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Examining the Effect of the NJ Comprehensive Waiver on Access to Care, Quality, and Cost of Care: Draft Final Evaluation Report

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June 2017

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Acknowledgments

Prepared for the New Jersey Department of Human Services. Any opinions expressed in this report are those of the authors and do not necessarily represent the view of the New Jersey Department of Human Services.

We would like to thank the New Jersey Department of Human Services and the Robert Wood Johnson Foundation for funding the evaluation of the Comprehensive Medicaid Waiver. We also gratefully acknowledge representatives from the New Jersey Division of Medical Assistance and Health Services, the New Jersey Division of Aging Services, and the Division of Children and Families' Children's System of Care for their assistance in providing data and necessary contextual information for the preparation of this report. Finally, we would like to thank our CSHP colleagues Jose Nova, Rizie Kumar, David Goldin, Bram Poquette, Jennifer Rodriguez, and Joel C. Cantor for their help on this project.

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Executive Summary

The New Jersey Medicaid Comprehensive Waiver Demonstration was approved for the period October 1, 2012 through June 30, 2017. This §1115 waiver not only consolidated authority for several existing Medicaid waivers, but initiated a variety of health reforms in New Jersey's Medicaid program. The key changes authorized by the Waiver are an expansion in managed care to Long-term Services and Supports (LTSS) and behavioral health (BH) services, targeted home and community-based services (HCBS) for populations of children and in-home community supports for individuals with intellectual and developmental disabilities, administrative simplifications in the Medicaid eligibility process for low-income applicants seeking LTSS, and the establishment of a hospital-based Delivery System Reform Incentive Payment (DSRIP) Program.

The Rutgers Center for State Health Policy (CSHP) was engaged to evaluate New Jersey's Medicaid Comprehensive Waiver Demonstration. In this draft final evaluation report, we examine the expansions in managed care and targeted home and community-based services occurring under the Waiver as well as the impact of the changes in administrative processes surrounding financial eligibility determination for LTSS applicants.[1] These policy changes were associated with the first three of the four evaluation hypotheses and their supporting research questions as outlined in the waiver Special Terms and Conditions document (CMS 2014) and enumerated below.

[1] The Supports program, which is part of the targeted home and community-based services expansion for individuals with intellectual and developmental disabilities has been evaluated qualitatively in a separate report (Farnham, et al., forthcoming). The DSRIP program is evaluated as a separate component and the midpoint evaluation was submitted to the New Jersey Division of Medical Assistance and Health Services (DMAHS) on September 2015 with the final evaluation due in March 2018.

Hypothesis 1: **"Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions."**

Research Question 1a: **"What is the impact of the managed care expansion on access to care, the quality, efficiency, and coordination of care, and the cost of care for adults and children?"**
Research Question 1b: **"What is the impact of including long-term care services in the capitated managed care benefit on access to care, quality of care, and mix of care settings employed?"**

Hypothesis 2: **"Providing home and community-based services to Medicaid and CHIP beneficiaries and others with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities will lead to better care outcomes."**

Research Question 2a: **"What is the impact of providing additional home and community-based services to Medicaid and CHIP beneficiaries with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities?"**
Research Question 2b: **"What is the impact of the program to provide a safe, stable, and therapeutically supportive environment for children from age 5 up to age 21 with serious emotional disturbance who have, or who otherwise would be at risk for, institutionalization?"**

Hypothesis 3: **"Utilizing a projected spend-down provision and eliminating the look back period at time of application for transfer of assets for applicants or beneficiaries seeking long term services and supports whose income is at or below 100% of the FPL will simplify Medicaid eligibility and enrollment processes without compromising program integrity."**[2]

Research Question 3a: **"What is the impact of the projected spend-down provision on the Medicaid eligibility and enrollment process? What economies or efficiencies were achieved, and if so, what were they? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"**
Research Question 3b: **"What is the impact of eliminating the transfer of assets look-back period for long term care and home and community based services for individuals who are at or below 100% of the FPL? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"**

[2] Hypothesis 3 and the associated research questions enumerated here reflect the wording used in the waiver Special Terms and Conditions document as approved by CMS (CMS 2014). The projected spend-down provision originally proposed in the Waiver was not implemented since the State chose to adopt Qualified Income Trusts (QITs), and we assess the impact of the QIT implementation.

Hypothesis 4: **"The Delivery System Reform Incentive Payment (DSRIP) Program will result in better care for individuals (including access to care, quality of care, health outcomes), better health for the population, and lower costs through improvement."**

This report is comprised of five distinct chapters each covering one analytic component of our evaluation. Organized by chapter, the following table presents a brief description of the contents of this report, the data sources used and time periods covered, the focus of the analyses (i.e. populations and/or plans), and the corresponding hypothesis(es) and research question(s) addressed to the extent possible given the available data and timing of policy implementation.

Data Sources	Focus of Analysis	Hyp.	RQ
Chapter 1			
HEDIS® and CAHPS®, 2011-2015	All managed care beneficiaries and MCOs	1	1a
Chapter 2			
Reports from MCOs, EQROs, and State Government, 2014-2017	Medicaid beneficiaries in MLTSS and their MCOs	1	1b
Chapter 3			
Medicaid claims and encounter data, 2011-2015	Medicaid beneficiaries and managed care beneficiaries, overall and by eligibility group, and those in long-term care (facility and community-based)	1	1a, 1b
Chapter 4			
Medicaid claims and encounter data, 2011-2015	Individuals with ASD, ID-DD/MI, and SED eligible for home and community-based waiver services, and all Medicaid youth	2	2a, 2b
Chapter 5			
State-provided statistics and public reports, 2012-2017; Medicaid claims and encounter data, 2011-2015	Individuals seeking entrance into MLTSS using self-attestations and Qualified Income Trusts	3	3a, 3b

Hyp.=Hypothesis; RQ=Research Question; MCO=Managed Care Organization; EQRO=External Quality Review Organization; ASD=Autism Spectrum Disorder; ID-DD/MI=Co-occurring intellectual/developmental disability and mental illness; SED=Serious Emotional Disturbance.

Chapter 1: HEDIS® and CAHPS® Quality Indicators: Preventive Care, Behavioral Health Care, Treatment of Chronic Conditions, and Consumer Satisfaction

This section examines the performance of NJ Medicaid managed care organizations (MCOs) comparing changes between the baseline period of the waiver evaluation (2011-2012) and the three post-implementation years (2013-2015). Examining potential changes across all managed care beneficiaries monitors Medicaid managed care organizations' (MCOs') overall adherence to the State's managed care Quality Strategy when preparing for and implementing specific waiver policies. It provides evidence needed to assess the impact of the managed care expansion on access to care, and the quality, efficiency, and coordination of care for all adults and children, an

evaluation Research Question enumerated in the waiver Special Terms and Conditions document (CMS 2014).

The measures in the tables are related to preventive care, behavioral health care, treatment of chronic conditions, and consumer satisfaction with care. These measures are based on the Healthcare Effectiveness Data and Information Set (HEDIS®), a system of standardized performance measures developed by the National Committee for Quality Assurance (NCQA); and the CAHPS® (Consumer Assessment of Healthcare Providers and Systems), an annual independent survey of members' perceptions of the quality of care and services they receive in their Medicaid health plan. For the HEDIS® metrics, in addition to select measures which are publicly reported, we also used data from the annual Performance Measure Validation reports created by the State's EQRO and provided to us by DMAHS.

Preventive Care Quality Measures: These HEDIS® measures are related to immunizations, screenings, and visits to primary care practitioners.

- The rates for childhood vaccine combinations 2 (DTaP, IPV, MMR, HiB, HepB, and VZV) and 3 (DTaP, IPV, MMR, HiB, HepB, VZV, and PCV) declined significantly from the baseline (2011-2012) to the waiver (2013-2015) period (-1.0 percentage points (pp) and -1.7 pp, respectively). The rates for adolescent meningococcal vaccination and Tdap or Td improved (1.0 pp and 2.9 pp, respectively).
- Rates significantly improved for wellness visits for both young children (1.3 pp in first 15 months of life and 0.3 pp in ages 3-6), and adolescents (2.1 pp). However, rates for frequency of ongoing prenatal care declined (-1.0 pp), as did timeliness of prenatal (-1.9 pp) and postpartum care (-2.4 pp).
- Rates improved for all the access to primary care measures for children of all ages except for those between 12-24 months (1.7 pp for 25 months-6 years, 1.4 pp for 7-11 years, and 0.7 pp for 12-19 years).
- BMI assessment rates for both younger children (8.5 pp) and adolescents (9.1 pp) improved. For adults, the BMI assessment rate also improved (8.6 pp), as did the breast cancer screening rate (1.6 pp). However, cervical cancer screening rate declined (-4.0 pp).
- For the CAHPS® measure for dental care utilization, the pattern of rates suggests a general improvement in dental care utilization among adults and children overall in Medicaid managed care from 2011 to 2015, although rates still do not exceed 50%.

Behavioral Health Care Services Quality Measures: These HEDIS® measures are related to follow-up care for individuals with certain behavioral health diagnoses (DDD population only for 2011-2014; DDD and MLTSS populations for 2015).

- There was no change in follow-up care for children prescribed ADHD medication from 2011-2012 to 2013-2015.
- There was an improvement from 2011-2012 to 2013-2015 in the rate for 7-day follow-up for DDD beneficiaries ages 6 and older who were hospitalized for treatment of certain mental illness conditions (4.0 pp), but there was no change in the rate for 30-day follow-up for this population (although there was an upward trend over the 3-year waiver period).

