time. About 5 percent of managed LTC enrollees smoke, and this proportion has remained stable over the study period. A low percentage of managed LTC enrollees are involved in alcohol or drug use; alcohol use was about 0.6 percent in 2007 and 0.5 percent in 2013, and drug use was 0.3 percent in 2007 and 0.2 percent in 2013.

Figure 56. Risk Factors for Managed LTC Beneficiaries, 2009-2013



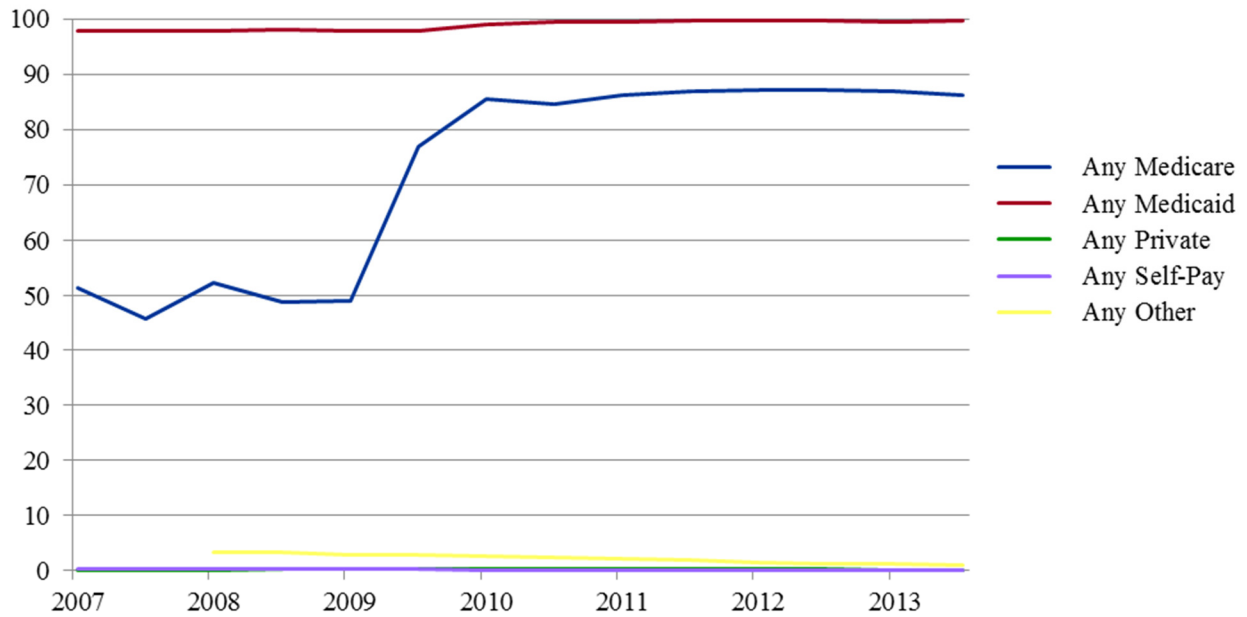
Data source: SAAM data.

Risk factor data are only presented for the period 2009-2013 because earlier data used slightly different versions of the questions. In particular, the high risk factor item option in 2007 was “heavy smoking” instead of “smoking,” and changes in the questionnaires were made in 2008, along with other modifications to the survey tools and assessments during 2007-2008.

### Payment Source

Managed LTC predominantly serves Medicaid recipients (*Figure 57*). Almost all managed LTC beneficiaries (98%) were reported to have Medicaid as a payor in 2007; this increased slightly to 99.7 percent in 2013. Enrollees with Medicare reported as a payor increased about 34 percent, from 51.4 percent in 2007 to 85.6 percent in January 2010 and was stable thereafter. Thereafter, the percentage of Medicare enrollees remained stable (86.3%) throughout the study. Enrollees with Medicaid Advantage Plus plans did not begin until 2008.<sup>242</sup> These plans are for dually eligible individuals. Managed LTC was made mandatory for dually eligible Medicare/Medicaid enrollees in 2012.

Figure 57. Payment Source for Managed LTC Beneficiaries, 2007-2013

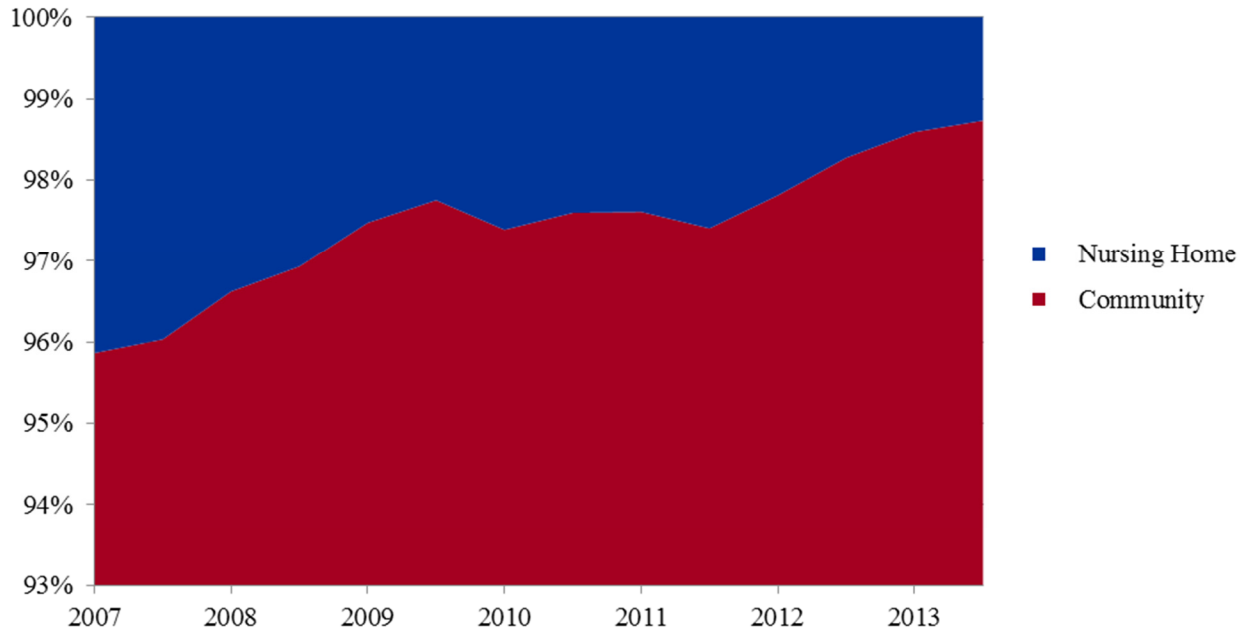


Data source: SAAM data.

### Location

Figure 58 below shows managed LTC recipient assessments by location (community vs. nursing home). The data show that the proportion of managed LTC beneficiaries living in the community was quite high in 2007 (96%) and has steadily increased to 99 percent in 2013.

Figure 58. Location of Managed LTC Enrollees, 2007-2013

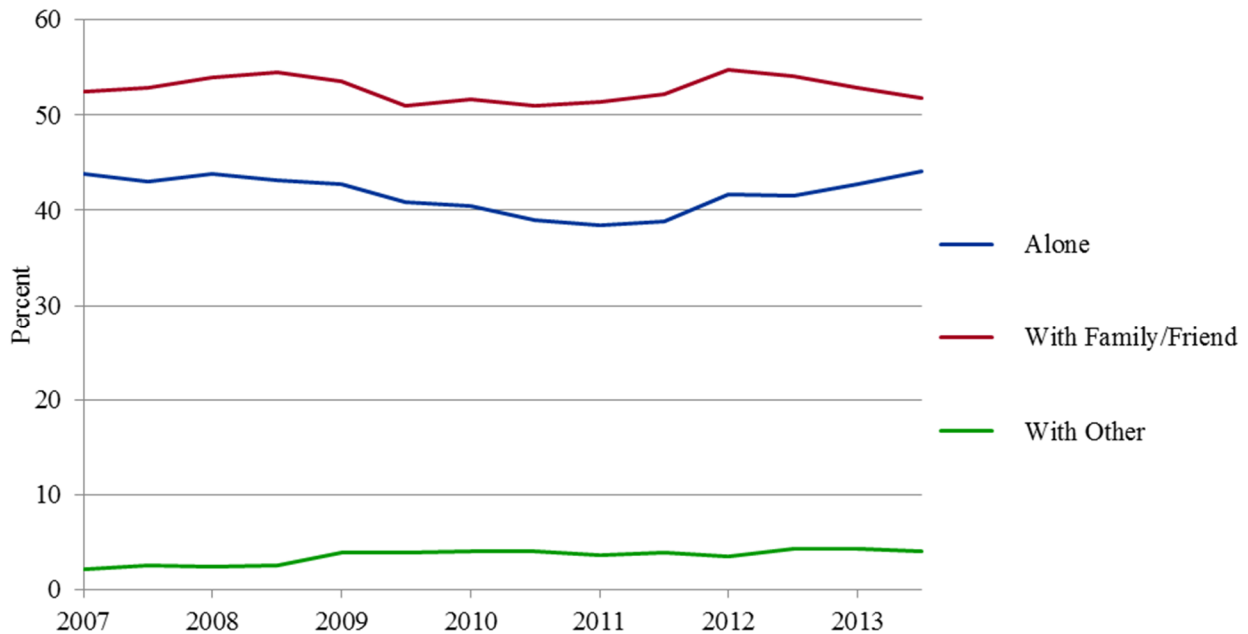


Note: Location was assessed using SAAM instrument. Hospital is omitted due to the low number of managed LTC enrollees (<0.00%) who were in Hospital while SAAM assessment was administered. Managed LTC enrollees in nursing homes are a very small percentage.  
Data source: SAAM data.

### Living Situation

The majority of managed LTC members live with family or friends (52.5%); fewer than one-half of the enrollees (44%) lived alone in 2007. This living arrangement remained stable throughout the study period. Enrollees living with others — neither friends nor family members — was about 2 percent in 2007 and it increased slightly to 4 percent in 2013.

Figure 59. Living Situation for Managed LTC Beneficiaries, 2007-2013



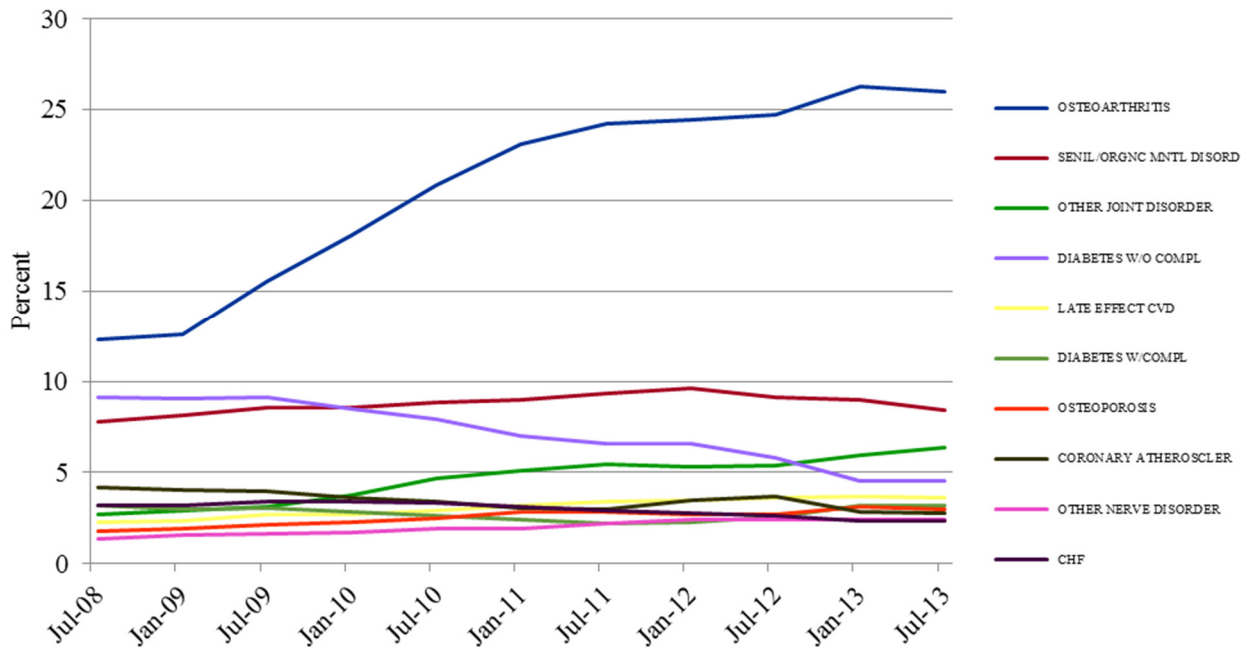
Note: Living Situation excluded for nursing home residents.<sup>243</sup>  
 Data source: SAAM.

### Top Diagnoses

Figure 60 shows the top 10 selected diagnoses. Osteoarthritis remains the most prevalent diagnosis in the managed LTC population, increasing from 18 percent in 2009 to more than one in four (25%) beneficiaries in 2013. The second top-10 diagnosis is senile/organic mental disorder with 8.5 percent in 2010; this diagnosis remained about the same (8.4%) in 2013. Diabetes prevalence declined from 8.5 percent in 2010 to 4.5 percent in 2013.



Figure 60. Top Primary Diagnoses, 2008-2013



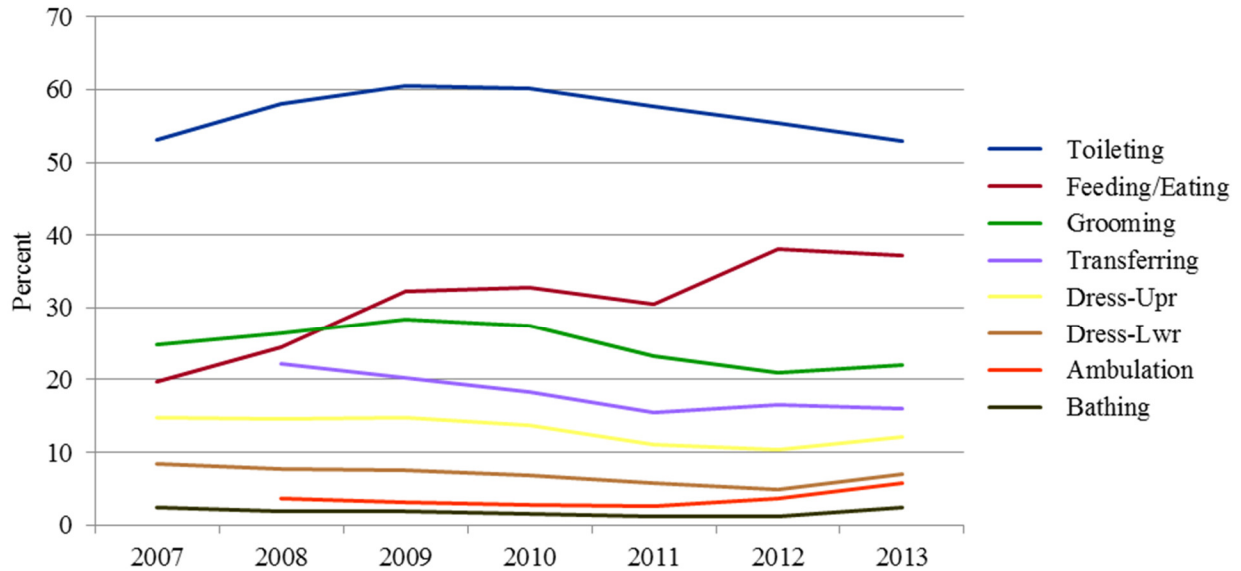
\* In July 2008 there was a change in definition of top diagnoses from percent of primary and secondary diagnosis to percent of primary diagnoses only. Through plan education, hypertension was not an acceptable primary reason for needing long-term care. (DOH e-mail communication, November 2014).

Data source: SAAM data. Top 10 diagnosis data was based on New York State Department of Health, *Managed Long-Term Care Report*, 2013, [https://www.health.ny.gov/health\\_care/managed\\_care/mltc/pdf/mltc\\_report\\_2013.pdf](https://www.health.ny.gov/health_care/managed_care/mltc/pdf/mltc_report_2013.pdf).

**Question 5.3. What are the Functional and Cognitive Deficits of the Managed LTC Population? Are They Changing Over Time?**

*Measure 5.3.1. Year-to-Year Comparison of Average Statewide Managed LTC Beneficiary Scores on Activities of Daily Living Measures, Urinary Incontinence Frequency, Bowel Incontinence Frequency, Cognitive Functioning, When Confused, When Anxious, Frequency of Pain, and Depressive Feelings*

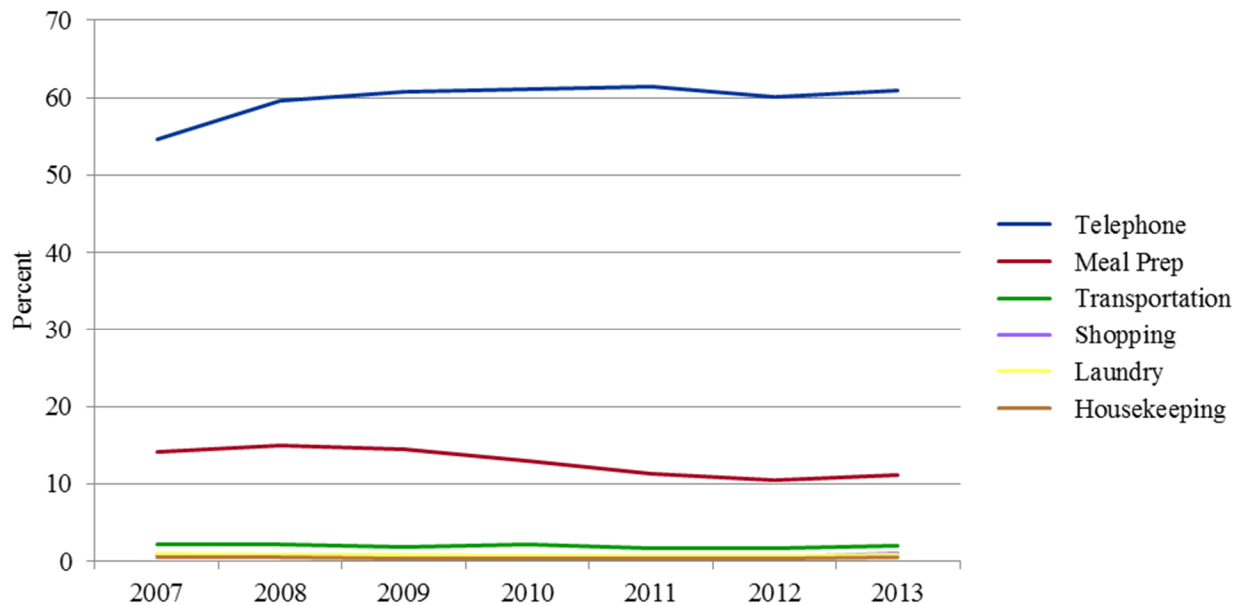
Figure 61. Percent of Managed LTC Beneficiaries Totally Independent by Various ADL Measures



Note: Ambulation and transferring scale change in 2008: number of response options changed from five to six.  
Data source: SAAM data.

Figure 61 above shows the proportion of managed LTC enrollees who were totally independent with respect to selected ADL tasks, for which managed LTC provides support services. Only 10 percent of enrollees can perform bathing, ambulation, and dressing the lower body — the most disabling ADL tasks — independently. In addition, less than 20 percent of enrollees can perform dressing the upper body and transferring independently. The proportion who are completely independent in feeding/eating has increased over time. A trend toward increasing independence is noted for bathing, ambulation, dressing upper/lower body, and grooming between 2012 and 2013. This could be due to the expansion to the dually eligible and changes in health status and the functional case-mix.

Figure 62. Percent of Managed LTC Beneficiaries Totally Independent by Various IADL Measures



Data source: SAAM data.

The graph above (*Figure 62*) depicts independence in performing IADLs, which are more complicated tasks. Only one in five enrollees are independent with respect to meal preparation (21.4%), and it is rare that a beneficiary is independent with regard to transportation, laundry, or housekeeping.

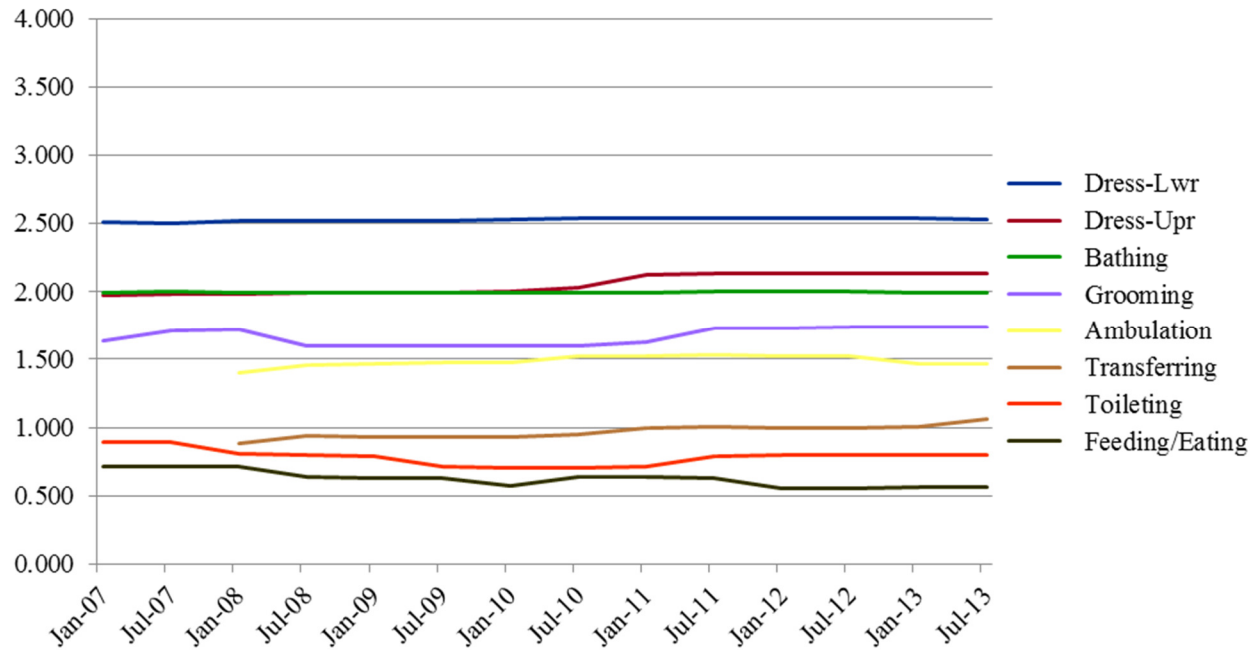
Nearly all of the beneficiaries need assistance with transportation and shopping. Housekeeping and meal preparation are high-need areas as well. Most beneficiaries are able to use the phone. The degree of dependence in IADLs has remained relatively stable throughout the enrollment expansion.

Activities of daily living (ADLs) (*Figure 63*) are a measure of self-care ability to determine whether an individual can live independently at home. Each task in the ADL items has a different scale of measurement; for example, the measure for grooming ranges from 0-3, with 0 indicating no assistance is needed to perform grooming and 3 indicating total dependence on someone to help with grooming. The scale for bathing is 0-5, with 0 indicating that the recipient can independently perform bathing, while 5 indicates the recipient is totally dependent during bathing tasks. Another example is transferring, it has a scale of 0-6 (0 = independent and 6 = totally independent). For comparison purposes, the ADL scale has been recalibrated to 0-4; the method used for the calibration is explained in the Methods section.<sup>244</sup> Some limitations of this rescaling method are explained in the Study Limitations.

Of these eight ADL measures, the most difficult task in 2007 for managed LTC enrollees was dressing the lower body, for which the enrollees reported a mean score of 2.5 on a scale of 0-4,

followed by dressing upper body (mean score = 2) and bathing (mean score = 2). The next two difficult tasks were grooming (mean score = 1.6) and ambulation (mean score = 1.4). The least difficult tasks for managed LTC enrollees were transferring (mean score = 0.89), toileting (mean score = 0.90), and eating (mean score = 0.7). For these 8 tasks, the level of difficulty in performing each task remains fairly constant over time, except dressing upper body and grooming.

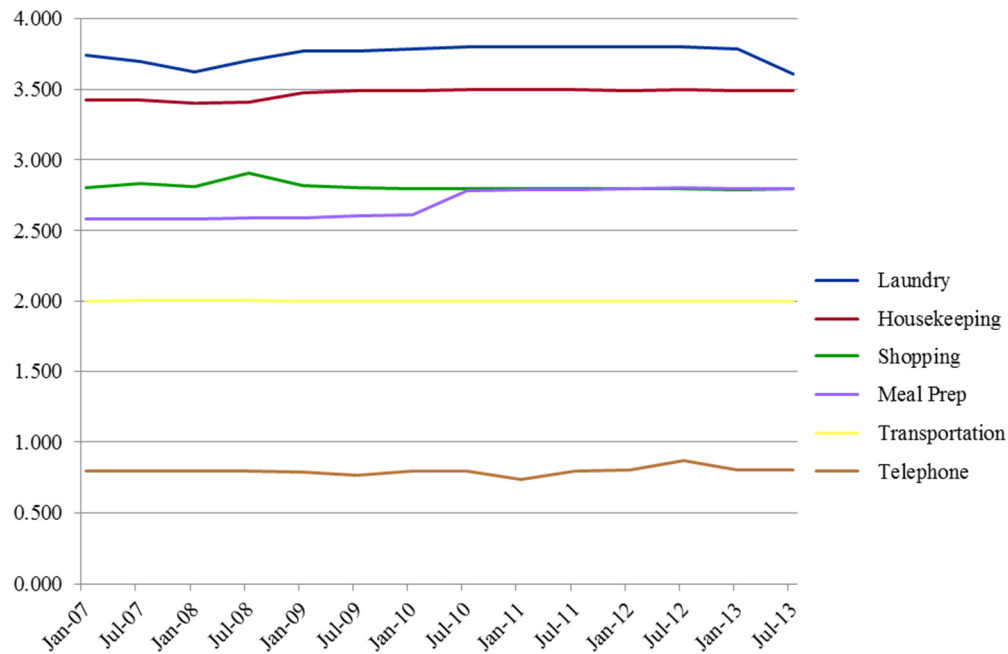
Figure 63. Mean Score of Activities of Daily Living



\* For comparison purpose, items of activities of daily living (ADLs) are rescaled to 0-4.<sup>245</sup>  
 Data source: SAAM

For all ADL functions, “no assistance is needed” has remained relatively constant except in transferring and eating/feeding. Transferring “no assistance needed” has decreased about 6 percent (23% to 16%) from January 2008 to July 2013, inferring that more beneficiaries have needed at least some assistance in transferring. More independence has been noted for eating/feeding, where “no assistance needed” has increased about 16 percent (20% to 36%) from January 2007 to July 2013.

Figure 64. Mean Score of Instrumental Activities of Daily Living, 2007-2013

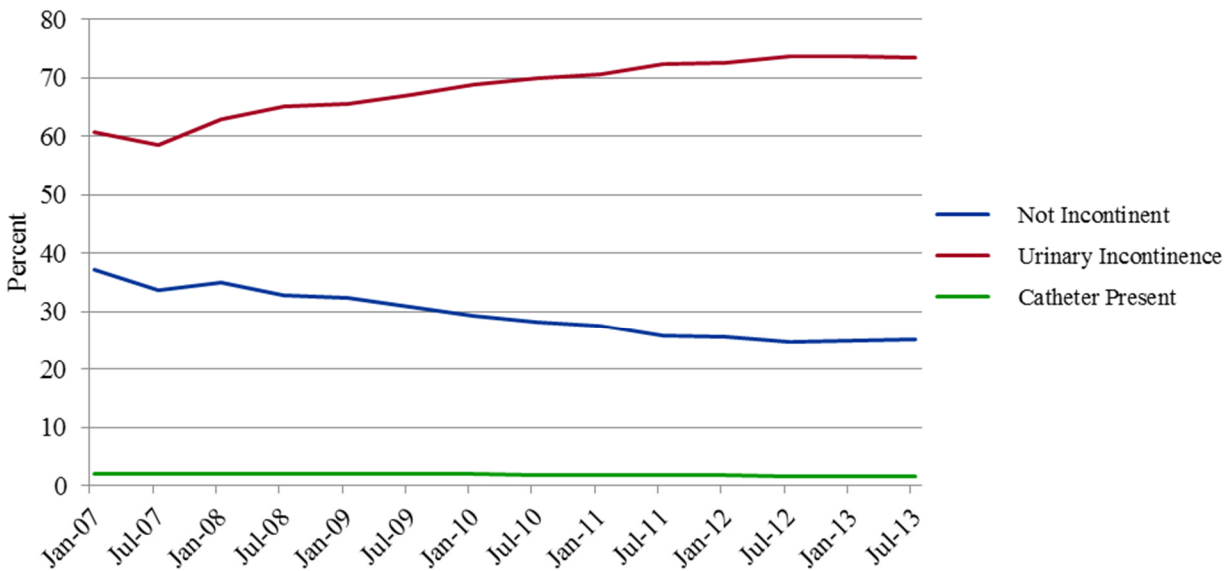


Note. For comparison, instrumental activities of daily living were rescaled to 0-4. Richard H. Fortinsky et al., “Measuring Disability in Medicare Home Care Patients: Application of Rasch Modeling to the Outcome and Assessment Information Set,” *Medical Care* 41, 5 (May 2003): 601–15, Richard H. Fortinsky et al., “Measuring Disability in Medicare Home Care Patients: Application of Rasch Modeling to the Outcome and Assessment Information Set,” *Medical Care* 41, 5 (May 2003): 601–15, doi:10.1097/01.MLR.0000062553.63745.7A .

Data source: SAAM.

Figure 64 shows the Instrumental Activities of Daily Living (IADLs) that quantify the ability of an individual to live independently in the community. The IADL tasks are more difficult than ADLs. Performing IADLs tasks require a higher level of physical strength, mobility, and cognitive function. The most difficult tasks in IADLs for managed LTC enrollees are doing laundry, with a mean score of 3.7 in a scale of 0-4, followed by housekeeping tasks (mean score = 3.4), shopping (mean score = 2.8), meal preparation (mean score = 2.6), transportation (mean score = 2). The task with the least difficulty is using the phone (mean score = 0.8).

Figure 65. Urinary Incontinence in Managed LTC Beneficiaries, 2007-2013



Note: MLTC enrollees residing in nursing home were included in the assessment.  
Data source: SAAM data.

The prevalence of urinary incontinence was high among the managed LTC enrollees. Almost two-thirds (61%) of beneficiaries had urinary incontinence in 2007; the prevalence increased significantly to 73 percent in 2013.

Figure 66. Urinary Incontinence Frequency in Managed LTC Beneficiaries, 2008-2013

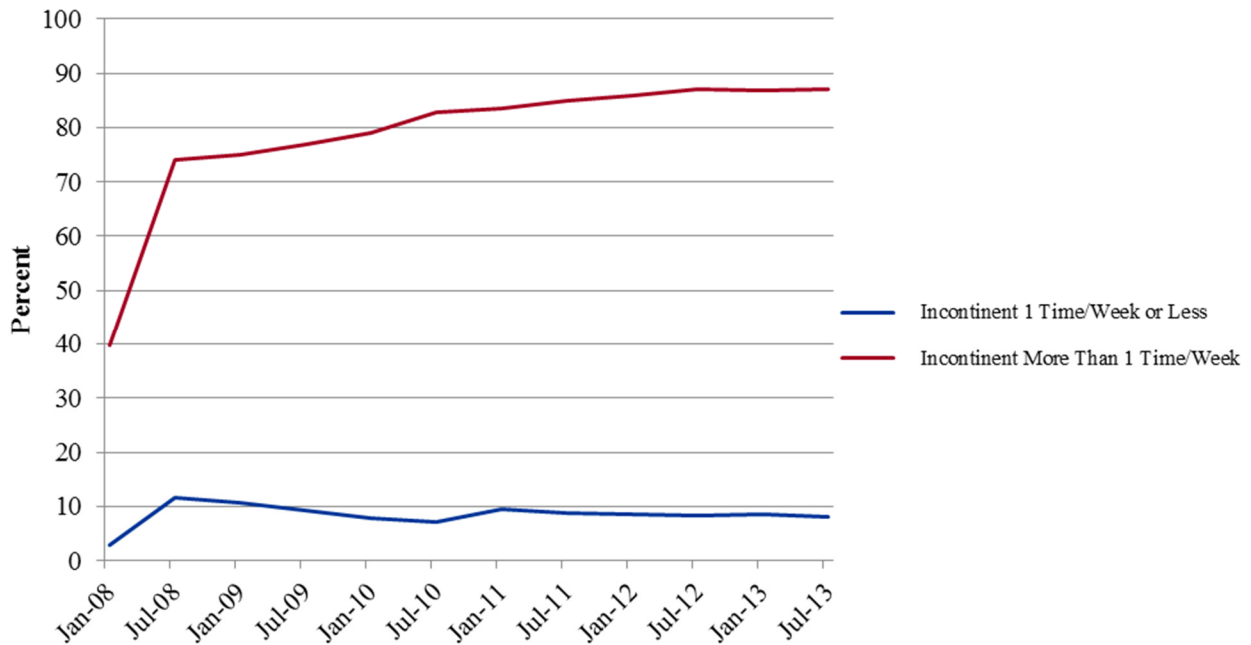
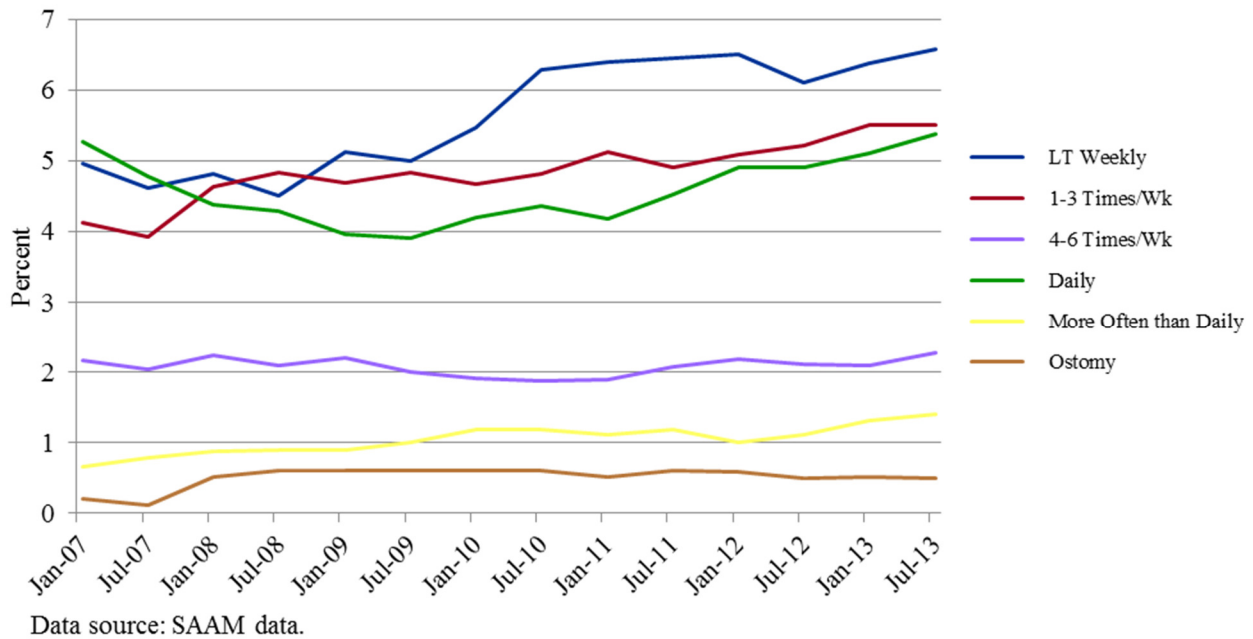


Figure 67. Bowel Incontinence Frequency in Managed LTC Beneficiaries, 2007-2008



Overall, the majority of enrollees are free from bowel incontinence. In 2007, 82 percent of enrollees had no bowel incontinence; this decreased to 78 percent in 2013. The severity of bowel incontinence varies and the frequency of bowel incontinence ranges from less than weekly to daily. Bowel incontinence is the second most common reason for committing the elderly to a nursing home.<sup>246</sup>

Figure 68. Cognitive Function in Managed LTC Beneficiaries, 2007-2013

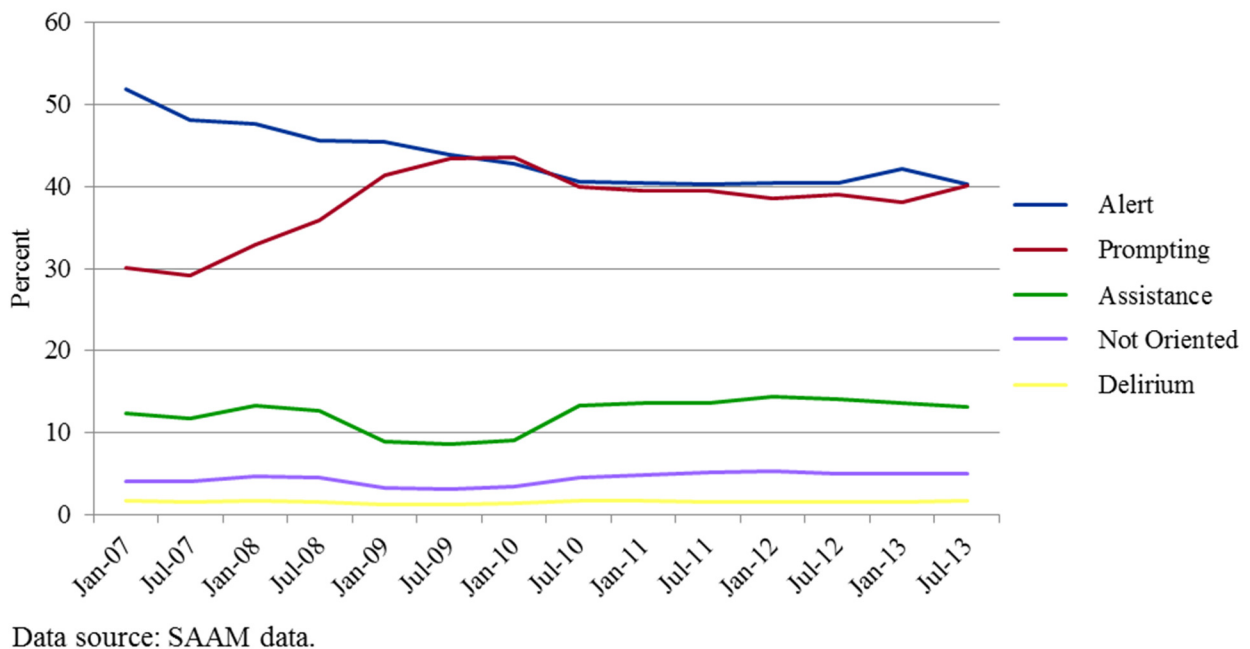
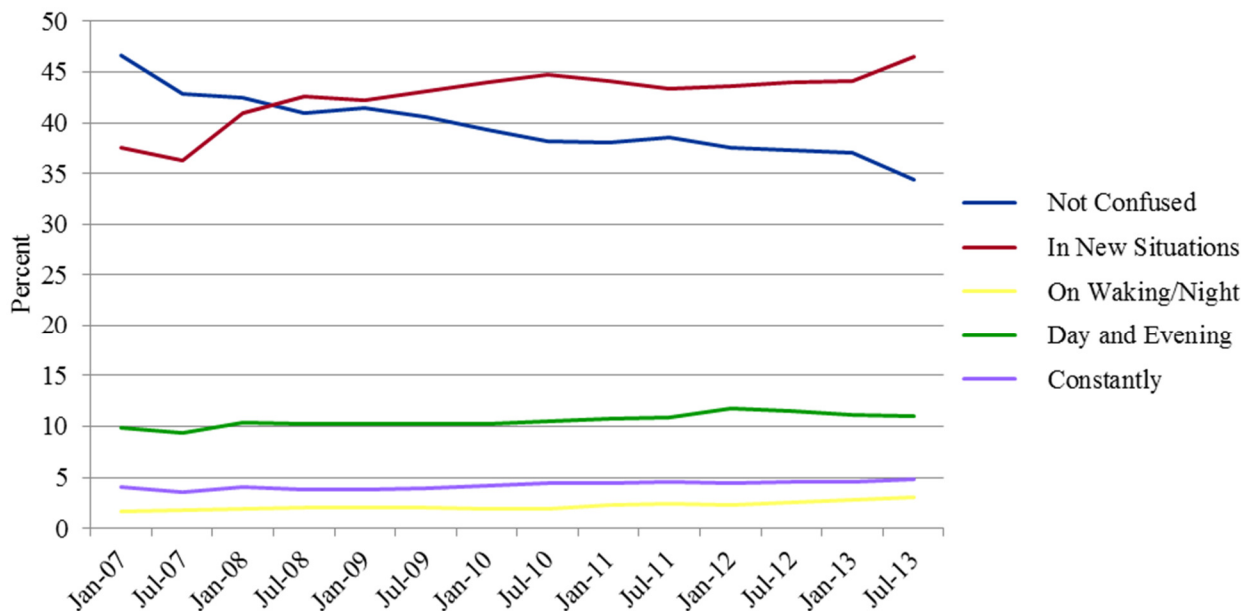


Figure 68 indicates that the proportion of enrollees who are alert has declined over time from 52 percent in 2007 to 40 percent in 2013. Enrollees requiring prompting increased from 30 percent to 40 percent in the same period. Enrollees in need of assistance increased slightly from 12 percent to 13 percent from 2007 to 2012, while enrollees who were not oriented increased from 4 percent to about 5 percent. About 1.6 percent of enrollees had delirium and the proportion was stable over time.