Treatment of Chronic Conditions Quality Measures: These HEDIS® measures are related to high prevalence chronic conditions like diabetes and asthma.

- Rates were unchanged for the measures for monitoring of patients on persistent medications.
- Rates were unchanged for the diabetes care measures.
- The rates for blood pressure control were unchanged.
- The rates for the percentage of patients who had persistent asthma and were appropriately prescribed medication were also unchanged.

Measures of Consumer Satisfaction: These CAHPS® measures relate to perceptions of quality of care among adults and children in Medicaid managed care.

- The results were mixed across the different plans for children, but the overall trends for both adults and children showed improvements in all or most of the measures, as did the individual plan rates for adults.

With a few exceptions, the findings presented in this chapter support the conclusion that overall quality of care for Medicaid managed care beneficiaries was at the least maintained, and in several cases improved, during the first three years of the demonstration period.

Chapter 2: An Examination of MLTSS-related Measures Reported by Managed Care Organizations, External Quality Review, and State Government

This chapter discusses data and performance measures relevant to managed long-term services and supports (MLTSS) that have been collected and reported by MCOs, external quality review organizations and state government relating to a post-implementation period spanning 2014 through early 2017.

Measures related to MLTSS are collected/reported in a number of ways, as listed below. We have drawn upon these sources for the analysis in this chapter.

- MCOs are required to report regularly on a number of measures, and to report all claims and encounter data to the state.
- The Division of Aging Services collects and reports a number of metrics to CMS.

- The Division of Banking and Insurance reports on its Independent Health Care Appeals Program.
- The Division of Medical Assistance and Health Services (DMAHS) and the Office of Administrative Law (OAL) report on fair hearing requests and decisions.
- An external quality review organization (EQRO) does annual audits of MCOs, including care management provided to MLTSS enrollees.
- New Jersey MCOs participate in the CAHPS® (Consumer Assessment of Healthcare Providers and Systems) survey that, on an annual basis, assesses members' perceptions of the quality of care and services they receive in their Medicaid health plan. These measure sets apply to all MCO enrollees, not just those receiving MLTSS services.
- New Jersey participates in the National Core Indicators – Aging and Disabilities (NCI-AD)™ Survey, which involves face-to-face surveys of long-term care consumers.

Some of the measures we discuss are part of the MLTSS Quality Strategy, a group of about 40 measures that was created prior to the inception of MLTSS. We have also considered stakeholder input as discussed in separate reports (Farnham et al., forthcoming; Farnham et al. 2015) to review and discuss additional metrics.

The following are the measures that are discussed in more detail in the chapter:

Share of Population by Setting; Distribution of Age Groups in MLTSS

- The share of the population receiving long-term care services in home and community-based settings has increased, while the share of the population in nursing facilities has decreased, indicating that the state is moving toward providing more services in home and community settings (Figure 1). Among the HCBS population, about 15% are in assisted living facilities and the remaining 85% are in other types of community settings.
- The share of people enrolled in the former §1915(c) waiver programs who have moved to nursing facilities remains small, indicating that people who begin receiving services in community settings are largely able to remain there (Table 2).
- The distribution of MLTSS enrollees across age groups has remained steady since MLTSS implementation (Figure 2).

Assessment Timeliness and Care Management Audits

- The timeliness of nursing home level of care assessments by both the state Office of Community Choice Options and MCOs has improved from the time of MLTSS implementation, but has also been quite variable (Figures 3 and 4). The impact of timeliness on consumers is not completely clear, as some consumers receive services while awaiting assessments.

- All MCOs showed gains from Year 1 to Year 2 of MLTSS in the extent to which their nursing home level of care assessments were authorized by OCCO (Table 3). This means that consumers are less likely to have to undergo an additional assessment by OCCO to verify their clinical eligibility.
- For care management audits, the external quality review organization (EQRO) looks at new MLTSS enrollees who are new to Medicaid managed care as well as those previously enrolled in Medicaid managed care. During the audits in Year 1, after initial implementation, they also looked at those who had transitioned from fee-for-service HCBS (Table 4). To be included in the audit, individuals must have been continuously enrolled in Medicaid and in the same MCO for at least 6 months. The audits involve file review only, with no discussions with members. Four plans were audited in both Years 1 and 2. One plan began operations in 2015 and was only included in the Year 2 audit. If fewer than 85% of audited files meet required standards, MCOs must form a corrective action plan.
    - From Year 1 to Year 2, four MCOs increased the extent to which care plans were completed within 30 days (from 52%-64%) and were aligned with the member's needs (from 93% to 98%). Two plans increased the extent to which their care plans were person-centered, while two plans decreased—across all plans, compliance on this measure decreased (from 61% to 45%). Three plans increased the extent to which their care plans included back-up plans for members in case of service failure but the overall compliance rate decreased from 83% to 78%. See Figure 6 and Table 5.
    - There is not a straightforward relationship between care plan completion within 30 days and establishment of services within 30 days. While 64% of audited care plans were completed within 30 days, 79% of audited files had services in place within 30 days. Three MCOs were more likely to show services established within 30 days than to complete care plans within 30 days, and the two MCOs exhibiting higher compliance with care plan completion were less likely than two of the less compliant plans to show services established within 30 days (Figure 7). Some enrollees may be getting their services through a different program prior to MLTSS enrollment, making it easier to establish services.
    - Alignment of needs with the care plan can only be calculated for those files in which both are present. There was some difference in this across MCOs (Figure 8).
    - Care plan alignment with the PCA (personal care assistance) assessment was examined by the MCO where applicable, and alignment values were similar to the care plan and NJ Choice assessment.
    - Reassessments appear to generally happen in a timely fashion.
    - Evidence for required critical incident training for consumers and caregivers in Year 2 was mixed, with three MCOs at 89% or higher and two below 10% (Figure 10).

Critical Incidents, Appeals/Grievances/Complaints, Fair Hearings

- Critical incidents are generally reported in a timely fashion. The number of incidents varies a bit from month to month, but remains small when compared with total MLTSS enrollment (Figure 11). The most common incidents are injuries or falls and medical or psychiatric emergencies (including harms from medication errors). Together, these account for more than half of incidents in Year 1 and more than three quarters in Year 2 (Table 6).
- Appeals, grievances and complaints have declined from about 1.2% of MCO MLTSS members in early 2015 to a number corresponding to about 0.6% of members in mid-2016 (Figure 12). These are rough estimates, as members can have multiple issues and reporting does not remove duplicates (in other words, the true percentage of members with appeals, grievances or complaints may be lower).
    - MCOs generally respond in a timely way to appeals, grievances and complaints, but overwhelmingly uphold their original decisions (more than 90%).
- Limited information on service reductions reported by MCOs in one quarter in 2015 indicates that they were not numerous and that most were not appealed.
- Fair hearing data are not segregated by Medicaid program, so MLTSS cannot be viewed separately. A minority of fair hearing filings result in a decision. The share of filings by MCO appears similar to the share of decisions in 2016 (i.e., there do not appear to be differences in the rate of withdrawals). The number of filings and decisions appears small in relation to the number of Medicaid enrollees (Table 7).
- Data from the Division of Banking and Insurance supports advocate perceptions that appeals of private duty nursing denials increased in 2015. In 2016, cases seem to be decreasing (Figure 13).

Transitions between Nursing Home and Community Settings

- MCOs report 227 transitions from nursing facilities to community settings in the first year of MLTSS and 371 in the second year. Fewer than 20 members who had been transitioned each year returned to a nursing facility for more than 90 days.
- MCOs report that 1,199 consumers moved from community settings to a nursing home in the first year of MLTSS and 962 consumers had a similar move in the second year. In both cases, a majority of consumers who moved stayed for 180 days or longer.

Acute Care Utilization

- MCOs report that hospital and ED use increased for the HCBS population from Year 1 to Year 2, while decreasing for the nursing facility population (Figure 14). Some members make multiple visits. Without risk adjustment information it is not possible to know whether such an increase is due to increasing frailty of the HCBS population, as opposed to other factors.

Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Survey Results

- CAHPS® survey results (mail or phone) comparing the MLTSS population with the D-SNP (dual eligible, special needs plan) and general adult Medicaid population found that MLTSS beneficiaries surveyed tended to be older, were more likely to identify their race as white, and rated their health as poorer than the other groups.
- Individuals in MLTSS are on par with non-MLTSS beneficiaries in overall satisfaction with their health care providers and access to care. When examining satisfaction with the administrative responsiveness of their plan, MLTSS beneficiaries are slightly less satisfied.
- More than 40% of MLTSS respondents to the survey reported difficulty with their health plan with respect to obtaining, replacing, or repairing mobility equipment. Estimates were not available for the other groups because they had less need for such equipment. State officials told us that frequently there is confusion about whether Medicare or Medicaid is the payer for such equipment. In the NCI-AD™ survey (discussed next), New Jersey's MLTSS members were generally less likely to report needs for equipment than MLTSS recipients in four other states. So, while there is clearly room for improvement here, it does not appear that New Jersey is an outlier.