Figure 69 shows that more managed LTC beneficiaries are becoming confused over time. The SAAM assessment has mutually exclusive categories of confusion, ranging from not confused to “Constantly Confused.” The percentage of enrollees not confused declined from 47 percent in 2007 to 34 percent in 2013, while the number of enrollees who are confused in new situations increased from 37.5 percent to 46.6 percent.

Figure 69. Confusion in Managed LTC Beneficiaries, 2007-2013

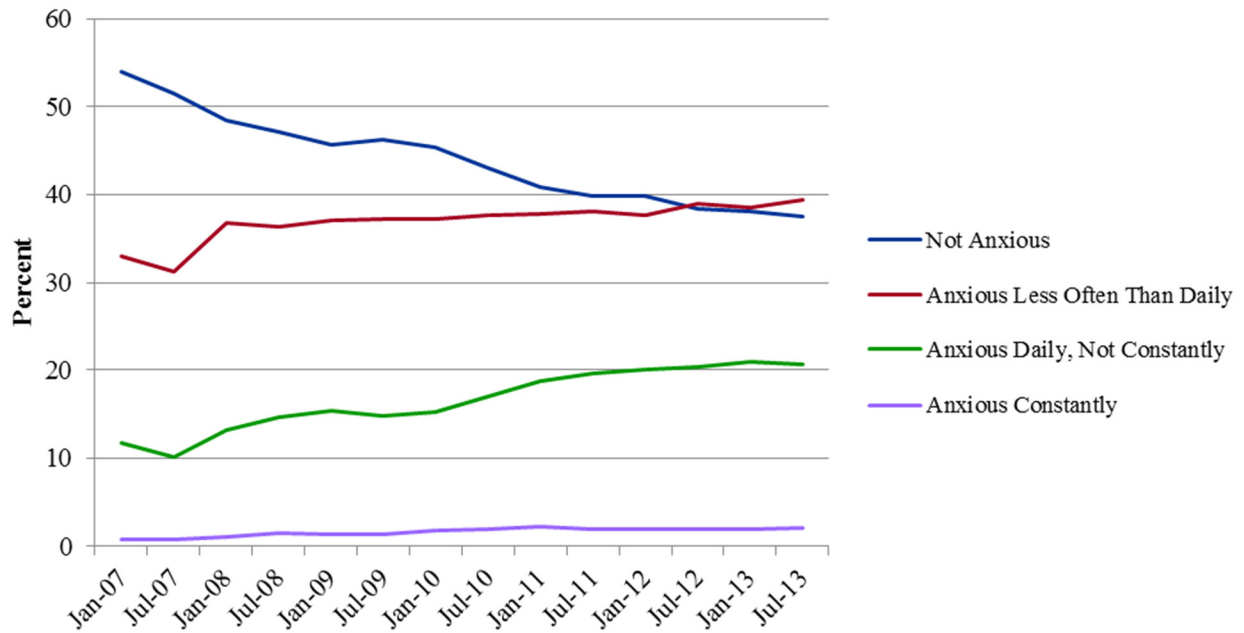


Data source: SAAM data.

The number of managed LTC beneficiaries with anxiousness has increased over time. Figure 70 shows that enrollees who have no anxiety decreased 17 percent, from 54 percent in 2007 to 37 percent in 2013. Those with constant anxiety have doubled from 0.82 percent to 2.12 percent.

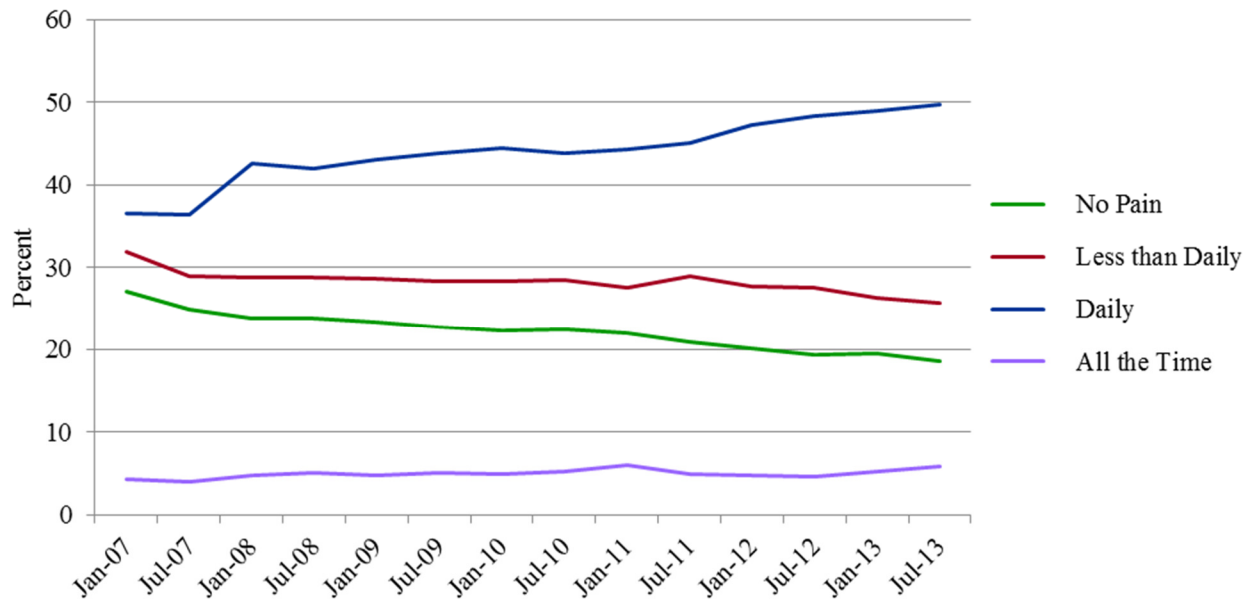


Figure 70. Anxiousness in Managed LTC Beneficiaries, 2007-2013



As depicted in *Figure 71*, the percentage of enrollees with daily pain increased from 37 percent in 2007 to 50 percent in 2013. Those reporting constant pain (all the time) has increased from 4 percent to 5.8 percent during the study period.

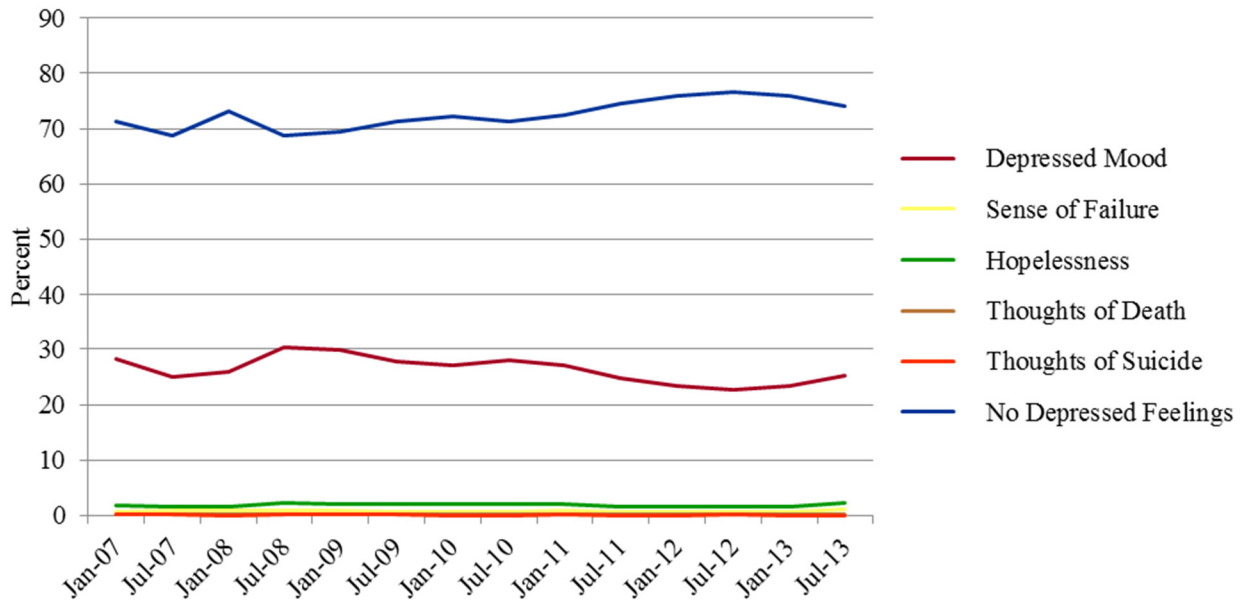
Figure 71. Frequency of Pain in Managed LTC Beneficiaries, 2007-2013



Data source: SAAM data.

Figure 72 depicts a decreasing trend in depressive feelings among managed LTC enrollees. The majority of enrollees (71%) had no depressed feelings in 2007 and this proportion increased to 74 percent in 2013.

Figure 72. Depressive Feelings in Managed LTC Beneficiaries, 2007-2013



Data source: SAAM data.

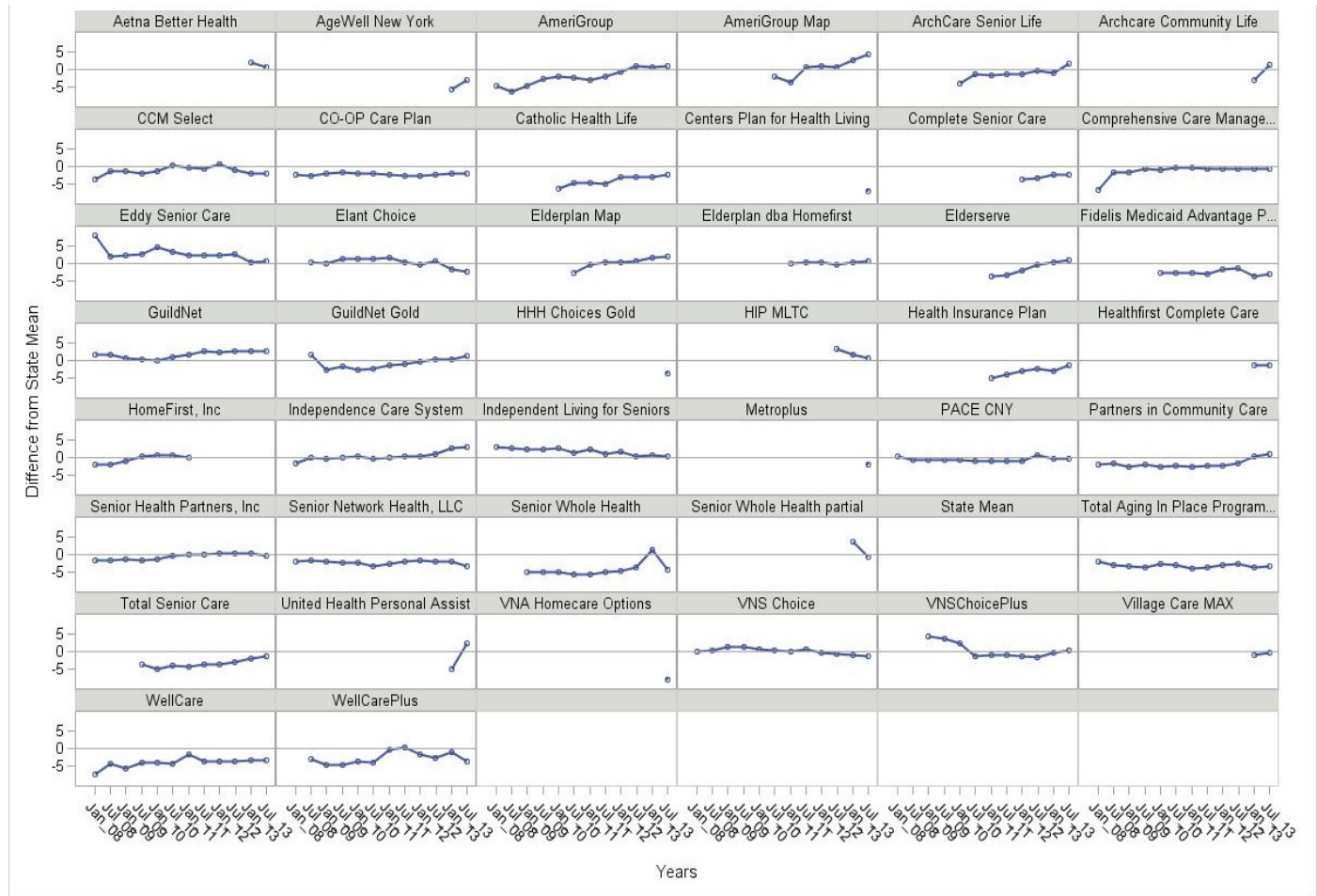
**Question 5.4. Are the Statewide and Plan-Specific Overall Functional Indices Decreasing or Staying the Same Over Time?**

*Measure 5.4.1. Average Overall Functioning Score by Health Plan and Statewide Average with Percent Change Over Time*

Figure 5.4.1 depicts the difference in each plan’s SAAM index from the statewide average over time. The SAAM index includes cognitive functioning, incontinence, and activities of daily living (ADL) and is used to measure functional deficits. The SAAM index score reflects the case mix among plans. The variations in the SAAM index in the summary graphs are presented in the county-specific figures. It appears that the SAAM functional index differed between plans and within plans over time. Of the plans with complete data, many of them have a better SAAM functional index score (below the line) compared to the statewide average, for example: CO\_OP Care Plan, Catholic Health Life, Senior Network Health LLC, Partners in Community Care, Senior Network Health LLC, Senior Health, Total Aging in Place Program, Total Senior Care, and WellCare. Others are on par with the statewide average: Comprehensive Care Management, PACE CNY, Independence Care System, Senior Health Partners, Inc., and VNS Choice. Senior Whole Health has consistently out-performed the statewide average until a January 2013 spike in the SAAM index exceeded the statewide average.

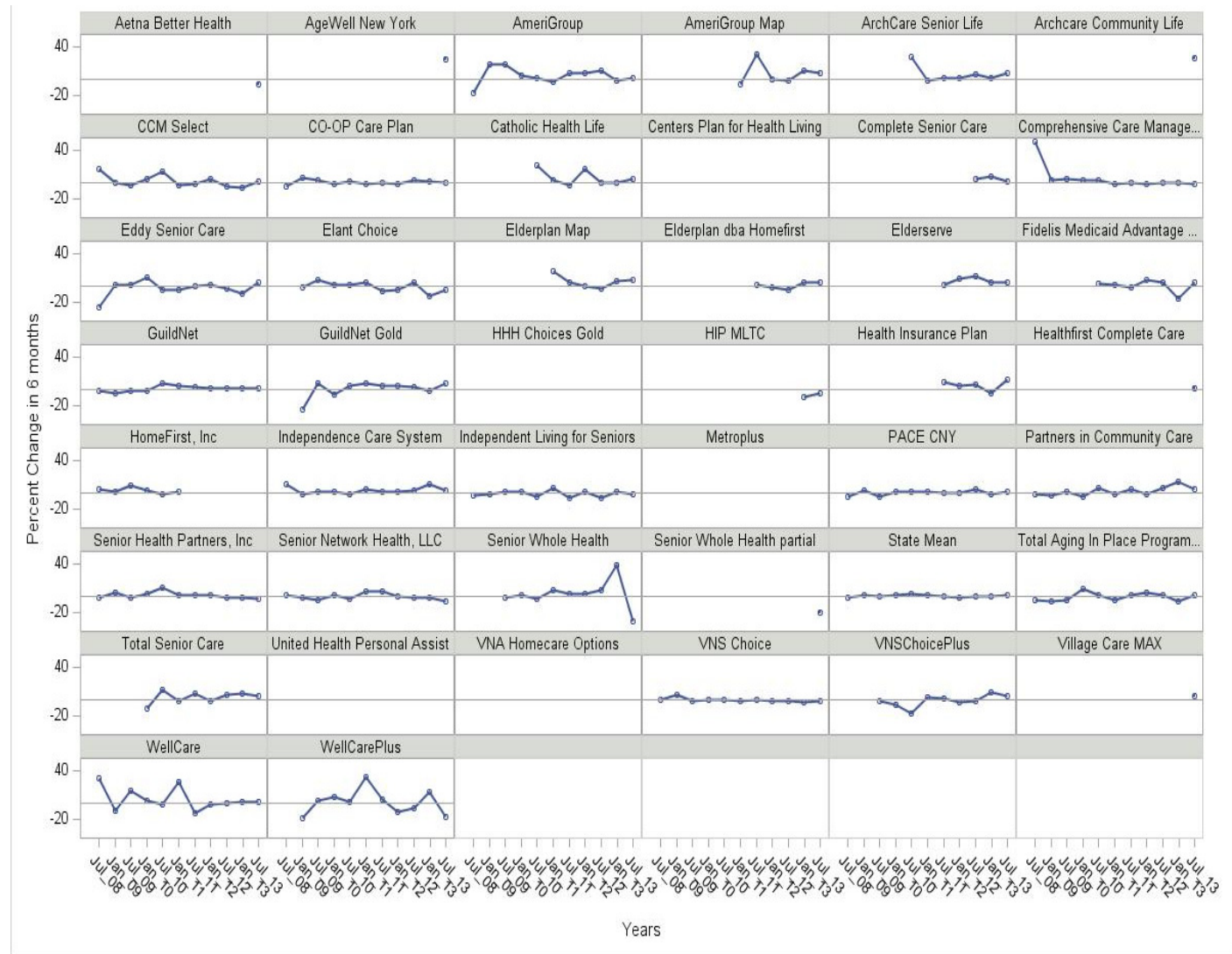
*Figure 73* presents the crude percent change in the SAAM index over time by plan. Plans with longitudinal data hovering close to the horizontal line at 0 indicates they experienced no real change in their SAAM index score from one time period to the next. A dip below the line indicates an improving SAAM functional index. Of the plans with complete data, those that remained stable over time with only small changes were CO-OP Care Plan, Comprehensive Care Management (except one outlier data point in January 2008), GuildNet, Independence Care System, PACE CNY, Senior Health Partners, Senior Network Health, and VNS Choice.

Figure 73. Comparisons of Mean SAAM Index Score Between Individual Plan and Statewide Average, 2008-2013



Data source: SAAM

Figure 74. Percent Change of Mean SAAM Index Score by Six Months of Individual Plans and Statewide, 2008-2013



Note. Trends of Individual plan below the line (0% change) indicate improved SAAM functional score

Data source: SAAM

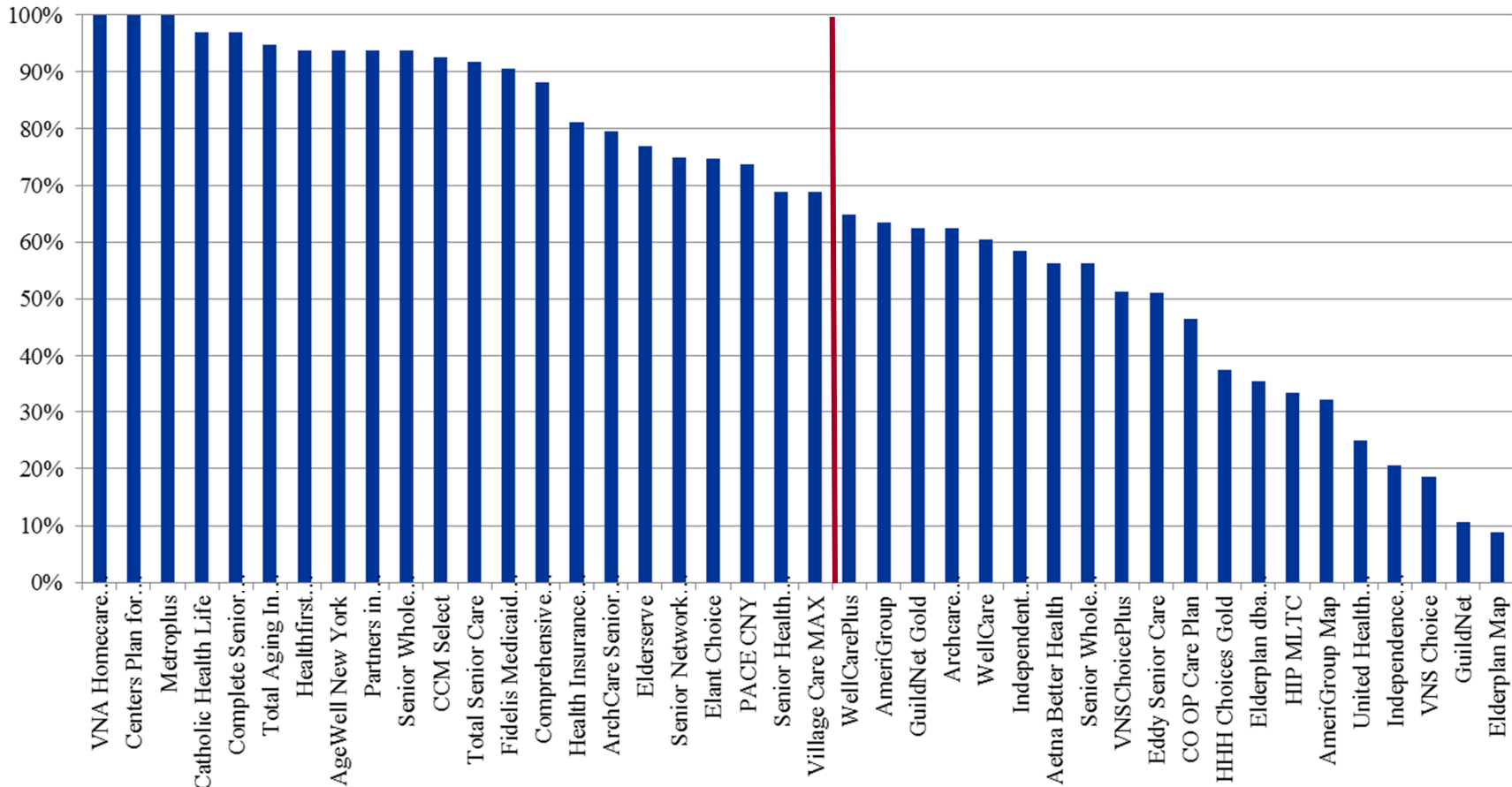
***Question 5.5. Are the Average Cognitive and Plan-Specific Attributes Decreasing or Staying the Same Over Time?***

***Measure 5.5.1. Year-to-Year Comparison of Plan-Specific Scores on Activities of Daily Living Measures, Urinary Incontinence Frequency, Bowel Incontinence Frequency, Cognitive Functioning, When Confused, When Anxious, Frequency of Pain, and Depressive Feelings***

*Figure 75* shows the mean ADL function for each plan compared to the statewide average (red bar) during the study period; a higher mean indicates enrollees have more independence during a greater portion of the study period. For example, beneficiaries in VNA Homecare Options (far left of graph) had a better mean ADL function than the statewide average each year of the study period. Enrollees in the CCM Select Plan had better ADL means for 90 percent of the study years, than the statewide average 90 percent of time, and GuildNet rarely surpassed the statewide mean during 2007 to 2013.

*Figure 76* shows the mean IADL function for each plan compared to the statewide average (red bar) during the study period, with the same interpretation as *Figure 75*. Overall, the percentage of time that plan enrollees perform better than the state average on IADLs is lower than the percentage of time they perform better than the state average on ADLs. Of the five highest-ranked ADL plans in *Figure 75*, only one is also in the top five-ranked plans according to the IADL measure. IADL functions are more physically and mentally demanding, so plans that rank higher (closer to 100%) had more independent enrollees, more of the time. It should be noted that four of the top six IADL plans have only been operational for a year or less; only Total Aging in Place was operational for all seven years of the 2007-2013 study period.

Figure 75. Comparisons of Percent Time\* that Enrollees of a Plan are Doing Better than Statewide Average of Activities of Daily Living (ADL), 2007-2013



\*Mean of each ADL functional item by plan is compared against the statewide mean each year, if the Plan mean is above statewide mean, that the Plan scored 1, or else scored 0. The summary score of all ADL items was created and then divided by the number of years that the ADL function was observed.

Plans located on the left-hand side of the red bar indicate better ADL function of their enrollees.

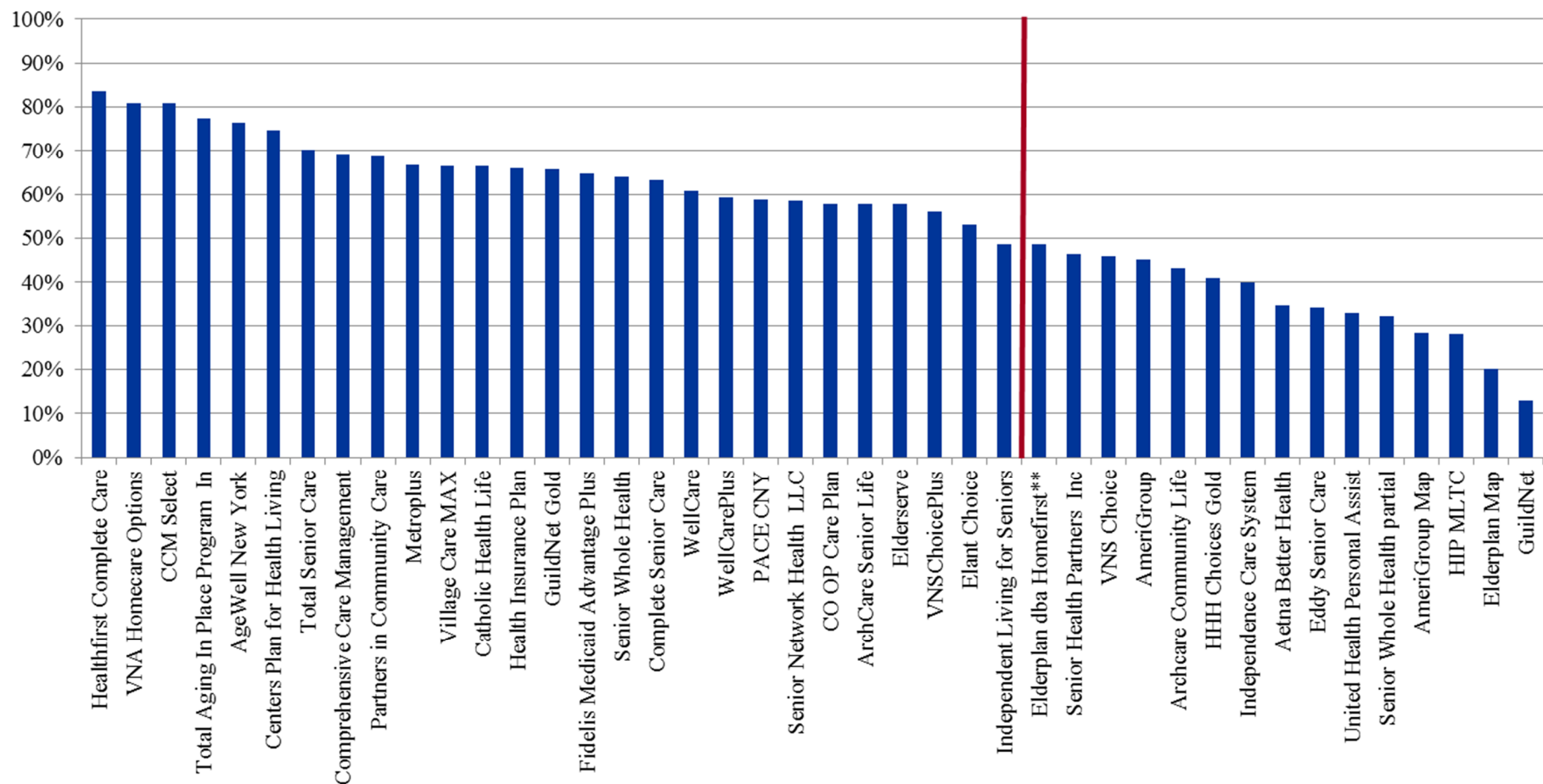
ADL items included in the calculation include Feeding, Grooming, Dressing Upper, Dressing Lower, Bathing, Toileting, Transferring, and Ambulation

\*\*Elderplan acquired by Homefirst, Inc., in February 2011.

Data source: SAAM



Figure 76. Comparisons of Percent Time\* that Enrollees of a Plan are Doing Better than Statewide Average on Instrumental Activities of Daily Living (IADL), 2007-2013



\*Mean of each IADL functional item by plan is compared against the statewide mean each year. If the Plan mean is above the statewide mean, then the Plan scored 1, or else scored 0. The summary score of all IADL items was created and then divided by the number of years that the IADL function was observed. Plans located on the left-hand side of the red bar indicate better IADL function of their enrollees. IADL items included in the calculation include Meal Prep, Transportation, Laundry, Housekeeping, Shopping, and Phone.

\*\*Elderplan acquired Homefirst, Inc., in February 2011.

Data source: SAAM



***Question 5.6. Are the Individual Care Plans Consistent with the Functional and Cognitive Abilities of the Enrollees?***

*Measures 5.6.1. This Evaluation Question Will be Included When There Are Sufficient Data Available in 2014 to Provide Accurate Measures.*

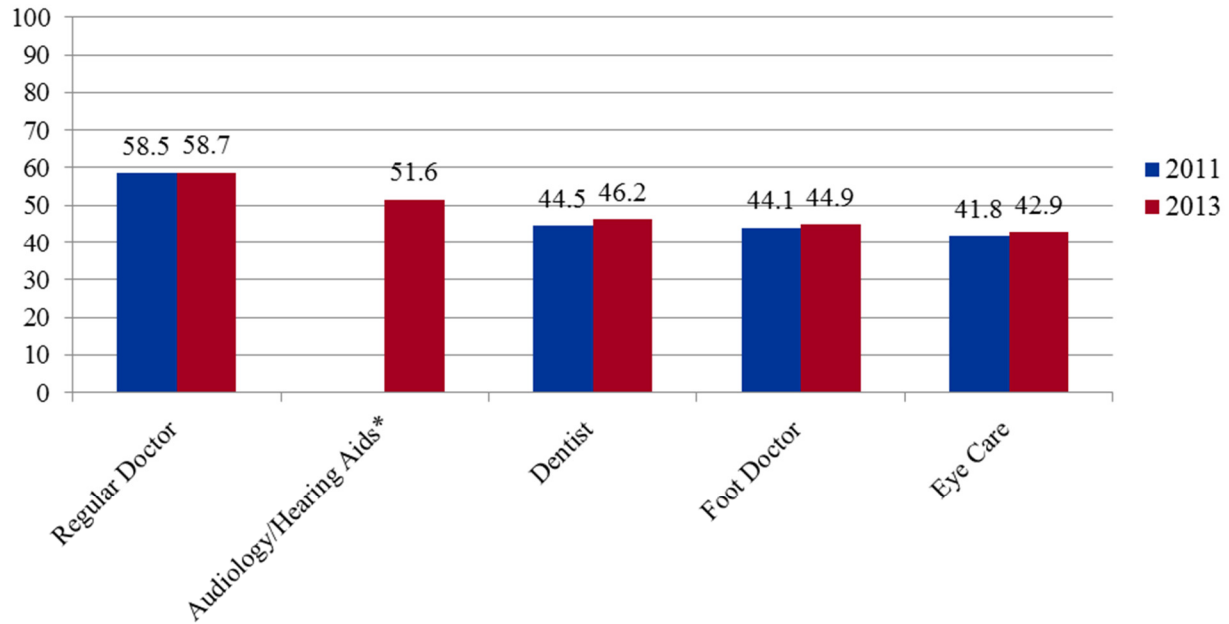
As noted previously, this measure evaluation was contingent upon data availability in 2014 (see F-SHRP Evaluation Plan, Pages 12 and 16). Appropriate data were not available to address this question and so, with the consent of DOH, we have excluded it from the evaluation.

***Question 5.7. Access to Care: To What Extent Are Enrollees Able to Receive Access to Personal, Home Care, and Other Services Such as Dental Care, Optometry, and Audiology?***

*Measure 5.7.1. Percentages of Managed LTC Beneficiaries with a Wait Time of Less than One Month for Routine Dentistry, Eye Care, Foot Care, and Audiology*

Figure 77 presents access to care measured by appointment time less than one month for routine appointments. The results indicate that access to regular doctors or audiology/hearing aids may be easier than securing an appointment for dentistry, foot and eye care. For regular doctor appointments, about 59 percent reported that their appointment time was less than one month in 2011 and about the same percentage in 2013. For audiology/hearing aids, about 52 percent reported that their appointment was less than one month in 2013, but data in 2011 were not available for comparison. Access to eye care is more difficult with only 42 percent reporting that their appointment was made within a month. There was no statistically significant difference in access to care between 2011 and 2013 for regular doctor, dentist, foot doctor, and eye care.

Figure 77. Access to Care — Wait for Routine Appointments Less than One Month



Note: Satisfaction survey conducted in 2011 and 2013, Improving Healthcare for the Common Good, “Managing Long Term Care Plan: 2013 Member Satisfaction Survey Summary Report.”

\* New in 2013.

Data source: MLTC enrollees satisfaction survey 2011 and 2013.

*Measure 5.7.2. Percentage of New Managed LTC Enrollees that Stated that Accessing Personal Care and Home Care Was the Same or Better Than It Was Before Joining the Plan*

New managed LTC enrollees (NYC only) were asked about their experience with their current managed LTC plan and to compare the quality of service and timeliness of their previous providers before joining the health plan. New managed LTC members are, in general, satisfied with access to care and quality of services provided by home health/personal care aides. Compared to their prior experience, 96 percent and 95 percent of new managed LTC members reported that the current timeliness and quality of service (respectively) for home health/personal care has been better or about the same.

Table 60. *Quality of Service, New Managed LTC Enrollees (NYC Only)*

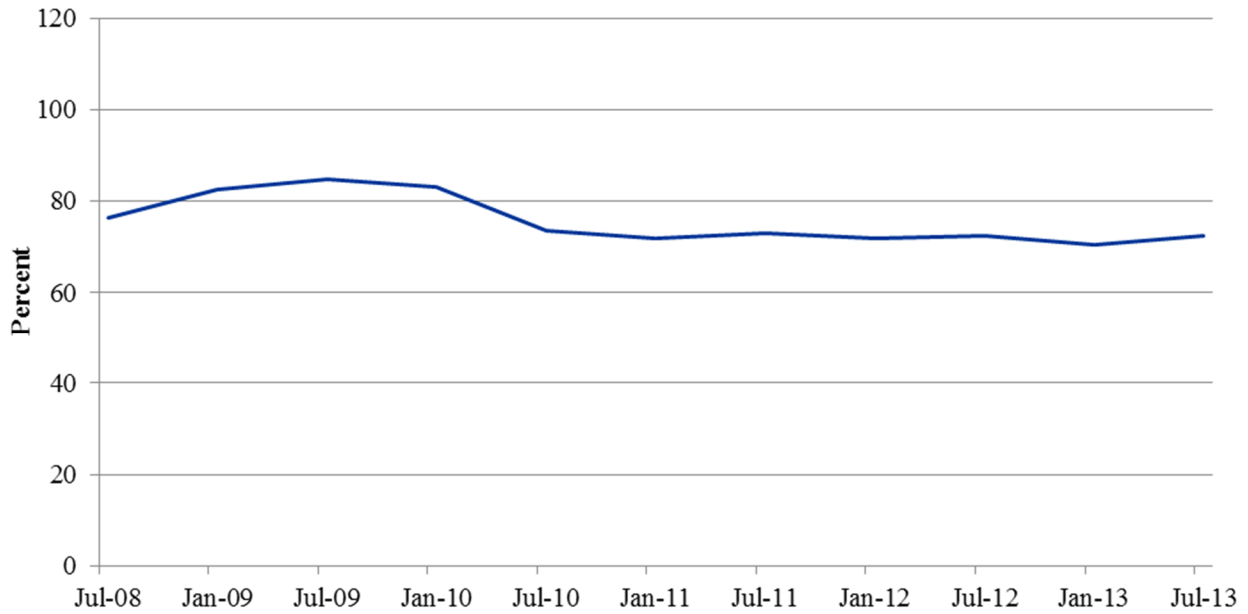
<b>Timeliness</b>	<b>Better (%)</b>	<b>About the Same (%)</b>	<b>Worse (%)</b>	<b>About the Same or Better (%)</b>
Home Health/ Personal Care Aide	50.8	45.4	3.8	96.2
<b>Quality of Service</b>				
Home Health/ Personal Care Aide	52.7	42.2	5.1	94.9
Notes: Managed Long Term Care Plan (MLTC) New Enrollee Survey 2013/2014 IPRO report, pages 13-14.				
Data source: New MLTC enrollees survey — Surveys were conducted in 2013 and 2014.				

**Question 5.8. Quality of Care: Are Enrollees Accessing Necessary Services Such as Flu Shots and Dental**

*Measures 5.8.1. Percentage of Managed LTC Beneficiaries Who Received a Flu Shot Within the Last Year*

The percent of beneficiaries receiving the influenza vaccine within the last year dropped by 11 percent between January 2010 and January 2011 from 83 percent to 72 percent and has remained around 72 percent from 2011 to 2013.

Figure 78. Percent of Managed LTC Beneficiaries Received Flu Immunization Within the Last Year, 2008-2013



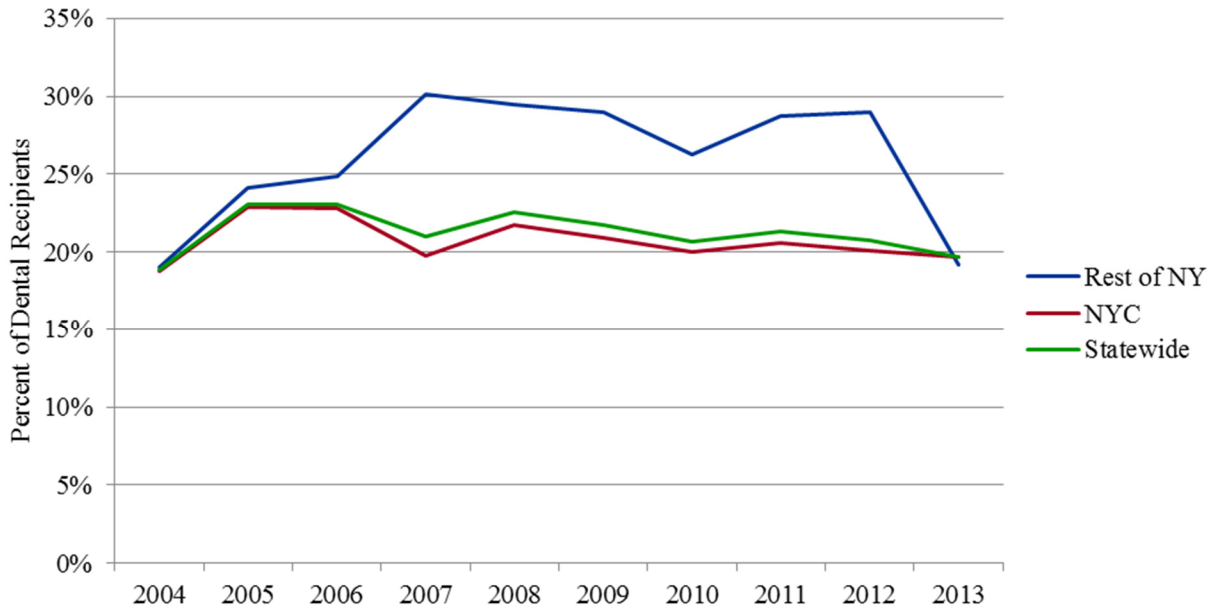
Data source: SAAM, DOH.

*Measure 5.8.2. Percentage of Managed LTC Beneficiaries Who Saw a Dentist Within the Last Year*

While dental coverage is available for all managed LTC beneficiaries, only one in five enrollees receive annual dental care. Routine visits are higher outside of NYC (approximately one in three visit the dentist). The decline in 2013 is due to the fact that enrollees increased 134 percent, but dental recipients only increased 55 percent.

Although the percentage of beneficiaries using this service declined, the absolute number of managed LTC recipients of dental care increased each year from 2004-2011 with the greatest increase occurring from 2011-2013, largely driven by an enrollment surge in Western NY from 119 recipients in 2011 to 843 recipients in 2013.

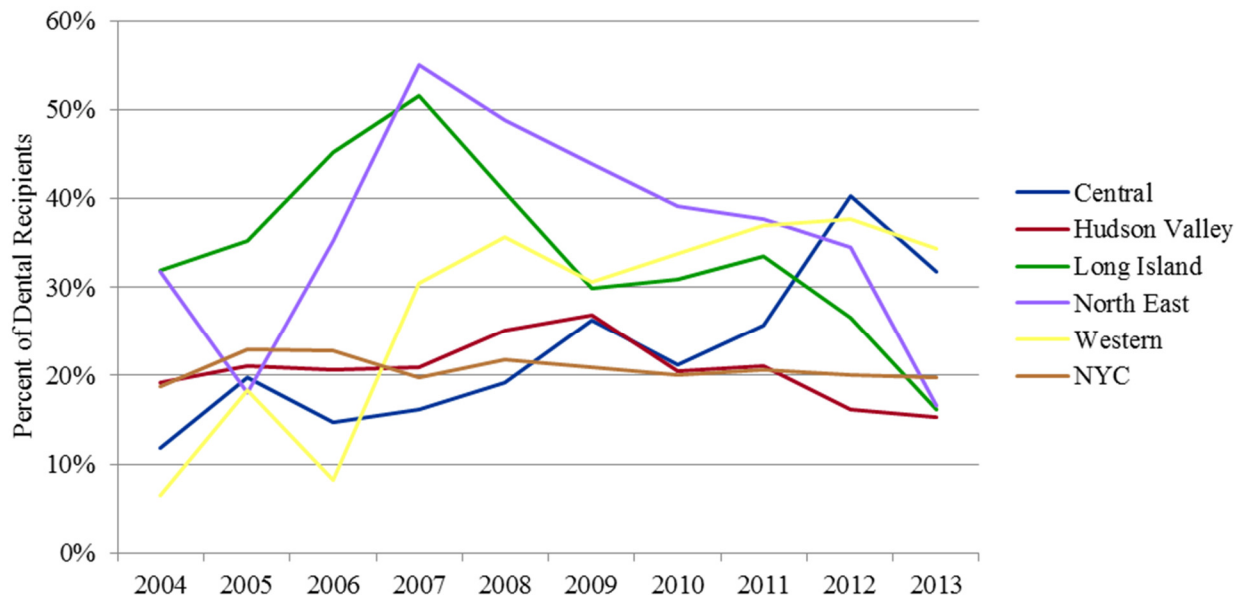
Figure 79, Percent of Managed LTC Enrollees Who Went to the Dentist Within the Last Year, 2004-2013



Data source: MMIS.

Figure 80 displays the percentage of managed LTC enrollees who used dental service by region. Long Island and Northern portray similar volatile trends, increasing from 2005 to 2007 then steadily decreasing from 2007 to 2013, while Central and Western New York percent of dental care recipients increased from 2006 to 2012. All regions show a drop in percent of dental recipients in 2013, with Northern and Long Island having the biggest decline. The percent of NYC managed LTC enrollees who went to the dentist slightly increased from 19 percent in 2004 to 23 percent in 2006 and then decreased in 2006-2007 to 20 percent, where it has remained. Overall, the trends show the decline across all regions between 2012 and 2013.

Figure 80. Percent of Managed LTC Enrollees Who Went to the Dentist Within a Given Year by Region, 2004-2013



Data source: MMIS.

**Question 5.9. Patient Safety: Are Enrollees Managing Their Medications? What are the Fall Rates and How Are They Changing Over Time?**

**Measure 5.9.1. The Risk-Adjusted Percentage of Managed LTC Beneficiaries Who Independently Manage Oral Medication With Percent Change Over Time**

The evaluation plan requires *risk-adjusted* rates of oral medication management, meaning rates that have been adjusted with statistical techniques that reduce the effects of case mix on the measures.<sup>247</sup> The SAAM data we obtained from DOH and have used elsewhere in this chapter are “crude percentages” (not risk-adjusted), because other evaluation plan measures do not require risk adjustment. To satisfy the requirements for this measure, we use risk-adjusted percentages reported by DOH in its 2012 and 2013 reports on managed long-term care. Those reports show that the statewide average risk-adjusted percentage of members who are independently managing oral medication fell from 28 percent in 2012<sup>248</sup> to 22 percent in 2013.<sup>249</sup>

The 2012 and 2013 annual managed long-term care reports also include a measure of the extent to which risk-adjusted oral medication management of individual enrollees is stable to improving over time. This measure is constructed by matching data for individual enrollees over time.<sup>250</sup> According to this measure, oral medication management was stable or improving for 87 percent of enrollees in 2012,<sup>251</sup> and 77 percent in 2013.<sup>252</sup>

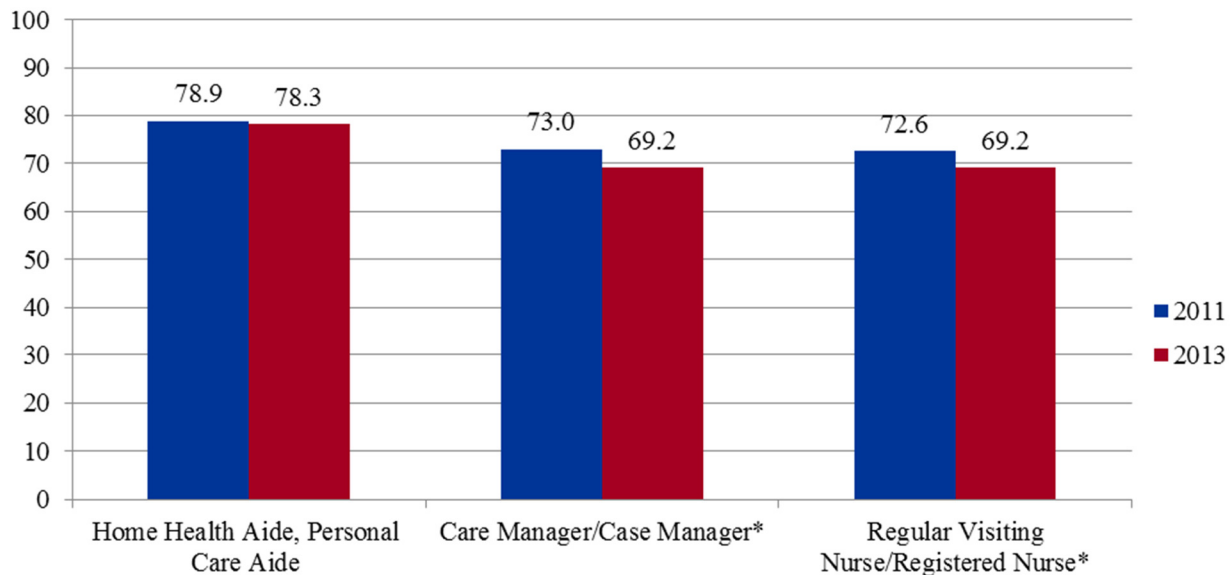
*Measure 5.9.2. Statewide Percentage of Managed LTC Beneficiaries that Fell Within the Last Six Months With Percent Change Over Time*

The majority of managed LTC recipients did not experience any falls (85%), and this percentage remained stable from 2008 to 2013. About 11 percent experienced one fall in 2008, a proportion that has remained stable through 2013.

**Question 5.10. Satisfaction: What Are the Levels of Satisfaction With the Timeliness (How Often Services Were On Time/How Often the Enrollee Was Able to See the Provider at the Scheduled Time) and Quality of Network Providers?**

*Measure 5.10.1. Percentages of Managed LTC Beneficiaries Who Rated Home Health Aide, Care Manager, and Regular Visiting Nurses Timeliness as Usually or Always*

Figure 81. Timeliness of Care (Always/Usually on Time)



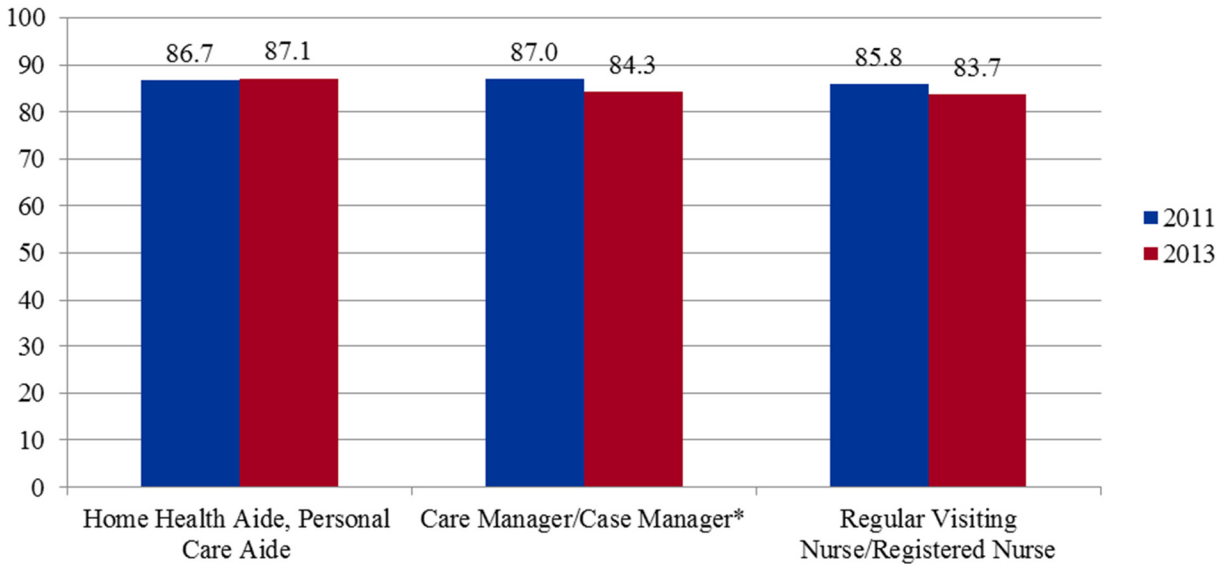
\* p-value < 0.05.

Data source: MLTC Satisfaction Survey. Ibid.

The majority of managed LTC recipients are satisfied with timeliness of their service providers. Managed LTC recipients were asked to rate their experience regarding how often the selected services were on time or if they were able to see the provider at the scheduled time. Timeliness of care (always/usually on time) for home health aide or personal care aide was 78.9 percent in 2011 and 78.2 percent in 2013. This graph differs from Table 5.7.2 (in the Appendix), which was restricted to new members. However, there was a decrease in the percentage of recipients giving a positive rating for care manager/case manager between 2011 (73%) and 2013 (69%); this 4 percent difference was statistically significant ( $p = 0.017$ ). A similar trend was observed in regular visiting nurse/registered nurse for which the rating declined from 73 percent in 2011 to 69 percent in 2013 ( $p = 0.028$ ).

*Measure 5.10.2. Percentages of Managed LTC Beneficiaries Who Rated Home Health Aide, Care Manager, and Regular Visiting Nurses Quality as Good or Excellent*

*Figure 82. Quality of Care Providers (Excellent/Good on Quality)*



\* p-value < 0.05.

Data source: MLTC Satisfaction Survey. Ibid.

Again, the managed LTC recipients give high ratings for the perceived quality of care they receive. The graph above depicts ratings for selected providers and services received within the last six months. With respect to quality of home care visits provided by Home Health Aide/Personal Care Aide, 87 percent rated the experience as being excellent or good in 2011 and 2013. A decrease in satisfaction with quality of care provided by a care manager/case manager was noted (87% vs. 84%) or regular visiting nurse/registered nurse (86% vs. 84%) between 2011 and 2013, respectively.

***Question 5.11. Costs: What Are the Per-Member Per-Month Costs of the Population?***

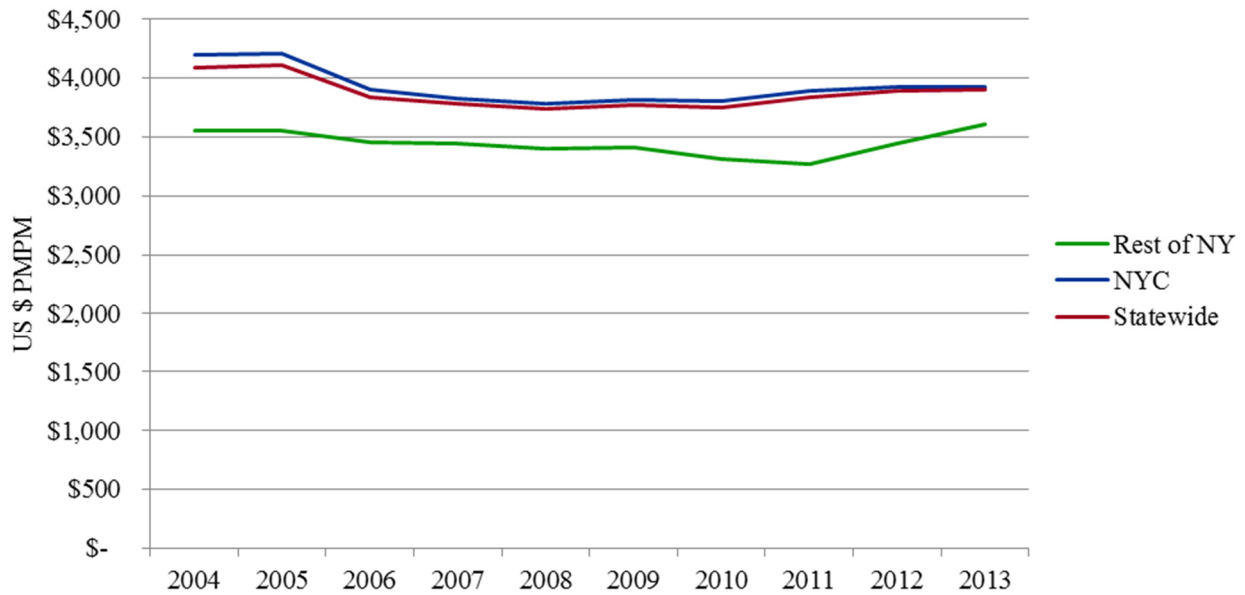
*Measure 5.11.1. Sum of Payments Divided by Managed LTC Beneficiary Member Months in One Year*

Figure 83 illustrates the payment arrangement for managed LTC service providers on a per-member per-month (PMPM) basis. Trends in capitation PMPM claims for New York State have declined from \$4,088 in 2004 to \$3,740 in 2008 and thereafter, a gradual upward trend to 2013 (\$3,899); a minor increase of \$159, or 4 percent, over those five years. The PMPM trends for the state as a whole closely align with NYC PMPM because approximately 90 percent of enrollments are in NYC. Compared to the NYC PMPM claims in 2004 (\$4,194), the rest of state PMPM claims were much lower (\$3,550). This disparity declined in 2006-2007, widened in 2008-2011, then declined again to a difference of \$316 in 2013. The NYC (\$3,924) and Long



Island PMPM (\$3,918) seem to have converged, while the other regions have converged around \$3,336.

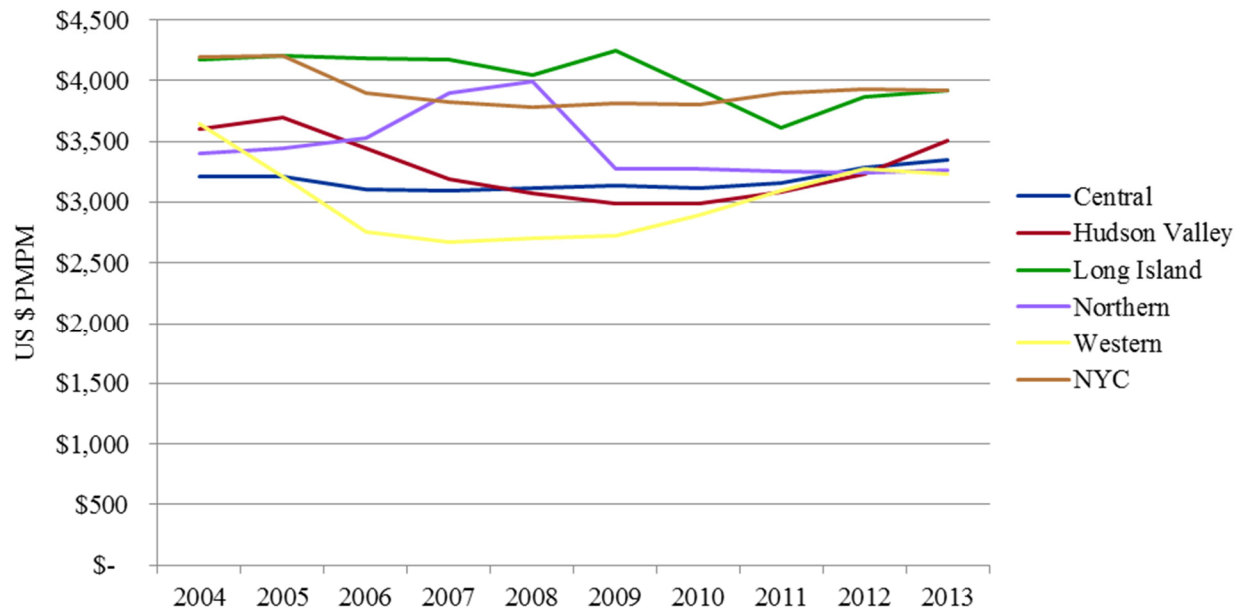
Figure 83. Capitation PMPM Trend, 2004-2013



Data source: MMIS.

Figure 84 shows the capitation PMPM trends by region from 2004 to 2013. Before 2009, there was moderate variation of capitation PMPM among New York State regions, but after 2009 the variation leveled out. This may be due to the implementation of risk-adjusted capitation payments starting in 2009. For example, the most noticeable change is the Northern region, which had an 18 percent decrease in PMPM between 2008 and 2009. This is due to an 83 percent increase in member months, but only a 50 percent increase in capitation payments.

Figure 84. Capitation PMPM Trends by Region, 2004-2013



Data source: MMIS data, NYS DOH.

### Overall Assessment

Overall, this analysis indicates that managed long-term care has successfully expanded to eligible individuals, and it suggests that it has provided quality care, and achieved high member satisfaction ratings during the period 2007-2013. The majority of members rated the quality of managed LTC services to be good or excellent, and the majority indicated that providers and services are always or usually on time. Furthermore, enrollees had high satisfaction with critical long-term care services such as visiting nurses and home health aides. This evidence supports the finding that managed LTC can provide high quality health care at a more manageable cost and that makes aging in place possible. This augurs well for continued expansion of managed LTC.

However, satisfaction with timeliness among existing members has declined from 2011 to 2013 for home health aides, care and case managers, and visiting nurses and registered nurses. Plans may want to probe the cause of delay or tardiness, possibly through reviewing attendance and tardiness issues directly with staff, evaluating workload, examining issues that may be related to case mix, and reviewing incidence reports and complaint logs.

The managed LTC population is getting older and is very disabled in both activities of daily living (ADLs) and instrumental activities of daily living (IADLs), placing increasingly heavy demands on the system to deliver the necessary services to avoid nursing home placement. As age increases and diseases progress, the severity of functional disability is expected to increase, coupled with a high prevalence of urinary incontinence and increasing cognitive function deficits. As a result, the amount of long-term care and services required is expected to increase. Plans may need to closely monitor functional change over time to help project health manpower

needs. DOH may be able to use Managed LTC recipients' claim information over time to project functional disability, health care and service needs, health manpower, and institutional care needs.

## Report Appendices

### Appendix A: Cleaning of Health Facilities Information System Data

The Health Facilities Information System (HFIS) is a comprehensive and authoritative source of information on certified beds for nursing homes, hospitals, and many other health-related facilities. The main data elements included in HFIS that were of interest to us are a permanent facility identifier for each physical facility; the operating certificate number for the facility operator; the county in which the facility is located; the facility address; the number of certified beds by bed type; and, for closed facilities, the date on which the facility was closed. HFIS is updated when the number of certified beds for a facility is increased or decreased, when existing facilities close or new facilities open, or when operators change.

In order to track changes in facilities and certified beds over time, we needed not just the current version of HFIS (which can be found at <https://health.data.ny.gov/Health/Health-Facility-Certification-Information/2g9y-7kqm>), but a historical snapshot of HFIS for a point in each year from 2000 through the present. DOH provided us with an Excel file that had one worksheet per year, and DOH also identified the date or approximate date when each snapshot was taken.

As with much administrative data, these data had undergone changes over time in format, content, and definitions, and had some anomalies, so we had to clean the data to create a single internally consistent database with one record per facility per bed type per year. We made the following changes in cleaning the data:

- Many variable names had changed over time, and important variables were located in different positions in different years. We constructed a uniform set of variable names.
- Facility open and close dates were in different formats in some years, and the default end date, used for facilities that had not closed, changed over time. We put the dates into a uniform format and determined a closure date for each facility that had closed, based on the earliest reported closure date for that facility with that operator, over all snapshot years.
- DOH generally maintained records for closed facilities in the HFIS data snapshots, along with their numbers of beds immediately prior to closure. We created an indicator for whether a facility was open or closed in a given snapshot year, which was set to true if the closure date determined above was before the date on which the snapshot was taken.
- The county codes in the snapshots used coding schemes that differed from year to year, and codes were missing in some years. We looked across years for each facility and obtained the FIPS (Federal Information Processing Standards) county code and put each facility's FIPS county code on the file in all years.

- The facility-type coding structure changed in 2013 to use a more-collapsed coding system with fewer facility types. We constructed a crosswalk between the 2013-plus coding system and the earlier system, and used the newer coding system for all years.

We made these changes and combined the snapshots into a single HFIS-based data file with uniform closure dates and FIPS county codes for each facility for each year, with a record for each bed type. This file allowed us to track changes over time in certified beds in individual open facilities, and for facilities grouped by facility type, county, and region of the state.

### **How We Defined Facilities Affected by F-SHRP**

As noted in the body of the report, facilities were affected by F-SHRP in two main ways: by recommendations from the Berger Commission and by HEAL-NY grants, with many facilities affected by both.

Although DOH had systems with information it used for implementation and oversight of the grant program, it did not have tracking systems with facility identifiers for the Berger Commission recommendations or with facility identifiers for HEAL-NY grant recipients, so we constructed our own crosswalks for affected facilities: a file for Berger Commission recommendations, and a file for HEAL-NY recipients.

For the Berger Commission file, we included a record for each facility that was identified in the original recommendations or in the implementation report.<sup>253</sup> We coded each facility with a permanent facility identifier (PFI) and with an operating certificate number for the facility operator. This was a labor-intensive task that involved searching on name or address using multiple sources, including our HFIS data file and several DOH online sources such as <http://nursinghomes.nyhealth.gov/> and <http://profiles.health.ny.gov/hospital>. We believe we were very successful in obtaining the correct PFIs and operating certificate numbers in all — or almost all — cases, but it is not possible to be certain that our linkage was always correct. Because the PFI does not change over time while the operating certificate can, for most tasks in which we merged these files against other data files, we used the PFI as the linkage variable.

We coded the intended result of the Commission recommendations and of the DOH implementation with indicator variables for closure, downsizing, expansion, conversion, or merger. These variables were not mutually exclusive: a downsizing or closure could be accompanied by a conversion or be associated with a merger, for example. We coded these variables based on the discussion of recommendations and implementation in the two reports. Conversions were the most difficult to identify. (See *Goal 1: Acute Care Restructuring* for details on how we coded conversions.)

For the HEAL-NY file, we included a record for each grant recipient. Our data were from a spreadsheet file provided to us by DOH.<sup>254</sup> Wherever possible, we associated a PFI and operating certificate number with a grant recipient. This task was more complicated and difficult than it was for the Commission recommendations, for three reasons. (1) HEAL-NY grants often were

provided to entities that do not operate health care facilities, such as Regional Health Information Exchange Organizations (RHIOs), and thus some simply could not be associated with specific facilities or facility operators; (2) grants sometimes were provided to health networks that operated multiple facilities, and thus could not be linked to a single facility (in these cases we tried to code all the facilities that were affected based on the description provided in the file); and (3) there were approximately five times as many HEAL-NY grant recipients as there were facilities affected by the Berger Commission recommendations, and thus the task was much larger. We prioritized our work to focus on capital grants that appeared to be for hospitals or nursing homes, and put our greatest effort there.

We coded the intended major purposes of HEAL-NY grants using the same categories as for the Berger Commission recommendations, plus a category for debt reduction, which was an explicit purpose of some HEAL-NY phases. As with the Berger Commission recommendations, these codes were not mutually exclusive. We did not have original source documents for most grants and so we based our coding primarily on a brief text description provided for each grant, of roughly a paragraph in length, plus DOH's own coding of the major award type for the grant. Because we had relatively little information available on the intended purpose of each grant, our coding of intended grant purposes is considerably less reliable than our coding of purposes for the Berger Commission recommendations.

The coding for the type of purposes (closure, downsizing, etc.) both for Berger Commission recommendations and for HEAL-NY grant activity was based on the *intended* result of the activity. For some purposes of this evaluation report, we wanted to identify *actual* results, regardless of what was intended, and regardless of whether they may have been caused by F-SHRP activity or other factors. We used information from HFIS to determine actual results in the case of closures, downsizings, and expansions. DOH does not have comprehensive data sources that allow determination of actual results in the case of conversions and mergers.

Some institutions or facilities received more than one HEAL-NY grant. For some purposes, such as identifying institutions or facilities that were affected by HEAL-NY grants, we needed a single record per institution or facility. In those cases, we "collapsed" the file to one record per institution or facility, aggregating contract amounts as appropriate.

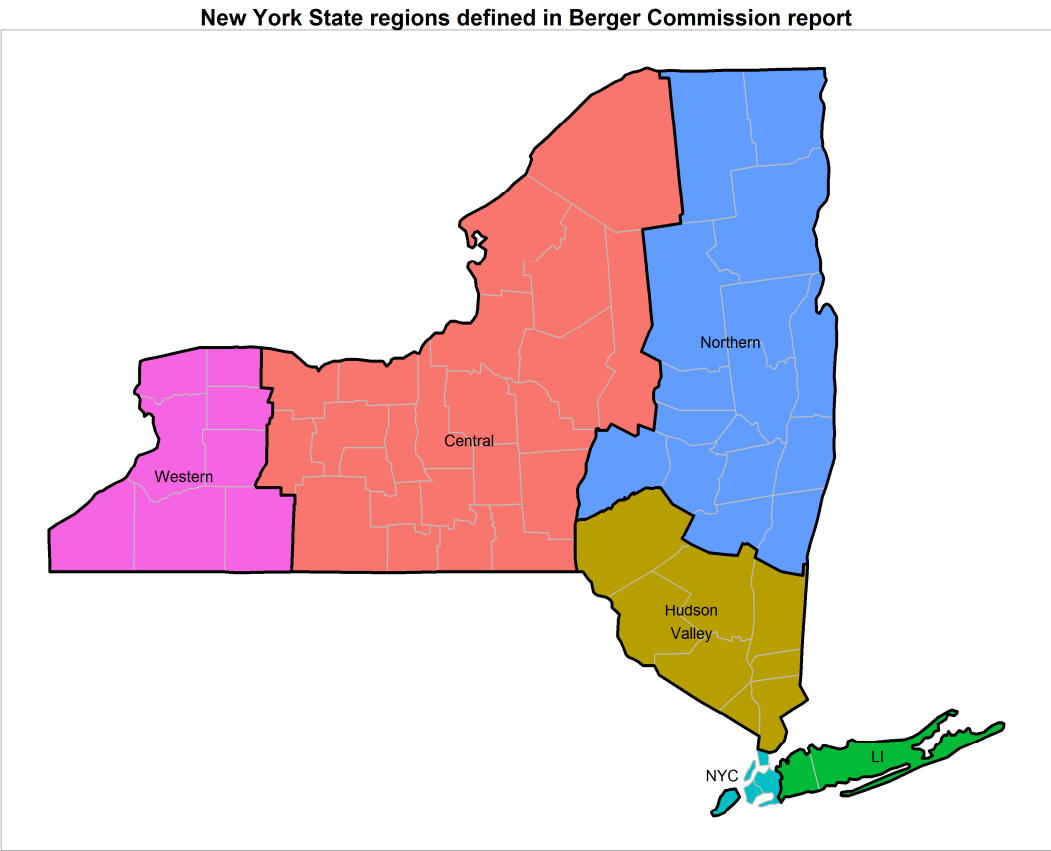
## Appendix B: Regions of New York As Defined for This Report

In this report we divide New York into regions as defined in the Berger Commission report. *Table 61* lists the counties in each region, and *Figure 85* shows the regions on a map.

*Table 61. Definition of Regions in the Berger Commission Report*

<b>Counties by Region</b>	
<b>Central Region</b>	<b>Long Island</b>
Broome	Nassau
Cayuga	Suffolk
Chemung	
Chenango	<b>New York City</b>
Cortland	
Herkimer	<b>Northern Region</b>
Jefferson	Albany
Lewis	Clinton
Livingston	Columbia
Madison	Essex
Monroe	Franklin
Oneida	Fulton
Onondaga	Greene
Ontario	Hamilton
Oswego	Montgomery
Schuyler	Otsego
Seneca	Rensselaer
St. Lawrence	Saratoga
Steuben	Schenectady
Tioga	Schoharie
Tompkins	Warren
Wayne	Washington
Yates	
	<b>Western Region</b>
<b>Hudson Valley</b>	Allegany
Delaware	Cattaraugus
Dutchess	Chautauqua
Orange	Erie
Putnam	Genesee
Rockland	Niagara
Sullivan	Orleans
Ulster	Wyoming
Westchester	

Figure B1. Berger Commission Regions





## Appendix C: Goal 5 Tables

*Table C1 Number of MLTC Enrollees*

Area	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
NYC	11,906	13,660	17,043	21,815	26,367	29,655	33,612	41,641	64,271	118,724
Rest of State	2,402	2,530	2,681	2,936	3,086	3,469	3,910	4,335	5,369	12,579
Statewide	14,308	16,190	19,724	24,751	29,453	33,124	37,522	45,976	69,640	131,303

*Table C2 — Percent Change by Year in MLTC Enrollees*

Area	2005	2006	2007	2008	2009	2010	2011	2012	2013
NYC	14.7%	24.8%	28.0%	20.9%	12.5%	13.3%	23.9%	54.3%	84.7%
Rest of State	5.3%	6.0%	9.5%	5.1%	12.4%	12.7%	10.9%	23.9%	134.3%
Statewide	13.2%	21.8%	25.5%	19.0%	12.5%	13.3%	22.5%	51.5%	88.5%

*Table C3 Number of MLTC Enrollees by Region*

Region	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Central	1,111	1,150	1,194	1,187	1,148	1,181	1,254	1,311	1,374	1,892
Hudson Valley	416	426	462	573	671	828	927	1,057	1,386	3,580
Long Island	647	701	778	901	927	1,004	1,134	1,247	1,696	5,948
North East	104	100	88	98	172	260	340	403	475	531
Western	124	153	159	177	168	196	255	317	438	628

*Table C4 Percent Change by Year in MLTC Enrollees by Region*

Region	2005	2006	2007	2008	2009	2010	2011	2012	2013
Central	4%	4%	-1%	-3%	3%	6%	5%	5%	38%
Hudson Valley	2%	8%	24%	17%	23%	12%	14%	31%	158%
Long Island	8%	11%	16%	3%	8%	13%	10%	36%	251%
North East	-4%	-12%	11%	76%	51%	31%	19%	18%	12%
Western	23%	4%	11%	-5%	17%	30%	24%	38%	43%

Table C5. Number of MLTC Enrollees by County

County	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Albany		2	2	3	23	65	91	116	135	152
Allegany								7	10	13
Broome										10
Cattaraugus						25	49	78	91	102
Cayuga										2
Chautauqua						1	1	1		3
Chenango										2
Columbia							5	7	7	8
Cortland										2
Delaware										1
Dutchess							8	9	28	99
Erie	124	153	159	177	168	170	205	231	280	411
Essex										1
Fulton				1						10
Greene							2	2	1	1
Herkimer	24	34	33	31	33	50	58	63	62	69
Lewis	1	1								
Livingston	1	1								
Madison			1							
Monroe	382	384	382	344	323	314	320	343	404	662
Montgomery								6	11	15
Nassau	647	701	710	688	685	607	608	629	893	3,371
Niagara									57	99
New York City	11,906	13,660	17,043	21,815	26,367	29,655	33,612	41,641	64,271	118,724
Oneida	392	411	431	444	409	413	434	428	416	456
Onondaga	305	313	343	365	381	404	441	476	491	678
Ontario		1								
Orange	228	229	246	285	307	355	372	430	470	575
Oswego	6	5	4	3	2		1	1	1	8
Putnam										38
Rensselaer					14	47	65	59	77	73
Rockland	33	32	49	94	136	186	237	286	375	663
Saratoga					2	4	8	11	18	15
Schenectady	104	98	86	93	132	143	168	191	211	240
Schoharie				1	1	1				
Steuben										1
Suffolk			68	213	242	397	526	618	803	2,577
Sullivan									1	4
Tompkins										2

County	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Ulster					19	67	78	70	65	83
Warren							1	5	6	6
Washington								6	9	10
Westchester	155	165	167	194	209	220	232	262	447	2,117

*Table C6. Percent Change by Year in MLTC Enrollees by County*

County	2005	2006	2007	2008	2009	2010	2011	2012	2013
Albany		0%	50%	666%	183%	40%	27%	17%	13%
Allegany								42%	29%
Broome									
Cattaraugus						97%	59%	17%	13%
Cayuga									
Chautauqua						0%	0%		200%
Chenango									
Columbia							40%	0%	15%
Cortland									
Delaware									
Dutchess							13%	212%	254%
Erie	23%	4%	11%	-4%	2%	21%	13%	21%	46%
Essex									
Fulton									901%
Greene							0%	-50%	0%
Herkimer	42%	-2%	-6%	6%	53%	17%	8%	-2%	11%
Lewis	0%								
Livingston	0%								
Madison									
Monroe	0%	0%	-11%	-6%	-2%	2%	6%	17%	63%
Montgomery								84%	36%
Nassau	8%	2%	-2%	0%	-11%	0%	4%	42%	277%
Niagara									74%
New York City	15%	25%	27%	21%	13%	13%	23%	55%	84%
Oneida	4%	4%	2%	-8%	0%	4%	-2%	-2%	11%
Onondaga	2%	11%	6%	4%	6%	8%	8%	4%	38%
Ontario									
Orange	0%	8%	17%	8%	15%	4%	15%	8%	23%
Oswego	-17%	-21%	-25%	-34%		-50%	0%	0%	699%
Putnam									
Rensselaer					235%	38%	-8%	32%	-4%
Rockland	-2%	53%	92%	44%	38%	27%	21%	32%	78%
Saratoga					101%	101%	38%	63%	-17%

<b>County</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Schenectady	-6%	-13%	8%	42%	8%	17%	15%	11%	15%
Schoharie				0%	0%				
Steuben	13%	21%	25%	19%	13%	13%	23%	53%	88%
Suffolk									
Sullivan			214%	13%	63%	32%	17%	29%	221%
Tompkins									300%
Ulster									
Warren					252%	17%	-11%	-6%	27%
Washington							399%	21%	0%
Westchester								50%	11%

*Table C7 Number and Percent Change of Plans*

	<b>Jul-07</b>	<b>Jul-08</b>	<b>Jul-09</b>	<b>Jul-10</b>	<b>Jul-11</b>	<b>Jul-12</b>	<b>Jul-13</b>
Nplans	17	19	22	27	29	31	42
% Change		12%	16%	23%	7%	7%	35%

*Table C8 Number of Enrollees and Plans in MLTC*

	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Enrollees	24,751	29,453	33,124	37,522	45,976	69,640	131,303
Plans	17	19	22	27	29	31	42

*Table C9 Percent Change of Enrollees and Plans*

	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Enrollees		19%	12%	13%	23%	51%	89%
Plans		12%	16%	23%	7%	7%	35%