NCI-AD (National Core Indicators, Aging and Disabilities™) Survey

- The NCI-AD™ is a face-to-face survey with questions developed by experts in long-term care. In its 2015 survey, New Jersey included about 100 surveys for each of the following (Table 10): each MCO enrolling MLTSS consumers, fee-for-service nursing home residents, Program of All-inclusive Care for the Elderly (PACE) participants, and those receiving Older Americans Act HCBS services (at least one service--including adult day, chore, homemaker, personal care and/or home delivered meals--three or more times per week).
- Comparing responses from MLTSS enrollees in New Jersey with those in Delaware, Minnesota, Tennessee and Texas showed that New Jersey's MLTSS members:
    - were older and seemed to have more family support;
    - felt more comfortable going home after a hospital or rehab discharge;
    - were less likely than members in 3 other states to be able to do things outside their home, primarily due to transportation;
    - frequently reported better access to primary care services, equipment and modifications (Table 8);
    - were equally likely to report that services met needs and goals and to participate in self-direction of services (Table 9);
    - were more likely to have a case manager discuss unmet needs (Table 9);
    - were more likely to say that their paid support staff changed too often (Table 9);
    - were less likely than enrollees in 3 other states to talk to someone about job options if they wanted a job (Table 9);

    - were less likely to report a mental health diagnosis or to discuss loneliness/sadness or depression with anyone.
- Comparing responses from long-term care programs across New Jersey (MLTSS, fee-for-service nursing home, PACE and Older Americans Act services) showed that:
    - MLTSS members reported needing more assistance with self-care and were more likely to report that a family member was the person who helped them most (Figure 19);
    - MLTSS and nursing homes were more likely to be serving consumers with physical disabilities (Figure 20);
    - MLTSS members were more likely to report being able to get a primary care appointment but less likely than respondents in nursing homes or PACE to report a routine dental visit in the past year (Figure 22);
    - MLTSS members were more likely than respondents in nursing homes or Older Americans Act recipients to say that their services met all their needs and goals, and more likely than all others to say that they could choose or change their services or who provides them. They were a bit less likely to know who to call with a complaint about their services than nursing home or PACE respondents, but as likely as all except PACE respondents to know who to call if their needs changed (Figure 24);
    - MLTSS members were the most likely of all program respondents to think their direct support staff changed too often. Otherwise, they generally compared favorably to nursing home respondents and somewhat worse than PACE or Older American's Act recipients in their experience with direct support staff (Figure 24).
- Comparing responses across MLTSS members in four different MCOs showed differences by MCO with respect to the following:
    - member diagnosis and self-rated health by MCO (Figure 25);
    - member mobility and need for self-care assistance (Figure 26);
    - member fall history, concerns, ED visits, and counseling or help regarding falls (Figure 27);
    - member social context (language, residence setting, who members lived with, ability to get to safety in an emergency, social support network)
    - access to/knowledge of care management (Figure 28);
    - follow-up or help based on member-specific needs (Figure 29);
    - adequacy of help received (Figure 30);
    - experience with paid support staff (Figure 31).
- Because enrollees self-select into MCOs and programs, and there are other differences across MCOs and other programs in terms of geographic availability, provider networks, and so on, it is not possible to use these data as a rigorous performance review of MLTSS or individual

MCOs, but the data may contain useful information regarding how to improve services for members.

Chapter 3: Analysis of Medicaid Claims Data to Examine Access to Care, Quality, and Cost of Care: Assessing Avoidable Hospital Use, Readmissions, Behavioral Health Care, and Ambulatory Visits in Managed Care and MLTSS

This chapter assesses the impact of the expansion of managed care to Long Term Services and Supports (LTSS) and behavioral health (for selected LTSS-eligible populations) by examining measures related to access to care, quality of care, and health care spending for NJ Medicaid beneficiaries calculated from Medicaid fee-for-service (FFS) claims and managed care encounter data over 2011-2015. These measures include rates of avoidable inpatient hospitalizations and ED visits that arise due to inadequate ambulatory or primary care in the community; hospital readmission rates overall, and for specific diseases that reflect potentially inadequate inpatient care and lack of care coordination; follow-up rate after mental illness hospitalization that examines similar issues specifically for individuals with behavioral health conditions; ambulatory visit rates that reflect the quality of care transitions; and spending-related measures to examine potential changes in distribution of spending over time and across places-of-care. We also compare trends in selected metrics between Medicaid and NJ overall (based on all-payer data) to put Medicaid findings in the context of broader health system patterns in the state.

We present tables with annual estimates of such metrics for Medicaid overall and specific subpopulations based on Medicaid eligibility and the focus of the managed care expansion. This is followed with results of multivariate regression analyses that use statistical techniques such as segmented regression analysis and difference-in-differences modeling to account for individual, geographic and provider characteristics while identifying the impacts of the managed care expansion under the Waiver. Through these models we examine changes over time of specific metrics across all managed care beneficiaries to monitor overall adherence to the Quality Strategy by Medicaid managed care organizations (MCOs) undertaking the MLTSS reforms and provide evidence for answering Research Question 1a. These findings supplement those presented in Chapter 1. We also examine selected metrics for specific groups of Medicaid beneficiaries that come under the managed care expansion immediately on July 1, 2014. This is primarily the long-term care (LTC) beneficiaries group meeting an institutional level of care and residing in their homes and communities under the former 1915(c) waiver programs or, after July 1, 2014, under MLTSS. In separate models, we examine outcomes for the subset of nursing facility (NF) residents who transitioned into MLTSS any time during the first 18 months of the program. These regression analyses supplement the findings presented in Chapter 2 and provide the evidence needed for answering Research Question 1b.

Annual Descriptive Estimates: Our focus is on changes in these estimates during 2015, the full year subsequent to the implementation of MLTSS. While these trends may broadly indicate effects of the Waiver on the overall managed care population or the HCBS population, it is important to remember that descriptive estimates are not adjusted for changing beneficiary characteristics (subsequent to the Medicaid expansion) or underlying trends in outcomes unrelated to the policy. Our regression-based analysis adjusts for these effects.

Below we highlight the key findings related to the expansion of managed care and also those that highlight the differences across groups of Medicaid beneficiaries. For comprehensive findings, Chapter 3 should be reviewed.

Avoidable and Overall Inpatient and Emergency Department Use and Spending:

- Avoidable hospitalization rates are generally lower by 2015 than they were in the baseline period for the managed care population overall. However, for the General Assistance (GA) category overall, which experienced major changes in size and managed care composition due to the Medicaid expansion in 2014, the rate of avoidable hospitalizations increased in 2015.
- In 2015, avoidable inpatient hospitalization rates were the highest among those receiving HCBS (780 per 10,000 beneficiaries), and even higher among HCBS beneficiaries with a BH condition (1,142 per 10,000 beneficiaries). This rate had decreased from 2013 to 2014, but by 2015 was back at the level of the pre-waiver baseline years (2011-2012). In contrast, the rate of avoidable hospitalizations for the nursing facility population, overall and among those with a behavioral health (BH) condition, has been steadily declining since 2011.
- Despite declines in avoidable ED visit rates between 2012 and 2014 for the HCBS population, rates climbed to their highest by 2015 (2,373 per 10,000 population). The same trend is seen for the HCBS population in overall ED utilization. Rates for the managed care population overall and the NF population do not show this pattern.
- The ABD eligibility group enrolled in managed care has the highest per-person avoidable spending ($221) and also overall hospital spending ($1350) in 2015 compared to other eligibility groups, but the avoidable spending for this population was even higher prior to waiver implementation ($273 and $1605, respectively in 2011).
- Total spending per Medicaid beneficiary decreased from $5,744 in 2013 to $5,069 in 2015, but this is largely due to drops in non-hospital spending. Hospital-based spending per beneficiary actually ended up at a higher level in 2015 than in the baseline years primarily attributable to growth in ED spending.
- Around three quarters of total avoidable spending among the LTC population was incurred by NF residents in 2011-2014, but the growth in avoidable spending among the HCBS

population and decrease among the NF population after 2014 shifts this to a nearly even split between these two LTC populations by 2015.

Hospital Readmissions:

- In every category of readmission, and every year, beneficiaries with a BH condition had a higher readmission rate compared to those who were LTC-eligible and also Medicaid beneficiaries overall.
- For the overall managed care population, we find an improvement in quality reflected through AMI readmission rates, but a worsening for heart failure (HF) readmission rates.
- Among the HCBS population, all readmission rates exhibited a worsening except for AMI which had no clear trend.
- Readmission rates for the NF population indicate improvements in care except for HF readmission which increased between 2014 and 2015, consistent with the trends seen for the entire managed care and HCBS populations.

Follow-up after Hospitalization for Mental Illness and Ambulatory Visit after Hospital Discharge:

- For Medicaid beneficiaries overall and in managed care, rates of follow-up seven days and thirty days after discharge from a mental illness hospitalization do not change very much over 2011-2015, but there is an indication of a slightly increasing trend starting in 2014 after slight declines from 2011-2013.
- Rates of an ambulatory visit 14 days after discharge home have declined since 2011 for managed care overall and for the ABD and NJ FamilyCare populations. They have also declined for the HCBS population through 2014, but then increase by 7.5 percentage points from 2014 to 2015.

LTSS, Non-LTSS, and Total Costs:

- Total spending is higher for the NF population compared to the HCBS population and this is largely driven by their high LTSS spending, although that spending is at its lowest by 2015.
- Spending related to avoidable hospitalizations for the HCBS and NF populations accounted for less than 1% of overall spending for these two populations combined.