## GOAL 5.2

*Table C10 Demographic Composition of Managed LTC Beneficiaries*

	Jan-07	Jul-07	Jan-08	Jul-08	Jan-09	Jul-09	Jan-10	Jul-10	Jan-11	Jul-11	Jan-12	Jul-12	Jan-13	Jul-13
Mean Age	75.444	76.438	76.040	76.278	76.368	76.486	76.601	76.604	76.602	76.716	76.655	76.487	76.485	76.499
<b>Age Group (%)</b>														
Age < 21	0.100	0.100	0.098	0.098	0.098	0.099	0.004	0.007	0.004	0.085	0.001	0.001	0.000	0.000
Age 21-54	7.562	6.665	7.012	6.641	6.627	6.468	6.479	6.419	6.382	6.185	6.229	6.282	6.187	6.336
Age 55-64	7.291	6.803	7.808	7.625	7.694	7.741	7.612	7.757	8.007	8.115	8.270	8.420	8.676	9.000
Age 65-74	22.983	22.396	22.588	22.538	22.366	22.316	22.027	21.989	21.763	21.510	21.591	22.026	22.289	21.713
Age 75-84	36.767	37.202	36.406	36.690	36.321	36.105	36.168	36.198	36.123	36.022	35.913	35.647	35.107	34.393
Age 85+	25.283	26.828	26.110	26.418	26.915	27.282	27.666	27.580	27.683	28.092	27.954	27.567	27.702	28.477
<b>Race (%)</b>														
White	33.905	30.449	30.209	28.309	27.432	27.036	28.190	27.708	26.908	26.389	26.227	26.547	26.724	30.446
Black	21.549	20.720	20.815	20.488	20.135	20.462	22.245	22.200	22.102	21.289	19.725	18.615	17.890	18.024
Hispanic	28.430	27.711	28.201	28.844	29.126	29.907	32.092	32.155	32.328	31.280	28.550	26.657	26.283	25.703
Other	11.523	11.019	11.335	11.858	13.066	13.662	17.120	17.598	18.344	20.771	25.254	27.888	28.819	25.521
Female (%)	74.219	73.928	73.418	73.616	73.682	73.670	73.497	73.244	72.830	72.615	71.580	70.693	70.411	70.599
<b>Language (%)</b>														
English	44.135	42.653	42.241	41.801	41.880	41.548	41.476	42.006	41.611	41.054	40.812	39.778	38.817	38.461
Spanish	26.930	27.040	27.429	28.244	28.702	28.914	28.707	28.641	28.705	28.082	25.764	24.596	24.021	23.209
Chinese	8.695	9.336	9.628	9.902	10.325	10.966	9.906	10.059	11.288	12.721	14.298	14.209	15.269	13.241
Russian	14.077	12.469	14.159	13.372	12.356	11.657	11.015	10.475	9.866	9.791	11.199	12.126	12.913	16.205
Other	6.171	6.506	6.531	6.693	6.733	6.896	8.908	8.801	8.521	8.372	7.898	9.279	8.982	8.882
<b>High Risk Factors (%)*</b>														
Smoking **	4.157	3.960			4.796	4.644	4.805	4.789	4.609	4.294	4.514	4.806	4.616	4.692
Underweight					2.497	2.553	2.810	2.794	3.018	2.892	2.912	2.603	2.534	2.376
Overweight					13.581	14.564	15.101	15.764	16.120	17.038	17.519	17.708	17.919	18.071
Obesity	13.040	11.966			10.897	10.169	10.587	10.801	12.128	12.280	12.321	12.626	12.635	12.928
Alcohol	0.649	0.579			0.814	0.718	0.791	0.691	0.572	0.399	0.313	0.393	0.395	0.490
Drug	0.303	0.211			0.393	0.308	0.308	0.309	0.310	0.300	0.220	0.200	0.201	0.214
None	79.547	75.202			66.809	66.866	65.578	65.368	63.796	63.139	62.416	61.818	61.863	60.882

<b>Payment Source (%)</b>														
Any Medicare	51.441	45.807	52.336	48.758	49.213	76.879	85.555	84.734	86.320	86.908	87.226	87.221	86.953	86.250
Any Medicaid	97.914	97.920	97.809	98.005	97.934	97.922	99.121	99.385	99.584	99.621	99.681	99.700	99.507	99.692
Any Private	0.217	0.221	0.205	0.274	0.234	0.295	0.378	0.303	0.297	0.283	0.292	0.296	0.196	0.102
Any Self-Pay	0.273	0.306	0.391	0.391	0.388	0.315	0.210	0.195	0.102	0.096	0.095	0.007	0.003	0.001
Any Other			3.375	3.354	2.890	2.814	2.574	2.313	2.166	2.002	1.612	1.383	1.318	1.078
<b>Location (%)</b>														
Community	95.857	90.532	91.764	91.215	97.457	97.735	97.389	97.594	97.609	97.407	97.804	98.266	98.585	98.724
Nursing Home	4.135	3.740	3.209	2.888	2.525	2.247	2.611	2.402	2.391	2.593	2.187	1.725	1.410	1.269
Hospital	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Living Situation (%)</b>														
Alone	43.792	43.004	43.892	43.118	42.755	40.823	40.474	38.965	38.428	38.880	41.684	41.591	42.775	44.119
With Family/Friend	52.500	52.911	53.959	54.434	53.469	50.923	51.713	50.922	51.385	52.219	54.796	54.121	52.909	51.781
With Other	2.177	2.515	2.385	2.601	3.891	3.973	4.037	4.081	3.698	3.929	3.515	4.285	4.308	4.096
<b>Top Diagnoses (%)***</b>														
Osteoarthritis	25.386	34.648	35.171	12.310	12.603	15.543	18.105	20.831	23.082	24.252	24.453	24.688	26.253	25.990
Senile/Organic Mental Disorder	16.205	15.813	15.382	7.794	8.117	8.582	8.570	8.821	8.966	9.363	9.644	9.083	8.985	8.442
Other Joint Disorder	18.846	10.005	10.378	2.689	2.873	3.140	3.729	4.704	5.113	5.443	5.300	5.395	5.917	6.343
Diabetes Without Complication	25.013	27.604	28.939	9.123	9.058	9.103	8.476	7.920	7.011	6.609	6.591	5.787	4.520	4.522
Late Effect Cardiovascular Disease	13.408	5.919	6.002	2.295	2.339	2.687	2.692	2.912	3.205	3.388	3.488	3.622	3.705	3.592
Diabetes With Complication	12.702	8.425	7.281	3.211	3.003	3.081	2.814	2.618	2.436	2.223	2.246	2.519	3.204	3.208
Osteoporosis	12.030	11.642	12.896	1.787	1.924	2.133	2.281	2.516	2.820	2.806	2.722	2.704	3.122	2.990
Coronary Atherosclerosis	14.519	20.882	22.057	4.206	4.055	3.993	3.617	3.385	3.012	3.006	3.473	3.703	2.803	2.793
Other Nerve Disorder	11.395	8.698	8.789	1.348	1.563	1.610	1.685	1.940	1.911	2.211	2.424	2.384	2.407	2.421
CHF	9.987	10.111	9.589	3.210	3.217	3.409	3.411	3.307	3.099	2.890	2.777	2.591	2.306	2.326
Rheumatoid Arthritis				1.517	1.164	1.554	1.704	1.718	1.801	1.808	1.717	1.637	1.767	1.917
Back Problem	5.674	5.476	6.133	1.618	1.699	1.839	1.808	1.987	2.055	2.205	2.119	2.099	2.121	1.908
Hypertension	72.137	70.376	71.042	13.281	12.869	11.740	7.270	2.394	1.514	1.323	1.422	1.378	1.619	1.907
COPD	12.041	7.534	7.074	2.367	2.426	2.454	2.227	2.123	2.014	1.998	2.060	1.850	1.693	1.610
Parkinson's Disease				1.716	1.715	1.821	1.798	1.796	1.618	1.606	1.613	1.634	1.675	1.603

Schizophrenia/Related Disorder						0.357	0.421	0.521	0.463	0.513	1.101	1.612	1.517	1.490
Paralysis	4.638	3.908	4.198	0.934	0.968	1.008	0.970	1.411	1.322	1.436	1.396	1.431	1.315	1.299
Acute Cardiovascular Disease	19.567	6.417	6.344	2.880	2.803	2.990	2.830	2.304	2.200	2.020	1.820	1.587	1.316	1.187
Asthma	12.106	9.011	9.620	1.557	1.495	1.539	1.405	1.331	1.207	1.130	1.146	1.130	1.102	1.116
Blindness	19.551	7.604	7.831	1.595	1.535	1.559	1.554	1.489	1.389	1.506	1.348	1.226	1.129	1.083

\* Bad data in overweight, obesity, alcohol and drug percent for 2008.

\*\* High risk factor item option in 2007 was heavy smoking instead of smoking.

\*\*\*Jan-2007 disease data unreliable; 2010 change in definition of top diagnoses from percent of primary diagnosis to percent of primary and secondary diagnoses; hypertension was not allowed to be reported as a primary diagnosis.

Note: Percentages may not add to 100 for each time point due to missing data in some time periods.

Table C11

	Jan-07	Jul-07	Jan-08	Jul-08	Jan-09	Jul-09	Jan-10	Jul-10	Jan-11	Jul-11	Jan-12	Jul-12	Jan-13	Jul-13
<b>ADL % Totally Independent</b>														
Ambulation*			3.92	3.56	3.16	3.02	2.79	2.81	2.80	2.48	3.39	4.08	5.21	6.30
Bathing	2.32	2.60	2.05	1.91	1.77	1.87	1.62	1.41	1.32	1.20	1.11	1.11	2.02	2.83
Dress-Lower	8.44	8.45	7.82	7.71	7.50	7.75	7.17	6.48	5.83	5.60	5.04	4.93	6.32	7.71
Dress-Upper	15.06	14.51	14.47	14.65	14.65	15.10	14.72	12.70	11.33	10.93	10.60	10.22	11.63	12.80
Feeding/Eating	20.54	18.96	22.11	26.94	31.49	33.02	34.29	31.23	28.55	32.58	37.77	38.52	38.01	36.38
Grooming	25.87	23.84	25.34	27.46	28.40	28.49	28.62	26.37	24.14	22.56	21.70	20.30	21.42	22.58
Toileting	54.94	51.36	57.01	58.91	60.53	60.52	60.62	59.51	58.06	57.31	55.89	54.85	53.25	52.75
Transferring*			23.07	21.27	21.04	19.62	18.74	17.95	16.08	14.91	16.02	17.18	15.84	16.11
<b>IADL % Totally Independent</b>														
Housekeeping	0.55	0.60	0.50	0.52	0.43	0.41	0.41	0.41	0.41	0.40	0.31	0.30	0.40	0.59
Laundry	1.09	0.95	0.81	0.90	0.86	0.81	0.79	0.77	0.70	0.60	0.70	0.61	0.81	1.07
Meal Prep	14.37	13.98	14.94	14.91	15.01	14.03	13.38	12.52	11.32	11.34	10.57	10.26	10.66	11.61
Shopping	0.81	0.77	0.80	0.61	0.58	0.67	0.59	0.48	0.51	0.61	0.62	0.53	0.90	1.18
Telephone	56.48	52.75	58.70	60.48	60.59	60.92	61.03	61.01	61.69	61.24	60.33	59.92	60.53	61.22
Transportation	2.32	2.11	2.30	2.01	1.89	1.79	2.22	2.10	1.77	1.58	1.58	1.70	1.89	2.21
<b>ADL % Human Assistance Needed</b>														
Ambulation*			69.92	76.95	80.23	83.17	84.58	85.73	85.81	86.64	84.97	84.05	81.06	77.87
Bathing	91.86	90.50	91.94	91.83	92.23	92.02	92.44	92.47	92.18	92.31	92.86	92.75	89.86	87.99
Dress-Lower	75.09	75.19	75.87	76.64	75.98	76.37	77.61	78.11	78.12	77.98	78.45	78.66	76.64	75.21
Dress-Upper	49.80	50.37	51.86	52.65	51.74	52.54	53.90	55.65	56.43	57.87	58.53	58.74	57.98	58.28
Feeding/Eating**	79.32	79.72	77.90	73.05	68.52	66.98	65.69	68.77	71.45	67.42	62.24	61.49	61.98	63.62
Grooming	39.36	39.84	40.42	38.80	37.82	37.14	38.31	39.06	39.16	40.43	40.89	42.32	43.15	44.09
Toileting**	45.04	45.51	42.97	41.05	39.45	39.48	39.36	40.45	41.91	42.69	44.06	45.15	46.75	47.24
Transferring*			34.77	38.85	38.22	39.17	39.26	42.01	44.38	44.43	42.91	40.60	46.19	46.70
<b>IADL % Human Assistance Needed</b>														
Housekeeping***	88.77	88.69	88.40	88.86	89.36	89.81	89.86	90.89	92.00	91.87	92.16	92.45	92.18	91.59



	Jan-07	Jul-07	Jan-08	Jul-08	Jan-09	Jul-09	Jan-10	Jul-10	Jan-11	Jul-11	Jan-12	Jul-12	Jan-13	Jul-13
Laundry	98.86	98.94	99.19	99.09	99.14	99.18	99.21	99.23	99.30	99.40	99.30	99.39	99.18	98.93
Meal Prep	85.03	84.56	85.04	85.06	84.98	85.95	86.61	87.46	88.66	88.65	89.42	89.73	89.32	88.38
Shopping	99.15	99.15	99.20	99.39	99.42	99.33	99.41	99.52	99.49	99.39	99.38	99.47	99.10	98.81
Telephone***	30.82	30.81	28.39	27.51	27.58	27.58	28.02	27.96	27.82	28.43	29.57	30.22	29.58	29.05
Transportation	97.59	97.68	97.70	97.99	98.10	98.21	97.78	97.90	98.23	98.42	98.42	98.30	98.11	97.79
<b>ADL (Scaled 0-4)</b>														
Ambulation*			1.40	1.46	1.47	1.47	1.48	1.52	1.52	1.53	1.53	1.52	1.47	1.47
Bathing	2.00	2.00	1.99	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.00	2.00	2.00
Dress-Lower	2.51	2.50	2.52	2.52	2.52	2.52	2.53	2.53	2.53	2.53	2.54	2.53	2.53	2.53
Dress-Upper	1.98	1.99	1.99	2.00	2.00	2.00	2.00	2.03	2.13	2.13	2.13	2.13	2.13	2.13
Feeding/Eating	0.71	0.72	0.71	0.64	0.63	0.63	0.57	0.64	0.64	0.63	0.56	0.56	0.56	0.56
Grooming	1.63	1.71	1.72	1.60	1.60	1.59	1.60	1.60	1.63	1.73	1.73	1.73	1.74	1.74
Toileting	0.90	0.90	0.81	0.80	0.79	0.72	0.70	0.70	0.71	0.79	0.80	0.80	0.80	0.80
Transferring*			0.89	0.94	0.93	0.93	0.93	0.95	1.00	1.00	1.00	0.99	1.01	1.06
<b>IADL (Scaled 0-4)</b>														
Telephone	0.80	0.80	0.80	0.79	0.79	0.77	0.79	0.80	0.73	0.80	0.80	0.87	0.80	0.80
Shopping	2.80	2.84	2.81	2.91	2.82	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.79	2.80
Housekeeping	3.43	3.42	3.40	3.41	3.48	3.49	3.49	3.50	3.50	3.49	3.49	3.50	3.49	3.49
Laundry	3.74	3.70	3.62	3.71	3.77	3.77	3.79	3.80	3.80	3.80	3.80	3.80	3.79	3.61
Transportation	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Meal Prep	2.58	2.58	2.58	2.59	2.59	2.60	2.61	2.78	2.79	2.79	2.79	2.80	2.80	2.80
<b>Urinary Incontinence %</b>														
Not Incontinent	37.17	33.73	34.96	32.78	32.32	30.88	29.21	28.22	27.63	25.74	25.58	24.63	24.81	25.03
Urinary Incontinence	60.70	58.52	62.91	65.09	65.61	67.10	68.81	69.87	70.57	72.45	72.69	73.79	73.69	73.48
Catheter Present	2.12	1.99	2.12	2.11	2.05	2.01	1.97	1.90	1.79	1.80	1.74	1.60	1.50	1.50
<b>Urinary Incontinence Frequency %</b>														
Incontinent 1 Time/Week or Less			2.97	11.60	10.74	9.27	7.91	7.19	9.46	8.88	8.49	8.20	8.61	8.00
Incontinent More Than 1			39.67	74.16	75.03	76.87	78.99	82.91	83.41	85.00	85.91	86.99	86.84	87.14

	Jan-07	Jul-07	Jan-08	Jul-08	Jan-09	Jul-09	Jan-10	Jul-10	Jan-11	Jul-11	Jan-12	Jul-12	Jan-13	Jul-13
Time/Week														
<b>Bowel Incontinence Frequency %</b>														
Never	82.01	77.37	82.44	82.73	82.48	82.54	81.88	80.84	80.68	80.28	79.71	79.89	78.91	78.28
< Weekly	4.97	4.62	4.81	4.50	5.13	5.01	5.47	6.29	6.40	6.45	6.50	6.11	6.38	6.58
1-3 Times/Week	4.13	3.94	4.63	4.84	4.70	4.83	4.66	4.83	5.13	4.90	5.08	5.21	5.51	5.51
4-6 Times/Week	2.16	2.04	2.23	2.10	2.20	2.01	1.91	1.87	1.89	2.08	2.18	2.12	2.10	2.28
Daily	5.27	4.78	4.39	4.28	3.96	3.90	4.21	4.36	4.19	4.52	4.91	4.90	5.10	5.38
More Often than Daily	0.66	0.79	0.88	0.90	0.89	1.01	1.19	1.19	1.11	1.19	1.00	1.11	1.31	1.41
Ostomy	0.20	0.11	0.51	0.60	0.61	0.60	0.60	0.60	0.51	0.60	0.59	0.50	0.51	0.50
<b>Cognitive Function %</b>														
Alert	51.90	48.02	47.69	45.65	45.40	43.92	42.79	40.66	40.50	40.27	40.41	40.41	42.09	40.24
Prompting	30.11	29.11	32.86	35.83	41.32	43.39	43.61	39.92	39.49	39.46	38.52	39.01	38.10	40.09
Assistance	12.34	11.65	13.28	12.55	8.82	8.52	8.97	13.21	13.52	13.58	14.39	14.08	13.49	13.11
Not Oriented	4.07	4.01	4.58	4.50	3.28	3.01	3.39	4.49	4.86	5.17	5.22	4.99	4.88	4.98
Delirium	1.59	1.46	1.60	1.50	1.18	1.11	1.28	1.71	1.61	1.52	1.43	1.51	1.48	1.59
<b>Confusion %</b>														
Not Confused	46.65	42.86	42.42	40.98	41.50	40.57	39.38	38.20	38.11	38.55	37.58	37.27	37.00	34.38
In New Situations	37.53	36.31	41.02	42.59	42.18	43.05	44.01	44.74	44.17	43.41	43.57	43.97	44.17	46.56
On Waking/Night	1.61	1.78	1.91	1.98	1.99	1.98	1.92	1.90	2.22	2.38	2.33	2.49	2.80	2.99
Day and Evening	9.88	9.37	10.34	10.26	10.24	10.23	10.18	10.51	10.76	10.88	11.73	11.48	11.13	11.00
Constantly	4.02	3.57	3.99	3.82	3.79	3.87	4.12	4.40	4.49	4.51	4.49	4.56	4.60	4.78
<b>Anxious %</b>														
Not Anxious	54.05	51.55	48.52	47.11	45.71	46.20	45.36	43.05	40.91	39.82	39.80	38.39	38.08	37.47
Anxious < Daily	33.07	31.26	36.85	36.34	37.09	37.24	37.20	37.66	37.87	38.15	37.72	38.97	38.57	39.38
Anxious Daily, Not Constantly	11.67	10.09	13.19	14.67	15.37	14.78	15.29	17.03	18.71	19.62	19.98	20.32	20.91	20.58
Anxious Constantly	0.82	0.82	1.05	1.47	1.43	1.40	1.78	1.95	2.29	2.00	2.02	1.92	2.02	2.12
<b>Frequency of Pain %</b>														
No Pain	27.20	24.93	23.89	23.91	23.45	22.74	22.28	22.43	22.01	20.86	20.10	19.41	19.46	18.62
Less than Daily	31.93	28.98	28.80	28.87	28.64	28.34	28.38	28.48	27.52	29.06	27.71	27.55	26.39	25.71

	Jan-07	Jul-07	Jan-08	Jul-08	Jan-09	Jul-09	Jan-10	Jul-10	Jan-11	Jul-11	Jan-12	Jul-12	Jan-13	Jul-13
Daily	36.59	36.35	42.56	42.03	43.16	43.80	44.46	43.80	44.39	45.18	47.32	48.40	48.91	49.80
All the Time	4.29	4.01	4.75	5.18	4.75	5.11	4.90	5.31	6.08	4.91	4.86	4.62	5.25	5.82
<b>Depressive Feelings %</b>														
Depressed Mood	28.25	25.09	25.95	30.42	29.77	27.83	27.17	27.99	27.01	24.86	23.41	22.72	23.44	25.11
Sense of Failure	0.79	0.89	0.81	0.88	0.89	0.71	0.78	0.80	0.88	0.66	0.59	0.67	0.71	1.08
Hopelessness	1.74	1.69	1.70	2.39	2.18	2.09	2.00	1.99	2.19	1.62	1.58	1.53	1.71	2.22
Thoughts of Death	0.19	0.21	0.25	0.29	0.30	0.20	0.22	0.20	0.20	0.20	0.20	0.19	0.20	0.29
Thoughts of Suicide	0.11	0.11	0.11	0.20	0.20	0.20	0.10	0.10	0.12	0.10	0.11	0.12	0.11	0.11
No Depressed Feelings	71.30	68.71	73.21	68.76	69.52	71.38	72.17	71.30	72.39	74.42	75.89	76.65	75.86	74.02

\* Ambulation and Transferring item changed in 2008.

\*\*Feeding and Toileting ADL Items are calculated as sum of percent of responses 1 or greater over sum of percent of all responses while all others are sum of percent of responses two or greater over sum of percent of all responses.

\*\*\*Housekeeping and Telephone IADL Items are calculated as sum of percent of responses two or greater over sum of percent of all responses while all others are sum of percent of responses one or greater over sum of percent of all responses.

Table C12 SAAM Index by Plan

Plan	Jan-08	Jul-08	Jan-09	Jul-09	Jan-10	Jul-10	Jan-11	Jul-11	Jan-12	Jul-12	Jan-13	Jul-13
State Mean	15.9	15.6	15.7	15.7	15.8	16.2	16.5	16.5	16.4	16.4	16.4	16.5
Aetna Better Health											18.4	17.3
AgeWell New York											11.0	13.8
AmeriGroup	11.3	9.4	11.1	13.1	13.8	14.1	13.7	14.8	15.8	17.4	17.1	17.5
AmeriGroup Map						14.3	13.4	17.4	17.4	17.3	19.2	20.8
Archcare Community Life											14.4	18.1
ArchCare Senior Life					12.0	15.2	15.0	15.2	15.4	16.3	16.4	17.6
Catholic Health Life					9.5	11.6	12.0	11.7	13.6	13.6	13.6	14.2
CCM Select	12.3	14.3	14.3	13.9	14.6	16.6	16.1	15.9	16.5	15.6	14.5	14.6
Centers Plan for Health Living												9.7
Complete Senior Care									12.8	13.4	14.3	14.5
Comprehensive Care Management	9.4	14.2	14.6	15.2	15.7	16.2	16.1	16.1	16.0	16.0	16.0	15.8
CO-OP Care Plan	13.5	12.9	13.7	14.1	14.0	14.3	14.1	14.1	14.0	14.4	14.7	14.7
Eddy Senior Care	24.0	17.8	18.2	18.4	20.5	19.6	18.8	18.8	19.0	18.5	16.7	17.4
Elant Choice		16.1	15.8	17.0	17.3	17.5	18.2	17.0	16.4	17.3	15.0	14.4
Elderplan dba Homefirst							16.6	17.0	16.7	16.1	16.8	17.4
Elderplan Map						13.8	16.3	17.0	17.0	16.5	17.5	18.7
Elderserve							13.0	13.3	14.5	16.2	16.9	17.5
Fidelis Medicaid Advantage Plus					13.3	13.7	13.9	13.7	14.8	15.4	13.0	13.7
GuildNet	17.5	17.2	16.4	16.2	15.9	17.2	18.1	18.6	19.0	19.2	19.3	19.4
GuildNet Gold		17.4	13.2	14.2	13.3	14.0	15.1	15.8	16.4	16.9	16.8	18.1
Health Insurance Plan							11.7	12.8	13.5	14.3	13.6	15.2
Healthfirst Complete Care											15.2	15.5
HHH Choices Gold												13.0
HIP MLTC										20.0	18.1	17.4
HomeFirst, Inc.	13.9	14.5	14.7	16.0	16.5	16.3	16.6					
Independence Care System	14.2	15.7	15.5	15.8	16.1	16.0	16.7	16.8	16.9	17.4	19.2	19.7
Independent Living for Seniors	19.0	18.4	18.1	18.2	18.6	17.7	18.8	17.7	18.1	17.0	17.1	17.0
Metroplus												14.6
PACE CNY	15.9	15.2	15.6	15.0	15.1	15.4	15.7	15.7	15.7	16.5	16.2	16.3
Partners in Community Care	14.1	14.0	13.6	13.7	13.1	13.9	13.8	14.4	14.2	15.0	17.0	17.7
Senior Health Partners, Inc.	14.2	14.0	14.5	14.2	14.6	16.2	16.6	16.7	17.0	16.9	16.8	16.3

<b>Plan</b>	<b>Jan-08</b>	<b>Jul-08</b>	<b>Jan-09</b>	<b>Jul-09</b>	<b>Jan-10</b>	<b>Jul-10</b>	<b>Jan-11</b>	<b>Jul-11</b>	<b>Jan-12</b>	<b>Jul-12</b>	<b>Jan-13</b>	<b>Jul-13</b>
Senior Network Health, LLC	13.9	14.0	13.9	13.4	13.5	13.1	13.9	14.8	14.8	14.7	14.5	13.5
Senior Whole Health			10.9	10.8	11.0	10.7	11.4	11.7	12.0	12.8	17.7	12.2
Senior Whole Health Partial											20.1	16.0
Total Aging In Place Program, Inc	14.1	13.5	12.5	12	13.1	13.3	12.6	12.9	13.6	13.8	12.9	13.2
Total Senior Care				12.3	11.0	12.3	12.1	13.1	12.8	13.6	14.6	15.3
United Health Personal Assist											11.6	19.0
Village Care MAX											15.5	16.2
VNA Homecare Options												8.6
VNS Choice	16.0	16.0	17.0	16.7	16.7	16.7	16.6	16.6	16.2	16.0	15.5	15.2
VNSChoicePlus			19.7	19.5	18.2	15.1	15.5	15.7	15.2	14.9	16.2	16.8
WellCare	8.6	11.3	10.2	11.7	12.0	11.9	15.0	13.1	12.9	12.9	13.1	13.3
WellCarePlus		13.5	11.0	11.3	12.2	12.3	16.2	16.8	14.9	13.8	15.7	13.0

Table C13 SAAM Index Percent Change

Plan	Jan-08	Jul-08	Jan-09	Jul-09	Jan-10	Jul-10	Jan-11	Jul-11	Jan-12	Jul-12	Jan-13	Jul-13
State Mean		-1.66	0.49	0.17	0.49	2.78	1.54	0.33	-0.60	-0.02	-0.02	0.65
Aetna Better Health												-5.98
AgeWell New York												25.45
AmeriGroup		-16.81	18.09	18.02	5.34	2.17	-2.84	8.03	6.76	10.13	-1.72	2.34
AmeriGroup Map							-6.29	29.85	0.00	-0.57	10.98	8.33
Archcare Community Life												25.69
ArchCare Senior Life						26.67	-1.32	1.33	1.32	5.84	0.61	7.32
Catholic Health Life						22.11	3.45	-2.50	16.24	0.00	0.00	4.41
CCM Select		16.26	0.00	-2.80	5.04	13.70	-3.01	-1.24	3.77	-5.45	-7.05	0.69
Centers Plan for Health Living												
Complete Senior Care										4.69	6.72	1.40
Comprehensive Care Management		51.06	2.82	4.11	3.29	3.18	-0.62	0.00	-0.62	0.00	0.00	-1.25
CO-OP Care Plan		-4.44	6.20	2.92	-0.71	2.14	-1.40	0.00	-0.71	2.86	2.08	0.00
Eddy Senior Care		-25.83	2.25	1.10	11.41	-4.39	-4.08	0.00	1.06	-2.63	-9.73	4.19
Elant Choice			-1.86	7.59	1.76	1.16	4.00	-6.59	-3.53	5.49	-13.29	-4.00
Elderplan dba Homefirst								2.41	-1.76	-3.59	4.35	3.57
Elderplan Map							18.12	4.29	0.00	-2.94	6.06	6.86
Elderserve								2.31	9.02	11.72	4.32	3.55
Fidelis Medicaid Advantage Plus						3.01	1.46	-1.44	8.03	4.05	-15.58	5.38
GuildNet		-1.71	-4.65	-1.22	-1.85	8.18	5.23	2.76	2.15	1.05	0.52	0.52
GuildNet Gold			-24.14	7.58	-6.34	5.26	7.86	4.64	3.80	3.05	-0.59	7.74
Health Insurance Plan								9.40	5.47	5.93	-4.90	11.76
Healthfirst Complete Care												1.97
HHH Choices Gold												
HIP MLTC											-9.50	-3.87
HomeFirst, Inc		4.32	1.38	8.84	3.13	-1.21	1.84					
Independence Care System		10.56	-1.27	1.94	1.90	-0.62	4.38	0.60	0.60	2.96	10.34	2.60
Independent Living for Seniors		-3.16	-1.63	0.55	2.20	-4.84	6.21	-5.85	2.26	-6.08	0.59	-0.58
Metroplus												
PACE CNY		-4.40	2.63	-3.85	0.67	1.99	1.95	0.00	0.00	5.10	-1.82	0.62
Partners in Community Care		-0.71	-2.86	0.74	-4.38	6.11	-0.72	4.35	-1.39	5.63	13.33	4.12
Senior Health Partners, Inc		-1.41	3.57	-2.07	2.82	10.96	2.47	0.60	1.80	-0.59	-0.59	-2.98
Senior Network Health, LLC		0.72	-0.71	-3.60	0.75	-2.96	6.11	6.47	0.00	-0.68	-1.36	-6.90
Senior Whole Health				-0.92	1.85	-2.73	6.54	2.63	2.56	6.67	38.28	-31.07
Senior Whole Health Partial												-20.40
Total Aging In Place Program, Inc		-4.26	-7.41	-4.00	9.17	1.53	-5.26	2.38	5.43	1.47	-6.52	2.33
Total Senior Care					-10.57	11.82	-1.63	8.26	-2.29	6.25	7.35	4.79

Plan	Jan-08	Jul-08	Jan-09	Jul-09	Jan-10	Jul-10	Jan-11	Jul-11	Jan-12	Jul-12	Jan-13	Jul-13
United Health Personal Assist												63.79
Village Care MAX												4.52
VNA Homecare Options												
VNS Choice		0.00	6.25	-1.76	0.00	0.00	-0.60	0.00	-2.41	-1.23	-3.13	-1.94
VNSChoicePlus				-1.02	-6.67	-17.03	2.65	1.29	-3.18	-1.97	8.72	3.70
WellCare		31.40	-9.73	14.71	2.56	-0.83	26.05	-12.67	-1.53	0.00	1.55	1.53
WellCarePlus			-18.52	2.73	7.96	0.82	31.71	3.70	-11.31	-7.38	13.77	-17.20

Table C14 SAAM Index Difference From State Mean

Plan	Jan-08	Jul-08	Jan-09	Jul-09	Jan-10	Jul-10	Jan-11	Jul-11	Jan-12	Jul-12	Jan-13	Jul-13
State Mean	15.86	15.59	15.67	15.70	15.77	16.21	16.46	16.51	16.41	16.41	16.41	16.51
Aetna Better Health											1.99	0.79
AgeWell New York											-5.41	-2.71
AmeriGroup	-4.56	-6.19	-4.57	-2.60	-1.97	-2.11	-2.76	-1.71	-0.61	0.99	0.69	0.99
AmeriGroup Map						-1.91	-3.06	0.89	0.99	0.89	2.79	4.29
Archcare Community Life											-2.01	1.59
ArchCare Senior Life					-3.77	-1.01	-1.46	-1.31	-1.01	-0.11	-0.01	1.09
Catholic Health Life					-6.27	-4.61	-4.46	-4.81	-2.81	-2.81	-2.81	-2.31
CCM Select	-3.56	-1.29	-1.37	-1.80	-1.17	0.39	-0.36	-0.61	0.09	-0.81	-1.91	-1.91
Centers Plan for Health Living												-6.81
Complete Senior Care									-3.61	-3.01	-2.11	-2.01
Comprehensive Care Management	-6.46	-1.39	-1.07	-0.50	-0.07	-0.01	-0.36	-0.41	-0.41	-0.41	-0.41	-0.71
CO-OP Care Plan	-2.36	-2.69	-1.97	-1.60	-1.77	-1.91	-2.36	-2.41	-2.41	-2.01	-1.71	-1.81
Eddy Senior Care	8.14	2.21	2.53	2.70	4.73	3.39	2.34	2.29	2.59	2.09	0.29	0.89
Elant Choice		0.51	0.13	1.30	1.53	1.29	1.74	0.49	-0.01	0.89	-1.41	-2.11
Elderplan dba Homefirst							0.14	0.49	0.29	-0.31	0.39	0.89
Elderplan Map						-2.41	-0.16	0.49	0.59	0.09	1.09	2.19
Elderserve							-3.46	-3.21	-1.91	-0.21	0.49	0.99
Fidelis Medicaid Advantage Plus					-2.47	-2.51	-2.56	-2.81	-1.61	-1.01	-3.41	-2.81
GuildNet	1.64	1.61	0.73	0.50	0.13	0.99	1.64	2.09	2.59	2.79	2.89	2.89
GuildNet Gold		1.81	-2.47	-1.50	-2.47	-2.21	-1.36	-0.71	-0.01	0.49	0.39	1.59
Health Insurance Plan							-4.76	-3.71	-2.91	-2.11	-2.81	-1.31
Healthfirst Complete Care											-1.21	-1.01
HHH Choices Gold												-3.51
HIP MLTC										3.59	1.69	0.89
HomeFirst, Inc.	-1.96	-1.09	-0.97	0.30	0.73	0.09	0.14					
Independence Care System	-1.66	0.11	-0.17	0.10	0.33	-0.21	0.24	0.29	0.49	0.99	2.79	3.19
Independent Living for Seniors	3.14	2.81	2.43	2.50	2.83	1.49	2.34	1.19	1.69	0.59	0.69	0.49
Metroplus												-1.91
PACE CNY	0.04	-0.39	-0.07	-0.70	-0.67	-0.81	-0.76	-0.81	-0.71	0.09	-0.21	-0.21
Partners in Community Care	-1.76	-1.59	-2.07	-2.00	-2.67	-2.31	-2.66	-2.11	-2.21	-1.41	0.59	1.19
Senior Health Partners, Inc.	-1.66	-1.59	-1.17	-1.50	-1.17	-0.01	0.14	0.19	0.59	0.49	0.39	-0.21
Senior Network Health, LLC	-1.96	-1.59	-1.77	-2.30	-2.27	-3.11	-2.56	-1.71	-1.61	-1.71	-1.91	-3.01
Senior Whole Health			-4.77	-4.90	-4.77	-5.51	-5.06	-4.81	-4.41	-3.61	1.29	-4.31
Senior Whole Health partial											3.69	-0.51
Total Aging In Place Program, Inc.	-1.76	-2.09	-3.17	-3.70	-2.67	-2.91	-3.86	-3.61	-2.81	-2.61	-3.51	-3.31



Plan	Jan-08	Jul-08	Jan-09	Jul-09	Jan-10	Jul-10	Jan-11	Jul-11	Jan-12	Jul-12	Jan-13	Jul-13
Total Senior Care				-3.40	-4.77	-3.91	-4.36	-3.41	-3.61	-2.81	-1.81	-1.21
United Health Personal Assist											-4.81	2.49
Village Care MAX											-0.91	-0.31
VNA Homecare Options												-7.91
VNS Choice	0.14	0.41	1.33	1.00	0.93	0.49	0.14	0.09	-0.21	-0.41	-0.91	-1.31
VNSChoicePlus			4.03	3.80	2.43	-1.11	-0.96	-0.81	-1.21	-1.51	-0.21	0.29
WellCare	-7.26	-4.29	-5.47	-4.00	-3.77	-4.31	-1.46	-3.41	-3.51	-3.51	-3.31	-3.21
WellCarePlus		-2.09	-4.67	-4.40	-3.57	-3.91	-0.26	0.29	-1.51	-2.61	-0.71	-3.51

Table C15. Still Active Plan as of July 2013: Percent of Time\* Performing Better than Statewide Average, 2007-2013, on Selected Functional Items

	Urinary Incontinence	Bowel Incontinence	Cognitive Function	When Confused	When Anxious	Frequency of Pain	Depressive Feelings	Grooming	Dressing Upper	Dressing lower	Bathing	Toileting	Transferring	Ambulation	Feeding	Meal Prep	Transportation	Laundry	Housekeeping	Shopping	Phone	Average
Healthfirst Complete Care	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.50	1.00	1.00	1.00	1.00	0.50	1.00	1.00	1.00	0.86
VNA Homecare Options	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86
Centers Plan for Health Living	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.81
Total Aging In Place Program, Inc.	0.08	1.00	0.79	0.36	0.14	0.93	0.79	0.71	1.00	1.00	0.93	0.93	1.00	1.00	1.00	1.00	0.29	1.00	1.00	0.64	1.00	0.79
AgeWell New York	0.50	1.00	1.00	1.00	0.50	0.00	0.00	1.00	1.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.79
CCM Select	0.67	1.00	1.00	1.00	0.64	0.21	0.71	0.86	1.00	1.00	0.86	1.00	0.83	1.00	0.86	0.86	0.00	0.14	0.64	0.79	1.00	0.77
Total Senior Care	0.78	0.44	0.44	0.11	0.00	0.89	0.56	1.00	1.00	1.00	1.00	0.67	1.00	0.78	0.89	1.00	0.78	0.89	1.00	0.78	0.78	0.75
Comprehensive Care Management	0.08	0.43	0.79	0.71	0.43	0.21	0.71	0.64	1.00	1.00	1.00	0.93	0.83	1.00	0.64	1.00	0.79	0.64	1.00	1.00	0.43	0.73
Partners in Community Care	0.75	0.36	0.00	0.14	0.00	0.86	0.57	0.86	1.00	1.00	1.00	0.86	1.00	1.00	0.79	1.00	0.93	0.93	0.93	0.86	0.43	0.73
Senior Whole Health	0.60	0.70	0.20	0.00	0.00	0.40	0.00	0.80	1.00	1.00	1.00	0.90	1.00	0.80	1.00	1.00	0.90	0.90	1.00	0.90	0.90	0.71
Metroplus	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.71
Catholic Health Life	0.88	0.88	0.13	0.00	0.00	0.38	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	1.00	1.00	0.88	1.00	0.50	0.38	0.70
Health Insurance Plan	0.33	0.83	0.67	0.67	0.83	0.00	0.00	1.00	0.83	1.00	0.83	0.50	1.00	0.33	1.00	1.00	0.83	0.17	0.83	0.83	1.00	0.69
Fidelis Medicaid Advantage Plus	0.43	0.50	0.63	0.13	0.13	0.63	0.00	0.88	0.88	0.88	0.88	1.00	1.00	1.00	0.75	0.75	0.75	0.75	0.75	0.88	0.88	0.69
Senior Network Health, LLC	0.08	1.00	0.29	0.71	0.00	0.00	0.21	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.68
Village Care MAX	1.00	1.00	1.00	1.00	0.50	0.00	0.00	1.00	1.00	1.00	0.50	1.00	0.00	0.00	1.00	0.00	1.00	0.50	1.00	0.50	1.00	0.67
PACE CNY	0.08	0.93	0.00	0.00	0.00	1.00	0.29	0.79	1.00	1.00	1.00	0.79	0.33	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.64	0.66
Complete Senior Care	0.00	1.00	0.00	0.00	0.50	0.25	0.25	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.25	0.50	1.00	0.50	0.50	0.64
WellCare	0.55	1.00	0.92	0.92	0.33	0.00	0.50	1.00	0.75	0.08	0.08	1.00	0.83	0.08	1.00	1.00	0.42	0.08	0.67	0.75	1.00	0.62
WellCarePlus	0.45	0.73	0.91	0.91	0.27	0.00	0.45	0.91	0.73	0.27	0.18	1.00	0.91	0.27	0.91	0.73	0.55	0.27	0.91	0.64	0.91	0.61
ArchCare Senior Life	0.25	0.25	0.13	0.13	0.38	0.63	0.50	0.75	1.00	1.00	0.75	0.25	1.00	0.88	0.75	0.88	0.75	0.75	0.88	0.38	0.13	0.59
Elderserve	0.50	1.00	0.33	0.67	0.17	0.00	0.00	0.50	0.67	0.83	0.50	1.00	0.67	1.00	1.00	0.67	0.33	0.67	0.50	0.83	0.33	0.58