Rebalancing

- The share of LTSS spending has shifted slightly more towards the HCBS population over 2011-2015. The greatest increases in the proportion of spending for the HCBS population occurred after implementation of MLTSS in July 2014.
- Overall annual spending for the HCBS and NF populations has declined by about $300 million over 2011-2015, mostly as a result of declines in the magnitude of spending for the NF population.

Quality Metrics for the Medicaid Population with a Behavioral Health Condition

- During the first two quarters when the IME was operational, avoidable hospitalizations in the Medicaid population with a behavioral health condition are lower than in prior years, but the declines were underway in 2013.
- Thirty-day readmission and mental health follow-up visits are not markedly different in the last two quarters of 2015 compared to the period prior to IME operation.

MLTSS Impact on the Overall Medicaid Managed Care Population: Using segmented regression analysis, we examine changes in outcomes for the entire managed care population immediately after implementation of MLTSS and identify the impact of the policy on these outcomes during the first 18 months of the program. We assess immediate changes (changes in the level) as well as changes in time trend. We calculate the estimated change at the end of the study period among the MLTSS population compared to the scenario without MLTSS. These models adjust for individual and provider characteristics, geography/residence, and time trends unrelated to MLTSS.

Avoidable Inpatient and Emergency Department Use:

- There is no significant impact of MLTSS on avoidable inpatient utilization for the overall managed care population, but we observe significant effects on avoidable ED utilization. By the end of 2015 that amounts to 11 fewer avoidable ED visits per 1,000 beneficiaries than there would have been without MLTSS.

Hospital Readmissions:

- We find a statistically significant effect only for hospital wide readmissions. There was a decrease in the likelihood of readmission by 4.6 percentage points (pp) by the last month of 2015 in the overall managed care population. While there were decreases for heart failure, AMI, and pneumonia readmissions, none of these were statistically significant.
- Among Medicaid managed care beneficiaries with a BH condition, there was also a statistically significant decline in the probability of hospital-wide readmission. By December 2015, hospital-wide readmissions were 5.2 pp lower for the managed care population with a BH condition than they would have been without MLTSS.

Follow-up after Hospitalization for Mental Illness and *Ambulatory Visit 14 Days after Discharge Home:*

- There are decreases in follow-up rates within 7 and 30 days of hospitalization, but these decreases are not statistically significant.
- We estimate a 1.6 pp increase in the probability of an ambulatory visit in December 2015 compared to the scenario without MLTSS but this is only marginally significant ($p<0.1$).

MLTSS Impact on the HCBS and NF Populations: Using a difference-in-differences estimation strategy, we are able to examine average changes in outcomes, separately for HCBS and NF beneficiaries, whose long-term services and supports were integrated with their physical and behavioral health care after implementation of MLTSS. These models use the non-LTC ABD population as a comparison group to account for outcome trends unrelated to the MLTSS policy and further adjust for individual and provider characteristics and geography/residence to isolate the impact of MLTSS on these outcomes.

Avoidable Inpatient and Emergency Department Use and Associated Costs:

- There was no statistically significant impact of MLTSS on avoidable inpatient utilization by the HCBS or NF population.
- MLTSS implementation increased the rate of avoidable ED visits over a quarter by 13 per 1,000 HCBS beneficiaries, and this change was statistically significant. The effect for the nursing facility population over a quarter was a decline of 5 visits per 1,000 beneficiaries and this effect was only marginally significant ($p<0.1$). There was also a significant decrease in avoidable ED visit-related spending in the NF population under MLTSS.
- We find that the MLTSS policy significantly increased avoidable IP costs for the HCBS population, but not the NF population. It also significantly decreased avoidable ED costs in the NF population, but does not have a significant impact on avoidable ED costs for the HCBS population.

Hospital Readmissions:

- Across all readmission metrics, estimated effects are positive in magnitude indicating increases in the probability of hospital readmission for the HCBS and NF populations in MLTSS, but these increases are not all statistically significant.
- There was a statistically significant 6.1 pp increase in pneumonia readmission rates among the HCBS population due to the MLTSS implementation.
- There was an 8.7 pp increase in hospital-wide 30-day readmissions due to MLTSS implementation for the NF population. We observe a 1.2 pp increase for the HCBS population, but this was only marginally significant ($p<0.1$).
- MLTSS implementation increased the probability of a readmission for the HCBS population with a BH condition 1.5 pp. This finding is only marginally significant. In contrast, MLTSS implementation is associated with a 9 pp increase in the hospital-wide readmission rate among the NF population with a BH condition. The effect is statistically significant.

Follow-up after Hospitalization for Mental Illness and *Ambulatory Visit 14 Days after Discharge Home:*

- MLTSS implementation increased the follow up rate within 7 days of a mental illness hospitalization by 6.7 pp, but decreased the follow-up within 30 days by 3.1 pp. Neither effect is statistically significant, and, due to small numbers of HCBS beneficiaries with a qualifying mental illness index hospitalization in the post-MLTSS period, there are statistical issues with the reliability of these results.
- MLTSS implementation increased the probability of an ambulatory visit 14 days following discharge from a medical hospitalization by 0.6 pp for the HCBS population. This effect is not statistically significant.

All-Payer Comparisons: Using statewide data on hospital utilization from the New Jersey State Health Assessment Data system, we explored trends in metrics between Medicaid and NJ overall to put Medicaid findings in the context of broader health system patterns in the state. We compared the slope of linear trend lines for rates of avoidable hospitalizations and overall emergency department visits between Medicaid and NJ overall. Noted comparisons have not been tested for statistical significance, and not adjusted for patient, provider and geographic characteristics.

- During the waiver demonstration period, avoidable hospitalizations for both acute and chronic conditions appear to be decreasing across the board in New Jersey, with the exception of some diabetes-related admissions. This declining trend has been at least mirrored in the Medicaid population and often, Medicaid declines have been steeper over this time period.
- Despite the overall positive trend in preventable hospitalizations, it is worth noting that for some acute conditions, the decline in Medicaid has been leveling off, or, in the case of conditions related to chronic diseases like uncontrolled diabetes and heart failure, reversing from 2014 to 2015.
- Emergency department visits appear to be on the rise in New Jersey overall and increasing in Medicaid as well.

Conclusions:

Overall, there were no negative effects on the quality, efficiency, and coordination of care for the managed care population as a whole during the first 18 months of MLTSS implementation. However, we find increased avoidable ED visits and hospital readmissions, indicating a worsening in outcomes related to access to care and quality of care for the HCBS population during the first year and a half of MLTSS implementation. There are some findings suggestive of small improvements in post-hospitalization follow-up visits for the HCBS population post-MLTSS, but

they do not meet the threshold of statistical reliability. It may be that more time is needed both in terms of available data and program evolution before improvements become detectable. We also do not observe any improvements in behavioral health care under MLTSS so far. These findings are largely consistent between our descriptive results and our adjusted regression results. There are statistically significant increases in readmission rates among NF residents, but there was also a slight decrease in avoidable ED visits and avoidable ED visit related costs for the NF population. Because of the phased in transition of the NF population, the post MLTSS period for assessing changes in NF residents is much shorter. NF findings are subject to this limitation. Racial ethnic disparities, except for hospital wide readmission rates among HCBS black beneficiaries, did not appear to have increased due to MLTSS. Spending trends indicate MLTSS has helped accelerate the rebalancing of spending away from facility care to supporting individuals in their homes and communities.

Chapter 4: Examining Care Outcomes for Populations of Children and Youth Targeted for Home and Community-Based Services

This chapter presents Medicaid claims-based metrics related to selected types of hospital utilization for several populations of children targeted for additional home and community-based services (HCBS) under the Waiver. Specifically, the Waiver authorized the NJ Department of Children and Families' Division of Children's System of Care (DCF's CSOC) to coordinate new supportive services for children with Autism Spectrum Disorder (ASD), co-occurring intellectual/developmental disabilities and mental illness (ID-DD/MI), and Serious Emotional Disturbance (SED). The Waiver also expanded Medicaid eligibility for children with SED.

All of the services authorized under the Waiver for the DCF populations started being offered during calendar year 2014 or later, limiting the data on the post-implementation period available for this final report. Because of this, and due to small sample sizes in the ASD cohort, we present descriptive results with no adjustment for patient or provider characteristics. We conducted statistical testing on unadjusted utilization rates, comparing estimates for 2015 to the year prior to waiver service initiation. Still, estimates based on small samples should be interpreted with the caveat that observed variation for the metrics between years might be the result of outliers in the data or random events unrelated to the policy change.

Avoidable Hospital Utilization, Overall Hospital Utilization, and Per Capita Hospital Spending

- Rates of avoidable hospital use were very low in the baseline and early demonstration period. Compared to 0.2 or fewer avoidable hospitalizations per 100 Medicaid youth in each year of the study period, the rate was higher in the ID-DD/MI cohort, reaching 1.8 per 100 ID-DD/MI youth in 2013, but dropping down to zero in 2015.

- We observe a slight downward trend in inpatient utilization for Medicaid youth overall over 2011-2015 which is mirrored in the ID-DD/MI and ASD cohorts, but the declines are not statistically significant.
- The emergency department visit rate for the ASD and ID-DD/MI cohorts showed a statistically significant increase from the year preceding waiver service initiation, to 2015, following a steady or declining trend in the preceding year(s). An increase was also observed for Medicaid youth overall.
- Per-capita spending for the ASD and the ID-DD/MI cohorts were statistically significantly lower in 2015 versus the comparison year ($644 vs. $954 and $856 vs. $2,847, respectively).