	Urinary Incontinence	Bowel Incontinence	Cognitive Function	When Confused	When Anxious	Frequency of Pain	Depressive Feelings	Grooming	Dressing Upper	Dressing lower	Bathing	Toileting	Transferring	Ambulation	Feeding	Meal Prep	Transportation	Laundry	Housekeeping	Shopping	Phone	Average
GuildNet Gold	0.55	1.00	1.00	0.82	0.55	1.00	0.55	0.73	0.45	0.91	0.36	0.73	0.91	0.09	0.82	0.00	0.09	0.09	0.00	0.73	0.55	0.57
Elant Choice	0.00	0.29	0.00	0.00	0.14	0.86	0.71	1.00	1.00	1.00	1.00	0.36	1.00	0.42	0.21	1.00	0.57	0.71	1.00	0.43	0.00	0.56
Independent Living for Seniors	0.17	0.57	0.00	0.00	0.00	0.79	0.71	0.21	0.86	0.93	0.93	0.00	0.75	0.50	0.50	1.00	0.93	1.00	1.00	0.79	0.00	0.55
CO OP Care Plan	0.83	1.00	0.86	1.00	0.21	0.64	0.71	0.00	0.21	0.00	0.00	1.00	0.83	0.67	1.00	0.00	0.36	0.14	0.00	0.36	1.00	0.52
Senior Health Partners Inc.	0.17	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.79	0.79	0.86	0.08	0.00	1.00	1.00	0.21	0.29	1.00	1.00	0.50	0.51
VNSChoicePlus	0.80	0.00	0.90	0.90	0.80	0.80	0.20	0.80	0.50	0.40	0.50	0.00	0.90	0.90	0.10	0.30	0.50	0.30	0.20	0.10	0.70	0.50
AmeriGroup	0.25	0.33	0.42	0.42	0.17	0.00	0.08	0.75	0.67	0.42	0.33	0.67	0.83	0.83	0.58	0.92	0.67	0.42	0.67	0.58	0.50	0.50
Archcare Community Life	0.50	0.00	0.00	0.00	0.50	0.50	0.00	1.00	1.00	1.00	0.50	0.00	0.50	0.50	0.50	0.50	0.50	1.00	1.00	0.00	0.00	0.45
Independence Care System	0.08	0.14	1.00	1.00	0.86	0.79	0.00	0.64	0.14	0.00	0.86	0.00	0.00	0.00	0.00	0.57	1.00	0.00	0.14	1.00	1.00	0.44
Elderplan dba Homefirst**	0.08	1.00	0.86	0.86	1.00	0.00	1.00	0.29	0.29	0.00	0.00	1.00	0.42	0.00	0.86	0.00	0.00	0.00	0.00	0.57	0.79	0.43
Eddy Senior Care	0.08	0.14	0.00	0.00	0.00	0.50	0.00	0.14	0.64	0.86	0.57	0.07	0.75	0.83	0.21	1.00	0.57	1.00	1.00	0.00	0.29	0.41
Aetna Better Health	0.00	0.00	0.00	0.00	0.00	0.50	0.00	1.00	0.50	0.50	0.50	0.50	1.00	0.50	0.00	1.00	0.50	1.00	0.50	0.50	0.00	0.40
Senior Whole Health partial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.50	1.00	0.50	0.00	0.40
VNS Choice	0.92	0.00	0.71	1.00	1.00	1.00	1.00	0.29	0.07	0.00	0.21	0.00	0.75	0.17	0.00	0.00	0.29	0.21	0.14	0.00	0.29	0.38
HHH Choices Gold		1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.35
AmeriGroup Map	0.14	0.00	0.57	0.14	0.43	0.00	0.14	0.14	0.29	0.00	0.43	0.14	0.43	0.57	0.57	0.71	0.29	0.00	0.43	0.43	1.00	0.33
HIP MLTC	0.67	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.33	0.67	1.00	0.00	0.67	0.00	0.00	0.67	0.67	0.67	0.33	0.33	0.00	0.32
United Health Personal Assist	0.50	0.50	0.00	0.00	1.00	0.50	0.50	0.00	0.00	0.00	0.00	0.50	0.50	0.50	0.50	0.00	1.00	0.00	0.50	0.00	0.00	0.31
Elderplan Map	0.00	0.14	0.29	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.29	0.29	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.29	0.16
GuildNet	0.33	0.00	0.21	0.00	0.36	0.36	0.00	0.14	0.00	0.21	0.00	0.00	0.42	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.10

Table C16 Depressive Feelings (Percent with at Least Some Depressive Feelings)

	Jan-07	Jul-07	Jan-08	Jul-08	Jan-09	Jul-09	Jan-10	Jul-10	Jan-11	Jul-11	Jan-12	Jul-12	Jan-13	Jul-13	Average
HHH Choices Gold														100	1,000
Centers Plan for Health Living														735	735
Metroplus														603	603
Senior Whole Health					647	581	541	412	415	433	424	457	44	651	500
Catholic Health Life							667	389	426	508	482	50	521	469	495
Senior Whole Health Partial													404	584	494
Aetna Better Health													535	388	462
Health Insurance Plan									493	449	441	467	439	416	451
VNA Homecare Options														447	447
Fidelis Medicaid Advantage Plus							50	50	50	382	479	435	362	349	438
HIP MLTC												437	414	431	427
Health Partners of New York	419	428													424
Village Care MAX													403	399	401
Independence Care System	472	475	543	479	439	348	32	414	384	333	294	302	337	372	394
GuildNet	362	373	404	447	462	439	416	447	433	367	345	323	292	292	386
AmeriGroup Map								235	364	455	364	50	333	444	385
AmeriGroup			482	506	41	277	385	421	345	352	385	37	336	285	380
Eddy Senior Care	404	425	306	454	445	391	421	371	281	357	325	318	355	336	371
AgeWell New York													281	459	370
Complete Senior Care											19	395	365	478	357
CarePlus Connections	357	352													355
Senior Health Partners, Inc.	411	384	431	323	351	323	298	327	357	399	34	355	324	305	352
United Health Personal Assist													222	466	344
Archcare Community Life													308	378	343
Elderserve									362	351	289	294	326	338	327
Senior Network Health, LLC	261	267	269	289	309	352	305	313	349	359	367	376	379	308	322
Partners in Community Care	231	317	262	235	183	17	204	242	231	335	361	355	52	492	296
ArchCare Senior Life							75	302	208	184	243	202	177	287	294
VNSChoicePlus					333	381	267	298	298	268	315	252	341	141	289
PACE CNY	23	314	268	276	275	34	312	336	28	29	276	229	285	293	286
Total Senior Care						333	455	171	186	147	227	169	402	446	282
WellCarePlus				368	385	372	355	288	362	25	143	174	173	183	278
State Mean	287	313	268	312	305	286	278	287	276	256	241	233	241	26	275
WellCare			357	367	232	359	314	255	334	267	182	176	154	192	266

	<b>Jan-07</b>	<b>Jul-07</b>	<b>Jan-08</b>	<b>Jul-08</b>	<b>Jan-09</b>	<b>Jul-09</b>	<b>Jan-10</b>	<b>Jul-10</b>	<b>Jan-11</b>	<b>Jul-11</b>	<b>Jan-12</b>	<b>Jul-12</b>	<b>Jan-13</b>	<b>Jul-13</b>	<b>Average</b>
GuildNet Gold				364	243	374	329	322	278	255	212	178	16	171	262
Comprehensive Care Management	216	28	291	296	298	291	29	319	265	23	224	196	191	203	256
CCM Select	318	343	30	343	287	23	277	258	218	185	158	185	231	235	255
HomeFirst Inc	261	305	268	248	232	232	231	229	234						249
Independent Living for Seniors	341	242	244	315	322	287	243	203	175	185	209	17	202	141	234
Healthfirst Complete Care													206	234	220
Total Aging In Place Program, Inc.	158	15	182	115	13	196	178	13	253	255	232	246	271	276	198
CO OP Care Plan	143	184	158	131	116	123	162	171	185	166	254	286	282	28	189
Elant Choice	77	116	44	92	45	89	171	113	223	253	303	341	346	364	184
Elderplan dba Homefirst									234	194	165	132	124	126	163
VNS Choice	171	252	19	189	181	176	172	164	157	153	147	133	149	153	158
Elderplan Map								154	151	129	105	82	84	99	115

Table C17 Plan-Specific Scores, Selected Measures

	2007	2008	2009	2010	2011	2012	2013
<b>Urinary Incontinence (% Incontinent More than 1 Week)</b>							
State Mean		56.91	75.95	80.95	84.20	86.46	86.99
Aetna Better Health							87.50
AgeWell New York							85.85
AmeriGroup		41.70	80.25	87.20	89.85	85.35	87.40
AmeriGroup Map				90.00	92.85	93.75	90.00
Archcare Community Life							84.00
ArchCare Senior Life				97.35	82.60	86.20	87.50
CarePlus Connections							
Catholic Health Life				87.05	73.00	81.70	82.50
CCM Select		45.65	74.15	79.75	83.35	86.05	88.00
Centers Plan for Health Living							70.60
CO OP Care Plan		48.45	73.40	66.90	74.60	81.80	86.45
Complete Senior Care						98.65	97.25
Comprehensive Care Management		47.90	87.45	90.90	91.50	93.15	92.80
Eddy Senior Care		46.55	86.35	84.65	86.90	92.50	92.05
Elant Choice		48.20	93.80	94.55	90.80	88.50	88.05
Elderplan dba Homefirst					89.10	89.35	90.50
Elderplan Map				100.00	94.75	92.20	92.95
Elderserve					80.15	86.80	96.50
Fidelis Medicaid Advantage Plus				37.50	93.15	95.20	83.80
GuildNet		54.85	68.00	75.60	87.95	91.05	92.80
GuildNet Gold		64.00	47.15	64.60	85.30	91.40	94.30
Health Insurance Plan					89.40	90.80	72.90
Health Partners of New York							
Healthfirst Complete Care							85.05
HHH Choices Gold							0.00
HIP MLTC						100.00	79.55
HomeFirst, Inc.		51.70	77.85	84.35	87.20		
Independence Care System		50.65	83.90	90.70	89.95	92.60	90.70
Independent Living for Seniors		49.95	80.60	84.75	91.95	91.55	86.20
Metroplus							90.70
PACE CNY		53.40	88.20	90.50	90.75	88.95	91.15
Partners in Community Care		47.55	67.40	72.45	84.20	87.65	80.00
Senior Health Partners, Inc.		50.45	86.25	91.20	84.10	88.05	89.70

	2007	2008	2009	2010	2011	2012	2013
Senior Network Health, LLC		52.05	94.50	93.90	93.65	94.75	94.40
Senior Whole Health			71.75	79.95	83.10	86.45	84.10
Senior Whole Health Partial							90.75
Total Aging In Place Program, Inc.		49.30	97.00	95.50	93.40	97.30	95.00
Total Senior Care			66.70	76.20	92.40	82.90	71.85
United Health Personal Assist							57.30
Village Care MAX							79.55
VNA Homecare Options							58.10
VNS Choice		70.30	71.40	74.85	76.45	78.35	78.25
VNSChoicePlus			87.80	69.10	65.50	71.90	76.70
WellCare		48.10	83.70	89.40	79.35	81.55	79.15
WellCarePlus		97.90	82.85	90.65	86.50	84.35	87.60
<b>Bowel Incontinence (% at Least Daily or Ostomy)</b>							
State Mean	5.91	5.79	5.48	6.07	6.06	6.50	7.10
Aetna Better Health							9.70
AgeWell New York							3.35
AmeriGroup		2.55	7.40	6.70	5.90	7.75	9.05
AmeriGroup Map				17.60	13.65	14.10	16.65
Archcare Community Life							9.35
ArchCare Senior Life				5.80	8.10	7.80	11.65
CarePlus Connections	5.10						
Catholic Health Life				11.15	3.85	2.70	4.85
CCM Select	3.65	3.00	2.95	3.55	4.75	5.50	5.20
Centers Plan for Health Living							3.10
CO OP Care Plan	4.65	3.50	3.40	4.20	4.50	4.30	5.35
Complete Senior Care						4.75	2.20
Comprehensive Care Management	3.95	4.90	5.10	6.70	6.35	7.10	7.55
Eddy Senior Care	12.90	10.50	11.10	9.90	9.60	6.90	6.90
Elant Choice	3.25	7.45	4.85	11.50	15.30	14.50	10.05
Elderplan dba Homefirst					4.30	6.05	6.25
Elderplan Map				7.60	5.60	7.30	8.35
Elderserve					3.30	5.65	5.80
Fidelis Medicaid Advantage Plus				4.15	6.75	8.15	3.60
GuildNet	6.75	6.30	6.20	6.90	6.95	8.45	9.05
GuildNet Gold		2.30	3.70	3.60	3.50	4.55	5.85
Health Insurance Plan					2.80	5.90	5.55

	2007	2008	2009	2010	2011	2012	2013
Health Partners of New York	10.80						
Healthfirst Complete Care							4.05
HHH Choices Gold							0.00
HIP MLTC						18.80	12.30
HomeFirst, Inc.	2.85	3.40	3.60	3.90	3.70		
Independence Care System	5.45	6.60	6.95	9.60	9.25	9.75	13.60
Independent Living for Seniors	7.80	7.50	6.25	5.10	5.65	4.30	3.85
Metroplus							8.00
PACE CNY	6.25	3.80	3.30	3.40	3.30	2.10	2.50
Partners in Community Care	5.90	7.45	6.65	5.00	6.10	6.30	8.65
Senior Health Partners, Inc.	3.95	2.95	1.60	3.00	3.65	4.20	5.80
Senior Network Health, LLC	1.55	2.75	2.10	3.20	5.05	5.25	3.95
Senior Whole Health			5.10	3.20	4.05	3.20	12.65
Senior Whole Health Partial							14.65
Total Aging In Place Program, Inc.	0.00	2.60	3.85	3.25	2.05	1.75	3.60
Total Senior Care			0.00	2.25	9.30	10.70	7.05
United Health Personal Assist							9.40
Village Care MAX							5.75
VNA Homecare Options							8.30
VNS Choice	7.00	7.85	7.10	7.55	7.50	7.30	7.75
VNSChoicePlus			15.90	12.65	9.30	8.25	8.50
WellCare		0.00	1.35	2.15	2.65	2.80	3.10
WellCarePlus		3.90	4.85	3.15	6.40	6.65	5.15
<b>Cognitive Function (% Needing Assistance, Not Oriented, or With Delirium)</b>							
State Mean	17.56	19.00	12.97	16.52	20.13	20.81	19.77
Aetna Better Health							24.80
AgeWell New York							12.60
AmeriGroup		14.55	13.50	15.30	17.45	25.10	20.35
AmeriGroup Map				17.70	18.20	19.10	22.20
Archcare Community Life							30.30
ArchCare Senior Life				15.10	29.90	27.55	31.05
CarePlus Connections	6.60						
Catholic Health Life				27.85	19.60	32.25	34.10
CCM Select	10.55	7.65	8.95	11.90	10.95	12.35	12.25
Centers Plan for Health Living							11.00
CO OP Care Plan	12.50	10.75	12.35	15.95	11.80	12.60	11.30



	2007	2008	2009	2010	2011	2012	2013
Complete Senior Care						41.20	46.95
Comprehensive Care Management	11.15	16.35	17.40	19.85	16.80	16.65	16.35
Eddy Senior Care	34.40	35.20	36.00	38.35	31.85	42.50	40.50
Elant Choice	30.40	43.60	47.15	46.60	49.30	45.50	55.75
Elderplan dba Homefirst					14.45	18.15	18.65
Elderplan Map				15.40	20.55	22.15	21.40
Elderserve					8.25	23.60	25.80
Fidelis Medicaid Advantage Plus				12.50	13.50	19.10	21.75
GuildNet	22.25	24.30	2.10	11.20	24.55	25.25	24.85
GuildNet Gold		0.00	0.00	5.95	10.50	12.40	15.00
Health Insurance Plan					14.10	22.05	17.05
Health Partners of New York	26.60						
Healthfirst Complete Care							19.40
HHH Choices Gold							50.00
HIP MLTC						37.60	23.95
HomeFirst, Inc.	8.40	10.10	12.20	13.75	13.40		
Independence Care System	3.15	6.65	7.90	7.15	6.55	10.05	17.00
Independent Living for Seniors	30.25	32.25	30.50	34.30	37.85	37.05	32.25
Metroplus							16.00
PACE CNY	25.50	37.95	37.40	40.85	42.65	42.55	47.80
Partners in Community Care	18.55	21.35	24.05	29.65	33.55	33.55	24.40
Senior Health Partners, Inc.	43.40	30.65	17.70	26.40	39.90	38.05	29.95
Senior Network Health, LLC	16.45	19.70	22.30	20.15	27.20	33.55	27.80
Senior Whole Health			28.65	37.15	51.70	53.45	16.15
Senior Whole Health Partial							31.00
Total Aging In Place Program, Inc.	7.00	9.95	12.15	17.30	17.95	17.80	12.90
Total Senior Care			40.00	23.55	21.45	18.90	21.20
United Health Personal Assist							36.80
Village Care MAX							14.60
VNA Homecare Options							16.50
VNS Choice	16.25	19.10	18.40	18.10	18.20	17.00	14.95
VNSChoicePlus			14.25	11.95	13.15	9.25	12.90
WellCare		12.70	7.20	8.25	11.80	8.80	9.85
WellCarePlus		10.50	9.15	11.15	15.70	14.60	9.10
<b>When Confused (% Day and Evening, or Constantly)</b>							
State Mean	13.42	14.21	14.06	14.61	15.32	16.13	15.75

	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Aetna Better Health							21.15
AgeWell New York							7.50
AmeriGroup		13.25	11.75	14.00	17.00	21.65	18.75
AmeriGroup Map				17.70	18.20	23.65	22.20
Archcare Community Life							25.50
ArchCare Senior Life				9.30	21.60	20.80	22.90
CarePlus Connections	5.65						
Catholic Health Life				31.90	29.50	36.25	32.65
CCM Select	9.25	5.55	7.35	8.45	9.00	11.15	10.40
Centers Plan for Health Living							21.00
CO OP Care Plan	8.80	8.15	8.00	9.75	8.45	9.75	9.65
Complete Senior Care						34.10	30.55
Comprehensive Care Management	8.50	12.25	14.15	16.65	15.05	15.90	15.70
Eddy Senior Care	17.90	29.25	29.85	37.20	31.85	41.05	36.80
Elant Choice	19.45	23.10	27.75	41.55	41.35	37.40	37.70
Elderplan dba Homefirst					12.10	15.65	16.15
Elderplan Map				15.40	20.55	20.10	18.50
Elderserve					4.15	15.25	17.30
Fidelis Medicaid Advantage Plus				12.50	30.15	27.85	29.20
GuildNet	17.80	19.30	20.00	19.60	21.00	22.30	22.35
GuildNet Gold		18.10	12.25	12.90	10.25	10.20	13.20
Health Insurance Plan					14.20	16.40	13.60
Health Partners of New York	30.85						
Healthfirst Complete Care							13.35
HHH Choices Gold							0.00
HIP MLTC						34.40	22.20
HomeFirst, Inc.	6.60	8.45	10.25	11.55	11.20		
Independence Care System	1.65	3.50	2.90	3.05	3.70	5.60	12.60
Independent Living for Seniors	28.65	26.50	31.35	33.85	34.85	37.90	36.30
Metroplus							11.40
PACE CNY	24.40	31.40	29.60	30.40	29.80	30.45	34.65
Partners in Community Care	13.85	15.65	14.30	14.50	19.15	21.65	21.80
Senior Health Partners, Inc.	21.55	23.85	16.55	19.95	24.90	24.20	19.95
Senior Network Health, LLC	7.60	10.65	10.65	10.80	16.25	18.50	15.55
Senior Whole Health			20.75	18.25	31.45	38.15	21.30
Senior Whole Health Partial							28.35

	2007	2008	2009	2010	2011	2012	2013
Total Aging In Place Program, Inc.	13.70	16.30	12.45	14.40	16.95	17.50	20.35
Total Senior Care			6.70	65.80	44.45	32.95	32.65
United Health Personal Assist							26.00
Village Care MAX							11.75
VNA Homecare Options							7.10
VNS Choice	11.85	12.75	12.10	12.15	12.10	11.75	11.20
VNSChoicePlus			7.15	7.10	6.85	4.60	6.15
WellCare		16.30	6.45	7.95	9.95	7.75	8.35
WellCarePlus		9.20	12.00	7.60	17.95	10.35	10.15
<b>When Anxious (% Daily or Constantly)</b>							
State Mean	11.70	15.19	16.49	18.03	21.31	22.12	22.82
Aetna Better Health							33.55
AgeWell New York							20.05
AmeriGroup		34.35	21.80	23.50	23.00	23.95	20.75
AmeriGroup Map				5.90	36.40	27.75	38.90
Archcare Community Life							19.80
ArchCare Senior Life				14.00	36.05	19.20	30.10
CarePlus Connections	13.40						
Catholic Health Life				38.90	31.20	41.95	43.60
CCM Select	11.35	16.50	17.05	16.30	17.20	19.85	21.75
Centers Plan for Health Living							39.00
CO OP Care Plan	8.80	19.50	31.60	32.25	26.15	27.05	26.15
Complete Senior Care						27.20	29.05
Comprehensive Care Management	7.85	15.25	20.35	22.20	22.30	22.20	20.35
Eddy Senior Care	37.20	47.05	45.25	53.35	41.10	39.00	39.10
Elant Choice	9.75	20.25	26.65	41.90	41.00	47.60	48.30
Elderplan dba Homefirst					8.50	6.60	8.25
Elderplan Map				0.00	4.05	5.20	5.60
Elderserve					18.45	26.55	32.15
Fidelis Medicaid Advantage Plus				16.65	30.60	26.05	28.60
GuildNet	11.70	14.65	14.05	19.80	32.30	34.60	36.80
GuildNet Gold		13.70	9.70	14.35	22.75	24.45	27.25
Health Insurance Plan					22.80	19.50	16.60
Health Partners of New York	20.95						
Healthfirst Complete Care							39.80
HHH Choices Gold							50.00

	2007	2008	2009	2010	2011	2012	2013
HIP MLTC						25.00	22.70
HomeFirst, Inc.	6.40	7.50	7.75	8.05	8.80		
Independence Care System	13.40	13.75	11.85	10.95	13.95	11.75	15.20
Independent Living for Seniors	16.85	26.80	32.05	31.45	36.95	38.80	36.60
Metroplus							29.90
PACE CNY	17.25	22.50	29.80	34.45	34.30	35.30	35.55
Partners in Community Care	15.25	16.65	25.25	34.25	37.50	35.20	32.70
Senior Health Partners, Inc.	25.25	35.05	34.95	30.50	44.60	47.45	41.30
Senior Network Health, LLC	15.30	26.60	33.70	38.70	45.65	51.90	47.15
Senior Whole Health			38.20	37.05	39.55	47.30	33.15
Senior Whole Health Partial							28.95
Total Aging In Place Program, Inc.	18.50	19.65	14.55	22.50	39.65	40.40	50.40
Total Senior Care			46.70	38.90	33.95	37.65	28.25
United Health Personal Assist							21.20
Village Care MAX							22.65
VNA Homecare Options							28.30
VNS Choice	10.10	12.25	12.35	11.65	9.10	8.15	9.10
VNSChoicePlus			34.95	20.80	11.25	12.80	9.15
WellCare		6.60	26.60	23.35	27.35	23.60	17.10
WellCarePlus		28.90	26.90	17.95	22.65	22.35	31.30
<b>Frequency of Pain (% Daily or All the Time)</b>							
State Mean	40.62	47.26	48.41	49.23	50.28	52.60	54.89
Aetna Better Health							56.55
AgeWell New York							67.45
AmeriGroup		63.85	59.65	55.65	54.70	56.00	57.10
AmeriGroup Map				88.30	77.30	86.40	72.20
Archcare Community Life							42.80
ArchCare Senior Life				76.75	49.10	32.35	39.30
CarePlus Connections	55.20						
Catholic Health Life				52.80	52.05	56.95	52.95
CCM Select	68.60	69.00	62.35	57.05	52.05	51.80	46.85
Centers Plan for Health Living							70.40
CO OP Care Plan	43.80	46.65	41.20	44.90	52.05	56.05	49.80
Complete Senior Care						61.25	59.60
Comprehensive Care Management	45.45	53.00	54.40	54.85	52.90	50.20	47.15
Eddy Senior Care	47.15	42.50	55.30	55.75	50.20	40.20	40.45

	2007	2008	2009	2010	2011	2012	2013
Elant Choice	38.30	32.85	27.45	43.30	48.60	56.35	44.70
Elderplan dba Homefirst					57.80	59.90	66.25
Elderplan Map				80.70	64.05	59.75	60.10
Elderserve					75.30	56.60	63.15
Fidelis Medicaid Advantage Plus				33.35	49.95	49.65	56.10
GuildNet	36.85	44.80	49.45	52.15	56.90	58.50	58.95
GuildNet Gold		34.10	38.80	43.10	44.30	49.40	48.25
Health Insurance Plan					78.45	73.90	73.95
Health Partners of New York	40.20						
Healthfirst Complete Care							72.25
HHH Choices Gold							50.00
HIP MLTC						56.30	61.90
HomeFirst, Inc.	46.05	50.85	52.35	54.10	56.50		
Independence Care System	43.30	47.25	44.85	44.80	48.45	50.15	51.40
Independent Living for Seniors	43.75	43.55	46.65	42.95	39.55	36.75	29.60
Metroplus							58.60
PACE CNY	37.60	43.30	43.45	46.95	47.40	47.10	48.75
Partners in Community Care	34.45	34.40	34.60	39.75	47.60	51.80	67.75
Senior Health Partners, Inc.	64.30	69.70	63.65	65.55	64.85	71.40	68.60
Senior Network Health, LLC	49.85	53.20	56.70	57.70	60.35	62.95	59.10
Senior Whole Health			62.40	60.10	51.90	53.10	43.30
Senior Whole Health Partial							61.80
Total Aging In Place Program, Inc.	28.10	34.20	43.20	42.15	48.00	47.20	44.15
Total Senior Care			53.40	37.50	30.30	39.85	38.05
United Health Personal Assist							58.10
Village Care MAX							67.35
VNA Homecare Options							53.00
VNS Choice	35.60	40.05	39.00	36.65	32.25	33.40	37.15
VNSChoicePlus			45.90	40.10	49.55	44.25	37.15
WellCare		69.40	69.75	72.40	72.80	72.80	71.30
WellCarePlus		71.10	68.55	67.30	64.50	71.90	78.80
<b>Depressive Feelings (% With at Least Some Depressive Feelings)</b>							
State Mean	30.00	29.00	29.55	28.25	26.60	23.70	25.05
Aetna Better Health							46.15
AgeWell New York							37.00
AmeriGroup		49.40	34.35	40.30	34.85	37.75	31.05

	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
AmeriGroup Map				23.50	40.95	43.20	38.85
Archcare Community Life							34.30
ArchCare Senior Life				52.60	19.60	22.25	23.20
CarePlus Connections	35.45						
Catholic Health Life				52.80	46.70	49.10	49.50
CCM Select	33.05	32.15	25.85	26.75	20.15	17.15	23.30
Centers Plan for Health Living							73.50
CO OP Care Plan	16.35	14.45	11.95	16.65	17.55	27.00	28.10
Complete Senior Care						29.25	42.15
Comprehensive Care Management	24.80	29.35	29.45	30.45	24.75	21.00	19.70
Eddy Senior Care	41.45	38.00	41.80	39.60	31.90	32.15	34.55
Elant Choice	9.65	6.80	6.70	14.20	23.80	32.20	35.50
Elderplan dba Homefirst					21.40	14.85	12.50
Elderplan Map				15.40	14.00	9.35	9.15
Elderserve					35.65	29.15	33.20
Fidelis Medicaid Advantage Plus				50.00	44.10	45.70	35.55
GuildNet	36.75	42.55	45.05	43.15	40.00	33.40	29.20
GuildNet Gold		36.40	30.85	32.55	26.65	19.50	16.55
Health Insurance Plan					47.10	45.40	42.75
Health Partners of New York	42.35						
Healthfirst Complete Care							22.00
HHH Choices Gold							100.00
HIP MLTC						43.70	42.25
HomeFirst, Inc.	28.30	25.80	23.20	23.00	23.40		
Independence Care System	47.35	51.10	39.35	36.70	35.85	29.80	35.45
Independent Living for Seniors	29.15	27.95	30.45	22.30	18.00	18.95	17.15
Metroplus							60.30
PACE CNY	27.20	27.20	30.75	32.40	28.50	25.25	28.90
Partners in Community Care	27.40	24.85	17.65	22.30	28.30	35.80	50.60
Senior Health Partners, Inc.	39.75	37.70	33.70	31.25	37.80	34.75	31.45
Senior Network Health, LLC	26.40	27.90	33.05	30.90	35.40	37.15	34.35
Senior Whole Health			61.40	47.65	42.40	44.05	54.55
Senior Whole Health Partial							49.40
Total Aging In Place Program, Inc.	15.40	14.85	16.30	15.40	25.40	23.90	27.35
Total Senior Care			33.30	31.30	16.65	19.80	42.40
United Health Personal Assist							34.40

	2007	2008	2009	2010	2011	2012	2013
Village Care MAX							40.10
VNA Homecare Options							44.70
VNS Choice	21.15	10.40	17.85	16.80	15.50	14.00	15.10
VNSChoicePlus			35.70	28.25	28.30	28.35	24.10
WellCare		36.20	29.55	28.45	30.05	17.90	17.30
WellCarePlus		36.80	37.85	32.15	30.60	15.85	17.80
<b>ADL</b>							
<b>Grooming Grouping</b>							
## Sum of Values For: Groom-2 %, Groom-3 %							
## Out of All Values: No Assistance %, Groom-1 %, Groom-2 %, Groom-3 %							
State Mean	38.44	39.59	37.47	38.66	39.79	41.60	43.61
Aetna Better Health							33.10
AgeWell New York							24.85
AmeriGroup		30.60	30.25	31.90	31.20	43.65	54.20
AmeriGroup Map				41.20	50.05	42.30	61.10
Archcare Community Life							35.15
ArchCare Senior Life				20.65	28.60	39.15	45.35
CarePlus Connections	25.60						
Catholic Health Life				13.95	18.10	27.35	24.70
CCM Select	33.25	34.05	27.20	33.80	39.55	38.70	35.10
Centers Plan for Health Living							19.50
CO OP Care Plan	41.75	42.00	50.45	56.00	49.40	48.15	49.60
Complete Senior Care						42.30	29.55
Comprehensive Care Management	25.45	32.35	30.30	42.60	41.70	42.65	41.75
Eddy Senior Care	53.45	48.40	43.70	48.75	49.80	53.05	40.30
Elant Choice	18.25	25.90	30.75	31.75	34.20	31.15	31.45
Elderplan dba Homefirst					48.15	50.10	56.55
Elderplan Map				65.40	59.50	52.10	59.70
Elderserve					24.20	41.50	61.65
Fidelis Medicaid Advantage Plus				54.15	29.55	24.25	38.65
GuildNet	43.35	41.85	39.05	36.65	43.95	50.15	52.30
GuildNet Gold		50.00	37.95	23.40	33.60	38.65	41.55
Health Insurance Plan					25.95	36.45	40.60
Health Partners of New York	59.65						
Healthfirst Complete Care							27.30

	2007	2008	2009	2010	2011	2012	2013
HHH Choices Gold							100.00
HIP MLTC						59.40	50.00
HomeFirst, Inc.	28.80	36.10	41.25	46.80	46.60		
Independence Care System	34.90	45.00	31.75	33.85	38.30	36.05	50.40
Independent Living for Seniors	48.00	45.65	46.80	45.80	42.70	41.15	38.80
Metroplus							37.40
PACE CNY	39.50	37.30	32.10	26.95	27.55	28.20	28.80
Partners in Community Care	31.55	31.20	26.10	26.90	25.50	27.95	45.20
Senior Health Partners, Inc.	21.55	23.35	22.55	29.65	32.45	37.30	32.85
Senior Network Health, LLC	19.25	20.00	19.65	22.15	23.50	23.90	20.50
Senior Whole Health			11.50	12.40	11.00	11.55	56.40
Senior Whole Health Partial							57.35
Total Aging In Place Program, Inc.	23.40	27.60	46.75	50.95	36.60	35.65	27.80
Total Senior Care			0.00	9.45	18.60	26.65	27.75
United Health Personal Assist							79.55
Village Care MAX							36.55
VNA Homecare Options							17.70
VNS Choice	43.35	46.05	43.95	42.20	41.20	39.45	36.05
VNSChoicePlus			32.55	39.75	36.40	34.95	39.55
WellCare		21.90	19.05	20.40	19.15	22.35	28.20
WellCarePlus		22.40	16.55	25.70	27.95	22.85	39.25
<b>Dressing Upper Grouping</b>							
## Sum of Values For: Dress Upper-2 %, Dress Upper-3 %							
## Out of All Values: No assistance %, Dress Upper-1 %, Dress Upper-2 %, Dress Upper-3 %							
State Mean	48.63	52.25	52.13	54.77	57.14	58.64	58.12
Aetna Better Health							58.25
AgeWell New York							36.00
AmeriGroup		37.90	43.50	49.20	54.00	64.45	61.45
AmeriGroup Map				88.30	68.20	61.35	66.65
Archcare Community Life							44.15
ArchCare Senior Life				40.10	34.60	39.15	48.30
CarePlus Connections	27.65						
Catholic Health Life				22.20	23.55	25.75	30.85
CCM Select	44.30	49.50	41.30	47.85	53.40	53.10	46.50
Centers Plan for Health Living							26.80
CO OP Care Plan	46.45	49.60	60.40	64.50	62.05	62.80	61.75



	2007	2008	2009	2010	2011	2012	2013
Complete Senior Care						43.45	29.65
Comprehensive Care Management	32.10	37.70	39.05	47.90	51.05	53.40	50.50
Eddy Senior Care	58.80	52.40	49.05	53.35	58.10	57.50	52.85
Elant Choice	33.90	36.30	41.90	40.55	42.55	41.85	32.05
Elderplan dba Homefirst					61.15	64.20	66.95
Elderplan Map				80.70	69.65	65.30	69.35
Elderserve					43.60	49.60	64.90
Fidelis Medicaid Advantage Plus				54.15	43.70	33.85	35.85
GuildNet	51.40	55.75	54.75	56.80	64.30	70.00	70.55
GuildNet Gold		63.60	53.40	46.20	55.95	59.75	63.70
Health Insurance Plan					52.95	52.95	44.60
Health Partners of New York	72.40						
Healthfirst Complete Care							40.85
HHH Choices Gold							100.00
HIP MLTC						62.50	56.00
HomeFirst, Inc.	41.70	50.75	55.70	60.35	59.50		
Independence Care System	52.05	57.30	55.80	58.60	60.40	57.55	66.65
Independent Living for Seniors	51.20	46.90	44.00	44.85	42.55	39.90	38.90
Metroplus							43.10
PACE CNY	45.40	43.35	39.25	38.45	39.65	39.50	36.65
Partners in Community Care	34.05	32.45	24.10	28.40	30.45	35.55	54.95
Senior Health Partners, Inc.	31.35	41.30	36.90	46.70	51.65	56.45	51.55
Senior Network Health, LLC	26.90	26.50	23.70	21.45	28.45	28.65	26.35
Senior Whole Health			17.85	15.75	16.35	15.70	49.60
Senior Whole Health Partial							59.85
Total Aging In Place Program, Inc.	41.40	44.30	45.05	45.05	38.30	38.90	39.05
Total Senior Care			20.00	18.80	26.45	31.65	33.70
United Health Personal Assist							64.60
Village Care MAX							47.20
VNA Homecare Options							16.50
VNS Choice	55.70	60.35	61.05	60.65	61.55	61.45	57.05
VNSChoicePlus			72.20	57.65	54.65	53.35	62.95
WellCare		49.00	55.30	53.70	45.70	52.90	51.50
WellCarePlus		61.80	45.90	40.40	48.45	49.25	60.60
<b>Dressing Lower Grouping</b>							
## Sum of Values For: Dress Lower-2 %, Dress Lower-3 %							

	2007	2008	2009	2010	2011	2012	2013
## Out of All Values: No Assistance %, Dress Lower-1 %, Dress Lower-2 %, Dress Lower-3 %							
State Mean	72.96	76.24	76.18	77.83	78.03	78.54	75.92
Aetna Better Health							73.50
AgeWell New York							60.15
AmeriGroup		52.70	80.85	72.20	77.70	85.05	82.90
AmeriGroup Map				100.00	95.45	90.45	83.35
Archcare Community Life							52.50
ArchCare Senior Life				62.25	54.55	51.45	60.00
CarePlus Connections	44.00						
Catholic Health Life				25.00	34.80	43.85	44.25
CCM Select	67.70	70.40	65.55	68.80	71.55	74.50	67.60
Centers Plan for Health Living							47.40
CO OP Care Plan	75.00	80.25	87.15	86.80	86.60	86.40	83.35
Complete Senior Care						48.20	36.30
Comprehensive Care Management	42.55	50.95	52.40	61.00	63.15	65.95	64.95
Eddy Senior Care	74.70	73.85	71.65	74.00	75.55	76.75	72.00
Elant Choice	38.00	45.75	51.65	51.70	49.70	49.00	40.80
Elderplan dba Homefirst					90.80	91.15	90.15
Elderplan Map				100.00	95.55	92.00	92.10
Elderserve					69.00	69.40	78.35
Fidelis Medicaid Advantage Plus				79.15	55.65	55.50	58.25
GuildNet	75.45	79.50	79.50	81.15	79.05	77.75	76.60
GuildNet Gold		81.80	70.65	61.50	63.90	65.35	68.70
Health Insurance Plan					71.30	77.95	65.25
Health Partners of New York	89.85						
Healthfirst Complete Care							66.65
HHH Choices Gold							100.00
HIP MLTC						81.30	69.85
HomeFirst, Inc.	81.05	84.80	87.85	89.95	90.20		
Independence Care System	77.25	82.00	81.30	83.85	85.00	81.35	84.45
Independent Living for Seniors	69.20	63.75	64.25	64.00	60.00	54.20	53.65
Metroplus							68.40
PACE CNY	57.40	56.20	49.30	46.80	46.25	46.25	45.15
Partners in Community Care	60.10	51.60	40.75	40.05	40.75	46.15	67.65
Senior Health Partners, Inc.	67.85	73.30	65.10	71.55	74.40	79.15	72.20
Senior Network Health, LLC	48.75	47.95	41.25	39.40	48.00	49.65	48.30