Inpatient Hospital Use for Mental Health Conditions

- Although rates were steady for Medicaid youth overall, rates of mental illness hospitalizations for the ID-DD/MI cohort dropped to their lowest level of 2.8 per 100 youth in 2015, although this decline was not statistically significant.
- Admissions to either long-term or short-term psychiatric hospitals for children in the ID-DD/MI cohort reached their highest in 2015 at 4.1 per 100 youth, but this was not a statistically significant increase. The different trends between inpatient facility types (general acute care vs. psychiatric) is relevant to consider given the goal of expanded home and community-based services in reducing institutionalization.
- Hospitalizations for severe mental illness were infrequent in general, with rates of 1 or less per 100 for all cohorts in all years.

Admission to Residential Treatment Facilities

- There was a statistically significant decline between 2014 and 2015 in the incidence of residential treatment facility admissions for children with SED. In 2014, 1 in every 100 children with SED had at least one admission to a residential treatment facility. The corresponding rate in 2015 was 0.4 per 100 children.

Post-acute Care Following Hospitalization

- We could not reach the minimum sample size for assessing utilization (hospital readmission or ED visits) subsequent to mental or severe mental illness hospitalizations in the ASD or ID-DD/MI cohorts.
- For all-cause hospitalizations, we found that the combined populations of youth eligible for the HCBS waiver programs started in 2012 with lower rates of readmissions and ED visits within 30 days of discharge than Medicaid youth overall, but by 2015, ED visits following hospitalization was higher.

There is no net positive or negative impact on acute care utilization outcomes that we can attribute to the additional waiver services for children in the ASD or ID-DD/MI pilot programs. Data from DMAHS's annual waiver reports extending further out than our claims analysis are suggestive that the pilots are being implemented successfully, with very low rates of out-of-home placements for children in the ASD and ID-DD/MI cohorts and high achievement on the process metrics monitored as part of CSOC's Quality Strategy. The statistically significant decline in the number of children with SED ever being admitted to a residential treatment facility in 2015 is a positive finding, but there would be, at most, three months of exposure to the new waiver services for this cohort of children in 2015. So while the declining trend is promising, it is not conclusive regarding the impact of these new services on reducing the need for out-of-home placement in a residential treatment facility for children with SED.

Chapter 5: Impact of Administrative Simplifications to Streamline Medicaid Eligibility Processes

In this chapter we assess administrative changes under the Waiver intended to streamline Medicaid eligibility for long term services and supports. These include a spend down provision through a qualified income trust (QIT) for individuals in need of long term care whose income is above the threshold eligibility level and the elimination of the transfer of assets look-back period for individuals who are at or below 100% of the FPL. To evaluate these reforms we draw on statistics from administrative records provided to us by State officials or available in public reports and presentations. We also rely on audit data collected by the State's Bureau of Quality Control (BQC) and contextual information on the audit process and findings from direct communications with State officials. We also use Medicaid fee-for-service (FFS) claims and managed care encounter data for January 1, 2011 through December 31, 2015 to examine the share of long-term care recipients in home and community-based setting in the pre- and post-waiver period.

Many individuals utilized the self-attestation option. Before MLTSS, 1,670 self-attestation forms were collected and another 2,017 were collected between July 2014 and March 2017. Eight randomly sampled applications for each quarter between October 2015 and December 2016 underwent a detailed audit process by BQC staff to determine the accuracy of the self-attestation. They reviewed financial documents to determine whether any assets were transferred for less than fair market value during the five years prior to application. There was a zero error rate on these samples.

During fiscal year 2015, 544 QIT applications were approved out of the 1,800 received (30%). Projections made by the State for fiscal years 2016 and 2017 show similar rates of approval (36% and 33%, respectively).

During the period December 2014 to March 1, 2016, out of 1,054 QIT users, 72% were in nursing facilities, 21% were in Assisted Living (considered a community setting) and 7% were living at home. This reflected 291 people who were able to enroll in MLTSS and stay in the community who would not have been able to without the QIT mechanism. We further estimated that 225 individuals were able to receive LTSS services due to the availability of QITs over July 2016-June 2017.

Using Medicaid claims data we calculated any change in the share of LTC designated recipients receiving services in the community. We found that the percentage of beneficiaries in the community receiving HCBS services increased from the pre-waiver baseline period (2011-2012) to the waiver period under analysis (2013-2015). This share increased from 25.9% in 2011 to 32.5% in 2015.

The full potential of these administrative simplifications to reduce barriers to MLTSS enrollment relies on their uniform and equitable application. While the representativeness of counties in the early self-attestation audit samples raised the question of whether all counties were using the self-attestation form, the BQC has seen more diversity in recent samples and has not expressed concern that there is any systematic differences in the use of the form across County Welfare Agencies (CWAs). With regard to QITs, stakeholders have expressed concerns about access to legal assistance for consumers with limited financial or social resources, who may be at a disadvantage for drawing up the trust documents and designating a representative to administer the trust over time. The State has informed the CWAs to reach out if they encounter these situations, but as of April 2017, only one or two such cases have been brought to the State's attention and they have been resolved.

The data and information we have reviewed indicates that the elimination of the transfer of assets look-back period for low-income LTSS applicants and the establishment of QITs have been successfully implemented. It is reasonable to conclude that the expanded eligibility for HCBS made possible by the QIT and the streamlined pathway into Medicaid long-term care service made possible by the self-attestation process contributed to the growth in the HCBS population during the waiver demonstration period.

Examining the Effect of the NJ Comprehensive Waiver on Access to Care, Quality, and Cost of Care: Draft Final Evaluation Report

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Introduction

The New Jersey Medicaid Comprehensive Waiver Demonstration was approved for the period October 1, 2012 through June 30, 2017. This §1115 waiver not only consolidated authority for several existing Medicaid waivers, but initiated a variety of health reforms in New Jersey's Medicaid program. The key changes authorized by the Waiver are an expansion in managed care to Long-term Services and Supports (LTSS) and behavioral health (BH) services, targeted home and community-based services (HCBS) for populations of children and in-home community supports for individuals with intellectual and developmental disabilities, administrative simplifications in the Medicaid eligibility process for low-income applicants seeking LTSS, and the establishment of a hospital-based Delivery System Reform Incentive Payment (DSRIP) Program.

The Rutgers Center for State Health Policy (CSHP) was engaged to evaluate New Jersey's Medicaid Comprehensive Waiver Demonstration. In this draft final evaluation report, we examine the expansions in managed care and targeted home and community-based services occurring under the Waiver as well as the impact of the changes in administrative processes related to financial eligibility determination for LTSS applicants.[3] In brief, the Waiver authorized shifting the delivery of LTSS and behavioral health (BH) services for certain aged or physically disabled beneficiaries to managed care reimbursement system (referred to as MLTSS – Managed Long-term Services and Supports), establishment of an Administrative Services Organization (ASO) that will manage behavioral health services,[4] and the provision of new supportive services for children and youth with Autism Spectrum Disorder (ASD), co-occurring

[3] The Supports program, which is part of the targeted home and community-based services expansion for individuals with intellectual and developmental disabilities has been evaluated qualitatively in a separate report (Farnham, et al., forthcoming). The DSRIP program is evaluated as a separate component and the midpoint evaluation was submitted to the New Jersey Division of Medical Assistance and Health Services (DMAHS) on September 2015 with the final evaluation due in March 2018.

[4] This reform was only partially implemented during the study period covered in this interim evaluation. As of July 2015, Rutgers University Behavioral Health Care became the Interim Managing Entity for addiction services.

intellectual/developmental disabilities and mental illness (ID-DD/MI), and Serious Emotional Disturbance (SED). The Waiver also expanded Medicaid eligibility for children with SED and made possible administrative simplifications which streamline the Medicaid eligibility processes for lower-income individuals seeking LTSS. These abovementioned policy changes are addressed by the first three of the four evaluation hypotheses and their supporting research questions as outlined in the waiver Special Terms and Conditions document (CMS 2014) and enumerated below.

Hypothesis 1: **"Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions."**

Research Question 1a: **"What is the impact of the managed care expansion on access to care, the quality, efficiency, and coordination of care, and the cost of care for adults and children?"**
Research Question 1b: **"What is the impact of including long-term care services in the capitated managed care benefit on access to care, quality of care, and mix of care settings employed?"**

Hypothesis 2: **"Providing home and community-based services to Medicaid and CHIP beneficiaries and others with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities will lead to better care outcomes."**

Research Question 2a: **"What is the impact of providing additional home and community-based services to Medicaid and CHIP beneficiaries with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities?"**
Research Question 2b: **"What is the impact of the program to provide a safe, stable, and therapeutically supportive environment for children from age 5 up to age 21 with serious emotional disturbance who have, or who otherwise would be at risk for, institutionalization?"**

Hypothesis 3: **"Utilizing a projected spend-down provision and eliminating the look back period at time of application for transfer of assets for applicants or beneficiaries seeking long term services and supports whose income is at or below 100% of the FPL will simplify Medicaid eligibility and enrollment processes without compromising program integrity."**[5]

[5] Hypothesis 3 and the associated research questions enumerated here reflect the wording used in the waiver Special Terms and Conditions document as approved by CMS (CMS 2014). The projected spend-down provision originally proposed in the Waiver was not implemented since the State chose to adopt Qualified Income Trusts (QITs), and we assess the impact of QIT the implementation.

Research Question 3a: **"What is the impact of the projected spend-down provision on the Medicaid eligibility and enrollment process? What economies or efficiencies were achieved, and if so, what were they? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"**
Research Question 3b: **"What is the impact of eliminating the transfer of assets look-back period for long term care and home and community based services for individuals who are at or below 100% of the FPL? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"**

Hypothesis 4: **"The Delivery System Reform Incentive Payment (DSRIP) Program will result in better care for individuals (including access to care, quality of care, health outcomes), better health for the population, and lower costs through improvement."**

These hypotheses were tested utilizing a mix of quantitative and qualitative methods. Hypothesis 4 relating to the DSRIP program is covered in a separate set of reports. This report is comprised of five distinct chapters each covering one analytic component of our evaluation and supplements two standalone reports with qualitative findings from key informant interviews of stakeholders and state officials on implementation of MLTSS[6] and the Supports program.[7]

Organized by chapter, the following table presents a brief description of the contents of this report, the data sources used and time periods covered, the focus of the analyses (i.e. populations and/or plans), and the corresponding hypothesis(es) and research question(s) addressed to the extent possible given the available data and timing of policy implementation.

[6] Farnham J, S Chakravarty, and K Lloyd. 2017. *Stakeholder Feedback on Implementation of the Managed Care Expansion in Long-Term Services and Supports (Second Round)*. New Brunswick, NJ: Rutgers Center for State Health Policy.
[7] Farnham J, S Chakravarty, and K Lloyd. 2017. *Stakeholder Feedback on Implementation of the Supports Program for Individuals with Developmental Disabilities*. New Brunswick, NJ: Rutgers Center for State Health Policy

Data Sources	Focus of Analysis	Hyp.	RQ
Chapter 1			
HEDIS® and CAHPS®, 2011-2015	All managed care beneficiaries and MCOs	1	1a
Chapter 2			
Reports from MCOs, EQROs, and State Government, 2014-2017	Medicaid beneficiaries in MLTSS and their MCOs	1	1b
Chapter 3			
Medicaid claims and encounter data, 2011-2015	Medicaid beneficiaries and managed care beneficiaries, overall and by eligibility group, and those in long-term care (facility and community-based)	1	1a, 1b
Chapter 4			
Medicaid claims and encounter data, 2011-2015	Individuals with ASD, ID-DD/MI, and SED eligible for home and community-based waiver services, and all Medicaid youth	2	2a, 2b
Chapter 5			
State-provided statistics and public reports, 2012-2017; Medicaid claims and encounter data, 2011-2015	Individuals seeking entrance into MLTSS using self-attestations and Qualified Income Trusts	3	3a, 3b

Hyp.=Hypothesis; RQ=Research Question; MCO=Managed Care Organization; EQRO=External Quality Review Organization; ASD=Autism Spectrum Disorder; ID-DD/MI=Co-occurring intellectual/developmental disability and mental illness; SED=Serious Emotional Disturbance.

References

CMS (Centers for Medicare & Medicaid Services). 2014. *Technical Corrections to the New Jersey Comprehensive Waiver Section 1115 of the Social Security Act (the Act) Demonstration (Project No. 11-W-00279/2)*. Baltimore: CMS. https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/nj/nj-1115-request-ca.pdf.

Chapter 1: HEDIS® and CAHPS® Quality Indicators: Preventive Care, Behavioral Health Care, Treatment of Chronic Conditions, and Consumer Satisfaction

Introduction

This section compares the performance of NJ Medicaid[8] managed care organizations (MCOs) during calendar years 2011-2012, the baseline period of the waiver evaluation, and calendar years 2013-2015, the three years of the waiver implementation period. It presents quality and utilization-based metrics from two sources: first, the Healthcare Effectiveness Data and Information Set (HEDIS®), a system of standardized performance measures developed by the National Committee for Quality Assurance (NCQA) in conjunction with a variety of public and private partners; second, the CAHPS® (Consumer Assessment of Healthcare Providers and Systems) survey that, on an annual basis, assesses members' perceptions of the quality of care and services they receive in their Medicaid health plan. Examining potential changes across all managed care beneficiaries (not just restricted to those directly affected by the waiver policy) provides evidence needed to answer Research Question 1a under Hypothesis 1 of the waiver evaluation, as enumerated in the waiver Special Terms and Conditions document (CMS 2014).

Hypothesis 1: **"Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions.";**

Research Question 1a: **"What is the impact of the managed care expansion on access to care, the quality, efficiency, and coordination of care, and the cost of care for adults and children?"**

Monitoring Medicaid managed care organizations' (MCOs') adherence to the goals of the Quality Strategy governing the State's improvement efforts for all Medicaid managed care services (DMAHS 2014) is intended to ensure that preparation for and full implementation of the Managed Long-term Services and Supports (MLTSS) expansion did not negatively affect quality of care for members served by MCOs including those not directly impacted by the waiver policy.

[8] The term Medicaid will be used in this report to refer to NJ FamilyCare beneficiaries who are insured under the State's Medicaid or CHIP programs, including those covered by MCOs.

The measures in the tables are related to preventive care, behavioral health care, treatment of chronic conditions, and consumer satisfaction.

Methods

Data Sources

The health plans covering Medicaid enrollees in New Jersey regularly collect and report quality indicators assessing care and service delivered to members that are consistent with the DMAHS Quality Strategy. These measures are based on the Healthcare Effectiveness Data and Information Set (HEDIS®), a system of standardized performance measures developed by the National Committee for Quality Assurance (NCQA) in conjunction with a variety of public and private partners. These measures have specific definitions governing data preparation and reporting to accurately measure members' care and service across several health domains. NJ Medicaid plans also have their HEDIS® results validated by an external quality review organization (EQRO).

On an annual basis, an independent survey organization also assesses members' perceptions of the quality of care and services they receive in their Medicaid health plan. The CAHPS® (Consumer Assessment of Healthcare Providers and Systems) survey, a part of the HEDIS® measurement set developed by the NCQA, is the instrument used for this survey. A sample of health plan members, sometimes stratified by eligibility categories of interest, is interviewed using child and adult versions of the CAHPS® instrument.

Both types of quality measures, those from plan records (referred to in this report as HEDIS® measures) and those from member surveys (referred to in this report as CAHPS® measures) are presented in this report for the years 2011, 2012, 2013, 2014, and 2015[9]. For the HEDIS® metrics, in addition to select measures which are publicly reported, we also used data from the annual Performance Measure Validation reports created by the State's EQRO and provided to us by DMAHS. The 2011 and 2012 CAHPS® Health Plan Survey 4.0 reports prepared by ACS Government Healthcare Solutions, the 2013 and 2014 CAHPS® Health Plan Survey 5.0 reports prepared by Xerox State Healthcare LLC, and the 2015 CAHPS® Health Plan Survey 5.0H reports prepared by DataStat, Inc., and also provided to us by DMAHS, were the source of the CAHPS® metrics reported for the years 2011-2015.[10]

[9] Further information about HEDIS® and CAHPS® measures, such as measure development processes and details on measure specifications, can be found at www.ncqa.org. Additionally, information on methods specific to collection of these measures for NJ Medicaid MCOs can be found in the DMAHS's Annual Reports at http://www.state.nj.us/humanservices/dmahs/news/.

[10] The baseline period for the evaluation of the Medicaid Comprehensive Waiver (exclusive of the DSRIP) is 1/1/2011-9/30/2012. HEDIS® and CAHPS® measures are collected annually using a calendar year performance period that,

Statistical Testing

In this section we present methods to examine whether there were any differences in quality between the two baseline years and the first three implementation years of the evaluation period.

Comparison of HEDIS® Measures: For HEDIS® measures, a weighted average of individual plan results based on the entire Medicaid managed care population is available for each year. To compare estimates between the baseline (2011-2012) and waiver periods (2013-2015), 95% confidence intervals (CI) of the difference between the 2011-2012 and 2013-2015 pooled estimates were calculated using the following formula:

$$(\text{plan rate}_{2013\text{-}2015} - \text{plan rate}_{2011\text{-}2012}) \pm 1.96 \times SEDiff$$

The formula for the standard error of the difference (*SEDiff*) is as follows:

$$SEDiff = \sqrt{\frac{p_1 q_1}{n_1} + \frac{p_2 q_2}{n_2}}$$

where

n_1 is the population denominator for years 2011+2012
n_2 is the population denominator for years 2013+2014+2015
p_1 is the weighted pooled rate for years 2011-2012
p_2 is the weighted pooled rate for years 2013-2014-2015
q_1 is (1-p_1)
q_2 is (1-p_2)

If the 95% CI was a range of only negative numbers, then the 2013-2015 pooled rate was considered below the 2011-2012 pooled rate indicating that performance based on that HEDIS® measure declined for the Medicaid managed care population. If the CI contained zero, the performance between the two periods was not considered to be statistically different, and if the CI was a range of only positive numbers then performance based on that HEDIS® metric improved from 2011-2012 to 2013-2015. Due to very large sample sizes, small changes in rates may be significant.

Certain HEDIS® measures were not required to be reported by plans in 2011. For these, estimates are available for year 2012 only, and this single year served as the baseline.

while not exactly matching our proposed baseline, tracks with and is representative of care and services delivered during that period.