	2007	2008	2009	2010	2011	2012	2013
Senior Whole Health			32.30	25.95	26.75	30.05	70.55
Senior Whole Health Partial							70.45
Total Aging In Place Program, Inc.	70.55	69.25	66.45	62.40	59.70	59.95	51.15
Total Senior Care			33.30	34.20	45.10	44.55	44.00
United Health Personal Assist							89.65
Village Care MAX							65.65
VNA Homecare Options							30.60
VNS Choice	80.10	84.50	84.30	83.90	84.00	84.80	76.85
VNSChoicePlus			88.10	82.75	77.00	76.40	81.75
WellCare		80.15	85.20	89.75	82.65	88.10	82.20
WellCarePlus		96.10	69.50	71.25	84.15	91.00	85.35
<b>Bathing Grouping</b>							
## Sum of Values For: Bathe-2 %, Bathe-3 %, Bathe-4 %, Bathe-5 %							
## Out of All Values: No Assistance %, Bathe-1 %, Bathe-2 %, Bathe-3 %, Bathe-4 %, Bathe-5 %							
State Mean	88.56	91.86	92.12	92.41	92.24	92.78	88.88
Aetna Better Health							89.60
AgeWell New York							86.85
AmeriGroup		65.50	89.60	91.40	93.45	96.75	93.20
AmeriGroup Map				100.10	95.50	90.50	100.00
Archcare Community Life							78.45
ArchCare Senior Life				100.05	78.20	75.90	77.20
CarePlus Connections	53.70						
Catholic Health Life				54.20	77.10	69.90	75.60
CCM Select	85.20	91.20	88.80	88.40	82.55	82.70	80.85
Centers Plan for Health Living							41.30
CO OP Care Plan	90.45	93.25	95.75	95.85	96.40	95.50	94.80
Complete Senior Care						82.40	86.35
Comprehensive Care Management	66.20	82.10	86.60	88.60	86.15	86.05	82.20
Eddy Senior Care	93.90	86.70	89.65	92.15	93.05	94.05	87.50
Elant Choice	69.80	75.35	76.05	75.95	76.20	70.45	74.70
Elderplan dba Homefirst					98.35	98.45	97.70
Elderplan Map				100.00	98.75	98.40	98.30
Elderserve					88.50	93.65	94.90
Fidelis Medicaid Advantage Plus				95.80	78.15	85.25	85.95
GuildNet	94.05	95.35	94.85	96.00	96.65	97.35	95.65
GuildNet Gold		93.10	92.00	88.45	94.20	93.85	95.20

	2007	2008	2009	2010	2011	2012	2013
Health Insurance Plan					88.20	89.05	88.10
Health Partners of New York	96.00						
Healthfirst Complete Care							78.15
HHH Choices Gold							100.00
HIP MLTC						90.70	83.90
HomeFirst, Inc.	93.55	96.10	97.25	98.20	98.20		
Independence Care System	82.75	86.10	86.50	87.35	88.05	89.10	91.65
Independent Living for Seniors	89.65	89.00	89.45	89.00	89.15	86.90	84.85
Metroplus							86.80
PACE CNY	83.75	84.25	78.00	74.35	76.00	83.40	82.95
Partners in Community Care	85.90	82.75	70.85	70.65	74.60	80.10	84.50
Senior Health Partners, Inc.	89.40	86.90	88.55	88.30	91.30	93.70	85.10
Senior Network Health, LLC	83.70	90.35	86.90	85.40	85.10	86.35	84.85
Senior Whole Health			59.40	66.15	70.70	78.15	77.20
Senior Whole Health Partial							85.40
Total Aging In Place Program, Inc.	88.60	87.05	83.10	83.30	82.05	82.40	80.90
Total Senior Care			86.70	69.65	85.05	87.25	82.05
United Health Personal Assist							95.65
Village Care MAX							88.65
VNA Homecare Options							70.60
VNS Choice	90.70	94.65	94.50	93.60	93.60	93.10	84.50
VNSChoicePlus			97.65	87.55	91.10	87.70	89.95
WellCare		77.50	93.90	97.80	95.05	96.70	91.90
WellCarePlus		94.80	84.70	95.30	96.75	99.00	95.05
<b>Toileting Grouping</b>							
## Sum of Values For: Toilet-2 %, Toilet-3 %, Toilet-4 %							
## Out of All Values: No Assistance %, Toilet-1 %, Toilet-2 %, Toilet-3 %, Toilet-4 %							
State Mean	19.57	17.41	15.12	14.58	14.18	13.87	14.16
Aetna Better Health							14.05
AgeWell New York							6.30
AmeriGroup		8.00	8.85	10.80	11.15	15.65	18.25
AmeriGroup Map				23.50	18.20	23.65	27.75
Archcare Community Life							16.70
ArchCare Senior Life				4.65	15.35	18.50	21.05
CarePlus Connections	9.05						
Catholic Health Life				4.20	8.50	7.15	11.35

	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
CCM Select	14.35	8.90	7.25	8.25	9.40	10.35	10.00
Centers Plan for Health Living							8.10
CO OP Care Plan	9.00	10.35	9.55	9.70	9.95	11.75	11.25
Complete Senior Care						8.25	4.55
Comprehensive Care Management	12.10	12.45	11.85	12.95	13.00	13.75	14.15
Eddy Senior Care	41.95	34.15	31.85	33.00	28.35	25.45	19.20
Elant Choice	13.20	17.10	16.95	18.95	23.00	17.90	11.70
Elderplan dba Homefirst					11.35	12.05	11.95
Elderplan Map				11.50	14.35	15.65	18.75
Elderserve					4.65	11.30	10.80
Fidelis Medicaid Advantage Plus				4.15	8.60	12.65	10.10
GuildNet	20.05	19.65	18.45	17.95	17.70	18.05	16.85
GuildNet Gold		22.80	11.20	14.00	11.30	13.75	11.40
Health Insurance Plan					12.70	13.30	13.65
Health Partners of New York	26.05						
Healthfirst Complete Care							8.15
HHH Choices Gold							0.00
HIP MLTC						25.10	21.35
HomeFirst, Inc.	12.65	10.60	11.15	11.40	10.40		
Independence Care System	23.05	25.10	23.30	24.30	24.70	24.55	29.80
Independent Living for Seniors	33.35	30.50	23.80	22.55	20.90	17.80	17.25
Metroplus							12.60
PACE CNY	17.90	13.85	13.00	12.80	13.40	14.35	15.85
Partners in Community Care	9.05	12.55	9.90	9.25	8.35	8.75	20.30
Senior Health Partners, Inc.	22.75	12.85	6.60	7.35	8.35	8.45	9.55
Senior Network Health, LLC	7.50	8.05	7.00	8.10	7.45	6.30	4.60
Senior Whole Health			6.85	6.25	5.90	4.75	14.30
Senior Whole Health Partial							28.60
Total Aging In Place Program, Inc.	11.15	12.15	13.15	14.70	9.80	9.65	12.15
Total Senior Care			0.00	0.00	10.85	15.10	15.80
United Health Personal Assist							23.55
Village Care MAX							11.95
VNA Homecare Options							5.90
VNS Choice	24.20	21.45	18.05	17.30	17.00	15.85	15.75
VNSChoicePlus			25.40	22.30	18.80	18.05	20.05
WellCare		3.00	2.40	3.60	5.60	5.45	7.00

	2007	2008	2009	2010	2011	2012	2013
WellCarePlus		10.50	4.35	6.15	7.85	9.90	6.45
<b>Transferring Grouping</b>							
## Sum of Values For: Transfer-2 %, Transfer-3 %, Transfer-4 %, Transfer-5 %							
## Out of All Values: No Assistance %, Transfer-1 %, Transfer-2 %, Transfer-3 %, Transfer-4 %, Transfer-5 %							
State Mean		37.84	39.66	41.60	45.48	42.97	47.71
Aetna Better Health							39.75
AgeWell New York							20.85
AmeriGroup		24.05	23.05	35.80	34.35	44.70	46.20
AmeriGroup Map				47.10	27.30	48.20	61.05
Archcare Community Life							39.60
ArchCare Senior Life				23.00	30.60	36.90	38.50
CarePlus Connections							
Catholic Health Life				13.95	17.00	19.85	23.30
CCM Select		25.45	40.80	40.40	42.35	41.15	34.40
Centers Plan for Health Living							23.70
CO OP Care Plan		39.10	40.05	27.75	21.50	22.00	27.90
Complete Senior Care						14.20	13.50
Comprehensive Care Management		24.00	39.20	40.95	40.75	41.05	39.55
Eddy Senior Care		42.80	36.75	43.35	41.05	41.90	31.80
Elant Choice		21.65	25.85	27.70	32.20	32.95	20.80
Elderplan dba Homefirst					74.00	48.20	81.95
Elderplan Map				19.20	58.90	46.20	82.45
Elderserve					26.65	36.10	53.10
Fidelis Medicaid Advantage Plus				29.15	39.65	33.40	33.05
GuildNet		44.25	37.15	36.25	42.50	51.70	58.05
GuildNet Gold		40.90	30.00	22.45	28.80	32.15	40.50
Health Insurance Plan					22.15	29.00	31.85
Health Partners of New York							
Healthfirst Complete Care							47.70
HHH Choices Gold							50.00
HIP MLTC						40.70	47.60
HomeFirst, Inc.		22.35	29.05	44.10	70.70		
Independence Care System		52.70	52.65	54.45	55.30	50.70	55.95
Independent Living for Seniors		37.95	39.60	42.95	36.85	34.40	32.50
Metroplus							26.40

	2007	2008	2009	2010	2011	2012	2013
PACE CNY		25.90	25.65	48.45	56.30	61.20	59.70
Partners in Community Care		20.65	15.85	15.65	17.10	18.75	43.95
Senior Health Partners, Inc.		45.85	69.80	73.15	68.20	64.20	51.55
Senior Network Health, LLC		67.90	72.75	68.50	74.85	77.00	78.15
Senior Whole Health			17.05	18.90	23.90	32.20	34.25
Senior Whole Health Partial							43.15
Total Aging In Place Program, Inc.		23.25	20.45	23.80	22.45	23.55	22.70
Total Senior Care			26.70	9.45	11.75	17.65	22.85
United Health Personal Assist							40.90
Village Care MAX							62.45
VNA Homecare Options							8.20
VNS Choice		40.85	40.65	38.40	37.20	36.15	35.70
VNSChoicePlus			40.45	29.45	25.70	27.95	37.05
WellCare		8.65	16.80	42.00	37.05	24.35	26.30
WellCarePlus		17.10	16.15	23.85	43.20	31.80	34.25
<b>Ambulation Grouping</b>							
## Sum of Values For: Ambulatory-2 %, Ambulatory-3 %, Ambulatory-4 %, Ambulatory-5 %, Ambulatory-6 %							
## Out of All Values: No Assistance %, Ambulatory-1 %, Ambulatory-2 %, Ambulatory-3 %, Ambulatory-4 %, Ambulatory-5 %, Ambulatory-6 %							
State Mean		73.62	81.84	85.24	86.32	84.68	79.72
Aetna Better Health							78.35
AgeWell New York							41.50
AmeriGroup		41.30	67.25	77.00	78.45	83.40	85.50
AmeriGroup Map				70.60	77.30	81.40	94.40
Archcare Community Life							84.65
ArchCare Senior Life				87.25	68.75	68.80	73.85
CarePlus Connections							
Catholic Health Life				79.15	72.65	76.75	72.40
CCM Select		40.70	57.75	57.80	59.70	61.80	59.60
Centers Plan for Health Living							31.10
CO OP Care Plan		73.95	88.35	86.30	76.00	68.65	65.30
Complete Senior Care						23.50	28.50
Comprehensive Care Management		41.60	65.45	69.95	65.60	66.35	66.30
Eddy Senior Care		66.10	65.55	75.90	72.95	78.70	78.40
Elant Choice		63.80	68.65	91.85	90.25	92.75	75.95
Elderplan dba Homefirst					97.40	98.00	96.10

	2007	2008	2009	2010	2011	2012	2013
Elderplan Map				99.90	99.45	97.80	98.75
Elderserve					74.45	66.40	71.00
Fidelis Medicaid Advantage Plus				45.80	68.90	64.95	45.80
GuildNet		81.15	82.30	88.95	95.90	97.30	95.95
GuildNet Gold		86.40	80.20	88.80	95.25	96.20	96.85
Health Insurance Plan					86.80	83.35	79.95
Health Partners of New York							
Healthfirst Complete Care							76.50
HHH Choices Gold							50.00
HIP MLTC						93.90	83.90
HomeFirst, Inc.		82.80	92.30	96.95	97.10		
Independence Care System		81.70	86.45	91.75	91.40	91.50	91.60
Independent Living for Seniors		61.10	78.85	84.50	87.95	84.65	85.40
Metroplus							67.20
PACE CNY		85.35	91.00	93.20	93.85	95.05	93.95
Partners in Community Care		54.45	71.00	79.10	82.80	78.65	74.85
Senior Health Partners, Inc.		79.85	88.75	88.40	88.55	89.50	80.80
Senior Network Health, LLC		93.30	96.35	94.65	97.25	96.55	94.80
Senior Whole Health			76.85	78.05	81.05	87.40	52.40
Senior Whole Health Partial							74.40
Total Aging In Place Program, Inc.		40.00	45.35	48.00	50.60	63.65	59.35
Total Senior Care			60.00	22.70	30.80	79.45	88.10
United Health Personal Assist							56.80
Village Care MAX							91.30
VNA Homecare Options							42.40
VNS Choice		77.00	84.80	86.95	87.45	86.20	73.20
VNSChoicePlus			84.95	82.00	78.80	74.80	73.90
WellCare		85.65	86.70	85.20	89.05	94.80	87.30
WellCarePlus		85.50	81.75	76.80	91.00	93.85	89.20
<b>Feeding Grouping</b>							
## Sum of Values For: Feeding-2 %, Feeding-3 %, Feeding-4 %, Feeding-5 %							
## Out of All Values: No Assistance %, Feeding-1 %, Feeding-2 %, Feeding-3 %, Feeding-4 %, Feeding-5 %							
State Mean	6.69	6.17	5.74	5.80	6.52	6.47	7.12
Aetna Better Health							9.85
AgeWell New York							2.30



	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
AmeriGroup		3.70	1.80	3.90	6.90	9.30	9.60
AmeriGroup Map				5.90	9.10	0.00	11.10
Archcare Community Life							10.15
ArchCare Senior Life				0.00	3.05	6.35	7.95
CarePlus Connections	2.75						
Catholic Health Life				0.00	4.70	5.85	5.55
CCM Select	5.15	3.45	2.70	3.85	5.65	5.70	5.25
Centers Plan for Health Living							3.50
CO OP Care Plan	5.75	4.85	3.30	4.80	4.25	4.20	4.85
Complete Senior Care						3.55	0.00
Comprehensive Care Management	5.25	5.25	4.25	4.50	7.35	7.05	7.30
Eddy Senior Care	15.25	10.25	8.20	5.95	8.35	7.70	6.80
Elant Choice	7.45	6.75	6.30	13.10	12.00	11.85	7.25
Elderplan dba Homefirst					5.80	6.25	6.60
Elderplan Map				0.00	6.75	7.35	8.10
Elderserve					2.10	4.85	5.15
Fidelis Medicaid Advantage Plus				4.15	3.35	3.70	5.60
GuildNet	7.10	7.60	7.35	7.55	7.95	7.35	7.50
GuildNet Gold		9.10	5.35	2.85	3.10	3.50	3.85
Health Insurance Plan					2.00	3.25	4.10
Health Partners of New York	12.10						
Healthfirst Complete Care							2.95
HHH Choices Gold							0.00
HIP MLTC						18.80	10.45
HomeFirst, Inc.	4.10	3.70	5.00	5.75	5.00		
Independence Care System	9.05	9.15	8.45	8.30	9.35	10.75	17.50
Independent Living for Seniors	6.25	5.80	5.55	3.75	7.60	6.85	6.65
Metroplus							6.90
PACE CNY	4.70	2.10	1.75	1.60	4.50	3.70	4.20
Partners in Community Care	5.10	3.55	3.60	2.65	3.85	5.00	10.05
Senior Health Partners, Inc.	4.90	3.15	2.50	2.75	3.00	3.80	5.10
Senior Network Health, LLC	2.65	3.15	2.90	2.90	3.55	2.80	2.50
Senior Whole Health			2.40	1.15	1.65	1.75	4.35
Senior Whole Health Partial							13.15
Total Aging In Place Program, Inc.	1.95	0.40	1.60	1.80	1.35	1.40	2.35
Total Senior Care			6.70	2.55	4.75	5.05	6.50

	2007	2008	2009	2010	2011	2012	2013
United Health Personal Assist							8.90
Village Care MAX							5.85
VNA Homecare Options							0.00
VNS Choice	7.50	7.05	6.75	6.80	7.90	7.75	7.95
VNSChoicePlus			9.55	13.65	11.60	9.20	11.20
WellCare		1.00	1.90	1.40	2.45	2.80	3.40
WellCarePlus		5.30	1.35	2.65	5.75	2.90	4.15
<b>IADL</b>							
<b>Meal Prep Grouping</b>							
## Sum of Values For: Meal-1 %, Meal-2 %							
## Out of All Values: No Assistance %, Meal-1 %, Meal-2 %							
State Mean	79.11	84.91	85.36	86.95	88.58	89.48	88.77
Aetna Better Health							78.25
AgeWell New York							72.25
AmeriGroup		74.30	74.20	77.25	83.70	89.05	84.65
AmeriGroup Map				53.00	90.95	80.90	87.50
Archcare Community Life							85.10
ArchCare Senior Life				75.90	88.40	74.85	80.60
CarePlus Connections	55.70						
Catholic Health Life				50.80	53.95	53.50	54.15
CCM Select	71.05	79.70	77.90	83.20	87.55	87.55	90.40
Centers Plan for Health Living							50.30
CO OP Care Plan	91.45	97.00	98.20	97.60	95.40	93.45	94.00
Complete Senior Care						65.35	52.80
Comprehensive Care Management	56.30	66.00	68.35	73.05	74.20	80.20	82.20
Eddy Senior Care	51.20	57.20	60.30	74.25	74.25	74.75	73.45
Elant Choice	55.30	72.25	70.70	69.65	63.75	58.20	69.65
Elderplan dba Homefirst					98.25	98.90	97.75
Elderplan Map				100.00	98.55	97.80	98.45
Elderserve					75.85	87.50	89.05
Fidelis Medicaid Advantage Plus				95.80	76.85	77.75	69.55
GuildNet	88.45	92.90	93.85	95.30	96.60	96.95	94.45
GuildNet Gold		100.00	94.50	89.65	92.75	94.25	94.40
Health Insurance Plan					72.45	74.90	79.40
Health Partners of New York	91.65						

	2007	2008	2009	2010	2011	2012	2013
Healthfirst Complete Care							78.60
HHH Choices Gold							100.00
HIP MLTC						93.80	81.35
HomeFirst, Inc.	81.95	87.10	91.55	97.80	98.00		
Independence Care System	72.05	74.90	83.20	85.95	88.55	90.80	92.10
Independent Living for Seniors	60.35	64.05	62.70	64.20	67.55	66.60	66.90
Metroplus							79.30
PACE CNY	57.10	58.95	50.45	49.95	47.90	48.05	48.45
Partners in Community Care	43.15	63.30	60.45	64.80	62.80	66.15	78.45
Senior Health Partners, Inc.	69.40	75.00	73.40	73.50	82.15	83.65	83.50
Senior Network Health, LLC	34.45	39.10	37.65	35.15	38.10	37.35	36.45
Senior Whole Health			34.85	32.00	32.15	36.45	77.55
Senior Whole Health Partial							77.45
Total Aging In Place Program, Inc.	56.40	61.50	51.40	51.70	49.35	58.40	56.70
Total Senior Care			66.70	51.35	46.00	42.45	43.60
United Health Personal Assist							94.70
Village Care MAX							92.05
VNA Homecare Options							31.70
VNS Choice	85.10	93.55	92.25	92.25	94.05	93.35	90.50
VNSChoicePlus			95.20	87.10	90.55	89.20	94.50
WellCare		70.85	75.70	84.55	84.90	86.15	87.85
WellCarePlus		82.60	72.40	82.90	90.30	70.25	87.65
<b>Transportation Grouping</b>							
## Sum of Values For: Transport-1 %, Transport-2 %							
## Out of All Values: No Assistance %, Transport-1 %, Transport-2 %							
State Mean	91.14	97.78	98.10	97.73	98.28	98.28	97.89
Aetna Better Health							95.65
AgeWell New York							98.20
AmeriGroup		94.95	97.15	95.20	98.15	98.95	97.40
AmeriGroup Map				100.00	95.45	95.45	100.00
Archcare Community Life							97.30
ArchCare Senior Life				100.00	97.35	97.80	97.40
CarePlus Connections	86.25						
Catholic Health Life				88.60	97.10	97.55	95.70
CCM Select	94.55	98.25	98.60	98.50	98.75	98.90	98.85
Centers Plan for Health Living							72.70

	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
CO OP Care Plan	92.00	99.65	99.45	98.85	99.00	97.20	97.45
Complete Senior Care						95.95	98.25
Comprehensive Care Management	89.10	96.05	96.20	97.10	96.95	98.35	98.40
Eddy Senior Care	86.30	97.95	97.50	97.80	97.60	97.80	96.60
Elant Choice	80.60	98.60	97.10	98.85	99.70	95.75	96.40
Elderplan dba Homefirst					99.35	99.65	99.50
Elderplan Map				100.00	100.00	99.70	99.65
Elderserve					98.45	98.55	98.70
Fidelis Medicaid Advantage Plus				95.85	96.50	97.65	97.10
GuildNet	94.20	99.35	99.05	99.15	99.35	99.35	99.20
GuildNet Gold		100.00	99.00	98.90	99.70	99.05	98.40
Health Insurance Plan					92.10	95.75	97.45
Health Partners of New York	92.60						
Healthfirst Complete Care							97.30
HHH Choices Gold							100.00
HIP MLTC						93.70	98.00
HomeFirst, Inc.	96.15	99.45	99.70	99.25	99.20		
Independence Care System	82.00	88.70	92.30	84.35	91.20	91.85	95.60
Independent Living for Seniors	88.00	96.15	96.25	95.55	95.30	95.05	94.65
Metroplus							91.30
PACE CNY	88.45	96.40	95.30	95.05	94.60	91.85	91.80
Partners in Community Care	82.85	96.30	96.80	97.85	97.75	97.65	95.90
Senior Health Partners, Inc.	92.40	93.45	98.50	98.25	99.50	99.60	98.05
Senior Network Health, LLC	85.15	95.65	94.65	94.50	94.65	94.30	93.25
Senior Whole Health			85.80	82.10	82.65	84.20	97.70
Senior Whole Health Partial							95.25
Total Aging In Place Program, Inc.	77.45	98.75	99.60	98.55	97.05	98.40	100.00
Total Senior Care			100.00	96.15	89.00	83.65	89.10
United Health Personal Assist							91.80
Village Care MAX							92.40
VNA Homecare Options							85.90
VNS Choice	90.25	98.95	98.65	98.75	98.85	98.65	97.80
VNSChoicePlus			100.00	93.50	97.65	98.50	98.35
WellCare		96.90	97.70	98.75	99.20	97.30	97.55
WellCarePlus		89.30	98.00	97.35	100.00	90.50	98.70

	2007	2008	2009	2010	2011	2012	2013
<b>Laundry Grouping</b>							
## Sum of Values For: Laundry-1 %, Laundry-2 %							
## Out of All Values: No Assistance %, Laundry-1 %, Laundry-2 %							
State Mean	92.22	98.96	98.98	99.10	99.22	99.23	98.96
Aetna Better Health							97.75
AgeWell New York							98.15
AmeriGroup		96.85	98.95	99.50	99.70	99.85	96.10
AmeriGroup Map				100.00	100.00	100.00	100.00
Archcare Community Life							96.85
ArchCare Senior Life				98.85	97.70	98.00	98.55
CarePlus Connections	89.50						
Catholic Health Life				93.05	93.75	96.40	95.30
CCM Select	95.40	99.30	99.05	99.05	99.45	99.55	99.70
Centers Plan for Health Living							90.40
CO OP Care Plan	93.45	99.90	99.70	99.05	99.50	99.50	99.55
Complete Senior Care						89.45	100.00
Comprehensive Care Management	88.65	97.80	98.50	98.85	99.25	99.30	99.40
Eddy Senior Care	84.35	93.85	95.55	97.70	96.65	97.35	94.20
Elant Choice	82.20	99.00	100.00	98.90	94.80	93.25	95.70
Elderplan dba Homefirst					100.00	100.00	99.95
Elderplan Map				100.00	100.00	100.00	100.00
Elderserve					97.65	98.95	99.30
Fidelis Medicaid Advantage Plus				100.00	94.80	96.95	97.00
GuildNet	94.00	99.70	99.65	99.75	99.80	99.85	99.65
GuildNet Gold		100.00	99.35	99.40	100.00	100.00	99.75
Health Insurance Plan					99.45	99.80	99.25
Health Partners of New York	93.10						
Healthfirst Complete Care							98.65
HHH Choices Gold							100.00
HIP MLTC						96.90	98.70
HomeFirst, Inc.	96.90	99.90	99.95	100.00	100.00		
Independence Care System	95.90	99.25	99.40	99.80	99.70	99.80	99.70
Independent Living for Seniors	86.00	95.10	95.20	95.35	96.65	95.05	92.15
Metroplus							94.80
PACE CNY	85.20	90.30	85.00	85.50	83.20	81.50	84.05
Partners in Community Care	85.55	98.55	95.65	97.55	98.05	98.60	98.15

	2007	2008	2009	2010	2011	2012	2013
Senior Health Partners, Inc.	96.95	98.55	99.15	99.40	99.45	99.25	98.20
Senior Network Health, LLC	84.70	96.45	96.25	96.65	97.75	97.25	95.30
Senior Whole Health			78.85	84.80	86.60	89.50	98.00
Senior Whole Health Partial							98.50
Total Aging In Place Program, Inc.	78.90	97.50	94.95	96.75	97.00	97.60	97.05
Total Senior Care			100.00	92.65	92.45	83.60	78.25
United Health Personal Assist							99.75
Village Care MAX							99.10
VNA Homecare Options							90.60
VNS Choice	90.60	99.10	99.35	99.40	99.65	99.45	99.00
VNSChoicePlus			97.60	98.90	100.00	99.50	99.85
WellCare		100.00	98.70	99.35	99.55	99.50	99.65
WellCarePlus		100.00	99.60	99.45	100.00	97.90	100.00
<b>Housekeeping Grouping</b>							
## Sum of Values For: Housekeeping-1 %, Housekeeping-2 %							
## Out of All Values: No Assistance %, Housekeeping-1 %, Housekeeping-2 %, Housekeeping-3 %, Housekeeping-4 %							
State Mean	82.79	88.52	89.46	90.26	91.87	92.19	91.84
Aetna Better Health							92.60
AgeWell New York							79.30
AmeriGroup		81.65	72.45	85.45	90.75	93.70	94.45
AmeriGroup Map				76.50	95.45	100.00	93.75
Archcare Community Life							82.65
ArchCare Senior Life				84.95	87.60	79.40	83.90
CarePlus Connections	70.10						
Catholic Health Life				56.40	52.65	52.50	60.05
CCM Select	84.80	89.75	90.40	88.35	90.30	90.60	92.00
Centers Plan for Health Living							65.90
CO OP Care Plan	92.00	99.20	98.80	98.60	98.75	98.00	96.50
Complete Senior Care						82.55	76.85
Comprehensive Care Management	63.60	72.80	75.65	78.35	81.10	84.80	85.95
Eddy Senior Care	67.15	73.55	72.05	82.90	79.95	81.70	85.55
Elant Choice	48.60	72.00	79.95	64.45	61.05	58.75	57.05
Elderplan dba Homefirst					99.40	99.80	98.95
Elderplan Map				100.00	99.85	99.95	99.75
Elderserve					88.80	92.15	93.60

	2007	2008	2009	2010	2011	2012	2013
Fidelis Medicaid Advantage Plus				100.00	87.15	87.05	75.80
GuildNet	90.10	94.40	95.60	95.95	97.55	97.00	96.40
GuildNet Gold		97.70	97.10	92.65	96.45	95.20	94.60
Health Insurance Plan					71.20	76.70	90.15
Health Partners of New York	90.50						
Healthfirst Complete Care							86.25
HHH Choices Gold							100.00
HIP MLTC						90.70	93.15
HomeFirst, Inc.	89.30	93.15	95.80	99.20	99.40		
Independence Care System	85.15	87.75	92.80	97.25	98.85	98.90	98.40
Independent Living for Seniors	66.40	71.85	73.20	74.85	75.15	73.05	72.20
Metroplus							81.60
PACE CNY	56.15	60.90	52.75	54.75	50.70	49.50	51.85
Partners in Community Care	72.50	81.10	67.20	68.45	72.30	76.10	91.05
Senior Health Partners, Inc.	60.40	63.35	70.45	71.10	84.70	90.40	89.00
Senior Network Health, LLC	38.50	41.85	38.25	39.25	42.85	40.35	36.40
Senior Whole Health			43.65	38.05	36.05	38.95	82.40
Senior Whole Health Partial							86.60
Total Aging In Place Program, Inc.	44.60	52.85	58.05	63.25	54.75	56.00	55.90
Total Senior Care			80.10	74.25	60.05	48.80	27.60
United Health Personal Assist							92.50
Village Care MAX							89.60
VNA Homecare Options							54.10
VNS Choice	87.85	96.70	96.50	96.40	96.60	94.60	91.00
VNSChoicePlus			97.65	93.45	94.25	93.40	90.85
WellCare		82.65	86.45	92.10	90.90	87.40	88.35
WellCarePlus		86.60	82.45	81.45	88.15	72.95	85.45
<b>Shopping Grouping</b>							
## Sum of Values For: Shop-2 %, Shop-3 %							
## Out of All Values: No Assistance %, Shop-1 %, Shop-2 %, Shop-3 %							
State Mean	62.85	67.23	67.03	66.94	66.20	65.17	65.32
Aetna Better Health							71.50
AgeWell New York							52.50
AmeriGroup		59.10	56.35	64.25	67.70	69.00	74.50
AmeriGroup Map				70.50	81.90	52.75	56.25
Archcare Community Life							69.50

	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
ArchCare Senior Life				40.45	76.15	65.35	74.40
CarePlus Connections	51.55						
Catholic Health Life				83.05	62.75	69.10	55.65
CCM Select	66.50	67.50	60.15	57.10	57.30	58.95	58.80
Centers Plan for Health Living							40.20
CO OP Care Plan	83.40	86.55	77.75	74.05	62.85	55.10	54.85
Complete Senior Care						66.60	64.80
Comprehensive Care Management	47.15	54.10	53.65	55.55	55.50	60.10	59.15
Eddy Senior Care	67.95	77.10	82.00	83.80	81.40	81.30	78.15
Elant Choice	61.35	84.05	81.25	75.30	70.60	57.85	49.80
Elderplan dba Homefirst					65.90	65.80	66.10
Elderplan Map				88.40	80.80	74.85	72.25
Elderserve					61.20	59.25	63.85
Fidelis Medicaid Advantage Plus				62.50	53.20	56.80	47.60
GuildNet	65.30	70.10	70.65	71.30	69.70	70.30	71.10
GuildNet Gold		75.00	71.90	63.20	60.05	59.20	57.45
Health Insurance Plan					55.30	65.05	59.35
Health Partners of New York	82.00						
Healthfirst Complete Care							42.20
HHH Choices Gold							50.00
HIP MLTC						78.20	67.00
HomeFirst, Inc.	60.35	64.30	66.25	68.25	65.30		
Independence Care System	35.25	35.85	33.50	37.25	38.50	43.85	60.45
Independent Living for Seniors	63.95	64.45	62.70	66.70	66.00	59.80	53.85
Metroplus							70.10
PACE CNY	62.25	66.35	59.90	55.10	52.85	53.55	55.90
Partners in Community Care	45.60	51.10	42.15	46.75	50.65	55.60	74.10
Senior Health Partners, Inc.	40.85	36.65	44.45	44.55	50.10	56.60	57.60
Senior Network Health, LLC	39.05	47.80	39.00	37.15	38.55	34.20	31.65
Senior Whole Health			35.25	37.80	33.15	31.10	69.40
Senior Whole Health Partial							72.20
Total Aging In Place Program, Inc.	66.15	67.95	58.05	61.85	63.80	67.60	63.85
Total Senior Care			80.00	64.30	51.50	50.30	41.75
United Health Personal Assist							89.85
Village Care MAX							60.25
VNA Homecare Options							36.50



	2007	2008	2009	2010	2011	2012	2013
VNS Choice	72.45	82.70	83.55	82.15	81.70	78.35	73.05
VNSChoicePlus			92.85	83.10	68.95	66.60	71.70
WellCare		74.50	61.10	59.05	63.55	62.15	58.00
WellCarePlus		66.60	49.35	54.55	75.40	66.60	66.15
<b>Phone Grouping</b>							
## Sum of Values For: Phone-2 %, Phone-3 %, Phone-4 %, Phone-5 %, No phone %							
## Out of All Values: No Assistance %, Phone-1 %, Phone-2 %, Phone-3 %, Phone-4 %, Phone-5 %, No phone %							
State Mean	29.87	27.94	27.55	27.96	28.10	29.86	29.27
Aetna Better Health							33.50
AgeWell New York							15.35
AmeriGroup		19.00	21.80	25.70	33.20	39.45	35.10
AmeriGroup Map				23.60	22.75	19.10	12.50
Archcare Community Life							36.75
ArchCare Senior Life				16.30	37.20	36.65	42.90
CarePlus Connections	17.10						
Catholic Health Life				22.50	29.85	31.15	30.45
CCM Select	19.85	19.45	19.70	22.30	25.25	28.90	27.60
Centers Plan for Health Living							11.60
CO OP Care Plan	25.40	21.80	22.80	22.60	22.70	18.85	19.90
Complete Senior Care						34.75	24.90
Comprehensive Care Management	24.60	26.50	26.50	30.55	30.70	34.70	34.95
Eddy Senior Care	36.45	35.25	36.05	31.40	29.65	20.95	19.20
Elant Choice	50.80	54.35	46.20	41.25	36.20	32.30	34.20
Elderplan dba Homefirst					26.20	30.05	29.15
Elderplan Map				26.90	33.30	31.35	29.70
Elderserve					15.95	33.35	31.70
Fidelis Medicaid Advantage Plus				16.65	14.20	28.15	22.55
GuildNet	34.25	33.35	33.60	33.75	34.20	34.60	35.35
GuildNet Gold		34.00	27.35	30.85	28.10	24.85	26.15
Health Insurance Plan					11.50	20.20	21.80
Health Partners of New York	44.30						
Healthfirst Complete Care							24.00
HHH Choices Gold							50.00
HIP MLTC						53.10	38.20
HomeFirst, Inc.	20.15	20.25	23.75	24.65	24.50		

	2007	2008	2009	2010	2011	2012	2013
Independence Care System	11.80	11.10	9.85	10.80	10.65	14.25	26.35
Independent Living for Seniors	45.65	33.75	34.00	35.95	33.50	34.70	30.90
Metroplus							20.20
PACE CNY	39.80	31.35	27.90	24.90	23.55	20.90	22.35
Partners in Community Care	19.15	20.30	22.35	29.90	32.60	34.30	35.10
Senior Health Partners, Inc.	31.25	26.60	23.05	25.35	28.70	34.80	35.00
Senior Network Health, LLC	20.50	17.45	16.20	16.00	16.70	14.30	12.20
Senior Whole Health			9.55	11.05	15.15	17.30	37.65
Senior Whole Health Partial							40.50
Total Aging In Place Program, Inc.	10.00	8.35	7.10	10.15	12.35	14.40	18.45
Total Senior Care			26.70	21.85	29.50	30.35	25.65
United Health Personal Assist							43.40
Village Care MAX							25.60
VNA Homecare Options							7.10
VNS Choice	33.15	32.50	31.50	30.70	29.35	28.00	25.45
VNSChoicePlus			46.85	27.30	16.65	16.40	22.15
WellCare		17.85	19.85	24.70	23.35	21.70	20.90
WellCarePlus		13.20	11.10	13.05	22.45	19.60	24.35

*Table C19. Access to Care (Percent That Receive Routine Appointments Less Than One Month)*

	2011 (%)	2013 (%)	p-value
Regular Doctor	58.5	58.7	0.91
Audiology/Hearing Aids*		51.6	-
Dentist	44.5	46.2	0.43
Foot Doctor	44.1	44.9	0.69
Eye Care	41.8	42.9	0.56
*New in 2013 Significance is a p-value <0.05			

Table C20. New Member Survey

<b>Timeliness</b>	<b>Better</b>	<b>About the Same</b>	<b>Worse</b>	<b>About the Same or Better</b>	
Home Health/ Personal Care	50.80%	45.40%	3.80%	96.20%	(highest for better)
<b>Quality</b>	<b>Better</b>	<b>About the Same</b>	<b>Worse</b>	<b>About the Same or Better</b>	
Home Health/ Personal Care	52.70%	42.20%	5.10%	94.90%	(highest for better)

Table C21 Flu Immunizations Status Percent

	<b>Immunized</b>	<b>No, Contraindicated</b>	<b>No, Refused</b>	<b>No, Other</b>
Jul-08	76.48231	1.601673	14.46569	7.453604
Jan-09	82.44651	1.012727	10.94602	5.410795
Jul-09	84.75343	0.952859	10.13915	3.997095
Jan-10	82.99092	1.034665	10.5268	5.414779
Jul-10	73.45691	2.386419	16.57234	7.598213
Jan-11	71.97767	2.507168	15.36761	10.14113
Jul-11	72.9977	2.390073	15.92049	8.704738
Jan-12	71.73086	2.393983	15.61956	10.2771
Jul-12	72.51203	2.185514	15.08991	10.21558
Jan-13	70.33511	2.040796	15.28693	12.26757
Jul-13	72.55723	1.998955	16.58631	8.88838

Table C22 Percent Change of Flu Immunization

Jan-09	7.798134
Jul-09	2.798079
Jan-10	-2.07957
Jul-10	-11.488
Jan-11	-2.01376
Jul-11	1.417156
Jan-12	-1.73546
Jul-12	1.089027
Jan-13	-3.00214
Jul-13	3.159324

*Table C23 Percent of MLTC Enrollees Who Went to the Dentist Within a Given Year*

<b>Area</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Rest of State	19%	24%	25%	30%	30%	29%	26%	29%	29%	19%
NYC	19%	23%	23%	20%	22%	21%	20%	21%	20%	20%
Statewide	19%	23%	23%	21%	23%	22%	21%	21%	21%	20%

*Table C24 Percent of MLTC Enrollees Who Went to the Dentist Within a Given Year*

<b>Region</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Central	12%	20%	15%	16%	19%	26%	21%	26%	40%	32%
Hudson Valley	19%	21%	21%	21%	25%	27%	20%	21%	16%	15%
Long Island	32%	35%	45%	52%	41%	30%	31%	34%	27%	16%
North East	32%	18%	35%	55%	49%	44%	39%	38%	35%	17%
Western	6%	18%	8%	31%	36%	31%	34%	37%	38%	34%
NYC	19%	23%	23%	20%	22%	21%	20%	21%	20%	20%

*Table C25. Number of Dental Recipients*

<b>Area</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Rest of State	458	611	666	884	911	1,006	1,026	1,245	1,556	2,417
NYC	2,237	3,127	3,887	4,310	5,733	6,211	6,724	8,567	12,916	23,416
Statewide	2,695	3,738	4,553	5,194	6,644	7,217	7,750	9,812	14,472	25,833

*Table C26 Percent Change in Dental Recipients*

<b>Area</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Rest of State	33%	9%	33%	3%	10%	2%	21%	25%	55%
NYC	40%	24%	11%	33%	8%	8%	27%	51%	81%
Statewide	39%	22%	14%	28%	9%	7%	27%	47%	79%

Table C27. Percent of MLTC Beneficiaries Who Manage Oral Medication

	<b>Independent</b>	<b>Some Assistance</b>	<b>Total Assistance</b>	<b>No Orals</b>
Jan-07	31.1	54.1	9.5	1.4
Jul-07	29.4	50.3	9.6	1.3
Jan-08	30.9	57.1	10.4	1.5
Jul-08	30.3	58.0	10.4	1.2
Jan-09	30.6	58.0	10.2	1.1
Jul-09	29.5	59.3	9.9	1.2
Jan-10	30.0	58.8	10.0	1.1
Jul-10	29.1	59.6	10.1	1.1
Jan-11	29.2	59.6	9.9	1.2
Jul-11	28.9	60.2	9.7	1.1
Jan-12	27.5	61.0	10.2	1.2
Jul-12	25.9	62.2	10.8	1.1
Jan-13	25.8	61.9	11.2	1.0
Jul-13	26.7	61.0	11.3	1.0

Table C28. Percent Change of Independently Manage Oral Medications

	<b>Independent %</b>
Jan-07	
Jul-07	-5.6
Jan-08	5.3
Jul-08	-2.0
Jan-09	0.9
Jul-09	-3.4
Jan-10	1.7
Jul-10	-3.1
Jan-11	0.4
Jul-11	-1.0
Jan-12	-4.8
Jul-12	-6.1
Jan-13	-0.3
Jul-13	3.6

Table C29. Percent and Percent Change of MLTC Beneficiaries that Fell Within the Last Six Months

	<b>% One or More Falls</b>	<b>% Change</b>
Jan-07		
Jul-07		
Jan-08		
Jul-08	15.2	
Jan-09	15.5	1.5
Jul-09	15.6	0.6
Jan-10	14.8	-5.0
Jul-10	14.6	-1.3
Jan-11	16.0	9.8
Jul-11	15.5	-3.0
Jan-12	15.4	-1.0
Jul-12	14.9	-2.9
Jan-13	15.5	3.7
Jul-13	16.0	3.4

Table C30 Timeliness of Care Rated Always/Usually

<b>Description</b>	<b>2011 %</b>	<b>2013 %</b>	<b>p-value</b>
Home Health Aide, Personal Care Aide	78.9	78.3	0.68
Care Manager/Case Manager	73	69.2	0.017
Regular Visiting Nurse/Registered Nurse	72.6	69.2	0.028
Significance is a p-value <0.05.			