Comparison of CAHPS® Measures: CAHPS® data-based metrics are available from samples that are representative of individual plans.[11] However, for the baseline years, only the reported overall average across plans was available in the provided reports, and this average does not reflect the differences in enrollment across plans. Also, whether or not estimates were case-mix adjusted was not consistent across years. Because of this, we could not conduct statistical tests of differences across the years for the entire managed care population. Accordingly, we adopted a descriptive approach where we examined estimates separately for each plan and also the overall average across plans, examining changes from 2011-2012 to 2013-2015.[12] Differences of 1% or less were ignored since these could be due to rounding off. Changes were color-coded to indicate whether the point estimates improved, stayed the same/showed a mixed trend, or declined. For 2015, we calculated and reported an overall plan average which is a simple mean of the individual plan estimates.

Results

Results are organized by the following domains – preventive health, behavioral health services, treatment of chronic conditions, and consumer satisfaction. Below, a brief discussion of findings is presented.

Preventive Care Quality Measures: Tables 1.1 and 1.2 show quality measures related to preventive care for adults and children in Medicaid managed care during the baseline and waiver periods spanning years 2011-2015 (data shown for 2011-2012 is pooled). The HEDIS® measures in Table 1.1 are predominantly National Quality Forum (NQF) endorsed measures related to immunizations, screenings, and visits to primary care practitioners. For 2011-2012, 82.23% of adolescents in managed care received both their meningococcal vaccination and their Tdap or Td (tetanus, diphtheria toxoids and acellular pertussis vaccine or tetanus, diphtheria toxoids) vaccine by their 13th birthday. For 2013-2015, the pooled rate was 84.45% and this represented a statistically significant improvement in the vaccination rate for this population. The rates for vaccine combinations 2 and 3 declined. Rates significantly improved from 2011-2012 to 2013-2015 for wellness visits for both young children and adolescents, but the rate for frequency of ongoing prenatal care declined. Rates also declined for the prenatal and postpartum care metric which assesses visit timeliness surrounding delivery. Rates improved for all the access to primary

[11] Effective July 1, 2014, Healthfirst's Medicaid beneficiaries were migrated to WellCare. The field period for the 2014 CAHPS began in April 2014 and respondents were required to have been enrolled with their health plan for at least the prior 6 months to be eligible for the survey. Therefore, the 2014 estimates relate to beneficiaries enrolled in Healthfirst, and are thus comparable to previous years. The 2015 estimates are just WellCare, and thus not comparable to the Healthfirst estimates for previous years.

[12] Other limitations relating to CAHPS® survey include low response rates making sample sizes small for some questions for some plans. Differential non-response, particularly in small samples, can create unquantifiable bias in estimates.

care measures for children of all ages except for those ages 12-24 months. BMI assessment rates for both younger children and adolescents improved. For adults, the BMI assessment rate also improved, as did the breast cancer screening rate, but the cervical cancer screening rate declined.

Table 1.2 shows the CAHPS® measure for dental care utilization. In each plan and separately for adults and children, the percentage of respondents who self-report that they have received care from a dental office or clinic in the past six months is shown for 2011, 2012, 2013, 2014, and 2015. The pattern of rates suggests a general improvement in dental care utilization among both adults and children in Medicaid managed care, both overall and among the different plans, but rates are still quite low. For example, the overall rates for adults who received care from a dental office or clinic in the past six months were 28% and 31% for 2011 and 2012, respectively, while the rates were 32%, 43%, and 41% for 2013, 2014 and 2015, respectively.

Behavioral Health Care Services Quality Measures: Table 1.3 shows quality measures related to behavioral health care services for adults in Medicaid managed care. The HEDIS® measures in Table 1.3 are also National Quality Forum (NQF) endorsed measures related to follow-up care for individuals with certain behavioral health diagnoses. The rates shown for *Initiation Phase* under *Follow-up Care for Children Prescribed ADHD Medication* refer to the percentage of 6-12 year old children newly prescribed attention-deficit/hyperactivity disorder (ADHD) medication who had at least one face-to-face follow-up care visit within 30 days of when ADHD medication was first dispensed. In 2011-2012, the pooled rate was 31.81% among the eligible population. In 2013-2015, the pooled rate was 32.19%. There was no statistically significant difference in rates between these two periods, nor was there a difference in rates for the *Continuation and Maintenance Phase*. The measure, *Follow-Up After Hospitalization for Mental Illness,* applies only to the DDD Medicaid managed care beneficiaries ages 6 and older who were hospitalized for treatment of certain mental illness diagnoses in years 2011-2014, but also includes the MLTSS population in 2015. In 2011-2012, 19.42% of this population had a qualifying follow-up visit within 7 days after discharge. In 2013-2015, the rate was 23.42%, representing a significant improvement in this quality measure. There was no change in the 30-day follow-up rates between the two periods.

Treatment of Chronic Conditions Quality Measures: Table 1.4 shows quality measures related to treatment of chronic conditions for adults and children in Medicaid managed care. These HEDIS® measures are all National Quality Forum (NQF) endorsed measures related to high prevalence chronic conditions like diabetes and asthma. Rates were unchanged for the measures under *Annual Monitoring for Patients on Persistent Medications* and for measures under *Comprehensive Diabetes Care*. The rates for blood pressure control were also unchanged, as were the rates for all age groups for *Use of Appropriate Medications for People with Asthma*.

Measures of Consumer Satisfaction: Tables 1.5 and 1.6 show a variety of CAHPS® measures related to perceptions of care quality among adults and children in Medicaid managed care. The first three measures in the tables are composite measures which group together questions on similar topics to simplify interpretation of the data and to enhance the reliability of results (ACS Government Healthcare Solutions 2011). For example, the *Getting Needed Care* composite is a combination of beneficiaries' responses to questions on the ease of getting appointments and the ease of getting the care, tests, and treatment needed under their health plan. For 2015, composite measures were only presented graphically in the CAHPS report and complete response scale break-downs for these composite measures were not reported (i.e., a combined bar for "usually" or "always" was shown), so the results shown here are for the first item in the composite measure. In Table 1.5 for adults, all measures showed improved rates from 2011-2012 to 2013-2015 both overall and for all Medicaid managed care plans. This includes these measures: *Getting Needed Care* composite, *Getting Care Quickly* composite, *How Well Doctors Communicate* composite, *Overall Rating of Personal Doctor*, *Ease of Getting Appointments with Specialists*, and *Personal Doctor Informed about Other Providers*. For children in Medicaid managed care plans in Table 1.6, the rates improved overall from 2011-2012 to 2013-2014 for four of the five measures with data for all four years (*Getting Needed Care* composite, *Getting Care Quickly* composite, *Overall Rating of Personal Doctor*, and *Ease of Getting Appointments with Specialists*). There was no change in the *How Well Doctors Communicate* composite. Three of the four individual plans showed improvement in at least four of the measures.

Table 1.1: HEDIS® measures of preventive care quality, 2011–2015

New Jersey Medicaid Managed Care Population

	2011-2012 Pooled Rate	2013		2014		2015		2013-2015 Pooled Rate	2013/2015-2011/2012 Difference	SE	95% Confidence Interval		Performance 2013/2015-2011/2012
		Population	Rate	Population	Rate	Population	Rate				LCI	UCI	
Childhood Immunization Status													
Vaccine Combination 2[a]	70.55%	29,515	69.86%	28,725	70.94%	29,994	67.85%	69.53%	-0.01020	0.00241	-0.01492	-0.00548	Declined
Vaccine Combination 3[b]	65.36%	29,515	64.63%	28,725	65.16%	29,994	61.42%	63.71%	-0.01653	0.00251	-0.02145	-0.01160	Declined
Immunizations for Adolescents													
Meningococcal	84.61%	28,328	86.36%	27,900	86.28%	28,868	84.22%	85.61%	0.00999	0.00201	0.00605	0.01392	Improved
Tdap/Td	89.22%	27,328	90.72%	27,900	93.79%	28,868	91.85%	92.12%	0.02901	0.00166	0.02574	0.03227	Improved
Vaccine Combination 1[c]	82.23%	27,328	84.92%	27,900	85.68%	28,868	82.81%	84.45%	0.02217	0.00211	0.01803	0.02631	Improved
Well-Child Visits in First 15 Months of Life	66.78%	20,798	68.71%	19,654	69.98%	19,743	65.66%	68.13%	0.01342	0.00298	0.00757	0.01927	Improved
Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life	78.72%	133,964	81.36%	137,429	78.10%	136,209	77.72%	79.04%	0.00323	0.00100	0.00127	0.00520	Improved
Adolescent Well-Care Visits	60.14%	190,350	64.00%	205,676	63.72%	219,914	59.38%	62.26%	0.02120	0.00101	0.01922	0.02318	Improved
Frequency of Ongoing Prenatal Care[d]	59.26%	21,979	59.14%	21,945	61.18%	22,702	54.49%	58.23%	-0.01029	0.00321	-0.01659	-0.00399	Declined
Prenatal and Postpartum Care													
Timeliness of Prenatal Care	83.71%	21,975	79.42%	21,945	85.42%	22,702	80.72%	81.84%	-0.01864	0.00234	-0.02323	-0.01406	Declined
Postpartum Care	59.70%	21,975	57.86%	21,945	57.61%	22,702	56.55%	57.33%	-0.02372	0.00306	-0.02972	-0.01771	Declined
Children and Adolescents' Access to Primary Care Practitioners[e]													
12-24 months	97.42%	30,468	97.73%	28,222	96.57%	30,528	97.31%	97.22%	-0.00207	0.00105	-0.00413	-0.00001	Declined
25 months - 6 years	91.20%	162,659	92.95%	167,569	92.61%	167,607	93.20%	92.92%	0.01719	0.00077	0.01567	0.01870	Improved
7-11 years	93.24%	124,466	93.68%	130,909	94.60%	132,136	95.51%	94.61%	0.01371	0.00080	0.01215	0.01527	Improved
12-19 years	91.55%	147,962	91.59%	154,598	92.15%	159,391	93.08%	92.29%	0.00747	0.00083	0.00584	0.00909	Improved
BMI Assessment for Children/Adolescents[d]													
3 - 11 years	51.37%	250,689	49.01%	262,524	59.84%	267,908	70.08%	59.88%	0.08506	0.00092	0.08326	0.08685	Improved
12 - 17 years	50.35%	122,091	53.22%	130,029	58.36%	136,669	65.95%	59.41%	0.09065	0.00132	0.08806	0.09325	Improved
Total	51.07%	372,780	50.43%	392,533	59.18%	404,577	68.62%	59.66%	0.08586	0.00075	0.08438	0.08734	Improved
Adult BMI Asssessment[e]	65.41%	149,284	74.73%	148,786	76.58%	170,099	85.74%	79.32%	0.13910	0.00138	0.13639	0.14181	Improved
Breast Cancer Screening	52.76%	17,811	53.58%	16,237	54.67%	17,258	54.98%	54.40%	0.01636	0.00284	0.01080	0.02192	Improved
Cervical Cancer Screening	64.52%	136,535	67.12%	163,017	62.16%	224,602	55.37%	60.54%	-0.03980	0.00112	-0.04200	-0.03760	Declined