Table C31 Quality of Care Providers (Excellent/Good)

<b>Description</b>	<b>2011 %</b>	<b>2013 %</b>	<b>p-value</b>
Home Health Aide, Personal Care Aide	86.7	87.1	0.726
Care Manager/Case Manager	87	84.3	0.019
Regular Visiting Nurse/Registered Nurse	85.8	83.7	0.077
Significance is a p-value <0.05.			

Table C32 Per-Member Per-Month (PMPM) Costs of Managed Long-Term Care

Area	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Rest of State	\$3,550	\$3,552	\$3,452	\$3,449	\$3,397	\$3,407	\$3,317	\$3,271	\$3,439	\$3,608
NYC	\$4,194	\$4,211	\$3,896	\$3,824	\$3,778	\$3,817	\$3,803	\$3,896	\$3,926	\$3,924
Statewide	\$4,088	\$4,108	\$3,836	\$3,779	\$3,740	\$3,776	\$3,755	\$3,836	\$3,888	\$3,899

Table C33 PMPM by Region

Region	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Central	\$3,207	\$3,206	\$3,101	\$3,093	\$3,118	\$3,134	\$3,122	\$3,156	\$3,287	\$3,345
Hudson Valley	\$3,607	\$3,695	\$3,442	\$3,191	\$3,072	\$2,984	\$2,985	\$3,081	\$3,231	\$3,503
Long Island	\$4,174	\$4,202	\$4,184	\$4,175	\$4,042	\$4,249	\$3,931	\$3,616	\$3,869	\$3,918
North East	\$3,397	\$3,446	\$3,528	\$3,894	\$3,993	\$3,271	\$3,278	\$3,251	\$3,245	\$3,261
Western	\$3,646	\$3,210	\$2,755	\$2,675	\$2,703	\$2,724	\$2,898	\$3,092	\$3,272	\$3,236
NYC	\$4,194	\$4,211	\$3,896	\$3,824	\$3,778	\$3,817	\$3,803	\$3,896	\$3,926	\$3,924
Statewide	\$4,088	\$4,108	\$3,836	\$3,779	\$3,740	\$3,776	\$3,755	\$3,836	\$3,888	\$3,899

Table C34 Total Managed Long-Term Care Capitation Payment in Millions of Dollars

Region	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Central	\$33.04	\$35.35	\$34.70	\$34.72	\$34.39	\$34.70	\$37.74	\$39.79	\$42.95	\$44.95
Hudson Valley	14.12	14.83	15.04	17.04	18.37	22.36	26.26	30.78	38.48	44.95
Long Island	22.43	24.81	28.47	35.47	34.20	38.90	40.75	41.29	53.66	61.11
North East	3.14	3.09	2.91	3.47	4.84	7.26	9.08	11.79	14.32	16.88
Western	3.51	4.84	4.23	4.15	4.47	4.86	6.68	9.07	12.63	15.19
NYC	454.29	535.41	615.61	777.94	948.16	1,078.59	1,241.02	1,490.52	2,203.55	4,000.00
Statewide	\$530.54	\$618.33	\$700.95	\$872.80	\$1,044.44	\$1,186.67	\$1,361.54	\$1,623.24	\$2,365.58	\$4,333.33

Table C35 Total Managed Long-Term Care Member Months

Region	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Central	10,302	11,026	11,192	11,225	11,029	11,072	12,090	12,609	13,066	16,151
Hudson Valley	3,913	4,013	4,370	5,340	5,980	7,492	8,800	9,988	11,910	25,358
Long Island	5,375	5,904	6,804	8,496	8,462	9,154	10,365	11,419	13,868	33,381
North East	924	896	824	891	1,213	2,221	2,770	3,628	4,413	4,313
Western	964	1,508	1,535	1,553	1,653	1,783	2,305	2,932	3,859	5,328
NYC	108,312	127,160	157,992	203,430	250,952	282,543	326,309	382,587	561,295	1,019,687
Statewide	129,790	150,507	182,717	230,935	279,289	314,265	362,639	423,163	608,411	1,104,218

## **Appendix D: Detailed F-SHRP Chronology**

### ***Introduction***

The F-SHRP-related chronology tracks the activities that are related to 5 F-SHRP goals. F-SHRP quarterly and annual reports, as well as information on the New York State Department of Health website, served as the major source of these documented F-SHRP activities.

The first three F-SHRP evaluation goals, acute care restructuring, long-term care restructuring, and health information technology, are highly related to Health Care Efficiency and Affordability Law for New Yorkers (HEAL-NY) capital grants. The HEAL-NY program aimed to improve quality and efficiency of health care, right-size the health care delivery system, and reduce the health care spending rate. There were 22 phases within HEAL NY. Each phase had its specific goal. For example, HEAL 1, 5, 10, 17, and 22 grants funded Health Information Technology (health IT). HEAL 2, 4, 6, 7, 9, 11, 14, 16, 18, and 21 were related to acute care restructuring. HEAL 4, 7, 9, 14, and 21 also covered long-term care restructuring. HEAL 8, 12, and 20 mainly funded long-term care restructuring.

### ***GOAL 1: Acute Care Restructuring***

#### ***HEAL-NY***

The list below shows HEAL-NY grants that supported the health care service restructuring, including merger, downsizing, or closure of health care facilities. Some phases funded both acute care and long-term care facilities restructuring (\*). These HEAL-NY activities were all announced during the F-SHRP Demonstration (New York State Department of Health [DOH], 2013):

- 1) Phase 2: Capital Restructuring Initiatives (11/2006): \$267.7 million
- 2) Phase 4\*: Berger Implementation (09/2007-09/2008): \$550 million
- 3) Phase 6: Primary Care Infrastructure (09/2008): \$100 million
- 4) Phase 7\*: Capital Restructuring Initiatives #2 (09/2008): \$150 million
- 5) Phase 9\*: Local Health Planning Initiatives (02/2009): \$7 million
- 6) Phase 11: Capital Restructuring Initiatives #3 (09/2009): \$175 million
- 7) Phase 14.1: Finger Lakes Health System (06/2008): \$1 million  
Phase 14.2: Expanding Access in Queens (02/2009): \$16 million  
Phase 14.3: Oswego Health (05/2009): \$17.8 million  
Phase 14.4: Expanding Access in Queens #2 (09/2009): \$30 million  
Phase 14.5\*: Individual Facility Award (09/2009): \$87 million
- 8) Phase 16: Urgent Care in Greenwich Village (04/2010): \$14 million
- 9) Phase 18: Mental Health (09/2010): \$38.5 million



10) Phase 19: Facility Specific Discretionary Awards (09/2010): 200 million

11) Phase 21\*: Medical Redesign (06/2012): \$150 million

Fifty-three awards were announced in HEAL 2, but 12 projects were either withdrawn or rescinded (DOH, 2013). HEAL 2 general activities included facility construction and certification/decertification of beds.

Seventy-nine awards were announced in HEAL 6; four of them were either withdrawn or rescinded (DOH, 2013). HEAL 6 aimed to enhance the quality of primary care.

HEAL 7 was the Capital Restructuring Initiatives following HEAL 2. Twenty-six awards were announced, while one award was declined, one was rescinded, and one was not executed (DOH, 2013). Activities within HEAL 7 include service expansion (e.g., ER, urgent care, outpatient care), treatment room creation (39 rooms), and hospital consolidation.

HEAL 9 supported collaborative local health planning; 18 awards were announced and all of them have been completed (DOH, 2013). The activities within HEAL 9 included conducting health care assessment and health care information data set development. These activities were more related to “planning” rather than “actual restructuring.”

HEAL 11 was the third wave of Capital Restructuring Initiatives. The F-SHRP annual report showed 25 awards were announced (DOH, 2013), but the NYS Senate website lists 28 awardees (New York State Senate, 2009). St. Vincent’s Catholic Medical Center did not go to contract because of hospital closure. Most project in HEAL 11 focused on facility renovation and expansion.

HEAL16 supported an urgent care facility and other health care services in Greenwich Village for patients displaced by the closure of St. Vincent’s Catholic Medical Center due to bankruptcy.

HEAL 18 aimed at improving the coordination and delivery of inpatient and outpatient mental health services (DOH, 2013).

Thirty-two facilities received HEAL 19 grants (DOH, 2013); Ira Davenport Memorial Hospital declined their award (DOH, 2013).

HEAL 21 grants contributed to medical redesign. Forty projects were awarded.

According to the Section 1115 Federal-State Health Reform Partnership (F-SHRP) Annual Report, nine hospitals were closed and approximately 2,800 beds were eliminated by the end of 2008 (New York State Department of Health, 2008). Three additional hospitals and 400 beds were closed in 2009 (New York State Department of Health, 2009). These hospital

reconfiguration was supported by the HEAL 4 grant, which financed the implementation of Berger Commission Mandates.

*Source:*

New York State Department of Health. (2008). Federal-State Health Reform Partnership Demonstration Year 2 (10/01/07 – 9/30/08)

New York State Department of Health. (2009). Federal-State Health Reform Partnership Section 1115 Annual Report Demonstration Year 3 (10/01/08 – 9/30/09)

New York State Department of Health. (2013). Federal-State Health Reform Partnership Section 1115 Quarterly/Annual Report Demonstration Year 7, Federal Fiscal Quarter 4. Retrieved from [https://www.health.ny.gov/health\\_care/managed\\_care/appextension/docs/f-shrp\\_annual\\_report\\_2013.pdf](https://www.health.ny.gov/health_care/managed_care/appextension/docs/f-shrp_annual_report_2013.pdf).

New York State Senate. (2009). HEAL-NY Phases 10, 11 & 12 Awards by Region. Retrieved from <http://www.nysenate.gov/files/pdfs/HEAL%20NY%20Awards%2009-25-09.pdf>.

***GOAL 2: Long-Term Care Restructuring***

***HEAL NY***

The following HEAL-NY phases, as well as some phases (\*) mentioned above, are related to long-term care restructuring:

- 1) Phase 8: Residential Health Care Facility (RHCF) Rightsizing (08/2008): \$30 million
- 2) Phase 12: Alternative Long-Term Care Initiatives (09/2009): \$175 million
- 3) Phase 20: Alternative Long-Term Care Initiatives #2 (10/2009): \$151 million

The common activities of the above three HEAL-NY phases were nursing home bed elimination, assisted living bed creation, and long-term home health care expansion. According to the 2008 F-SHRP Annual Report, New York closed eight nursing homes and eliminated 2,300 nursing home beds by the end of 2008 (New York State Department of Health, 2008). The 2009 F-SHRP Annual Report has revealed another 500 or more nursing home beds eliminations during 2009 (New York State Department of Health, 2009).

*Source:*

New York State Department of Health. (2007). Money Follows the Person Federal Rebalancing Demonstration Grant Summary. Retrieved from [https://www.health.ny.gov/facilities/long\\_term\\_care/money\\_follows\\_the\\_person/](https://www.health.ny.gov/facilities/long_term_care/money_follows_the_person/).

New York State Department of Health. (2008). Federal-State Health Reform Partnership Demonstration Year 2 (10/01/07 – 9/30/08)

New York State Department of Health. (2009). Federal-State Health Reform Partnership Section 1115 Annual Report Demonstration Year 3 (10/01/08 – 9/30/09)

### ***GOAL 3: Health Information Technology***

#### ***HEAL NY***

Five HEAL-NY phases were specifically related to health IT:

- 1) Phase 1: Health Information Technology (05/2006): \$52.9 million
- 2) Phase 5: Health Information Technology (04/2008): \$105 million
- 3) Phase 10: Health Information Technology (09/2009): \$60 million
- 4) Phase 17: Health Information Technology (09/2010): \$140 million
- 5) Phase 22: Assistance for health IT for Mental / Behavioral Health Providers participating in Medicaid Health Homes (10/2012): \$38 million

Although Phase 3 was also intended for health IT, it was later cancelled and subsumed into Phase 5.

The key evaluation questions of this goal focus on the activities of e-prescribing, electronic health records, and health information exchange. The Health Information Technology Evaluation Collaborative (HITEC) was established to conduct evaluation on these HEAL-NY programs, and received HEAL-NY awards in phases 5, 10, and 17 for this research. We supplemented the analysis of what activities were funded through HEAL-NY with a review of HITEC's key findings on how the implementation of health IT affected outcomes such as quality, safety, and costs.

### ***GOAL 4: Managed Care Expansion***

#### ***Target Population 1: Medicaid Beneficiaries of 14 F-SHRP Counties***

The mandatory enrollment of Medicaid managed care started in October 1997 in Albany, Columbia, Greene, Rensselaer, and Saratoga counties, then followed by those counties:

- March 1998: Monroe, Ontario,
- May 1998: Broome, Erie
- September 1998: Niagara
- November 1998: Onondaga
- April 1999: Oswego
- October 1999: Westchester
- March 2001: Rockland
- June 2001: Suffolk, Nassau
- September 2001: Oneida, Chautauqua, Cattaraugus

April 2002: Livingston  
September 2002: NYC  
May 2003: Herkimer  
June 2003: Orleans  
January 2004: Genesee

Mandatory Medicaid managed care was expanded to the following 14 counties (which were in F-SHRP waiver) in 2007.

January 2007: Seneca  
February 2007: Allegany, Yates  
March 2007: Fulton, Orange, Putnam, Ulster, Washington  
April 2007: Dutchess, Montgomery, Schenectady, Sullivan  
May 2007: Cortland, Otsego

Mandatory Medicaid managed care then phased in geographically again from 2010 to 2012. By November 2012, all counties in NYS enrolled in mandatory Medicaid managed care. The last county of enrollment was Chemung County.

October 2010: Cayuga, Essex, Hamilton, Madison, Schoharie, Tompkins, Wayne  
May 2011: Delaware, Franklin  
December 2011: Chenango, Clinton  
May 2012: Schuyler, Steuben  
June 2012: Tioga  
July 2012: Wyoming  
October 2012: Lewis, Jefferson, Warren, St. Lawrence  
November 2012: Chemung

#### *Target Population 2: SSI and SSI-Related Individuals*

Mandatory enrollment of SSI and SSI-related Medicaid enrollees, including those with serious mental illness, has been phased in geographically throughout the State (New York State Department of Health [DOH], 2008, 2009, 2010, 2011, 2012):

November 2005: New York City (before F-SHRP)

October 2006: SSI and SSI-related population move from the Partnership Plan to the F-SHRP waiver

September 2007: Nassau, Onondaga, Oswego, Suffolk, and Westchester (Fall of 2007)

March 2008: Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Allegany, Rockland

June 2008: Livingston, Monroe, Ontario, Seneca, Yates

September 2008: Albany, Broome, Columbia, Greene, Herkimer, Oneida, Rensselaer, Saratoga, and Cortland (late summer 2008)

October 2008: Dutchess, Fulton, Montgomery, Orange, Otsego, Putnam, Schenectady, Sullivan, Ulster, Washington

### *Target Population 3: People With HIV and AIDS*

October 2011: People living with HIV in NYS are required to join a managed care plan (DOH, 2011).

### *Sources:*

New York State Department of Health. (2008). Federal-State Health Reform Partnership Demonstration Year 2 (10/01/07 – 9/30/08)

New York State Department of Health. (2009). Federal-State Health Reform Partnership Section 1115 Annual Report Demonstration Year 3 (10/01/08 – 9/30/09)

New York State Department of Health. (2010). Federal-State Health Reform Partnership Section 1115 Annual Report Demonstration Year: 4 (10/01/09 – 9/30/10)

New York State Department of Health. (2011). Federal-State Health Reform Partnership Section 1115 Annual Report Demonstration Year: 5 (10/01/10 – 9/30/11)

New York State Department of Health. (2012). Federal-State Health Reform Partnership Section 1115 Quarterly/Annual Report Demonstration Year: 6 (10/1/2011 – 9/30/2012) Federal Fiscal Quarter: 4 (7/1/2012 – 9/30/2012)

### ***GOAL 5: Expanded Managed Long-Term Care***

#### *Managed Long-Term Care*

CMS provided approval for the mandatory enrollment of dual eligible recipients, 21 years of age or older, needing more than 120 days of community-based long-term care services, into a Managed Long-Term Care Plan (managed LTCP) on August 31, 2012 (New York State Department of Health [DOH], 2013). The Mandatory enrollment in managed LTC roll-out schedule throughout NYS is listed below (DOH, 2014a). Counties in bold are overlapping with F-SHRP Demonstration timeframe.

**September 2012: NYC**

**January 2013: Nassau, Suffolk and Westchester**

**June 2013: Rockland, Orange**

**December 2013: Albany, Erie, Onondaga, Monroe**

April 2014: Columbia, Putnam, Sullivan, Ulster

May 2014: Rensselaer, Cayuga, Herkimer, Oneida

June 2014: Greene, Schenectady, Washington, Saratoga

July 2014: Dutchess, Montgomery, Broome, Fulton, Madison, Schoharie, Oswego

August 2014: Warren, Delaware, Niagara, Otsego, Chenango

September 2014: Essex, Clinton, Franklin, Hamilton

October 2014: Jefferson, Lewis, St. Lawrence, Steuben, Chautauqua, Cattaraugus, Alleghany

November 2014: Yates, Seneca, Schuyler, Tioga, Cortland, Chemung

December 2014: Genesee, Livingston, Ontario, Orleans, Tompkins, Wayne, Wyoming

*Transition of Nursing Home Benefit and Population Into Managed Care (Post-F-SHRP)*

The transition is scheduled to begin in January 2015. All Medicaid recipients, age 21 or older, who become permanent nursing home residents will be required to enroll in a managed care plan. For those who have Medicare (i.e., dual eligible recipients), they will be required to join managed LTC (DOH, 2014b). For those who are without Medicare, they will be required to join Mainstream Medicaid managed care (DOH, 2014b). Nursing Home Transition Phase-In Schedule (DOH, 2014b):

January 2015: New York City – Bronx, Kings, New York, Queens, Richmond

April 2015: Nassau, Suffolk, Westchester

July 2015: Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, St. Lawrence, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Wayne, Washington, Wyoming, Yates

January 2016: All remaining counties

*Implementation of the Uniform Assessment System for New York (Non-F-SHRP Activity)*

F-SHRP highlighted the need for a uniform system of assessing members of managed long-term care plans. DOH started using the Uniform Assessment System for New York (UAS-NY) within eight Medicaid community-based long-term care services and programs\* from 03/2013. All

organizations that manage and conduct assessments for these services and programs were required to use UAS-NY. The implementation of UAS-NY on managed LTC was effective in July 2013.

Statewide implementation of the UAS-NY phase-in schedule is:

March 2013 (Pilot): Broome, Chautauqua, Otsego, and Warren

All organizations in these four counties who were involved in home and community-based long-term care programs — except managed LTC — conducted assessments using only the UAS-NY.

July 2013 (managed LTC): All assessments conducted under managed LTC will be performed using only the UAS-NY

May 2013 (Statewide Implementation): Allegany, Cattaraugus, Chemung, Erie, Genesee, Livingston, Monroe, Niagara, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Wyoming, Yates

June 2013 (Statewide Implementation): Cayuga, Chenango, Cortland, Delaware, Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, St. Lawrence, Tioga, Tompkins

July 2013 (Statewide Implementation): Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Washington

August 2013 (Statewide Implementation): Dutchess, Orange, Putnam, Sullivan, Ulster, Rockland

September 2013(Statewide Implementation): Nassau, New York City, Suffolk, Westchester

\* Eight Medicaid community-based long-term care services and programs are:

Adult Day Health Care, Assisted Living Program, Care at Home I/II Waiver, Consumer Directed Personal Assistance, Long-Term Home Health Care Program, Managed Long-Term Care, Nursing Home Transition and Diversion Waiver, Personal Care Services Program, Traumatic Brain Injury Waiver

*Source:*

New York State Department of Health. (2013). UAS-NY Statewide Implementation Plan Update. Retrieved from

[https://www.health.ny.gov/health\\_care/medicaid/redesign/uniform\\_assessment\\_system/docs/2013-03-12\\_statewide\\_implementation\\_plan.pdf](https://www.health.ny.gov/health_care/medicaid/redesign/uniform_assessment_system/docs/2013-03-12_statewide_implementation_plan.pdf).

New York State Department of Health. (2014a). Expansion of Mandatory Managed Long-Term Care. Retrieved from

[http://www.health.ny.gov/health\\_care/medicaid/publications/docs/gis/14ma004.pdf](http://www.health.ny.gov/health_care/medicaid/publications/docs/gis/14ma004.pdf).

New York State Department of Health. (2014b). Office of Health Insurance Programs Transition of Nursing Home Benefit into Managed Care. Retrieved from [http://www.health.ny.gov/health\\_care/medicaid/redesign/docs/nursing\\_home\\_transition\\_final\\_policy\\_paper.pdf](http://www.health.ny.gov/health_care/medicaid/redesign/docs/nursing_home_transition_final_policy_paper.pdf).



## Appendix E: New York State Department of Health Response to Select Report Findings

The Centers for Medicare & Medicaid Services (CMS) reviewed an earlier draft of this report and requested that the New York State Department of Health (DOH) respond to select findings of the independent evaluation. Below are the passages from the independent evaluation that were identified by CMS for additional comment as well as the DOH response.

### 1) Primary Care and Specialty Care PMPM Visits:

**Passage from evaluation** (page 72): “Our analysis indicated stronger growth both in primary care and specialty care PMPM visits before F-SHRP implementation, and much weaker average annual growth after implementation. It is possible that the increase in PMPM visits was caused by the enrollment of sicker people in the MMC program who used more health care services on average.”

**CMS question with respect to passage:** *What follow-up will the state do to see why this is the case? Have there been changes made or proposed to the program to address this finding?*

**DOH response:** The State believes that the growth in PMPM visits may have slowed after the implementation of F-SHRP for several reasons: First, the SSI population enrolled during F-SHRP used home and community based services and other support services heavily, but these services are not included in the primary and specialty PMPM visits measure used in the evaluation. Thus, while PMPM visits continued to grow, the growth slowed due in part to a shift in the kinds of services needed.

Second, in the early years, patients were seen more frequently while a relationship was being established with the PCP, after which fewer visits were needed. This might also have reflected a changing case mix: MMC enrollment was so low at the start of the first growth period (2000-2006) that it could have been a very different population by the time it reached the end of that first period. Thus, the group of people enrolled in 2000 might have been relatively low users of services, while the 3+ times-as-large group in 2006 might have been a more-normal group of users with more-normal and therefore potentially more-intensive use (generating rapid growth in PMPM visits between 2000 and 2006, due to changing case mix). But if the 2006 and 2013 populations were fairly similar to each other (and this may be the case, given that membership grew much more slowly in this period, from 3.4 million to 4.9 million, or about 45%, compared to the tripling in the earlier period), then we might not expect a lot of growth in PMPM visits (system usage per member) between 2006 and 2013.

Finally, the State also believes that the health outcomes of the enrolled population may have improved with managed care through better management of services and follow-up, which may have resulted in slower growth in PMPM visits.

## **2) Acute Care Restructuring and the Improved Health of the Nursing Home Industry:**

**Passage** (page 88): “To sum up, the goals of reducing hospital bed capacity and increasing occupancy rates were achieved for the hospitals that were recommended for various reconfigurations by the Berger Commission. However, for the state as a whole there were no significant changes in terms of occupancy rates and the declines in beds did not accelerate in the post F-SHRP period. The goal of reducing hospital debt was furthered through use of HEAL-NY grants, but industry-wide debt was not reduced, and it is not clear that the financial health of the hospitals has improved. Finally, the F-SHRP accelerated the reduction in fee-for-service Medicaid discharges, which subsequently led to very substantial reductions in Medicaid fee-for-service expenditures.”

**CMS question:** *What will the state do to further explore the impact of FSHRP on reducing capacity and increasing occupancy rates?* [DOH response is found below following inquiry.]

**Passage** (page 122): “To sum up, the goals of reducing nursing home capacity and usage and increasing availability and use of HCBS services were achieved. The reduction in nursing home usage led to very substantial reductions in Medicaid nursing home expenditures, but we do not have estimates of how much HCBS spending may have increased. The goal of reducing nursing home debt at specific individual institutions was furthered through use of HEAL-NY grants, but industry-wide debt was not reduced, and it is not clear that the financial health of the nursing home industry has improved.”

**CMS question:** *Will the state do any follow up to determine if this is the case? If this is true, what will the state do to remedy this?*

**DOH response to both questions:** The State views Delivery System Reform Incentive Payment (DSRIP) as the logical next development in the reduction of excess inpatient capacity and an associated increase in occupancy rates. It is the expectation that the consolidation and integration of services into some 25 Performing Provider Systems (PPS) statewide will further the reduction of acute care and long-term care beds begun under the Berger Commission and F-SHRP, as well as expand the availability of the primary care (both medical and behavioral), chronic disease management and home- and community-based services that are essential to the reduction of unnecessary hospital and nursing home admissions. These developments will be strengthened by the expansion of coverage under the Affordable Care Act, made available through the State’s health insurance exchange, which will increase access to these vital non-institutional services and further reduce unnecessary inpatient capacity and utilization.

## **3) Declining Satisfaction Among Existing Managed Long-Term Care Members:**

**Passage** (page 12): “Patient satisfaction, which was expected to improve with the rollout of managed long-term care, was overall positive. Most managed LTC recipients are very satisfied

with the timeliness and quality of care provided by home health aides and personal care aides. However, nearly one-third of managed LTC recipients were not satisfied with the timeliness of care managers and nurses, indicating that there may be areas of the program that warrant further attention.”

**CMS question:** *What is the state's response, or what was the state's response to this finding?*  
[DOH response is found below following inquiry.]

**Passage** (page 222): “However, satisfaction with timeliness among existing members has declined from 2011 to 2013 for home health aides, care and case managers, and visiting nurses and registered nurses. Plans may want to probe the cause of delay or tardiness, possibly through reviewing attendance and tardiness issues directly with staff, evaluating workload, examining issues that may be related case mix, and reviewing incidence reports and complaint logs.”

**CMS question:** *Will the state follow through on this recommendation or pursue the matter on its own?*

**DOH response to both questions:** The State will further evaluate the trends shortly with the most recent survey results and if the decrease in satisfaction with timeliness continues they will work with the plans and possibly their EQRO (external quality review organization) to address.

## Report Endnotes

- 
- <sup>1</sup> In this report, we use the regional breakdown defined by the Berger Commission. For more information, see Commission on Health Care Facilities in the 21st Century, *A Plan to Stabilize and Strengthen New York's Health Care System* (New York: Commission on Health Care Facilities in the 21st Century, December 2006), <http://www.nyhealthcarecommission.org/docs/final/commissionfinalreport.pdf>.
- <sup>2</sup> Ibid, 47.
- <sup>3</sup> New York State Department of Health, "F-SHRP Final Evaluation Plan," February 27, 2013, [https://www.health.ny.gov/health\\_care/managed\\_care/appextension/docs/f-shrp\\_2012\\_final\\_evaluation\\_plan.pdf](https://www.health.ny.gov/health_care/managed_care/appextension/docs/f-shrp_2012_final_evaluation_plan.pdf).
- <sup>4</sup> New York State Department of Health, "Percent of Long-Stay Residents Assessed and Given, Appropriately, the Seasonal Influenza Vaccine." <http://nursinghomes.nyhealth.gov/comparisons/cms/12280>. September 2014.
- <sup>5</sup> Centers for Disease Control and Prevention, "Oral and Dental Health," Last Updated May 14, 2014, <http://www.cdc.gov/nchs/fastats/dental.htm>.
- <sup>6</sup> "Section 1115 Demonstrations," Medicaid.gov, n.d., <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/Section-1115-Demonstrations.html>.
- <sup>7</sup> New York State Department of Health, "F-SHRP Final Evaluation Plan." These goals reflect F-SHRP as amended over time.
- <sup>8</sup> Centers for Medicare & Medicaid Services and New York State Department of Health, *Federal-State Health Reform Partnership Medicaid Section 1115 Demonstration - Special Terms and Conditions: April 2013*, April 1, 2013.
- <sup>9</sup> A note on methodology: Chapters 3, 4, and 5 rely heavily on two sources of information: 1. Targeted literature review of both the academic literature and institutional and governmental reports focused on the history of Medicaid in New York State and other comparable states. 2. In-depth discussions with over 20 individuals with various positions and involvement in the F-SHRP waiver at the New York State Department of Health to better understand the context of the waiver, how the goals and measures were selected, and the process of implementation. The complete list of individuals is located in the Appendix.
- <sup>10</sup> GAO. *MEDICAID: Assessment of Variation among States in Per-Enrollee Spending* (Washington: U.S. Government Accountability Office, June 2014), <http://www.gao.gov/assets/670/664115.pdf>.
- <sup>11</sup> Comparisons of unadjusted per enrollee costs do not take into account interstate differences in enrollee make-up (such as California's large number of relatively less expensive children on Medicaid, compared to New York), but this is still an important aggregate marker.
- <sup>12</sup> GAO. *MEDICAID: Assessment of Variation among States in Per-Enrollee Spending*.
- <sup>13</sup> Michael K. Gusmano, Courtney Burke, and Frank J. Thompson, "Health Care Politics and Policy in New York State," *The Oxford Handbook of New York State Government and Politics* (New York: Oxford University Press, 2012), 599-634.
- <sup>14</sup> Michael S. Sparer, *Medicaid and the Limits of State Health Reform* (Philadelphia: Temple University Press, 1997).
- <sup>15</sup> Melissa Klein, "City's Hospital Specialists are Raking in Millions of Dollars," *New York Post*, April 13, 2014 <http://nypost.com/2014/04/13/citys-hospital-specialists-are-raking-in-millions-of-dollars/>
- <sup>16</sup> Gusmano, Burke, and Thompson. "Health Care Politics and Policy in New York State."
- <sup>17</sup> Michael Corkery, "Report Details Threats to States' Fiscal Health," *Wall Street Journal*, July 18, 2012, [http://www.wsj.com/news/articles/SB10001424052702303933704577532971037875532?mg=reno64-wsj&url=http%3A%2F%2Fonline.wsj.com%2Farticle%2FSB10001424052702303933704577532971037875532.html;%20http://reformmedicaid.org/2012/07/the-medicaid-albatross/;%20http://www.statebudgetcrisis.org/wpcms/wp-content/images/SBCTF\\_FINALREPORT1.pdf](http://www.wsj.com/news/articles/SB10001424052702303933704577532971037875532?mg=reno64-wsj&url=http%3A%2F%2Fonline.wsj.com%2Farticle%2FSB10001424052702303933704577532971037875532.html;%20http://reformmedicaid.org/2012/07/the-medicaid-albatross/;%20http://www.statebudgetcrisis.org/wpcms/wp-content/images/SBCTF_FINALREPORT1.pdf).
- <sup>18</sup> Ibid.

- 
- <sup>19</sup> Henry J. Kaiser Family Foundation, “Federal and State Share of Medicaid Spending,” n.d., <http://kff.org/medicaid/state-indicator/federalstate-share-of-spending/>.
- <sup>20</sup> Annette B. Ramírez de Arellano and Sidney M. Wolfe, “Unsettling Scores: A Ranking of State Medicaid Programs,” Public Citizen Health Research Group, April 2007, <http://www.citizen.org/medicaid>.
- <sup>21</sup> Disproportionate Share Hospitals” are hospitals that serve a significantly disproportionate number of low-income patients, and often provide uncompensated care to these individuals. These hospitals receive Disproportionate Share Hospital (DSH) payments. See Courtney Burke and Erika Martin, “Health Reform: Uncompensated Care Costs And Reductions In Medicaid DSH Payments,” *Health Affairs* Blog, October 15, 2010, <http://healthaffairs.org/blog/2010/10/15/health-reform-uncompensated-care-costs-and-reductions-in-medicaid-dsh-payments/>.
- <sup>22</sup> Sparer, *Medicaid and the Limits of State Health Reform*, 169-70.
- <sup>23</sup> Burke and Martin, “Health Reform: Uncompensated Care Costs And Reductions In Medicaid DSH Payments.”
- <sup>24</sup> Gusmano, Burke, and Thompson. “Health Care Politics and Policy in New York State,” Furthermore, because poverty rates do not take into account differences across states in the cost of living, the official poverty rate for New York is lower than it would be if the calculations took New York’s relatively high cost of living into account.
- <sup>25</sup> Ibid.
- <sup>26</sup> Ibid.
- <sup>27</sup> This is an example of where states may provide coverage using their own funds (not matched by the federal government). In this case, states may use state-only funding to provide substitute Medicaid benefits for certain categories of immigrants that otherwise would be ineligible for benefits. See Karina Fortuny and Ajay Chaudry, “Overview of Immigrants’ Eligibility for SNAP, TANF, Medicaid, and CHIP,” *ASPE Issue Brief* (Washington: Office of the Assistant Secretary for Planning and Evaluation, Center for Medicare & Medicaid Services, March 2012), <http://aspe.hhs.gov/hsp/11/ImmigrantAccess/Eligibility/ib.shtml#Overview>.
- <sup>28</sup> Gusmano, Burke, and Thompson. “Health Care Politics and Policy in New York State,” Also see Henry J. Kaiser Family Foundation, “Dual Eligible,” n.d., <http://kff.org/tag/dual-eligible/>.
- <sup>29</sup> Andrea Park Chung, Martin Gaynor, and Seth Richards-Shubik, “Subsidies and Structure: The Lasting Impact of the Hill-Burton Program on the Hospital Industry” (working paper, Carnegie Mellon University, Draft October 3, 2013), [http://ldi.upenn.edu/uploads/media\\_items/subsidies-and-structure-the-lasting-impact-of-the-hill-burton-program-on-the-hospital-industry.original.pdf](http://ldi.upenn.edu/uploads/media_items/subsidies-and-structure-the-lasting-impact-of-the-hill-burton-program-on-the-hospital-industry.original.pdf).
- <sup>30</sup> Anemona Hartocollis, “Debating a Fix for Hospitals in Dire Straits,” *New York Times*, September 7, 2013, <http://www.nytimes.com/2013/09/07/nyregion/debating-a-fix-for-hospitals-in-dire-straits.html?pagewanted=all& r=0>.
- <sup>31</sup> Gusmano, Burke, and Thompson. “Health Care Politics and Policy in New York State,”
- <sup>32</sup> Ibid.
- <sup>33</sup> Beverly H. Pasley, Ronald J. Lagoe, and Norman O. Marshall, “Excess Acute Care Bed Capacity and Its Causes: The Experience of New York State,” *Health Services Research* 30, 1 (1995): 115-31.
- <sup>34</sup> M. Shain and M. I. Roemer, “Hospital costs relate to the supply of beds,” *Modern Hospital* 92, 4 (April 1959):71-3; Jason Shafrin, “Roemer’s law,” *Healthcare Economist*, October 12, 2006, <http://healthcare-economist.com/2006/10/12/roemers-law/>.
- <sup>35</sup> Shafrin, “Roemer’s law.”
- <sup>36</sup> Commission on Health Care Facilities in the 21st Century, *A Plan to Stabilize and Strengthen New York’s Health Care System*.
- <sup>37</sup> Ibid
- <sup>38</sup> Linda V. Green, “How Many Hospital Beds?” *Decision, Risk & Operations Working Paper Series*, May 8, 2002, <http://www8.gsb.columbia.edu/programs-admissions/sites/programs-admissions/files/dro/DRO-2002-06.pdf>.
- <sup>39</sup> Green, “How Many Hospital Beds?”

- 
- <sup>40</sup> National Conference of State Legislatures, “Certificate of Need: State Health Laws and Programs,” Updated January 2011, <http://www.ncsl.org/research/health/con-certificate-of-need-state-laws.aspx>.
- <sup>41</sup> Green, “How many hospital beds.”
- <sup>42</sup> *Uncovering Waste, Fraud, and Abuse in the Medicaid Program* (Washington, DC: U.S. House of Representatives Committee on Oversight and Government Reform, April 25, 2012), <http://oversight.house.gov/wp-content/uploads/2012/04/4-25-12-Staff-Report-Uncovering-Waste-Fraud-and-Abuse-in-the-Medicaid-Program.pdf>.
- <sup>43</sup> Clifford J. Levy and Michael Luo, “New York Medicaid Fraud May Reach Into Billions,” *New York Times*, July 18, 2005, <http://www.nytimes.com/2005/07/18/nyregion/18medicaid.html?pagewanted=print>.
- <sup>44</sup> Centers for Medicare and Medicaid Services and New York State Department of Health, *Federal-State Health Reform Partnership Medicaid Section 1115 Demonstration*, STC 31.
- <sup>45</sup> Alison Snyder, “Some Long Island home health-care firms blast ‘overzealous’ Cuomo,” *Long Island Business News*, August 31, 2007.
- <sup>46</sup> Michael Sparer, Lawrence D. Brown, and Anthony R. Kovner, “Implementing Medicaid Managed Care: The New York City Story,” *Health Care Finance* 26, 1 (1999): 1–17.
- <sup>47</sup> Gusmano, Burke, and Thompson, “Health Care Politics and Policy in New York State.”
- <sup>48</sup> Michael Sparer, “Medicaid managed care: Costs, access, and quality of care,” Research Synthesis Report No. 23, 2012, 6, <http://www.rwjf.org/content/dam/farm/reports/reports/2012/rwjf401106>
- <sup>49</sup> *Ibid*; Debra L. Roth and Deborah Reidy Kelch, *Making Sense of Managed Care Regulation in California* (California HealthCare Foundation, November 2001), <http://www.chcf.org/~media/MEDIA%20LIBRARY%20Files/PDF/M/PDF%20MakingSenseManagedCareRegulation.pdf>.
- <sup>50</sup> Kaiser Commission on Medicaid and the Uninsured, “Medicaid Managed Care: Key Data, Trends, and Issues,” February 2012, <http://kaiserfamilyfoundation.files.wordpress.com/2012/02/8046-02.pdf>.
- <sup>51</sup> *Ibid*.
- <sup>52</sup> *Ibid*.
- <sup>53</sup> Bryan Shelley, “The Bigger They Are: Cross-State Variation in Federal Education and Medicaid Waivers, 1991–2008,” *Publius: The Journal of Federalism* 43, 3 (Summer 2013), 452–73.
- <sup>54</sup> *Ibid*.
- <sup>55</sup> Sparer, Brown, and Kovner, “Implementing Medicaid Managed Care: The New York City Story.”
- <sup>56</sup> The original Partnership waiver allowed the state to operate a mandatory Medicaid managed care program; offer comprehensive health coverage to low-income uninsured adults who had income/assets above Medicaid eligibility standards (Family Health Plus Program); and provide family planning services to women losing Medicaid eligibility at the conclusion of their postpartum period and certain other adults of child bearing age (Family Planning Expansion Program), see “1115 Waiver Demonstration Partnership Plan/Family Planning Expansion Program, No. 11-W-00114/2,” n.d., ([http://www.health.ny.gov/health\\_care/managed\\_care/appextension/waiver\\_amendment/docs/partnership\\_planfamily.pdf](http://www.health.ny.gov/health_care/managed_care/appextension/waiver_amendment/docs/partnership_planfamily.pdf)).
- <sup>57</sup> *Ibid*.
- <sup>58</sup> *Ibid*.
- <sup>59</sup> *Ibid*.
- <sup>60</sup> Key informant interview.
- <sup>61</sup> *Ibid*.
- <sup>62</sup> Commission on Health Care Facilities in the 21st Century, “A Plan to Stabilize and Strengthen New York’s Health Care System.”
- <sup>63</sup> Green, “How Many Hospital Beds?”
- <sup>64</sup> Tom Quinn, “I wrote about ‘rightsizing’ before the Berger Commission,” More than Medicine Blog, December 9, 2006, [http://morethanmedicine.blogspot.com/2006\\_12\\_01\\_archive.html](http://morethanmedicine.blogspot.com/2006_12_01_archive.html).

- 
- <sup>65</sup> Commission on Health Care Facilities in the 21st Century, *A Plan to Stabilize and Strengthen New York's Health Care System*, 11.
- <sup>66</sup> See State of New Jersey Office of the Governor, "Governor Christie Appoints Non-political Group Of Experts To Pension And Health Benefits Commission," Press Release, August 8, 2014, <http://nj.gov/governor/news/news/552014/approved/20140808a.html>.
- <sup>67</sup> Key informant interview.
- <sup>68</sup> New York State Department of Health, "Health Care Efficiency and Affordability Law for New Yorkers Capital Grant Program," Revised July 2010, [https://www.health.ny.gov/technology/efficiency\\_and\\_affordability\\_law/](https://www.health.ny.gov/technology/efficiency_and_affordability_law/).
- <sup>69</sup> Thomas H. Dennison, *New York's Nursing Homes: Shifting Roles and New Challenges* (New York: United Hospital Fund, 2013), <https://www.uhfnyc.org/publications/880922>.
- <sup>70</sup> Key informant interview.
- <sup>71</sup> Ibid.
- <sup>72</sup> Ibid.
- <sup>73</sup> Nina Bernstein, "With Medicaid, Long-Term Care of Elderly Looms as a Rising Cost." *New York Times*, September 6, 2012, <http://www.nytimes.com/2012/09/07/health/policy/long-term-care-looms-as-rising-medicaid-cost.html?pagewanted=all& r=0>.
- <sup>74</sup> Managed long-term care comes in many varieties. The extent to which care is managed and the extent to which different services are covered vary greatly.
- <sup>75</sup> Key informant interview.
- <sup>76</sup> Centers for Medicare and Medicaid Services and New York State Department of Health, *F-SHRP Special Terms and Conditions*, STC 37.
- <sup>77</sup> Key informant interview.
- <sup>78</sup> New York State Department of Health, "Commissioner Daines Announces Statewide Plan to Enable Improvements in Health Care Quality, Affordability and Outcomes Through Health Information Technology," Press Release, August 8, 2007, [http://www.health.ny.gov/press/releases/2007/2007-08-08\\_health\\_it.htm](http://www.health.ny.gov/press/releases/2007/2007-08-08_health_it.htm). Also, David J. Brailer, "The Decade of Health Information Technology: Delivering Consumer-centric and Information-rich Health Care" (Washington, DC: U.S. Department of Health and Human Services, 2004) <http://www.ihl.org/resources/Pages/Publications/DecadeofHealthInformationTechnology.aspx>
- <sup>79</sup> Key informant interview.
- <sup>80</sup> Commission on Health Care Facilities in the 21<sup>st</sup> Century, "Executive Summary," *A Plan to Stabilize and Strengthen New York's Health Care System* (New York: Commission on Health Care Facilities in the 21st Century, December 2006), <http://www.nyhealthcarecommission.org/docs/final/executivesummary.pdf>.
- <sup>81</sup> Key informant interview.
- <sup>82</sup> New York State Department of Health, "New York Health IT Strategy, Attachment 6.1: New York State's Health IT Strategy," n.d., [http://www.health.ny.gov/funding/rfa/inactive/1006090831/healny17\\_attachment.pdf](http://www.health.ny.gov/funding/rfa/inactive/1006090831/healny17_attachment.pdf).
- <sup>83</sup> Ibid.
- <sup>84</sup> Key informant interview.
- <sup>85</sup> Sparer, "Medicaid Managed Care."
- <sup>86</sup> Marilyn Tavenner, "Letter from Marilyn Tavenner, Acting Administrator of Centers for Medicare & Medicaid Services, to Nirav Shah, New York State Commissioner of Health, Approving Amendments to Partnership Plan and F-SHRP Medicaid Waivers," August 31, 2012, [https://www.health.ny.gov/health\\_care/managed\\_care/appextension/docs/cms\\_award\\_letter.pdf](https://www.health.ny.gov/health_care/managed_care/appextension/docs/cms_award_letter.pdf).
- <sup>87</sup> Key informant interview.
- <sup>88</sup> Key informant interview.
- <sup>89</sup> New York State Department of Health, "F-SHRP Final Evaluation Plan."
- <sup>90</sup> Tavenner, "Letter to Nirav Shah," August 31, 2012.

---

<sup>91</sup> Centers for Medicare and Medicaid Services and New York State Department of Health, *Federal-State Health Reform Partnership Medicaid Section 1115 Demonstration - Special Terms and Conditions: April 2013*. Paragraphs 74-76.

<sup>92</sup> New York State Department of Health, “F-SHRP Final Evaluation Plan,” 1.

<sup>93</sup> Donald Boyd, “Notes from December 11, 2013, Meeting among Staff of the New York State Department of Health, SUNY System Administration, and the Rockefeller Institute of Government, Regarding Evaluation of the F-SHRP Waiver. Albany, NY,” December 11, 2013.

<sup>94</sup> New York State Department of Health, “F-SHRP Final Evaluation Plan,” 4.

<sup>95</sup> Although this report is not being prepared pursuant to an RFP, the 2007 RFP for an F-SHRP evaluation and the associated questions and responses indicate a clear intent to work with data that were, for the most part, publicly available. See New York State Department of Health, “A Request for Proposal for Program Evaluation of Section 1115 Demonstration Programs: Partnership Plan/Family Planning Expansion; and Federal-State Health Reform Partnership,” October 22, 2007, <https://www.health.ny.gov/funding/rfp/inactive/0704051116/0704051116.pdf> and New York State Department of Health, “RFP for Program Evaluation of Section 1115 Demonstration Programs: Responses to Questions,” January 16, 2008, [https://www.health.ny.gov/funding/rfp/inactive/0704051116/questions\\_and\\_answers.pdf](https://www.health.ny.gov/funding/rfp/inactive/0704051116/questions_and_answers.pdf).

<sup>96</sup> In April 2014, CMS provided a framework for Section 1115 waiver evaluation reports in general, not specific to New York or to the F-SHRP waiver. This framework generally requires a broad examination of issues related to waivers. The framework was provided after the evaluation contract between DOH and SUNY was developed but, where practical, we reflect elements from the framework in this evaluation. See Centers for Medicare & Medicaid Services, *1115 Evaluation Report Framework*, April 2014.

<sup>97</sup> New York State Department of Health, “F-SHRP Final Evaluation Plan,” 4-5.

<sup>98</sup> In this report, we use the regional breakdown defined by the Berger Commission. For more information, see Commission on Health Care Facilities in the 21st Century, “A Plan to Stabilize and Strengthen New York’s Health Care System.”

<sup>99</sup> New York State Department of Health, “F-SHRP Final Evaluation Plan.”

<sup>100</sup> Ibid.

<sup>101</sup> Centers for Medicare & Medicaid Services, “Federal-State Health Reform Partnership Medicaid Section 1115 Demonstration: Special Terms and Conditions.”

<sup>102</sup> “Ambulatory Care,” FierceHealthCare.com, n.d., [http://www.fiercehealthcare.com/topics/ambulatory\\_care.asp](http://www.fiercehealthcare.com/topics/ambulatory_care.asp).

<sup>103</sup> James C. Robinson, “Decline in Hospital Utilization and Cost Inflation Under Managed Care in California,” *Journal of the American Medical Association* 276, 13 (1996): 1060-4.

<sup>104</sup> Greg Herrle, “Reducing Inpatient Length of Stay: The Time Has Come to Revisit This Discarded Strategy,” Milliman Consulting Group.

<sup>105</sup> Robinson, “Decline in Hospital Utilization and Cost Inflation Under Managed Care in California.”

<sup>106</sup> Herrle, “Reducing Inpatient Length of Stay.”

<sup>107</sup> Commission on Health Care Facilities in the 21st Century, “A Plan to Stabilize and Strengthen New York’s Health Care System.”

<sup>108</sup> Green, “How Many Hospital Beds?”

<sup>109</sup> Commission on Health Care Facilities in the 21st Century, *A Plan to Stabilize and Strengthen New York’s Health Care System*.

<sup>110</sup> Key informant interview.

<sup>111</sup> New York State Department of Health, *Report on Implementation of the Report of the Commission on Health Care Facilities in the Twenty-First Century* (New York: New York State Department of Health, n.d.), [http://www.health.ny.gov/facilities/commission/docs/implementation\\_of\\_the\\_report\\_of\\_the\\_commission.pdf](http://www.health.ny.gov/facilities/commission/docs/implementation_of_the_report_of_the_commission.pdf).

<sup>112</sup> Key informant interview.



---

<sup>113</sup> New York State Department of Health, *Report on Implementation of the Report of the Commission on Health Care Facilities in the Twenty-First Century*.

<sup>114</sup> Key informant interview.

<sup>115</sup> Please see Appendix for detailed information on HFIS data source.

<sup>116</sup> Calculated from HFIS data.

<sup>117</sup> See Commission on Health Care Facilities in the 21st Century, “A Plan to Stabilize and Strengthen New York’s Health Care System.”

<sup>118</sup> The data for all these measures are retrieved from worksheet S-3 of the ICRs. We chose to use the data from the ICRs as there is an advantage in using all data from the same source and, hopefully, keeping the numbers internally consistent.

<sup>119</sup> We retrieved hospital inpatient days from worksheet S-3, column 6, line 12, and bed days available from worksheet S-3, column 2, line 12, of the ICRs.

<sup>120</sup> Please note that the occupancy rates reported are somewhat different from the rates reported by the Berger Commission, probably due to the fact that the Berger Commission used SPARCS data for calculating the occupancy rates. However, the overall trends are similar as the Berger Commission also showed continued growth in occupancy rates from 2000 to 2004.

<sup>121</sup> We retrieved hospital inpatient days from worksheet S-3, column 6, line 12, and hospital discharges from worksheet S-3, column 15, line 12, of the ICRs.

<sup>122</sup> HEAL Overview OUTCOMES DATA 07 29 2014.xls.

<sup>123</sup> The standard for the MMC program is normally one primary care practitioner for every 1,500 enrollees. See p. 12 of New York State Department of Health, *Medicaid Redesign Team (MRT): Workforce Flexibility and Scope of Practice Work Group — Final Recommendations* (New York: New York State Department of Health, November 21, 2011),

[https://www.health.ny.gov/health\\_care/medicaid/redesign/docs/workforce\\_flexibility\\_scope\\_of\\_practice\\_wg\\_recommend.pdf](https://www.health.ny.gov/health_care/medicaid/redesign/docs/workforce_flexibility_scope_of_practice_wg_recommend.pdf).

<sup>124</sup> Ibid, 13.

<sup>125</sup> See New York State Department of Health, “Partnership Plan Medicaid Section 1115 Demonstration: Interim Evaluation Report,” March 20, 2014,

[http://www.health.ny.gov/health\\_care/medicaid/redesign/docs/interim\\_eval\\_report.pdf](http://www.health.ny.gov/health_care/medicaid/redesign/docs/interim_eval_report.pdf).

<sup>126</sup> See Commission on Health Care Facilities in the 21st Century, “A Plan to Stabilize and Strengthen New York’s Health Care System.”

<sup>127</sup> HEAL Overview OUTCOMES DATA 07 29 2014.xls.

<sup>128</sup> We retrieved hospital long-term liabilities from exhibit 23, worksheet G, column 10, line 42, of the ICRs. We retrieved data for general fund only, as most of the hospitals did not report data for the other funds.

<sup>129</sup> We retrieved hospital new or increased long-term debt from exhibit 25, column 283, line 12, of the ICRs.

<sup>130</sup> For more information, see the discussion under goal 2.3.2.

<sup>131</sup> We retrieved total discharges from exhibit 32, column 4320, line 11, of the ICRs.

<sup>132</sup> This is the sum of Medicaid discharges (data retrieved from exhibit 32, column 4320, line 14) plus HMO/PHSP Medicaid discharges that is for managed care plans (data retrieved from exhibit 32, column 4320, line 200).

<sup>133</sup> We do not draw conclusions for the F-SHRP evaluation from the overall increase in hospital debt because we do not believe the available data on debt are sufficiently detailed, and may not be of sufficient quality, to allow these conclusions. We believe that drawing further conclusions would require institution-by-institution analysis and would have to include additional data, such as data from Comprehensive Annual Financial Reports (CAFRs) and associated notes in CAFRs.

<sup>134</sup> New York Department of Health, “F-SHRP Final Evaluation Plan.”

---

<sup>135</sup> For an example see Attachment IV of New York State Department of Health, *Federal-State Health Reform Partnership Section 1115 Quarterly Report: Federal Fiscal Quarter 7/1/2013 to 9/30/2013*, F-SHRP Quarterly Reports to CMS, January 6, 2014.

<sup>136</sup> To allocate statewide savings to the regions, we calculated savings on a county-by-county basis, and then aggregated county results to the regions. This actually produces a slightly smaller estimate of averted admissions than does the statewide-summary method. However, it is more dependent on the accuracy of county-level data, and we chose to report the statewide total using the summary method on the belief that state level data are most accurate. We allocated the statewide total to the regions using each region's share of the total computed using the county-by-county method.

<sup>137</sup> New York State Department of Health, "F-SHRP Final Evaluation Plan," 8.

<sup>138</sup> Ibid.

<sup>139</sup> Centers for Medicare & Medicaid Services and New York State Department of Health, *Federal-State Health Reform Partnership Medicaid Section 1115 Demonstration - Special Terms and Conditions: April 2013*, 2.

<sup>140</sup> Commission on Health Care Facilities in the 21st Century, *A Plan to Stabilize and Strengthen New York's Health Care System*, 11.

<sup>141</sup> This is the Base Realignment and Closure (BRAC) process that Congress used in 1989, 1991, 1993, 1995, and 2005 to close and realign military bases. Under this process, Congress must approve or disapprove an entire list of proposed closures, rather than act on each recommendation individually. See <http://www.defense.gov/brac/>.

<sup>142</sup> New York State Legislature, *Commission on Health Care Facilities in the 21st Century, New York State Laws of 2005, Chapter 63, Part E, n.d.*, , <http://www.nyhealthcarecommission.org/docs/legislation.pdf>, Section 9.

<sup>143</sup> Ibid.

<sup>144</sup> Centers for Medicare and Medicaid Services and New York State Department of Health, *F-SHRP Special Terms and Conditions, 2006*, STC #37, 16.

<sup>145</sup> Institute analysis of HEAL-NY data provided by DOH.

<sup>146</sup> "Long-Term Care Reform in New York State," VillageCare.org, n.d., <https://villagecare.org/news/policyforum/lcreform/>.

<sup>147</sup> New York State Department of Health, "Money Follows the Person Federal Rebalancing Demonstration Grant Summary," [https://www.health.ny.gov/facilities/long\\_term\\_care/money\\_follows\\_the\\_person/](https://www.health.ny.gov/facilities/long_term_care/money_follows_the_person/), accessed May 6, 2015.

<sup>148</sup> HEAL-NY grants funded both capital restructuring projects relevant to goal 2, and health IT projects relevant to goal 3. Our definition for goal 2 does not include the health IT grants.

<sup>149</sup> Calculated from HFIS data underlying Figure 19 Reduction in nursing home beds has continued and accelerated.

<sup>150</sup> Ibid.

<sup>151</sup> Calculated from HFIS data.

<sup>152</sup> For managed care, DOH included Managed Medicaid Cost and Operating Reports (MMCOR) codes 30, 39, 61, 62, 63, 69, 64, 65, 66, 68, 67, 70, 71, 72, 73, and 74. For fee-for service, DOH included category of service (COS) codes 1593000000, 1594000000, 1595000000, 1598000000, 1598000000, 1299000000, 7464000000, 7465000000, 7466000000, 7467000000, and 7499000000.

<sup>153</sup> Calculated from data underlying Figure 22.

<sup>154</sup> Calculated from data underlying Figure 23.

<sup>155</sup> The percent of HCBS contribution is calculated as LOS of HCBS/(LOS of HCBS + LOS of Institutional Long-Term Care), using data underlying the figure.

<sup>156</sup> The first effect likely was more important, as the number of new MMC HCBS recipients appears to be much larger than the number of people who moved from fee-for-service to MMC. Between 2006 and 2013, the total number of MMC enrollees who were HCBS recipients increased by 346,244, but the decline in the number of fee-for-service HCBS recipients was only 31,368. Thus, most of the new MMC HCBS recipients would appear to be new enrollees or existing enrollees who were newly HCBS recipients.

---

<sup>157</sup> In conversations with DOH staff, some suggested that we also examine debt of related parties in cases where a nursing home leases its facility from a related party. That analysis is beyond the scope of what was practical here.

<sup>158</sup> We do not know when debt was issued or what rates the debt was issued at. However, the 11.1 percent is the mathematical equivalent (for example) of assuming that debt recently retired had 14.7 years still outstanding, that the interest rate at issuance was 7 percent, and that it was issued with level payments of principal plus interest. This seems at least plausible.

<sup>159</sup> Total days are from line 17, class 620, of the RHCF Cost Report.

<sup>160</sup> This is the sum of Medicaid nursing home days paid by DOH (line 9, class 620, of the RHCF Cost Report) plus Medicaid days paid by managed care plans (line 32, class 620).

<sup>161</sup> New York State Department of Health, “F-SHRP Final Evaluation Plan,” 8.

<sup>162</sup> For an example see Attachment IV, New York State Department of Health, *Federal-State Health Reform Partnership Section 1115 Quarterly Report: Federal Fiscal Quarter 7/1/2013 to 9/30/2013*.

<sup>163</sup> To allocate statewide savings to the regions, we calculated savings on a county-by-county basis using the same method as in Table 42 and Table 43, and then aggregated county results to the regions. This actually produces a greater estimate of averted admissions than does the statewide-summary method. However, it is more dependent on the accuracy of county-level data, and we chose to report the statewide total using the summary method on the belief that state level data are most accurate. We allocated the statewide total to the regions using each region’s share of the total computed using the county-by-county method.

<sup>164</sup> New York City’s nursing home cost per day is much higher than the statewide average, but it did not have a significant drop in nursing home usage, measured as days per enrollee, and so its expenditure savings are much lower.

<sup>165</sup> New York State Department of Health, “F-SHRP Final Evaluation Plan,” 1, 3.

<sup>166</sup> Tommy G. Thompson and David J. Brailer, *The Decade of Health Information Technology: Delivering Consumer-centric and Information-rich Health Care — Framework for Strategic Action* (Washington, DC: U.S. Department of Health and Human Services), July 21, 2004, [http://www.providersedge.com/ehdocs/ehr\\_articles/the\\_decade\\_of\\_hit-delivering\\_customer-centric\\_and\\_info-rich\\_hc.pdf](http://www.providersedge.com/ehdocs/ehr_articles/the_decade_of_hit-delivering_customer-centric_and_info-rich_hc.pdf).

<sup>167</sup> Ibid.

<sup>168</sup> Request for grant application (RGA) for HEAL-NY phase 10, attachment 6.1.

<sup>169</sup> New York eHealth Collaborative, *SHIN-NY The Network of Networks: “Better Healthcare through Technology,”* PowerPoint Presentation, October 1, 2014, [https://www.health.ny.gov/health\\_care/medicaid/program/medicaid\\_health\\_homes/docs/2014-10-01\\_hh\\_shiny\\_webinar.pdf](https://www.health.ny.gov/health_care/medicaid/program/medicaid_health_homes/docs/2014-10-01_hh_shiny_webinar.pdf).

<sup>170</sup> New York State Department of Health, Duties of HEAL-NY unit, retrieved from the HEAL-NY Phase 1 archives in Albany, NY.

<sup>171</sup> New York State Department of Health, “F-SHRP Final Evaluation Plan,” 9.

<sup>172</sup> New York State framework for health information technology strategy; Requests for grant applications (RGAs) for HEAL-NY phases 1, 5, 10, and 17.

<sup>173</sup> Request for grant application (RGA) for HEAL-NY phase 1, p. 6

<sup>174</sup> An RGA was also issued for phase 3 grants, which were also focused on health IT. However, this phase was cancelled before awards were administered, and rolled into phase 5.

<sup>175</sup> Request for grant application (RGA) for HEAL-NY phase 10, p. 6

<sup>176</sup> Regional Extension Centers are supported by the federal Office of the National Coordinator for Health Information Technology to help providers implement EHRs and other information technologies in order to improve health care quality, efficiency, and safety. New York has two centers: the New York eHealth Collaborative, which received multiple HEAL-NY grants to facilitate the implementation of the grant program and statewide health IT strategy, and the New York City Regional Electronic Adoption Center for Health, which also received phase 17 funds to extend EHRs to mental health providers.

---

<sup>177</sup> Key informant interview with New York State Department of Health staff.

<sup>178</sup> For more information, see “Health Information Security & Privacy Collaboration,” HealthIT.gov, n.d., <http://www.healthit.gov/policy-researchers-implementers/health-information-security-privacy-collaboration-hispc>.

<sup>179</sup> For more information see “NwHIN Trial Implementations,” HealthIT.gov, n.d., <http://www.healthit.gov/policy-researchers-implementers/nwhin-trial-implementations>.

<sup>180</sup> For more information, see “State Health Information Exchange,” HealthIT.gov, n.d., <http://www.healthit.gov/policy-researchers-implementers/state-health-information-exchange>.

<sup>181</sup> For more information, see “Regional Extension Centers (RECs),” HealthIT.gov, n.d., <http://www.healthit.gov/providers-professionals/regional-extension-centers-recs>.

<sup>182</sup> For more information, see “Beacon Community Program,” HealthIT.gov, n.d., <http://www.healthit.gov/policy-researchers-implementers/beacon-community-program>.

<sup>183</sup> For more information, see Nancy Ferris, “CDC contracts will seed large biosurveillance networks,” GovernmentHealthIT.com, March 20, 2008, <http://www.govhealthit.com/news/cdc-contracts-will-seed-large-biosurveillance-networks>.

<sup>184</sup> Steven Smith, “Overview: Statewide Health Information Network of New York (SHIN-NY)” (presentation to the Transparency, Evaluation, and Health Information Technology Workgroup Meeting, Albany, NY, September 11, 2014).

<sup>185</sup> Discretionary awards were for applications who had a loss from operations for each of the three consecutive preceding years, had a negative fund balance or equity position in each of the three preceding years, had a current ratio of less than 1:1 for the three preceding years, or be deemed to be a provider that fulfills an unmet health care need for the community. This is less applicable to the five health IT-related phases of HEAL-NY that are part of Goal 3.

<sup>186</sup> Key informant interview.

<sup>187</sup> “Organizational Infrastructure,” New York State Department of Health, n.d., <https://www.health.ny.gov/technology/infrastructure/>.

<sup>188</sup> Ibid.

<sup>189</sup> Key informant interview.

<sup>190</sup> “Health Information Technology for Economic and Clinical Health (HITECH) ACT,” HealthITNews.com, n.d., <http://www.healthcareitnews.com/directory/health-information-technology-economic-and-clinical-health-hitech-act>.

<sup>191</sup> “E-prescribing,” Centers for Medicaid and Medicare Services (CMS.gov), n.d., <http://www.cms.gov/Medicare/E-Health/Eprescribing/index.html?redirect=/eprescribing>.

<sup>192</sup> Institute of Medicine, *Preventing Medication Errors: Quality Chasm Series* (Washington, DC: National Academies Press, 2007); Erika L. Abramson, et al., “Ambulatory prescribing errors among community-based providers in two states,” *Journal of the American Medical Association* 19 (2012): 644-8; Tejal K. Gandhi, et al., “Outpatient Prescribing Errors and the Impact of Computerized Prescribing,” *Journal of General Internal Medicine* 20, 9 (2005): 837-41; Allen F. Shaughnessy and Ronald O. Nickel, “Prescription-writing patterns and errors in a family medicine residency program,” *Journal of Family Practice* 29, 3 (1989): 290-5; Emily Beth Devine, et al., “Characterization of Prescribing Errors in an Internal Medicine Clinic,” *American Journal of Health-System Pharmacy* 64, 10 (2007): 1062-70.

<sup>193</sup> National Alliance for Health Information Technology, *The National Alliance for Health Information Technology Report to the Office of the National Coordinator for Health Information Technology on Defining Key Health Information Technology Terms* (Washington, DC: Department of Health & Human Services, 2008), <http://www.himss.org/ResourceLibrary/ResourceDetail.aspx?ItemNumber=10884>; Peter Garrett and Joshua Seidman, “EMR vs HER — What Is the Difference?” HealthIT.gov, n.d., <http://www.healthit.gov/buzz-blog/electronic-health-and-medical-records/emr-vs-ehr-difference/>; “What is an electronic health record (EHR)?” HealthIT.gov, n.d., <http://www.healthit.gov/providers-professionals/faqs/what-electronic-health-record-ehr>.

<sup>194</sup> “Health Information Exchange (HIE),” HealthIT.gov, n.d., <http://www.healthit.gov/providers-professionals/health-information-exchange/what-hie>.

---

<sup>195</sup> GAP is an acronym for Grant Award Package.

<sup>196</sup> Lisa M. Kern and Rainu Kaushal, "Health information technology and health information exchange in New York State: New initiatives in implementation and evaluation," *Journal of Biomedical Informatics* 40 (2007): S17-20, <http://www.j-biomed-inform.com/article/S1532-0464%2807%2900087-1/pdf>.

<sup>197</sup> Health Information Technology Evaluation Collaborative, *HITEC Published Research Summary March 2014* (New York City, NY: Health Information Technology Evaluation Collaborative, 2014); Rainu Kaushal, Lisa Kern, and Jessica Ancker, "HITEC's Latest Findings" (Presentation to New York State Department of Health, Albany, NY, May 27, 2014).

<sup>198</sup> Rainu Kaushal, et al., "Electronic Prescribing Improves Medication Safety in Community-Based Office Practices," *Journal of General Internal Medicine* 25, 6 (2010): 530-6; Erika L. Abramson, et al., "Electronic prescribing within an electronic health record reduces ambulatory prescribing errors," *Joint Commission Journal on Quality and Patient Safety* 37, 10 (2011): 470-9.

<sup>199</sup> Erika L. Abramson, et al., "A long-term follow-up evaluation of electronic health record prescribing safety," *Journal of the American Medical Informatics Association* 20, 1 (2013): e52-8; Erika L. Abramson, et al., "The effects of electronic prescribing by community-based providers on ambulatory medication safety," *Joint Commission Journal on Quality and Patient Safety* 39, 12 (2013): 545-52.

<sup>200</sup> Health Information Technology Evaluation Collaborative, *HITECH Published Research Summary March 2014*; Lisa M. Kern, et al., "Electronic Health Records and Ambulatory Quality of Care," *Journal of General Internal Medicine* 28, 4 (2013): 496-503; Lisa M. Kern, et al., "Health information exchange and ambulatory quality of care," *Applied Clinical Informatics* 3, 2 (2012): 197-209.

<sup>201</sup> Alexander F.H. Low, et al., "Financial effects of health information technology: A systematic review," *American Journal of Managed Care* 19, Spec No. 10 (2013): SP369-76.

<sup>202</sup> Joshua R. Vest, et al., "Association between use of a health information exchange system and hospital admissions," *Applied Clinical Informatics* 5, 1 (2014): 219-31.

<sup>203</sup> Joshua R. Vest, et al., "The potential for community-based health information exchange systems to reduce hospital readmissions," *Journal of the American Medical Informatics Association* 22, 2 (2015): 435-42.

<sup>204</sup> Joshua R. Vest, et al., "Health Information Exchange and the Frequency of Repeat Medical Imaging," *American Journal of Managed Care* 11, Special No. 17 (2014): SP16-24.

<sup>205</sup> Vaishali Patel, et al., "Physicians' potential use and preferences related to health information exchange," *International Journal of Medical Informatics* 80, 3 (2011): 171-80; Jessica S. Ancker, et al., "Predictors of Success for Electronic Health Record Implementation in Small Physician Practices," *Applied Clinical Informatics* 4, 1 (2013): 12-24; Zachary M. Grinspan, et al., "Physician Specialty and Variations in Adoption of Electronic Health Records," *Applied Clinical Informatics* 4, 2 (2013): 225-40.

<sup>206</sup> Yuan Zhou, et al., "The impact of interoperability of electronic health records on independent physician practices: a discrete-event simulation study," *Informatics in Primary Care* 21, 1 (2013): 21-29, <https://www.mysciencework.com/publication/read/1441159/the-impact-of-interoperability-of-electronic-health-records-on-ambulatory-physician-practices-a-discrete-event-simulation-study#page-null>.

<sup>207</sup> Elizabeth R. Pfoh, et al., "Satisfaction after the transition between electronic health records systems at six ambulatory practices," *Journal of Evaluation in Clinical Practice* 18, 6 (2011): 1133-9.

<sup>208</sup> Heather C. O'Donnell, et al., "Healthcare consumers' attitudes towards physician and personal use of health information exchange," *Journal of General Internal Medicine* 26, 9 (2011): 1019-26; Vaishali N. Patel, et al., "Consumer Attitudes toward Personal Health Records in a Beacon Community," *American Journal of Managed Care* 17, 4 (2011): e104-20; Jessica S. Ancker, et al., "Consumer Perceptions of Electronic Health Information Exchange," *American Journal of Preventive Medicine* 43, 1 (2012): 76-80; Vaishali N. Patel, et al., "Consumer Support for Health Information Exchange and Personal Health Records: A Regional Health Information Organization Study," *Journal of Medical Systems* 36, 3 (2012): 1043-52; Erika L. Abramson, et al., "Consumer Perspectives on Personal Health Records: A 4-Community Study," *American Journal of Managed Care* 20, 4 (2014): 287-96.



- 
- <sup>209</sup> New York eHealth Collaborative, “SHIN-NY The Network of Networks: ‘Better Healthcare through Technology.’”
- <sup>210</sup> Ibid.
- <sup>211</sup> Key informant interview with New York State Department of Health staff.
- <sup>212</sup> New York eHealth Collaborative, “SHIN-NY the Network of Networks: ‘Better Healthcare through Technology.’”
- <sup>213</sup> New York State Department of Health, “F-SHRP Final Evaluation Plan,” 10.
- <sup>214</sup> Ibid.
- <sup>215</sup> Centers for Medicare & Medicaid Services and New York State Department of Health, *Federal-State Health Reform Partnership Medicaid Section 1115 Demonstration - Special Terms and Conditions: April 2013*, 2.
- <sup>216</sup> Michael S. Sparer and Lawrence D. Brown, “Nothing Exceeds like Success: Managed Care Comes to Medicaid in New York City,” *The Milbank Quarterly* 77, 2 (1999): 205–23; Michael S. Sparer and K. Chu, *Managed Care and Low-Income Populations: A Case Study of Managed Care in New York* (Washington, DC: The Henry J. Kaiser Family Foundation and the Commonwealth Fund, July 1996).
- <sup>217</sup> Howard Waitzkin, et al., “Safety-Net Institutions Buffer the Impact of Medicaid Managed Care: A Multi-Method Assessment in a Rural State,” *American Journal of Public Health* 92, 4 (2002): 598-610; Rebecca T. Slifkin and Michelle M. Casey, “Medicaid Managed Care in Rural Areas,” in *Rural Health in the United States*, ed. Thomas C. Ricketts, III (New York, NY: Oxford University Press; 1999), 95–100.
- <sup>218</sup> Key informant interviews.
- <sup>219</sup> Key informant interviews.
- <sup>220</sup> Richard Kronick, et al., “The marketplace in health care reform: The demographic limitations of managed competition,” *New England Journal of Medicine* 328, 2 (1993): 148–52.
- <sup>221</sup> Waitzkin, et al., “Safety-Net Institutions Buffer the Impact of Medicaid Managed Care”; K.J. Mueller, “Managed care organizations in rural areas,” in *The Managed Health Care Handbook*, 4th ed., ed. Peter R. Kongstvedt (Gaithersburg, MD: Aspen Publishers, 2001): 1133–45.
- <sup>222</sup> Available at [http://www.health.ny.gov/health\\_care/managed\\_care/reports/enrollment/monthly/](http://www.health.ny.gov/health_care/managed_care/reports/enrollment/monthly/) and [https://www.health.ny.gov/statistics/health\\_care/medicaid/eligible\\_expenditures/](https://www.health.ny.gov/statistics/health_care/medicaid/eligible_expenditures/), respectively.
- <sup>223</sup> Safety net assistance is New York’s main assistance program for low-income childless adults.
- <sup>224</sup> Family Health Plus is a New York Medicaid expansion program for certain low-income adults under the age of 65 who are not otherwise eligible for Medicaid. In 2014, it was replaced with insurance available through New York’s Marketplace health insurance exchange, <http://www.healthbenefitexchange.ny.gov/>.
- <sup>225</sup> See DOH monthly enrollment reports at [http://www.health.ny.gov/health\\_care/managed\\_care/reports/enrollment/monthly/](http://www.health.ny.gov/health_care/managed_care/reports/enrollment/monthly/).
- <sup>226</sup> Personal communication with DOH staff.
- <sup>227</sup> Commission on Health Care Facilities in the 21st Century, *A Plan to Stabilize and Strengthen New York’s Health Care System*, 47.
- <sup>228</sup> New York State Department of Health, “F-SHRP Final Evaluation Plan.”
- <sup>229</sup> New York State Department of Health, “Percent of Long-Stay Residents Assessed and Given, Appropriately, the Seasonal Influenza Vaccine.” <http://nursinghomes.nyhealth.gov/comparisons/cms/12280>. September 2014.
- <sup>230</sup> Centers for Disease Control and Prevention, “Oral and Dental Health.”
- <sup>231</sup> Commission on Health Care Facilities in the 21st Century, *A Plan to Stabilize and Strengthen New York’s Health Care System*.
- <sup>232</sup> Nirav Shah, *Managed Long Term Care Mandatory Enrollment (MRT # 90)* (Albany: New York State Department of Health, February 2013), [https://www.health.ny.gov/health\\_care/medicaid/redesign/docs/2013-02\\_mltc\\_legislative\\_report.pdf](https://www.health.ny.gov/health_care/medicaid/redesign/docs/2013-02_mltc_legislative_report.pdf).
- <sup>233</sup> Ibid
- <sup>234</sup> Key informant interview.

- 
- <sup>235</sup> *Transition to Mandatory Managed Long Term Care: The Need for Increased State Oversight* (New York: Long Term Care Community Coalition, August 23, 2012), <http://ltccc.org/documents/LTCCCMandatoryManagedLTCCBriefforOversight-Aug23.pdf>, 5.
- <sup>236</sup> *Managed Long Term Care Plan 2013 Member Satisfaction Survey Summary Report* (Lake Success,; Improving Healthcare for the Common Good, 2013), [http://www.health.ny.gov/health\\_care/managed\\_care/mltc/pdf/mltc\\_satisfaction\\_survey\\_summary\\_report\\_2013.pdf](http://www.health.ny.gov/health_care/managed_care/mltc/pdf/mltc_satisfaction_survey_summary_report_2013.pdf).
- <sup>237</sup> *2013 Managed Long-Term Care Report* (Albany: New York State Department of Health, 2013), [https://www.health.ny.gov/health\\_care/managed\\_care/mltc/pdf/mltc\\_report\\_2013.pdf](https://www.health.ny.gov/health_care/managed_care/mltc/pdf/mltc_report_2013.pdf).
- <sup>238</sup> DOH personal communication
- <sup>239</sup> New York State Department of Health, *Request for Proposal (RFP): New York State Department of Health (NYSDOH) Medicaid Data Warehouse (MDW) Replacement/OHIP Data Mart Operational Support* (Albany: New York State Department of Health, November 2008), <https://www.health.ny.gov/funding/rfp/inactive/0711050248/0711050248.pdf>.
- <sup>240</sup> “Transferring” refers to an individual’s ability to move from a seated position to another location. See *2012 Managed Long-Term Care Report* (Albany: New York State Department of Health, 2013), 17, <https://www.health.ny.gov/publications/3391.pdf>.
- <sup>241</sup> Richard H. Fortinsky, et al., “Measuring Disability in Medicare Home Care Patients: Application of Rasch Modeling to the Outcome and Assessment Information Set,” *Medical Care* 41, 5 (2003): 601–15.
- <sup>242</sup> Alene Hokenstad and Meghan Shineman, *An Overview of Medicaid Long-Term Care Programs in New York* (New York: Medicaid Institute at United Hospital Fund, April 2009), <http://www.uhfnyc.org/publications/880507>.
- <sup>243</sup> New York State Department of Health, “Managed Long-Term Care (MLTC) Semi-Annual Assessment of Members (SAAM) Version 2.5,” November 2007, [https://www.health.ny.gov/health\\_care/managed\\_care/mltc/pdf/mltc\\_saam\\_ver\\_2\\_1\\_5.pdf](https://www.health.ny.gov/health_care/managed_care/mltc/pdf/mltc_saam_ver_2_1_5.pdf).
- <sup>244</sup> The calibration methods have been validated in Fortinsky, et al., “Measuring Disability in Medicare Home Care Patients: Application of Rasch Modeling to the Outcome and Assessment Information Set.”
- <sup>245</sup> *Ibid.*
- <sup>246</sup> “Fecal Incontinence Information and Elderly Assistance,” aPlaceforMom.com, April 4, 2013, <http://www.aplaceformom.com/senior-care-resources/articles/fecal-incontinence>.
- <sup>247</sup> New York State Department of Health, *2013 Managed Long-Term Care Report*, see Appendix D.
- <sup>248</sup> New York State Department of Health, *2012 Managed Long-Term Care Report*, Table 6, 26.
- <sup>249</sup> New York State Department of Health, *2013 Managed Long-Term Care Report*, Table 6, 32.
- <sup>250</sup> *Ibid.* Details of the method provided on p. 33.
- <sup>251</sup> New York State Department of Health, *2012 Managed Long-Term Care Report*, Table 10, 36.
- <sup>252</sup> New York State Department of Health, *2013 Managed Long-Term Care Report*, Table 10, 47.
- <sup>253</sup> Commission on Health Care Facilities in the 21st Century, *A Plan to Stabilize and Strengthen New York’s Health Care System*; New York State Department of Health, *Report on Implementation of the Report of the Commission on Health Care Facilities in the Twenty-First Century*.
- <sup>254</sup> HEAL Overview OUTCOMES DATA 07 29 2014.xls.