Notes: Data shown indicate performance during year indicated; SE=standard error; LCI=lower bound of 95% confidence interval; UCI=upper bound of 95% confidence interval

[a]Combination 2 includes DTaP, IPV, MMR, HiB, HepB, and VZV vaccinations

[b]Combination 3 includes DTaP, IPV, MMR, HiB, HepB, VZV, and PCV vaccinations

[c]Combination 1 indicates receipt of both component vaccinations (Meningococcal and Tdap/Td)

[d]Excludes members in one health plan due to differing methodology in the calculation of this measure

[e]This metric was not reported in 2011.

Difference is weighted, pooled 2013-2015 estimate minus weighted, pooled 2011-2012 estimate

Table 1.2: CAHPS® measures of preventive care quality, 2011–2015

New Jersey Medicaid Managed Care Population

		Amerigroup					Healthfirst				WellCare	Horizon					United Healthcare					**Overall Plan Average**				
		2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Received Care from Dental Office or Clinic in Past 6 Months	Adults	*n=684*	*n=474*	*n=528*	n=277	n=124	*n=543*	*n=238*	*n=464*	*n=286*	*n=97*	*n=723*	*n=580*	*n=572*	*n=486*	*n=199*	*n=766*	*n=556*	*n=560*	*n=369*	*n=195*	*n=2716*	*n=1848*	*n=2124*	*n=1418*	*n=615*
		26%	33%	30%	42%	37%	28%	24%	32%	37%	33%	30%	33%	36%	45%	48%	28%	32%	29%	48%	47%	28%	31%	32%	43%	41%
	Children	*n=733*	*n=558*	*n=499*	n=516	n=274	*n=750*	*n=290*	*n=474*	*n=587*	*n=284*	*n=810*	*n-676*	*n=613*	*n=505*	*n=336*	*n=834*	*n=701*	*n=610*	*n=428*	*n=339*	*n=3127*	*n=2225*	*n=2196*	*n=2036*	*n=1233*
		60%	68%	69%	69%	65%	60%	63%	56%	56%	68%	59%	67%	64%	64%	69%	58%	63%	65%	65%	70%	59%	65%	64%	64%	68%

Note: Shading scheme does not indicate statistically significant differences, only the direction of change (>1%) in point estimates from 2011-2012 to 2013-2015 as follows:

Improved

No Change or Mixed Trend

Declined

Table 1.3: HEDIS® measures of behavioral health care services quality, 2011–2015

New Jersey Medicaid Managed Care Population

	2011-2012 Pooled Rate	2013		2014		2015		2013-2015 Pooled Rate	2013/2015-2011/2012 Difference	SE	95% Confidence Interval		Performance 2013/2015-2011/2012
		Population	Rate	Population	Rate	Population	Rate				LCI	UCI	
Follow-up Care for Children Prescribed ADHD Medication													
Initiation Phase	31.81%	5,755	32.49%	5,638	32.51%	5,994	31.61%	32.19%	0.00385	0.00574	-0.00741	0.01511	Same
Continuation and Maintenance Phase[a]	34.61%	1,147	35.92%	1,088	37.32%	1,226	35.32%	36.15%	0.01541	0.01525	-0.01448	0.04530	Same
Follow-Up After Hospitalization for Mental Illness[b]													
7 Day Follow-up	19.42%	453	14.35%	262	28.25%	327	32.11%	23.42%	0.04000	0.01973	0.00134	0.07867	Improved
30 Day Follow-up	38.28%	453	28.70%	262	40.08%	327	46.79%	37.24%	-0.01044	0.02349	-0.05649	0.03561	Same

Notes: Data shown indicate performance during year indicated; SE=standard error; LCI=lower bound of 95% confidence interval; UCI=upper bound of 95% confidence interval

[a]This metric was not reported in 2011.

[b]DDD only 2011-2014; DDD and MLTSS 2015

Table 1.4: HEDIS® measures of chronic condition treatment quality, 2011–2015

New Jersey Medicaid Managed Care Population

	2011-2012 Pooled Rate	2013		2014		2015		2013-2015 Pooled Rate	2013/2015-2011/2012 Difference	SE	95% Confidence Interval		Performance 2013/2015-2011/2012
		Population	Rate	Population	Rate	Population	Rate				LCI	UCI	
Annual Monitoring for Patients on Persistent Medications													
ACE Inhibitors or ARBs[a]	86.03%	25,518	86.52%	28,275	85.78%	46,896	88.02%	87.01%	0.00984	0.45218	-0.87642	0.89610	Same
Digoxin[a]	90.13%	532	91.92%	392	46.42%	518	50.19%	64.56%	-0.25567	0.62129	-1.47340	0.96206	Same
Diuretics[a]	85.72%	17,326	86.18%	19,416	84.91%	30,568	87.11%	86.24%	0.00518	0.46248	-0.90129	0.91165	Same
Anti-convulsants[a]	63.41%	4,683	62.55%	--[b]	--[b]	--[c]	--[c]		-0.63405	0.60783	-1.82541	0.55730	Same
Total[a]	83.68%	48,059	84.12%	48,083	85.11%	77,982	87.41%	85.87%	0.02189	0.47672	-0.91249	0.95626	Same
Comprehensive Diabetes Care													
HbA1c Testing	78.70%	27,582	80.68%	28,699	82.95%	46,682	82.74%	82.25%	0.03545	0.42849	-0.80440	0.87529	Same
HbA1c Poor Control (>9.0%)	45.48%	27,582	45.40%	28,699	39.40%	46,682	42.81%	42.55%	-0.02930	0.74616	-1.49177	1.43317	Same
Eye Exam	54.24%	27,582	56.97%	28,699	59.21%	46,682	52.87%	55.73%	0.01494	0.66085	-1.28032	1.31020	Same
Controlling High Blood pressure[a]	51.70%	42,231	50.53%	45,525	58.25%	75,793	54.32%	54.44%	0.02732	0.84115	-1.62134	1.67597	Same
Use of Appropriate Medications for People with Asthma													
5-11 Years	85.28%	4,658	85.34%	4,515	85.03%	--[c]	--[c]	85.18%	-0.00091	0.38452	-0.75456	0.75274	Same
12-18 Years	80.28%	3,675	82.15%	3,690	81.65%	--[c]	--[c]	81.90%	0.01622	0.42721	-0.82111	0.85356	Same
19-50 Years	74.89%	3,627	74.86%	3,654	75.67%	--[c]	--[c]	75.26%	0.00377	0.49790	-0.97211	0.97965	Same
51-64 Years	78.10%	1,266	75.75%	1,279	75.21%	--[c]	--[c]	75.48%	-0.02616	0.49081	-0.98814	0.93582	Same
Total	81.21%	13,226	80.66%	13,109	80.53%	--[c]	--[c]	80.60%	-0.00610	0.43941	-0.86735	0.85514	Same

Notes: Data shown indicate performance during year indicated; SE=standard error; LCI=lower bound of 95% confidence interval; UCI=upper bound of 95% confidence interval

[a]This metric was not reported in 2011.

[b]This metric was not reported in 2014.

[c]This metric was not reported in 2015.

Table 1.5: CAHPS® measures of consumer satisfaction with adult health care services, 2011–2015

New Jersey Medicaid Managed Care Population

Adult Survey	Amerigroup					Healthfirst				WellCare	Horizon					United Healthcare					**Overall Plan Average**				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Getting Needed Care composite[a]	*n=355*	*n=255*	*n=436*	*n=436*	*n=236*	*n=306*	*n=109*	*n=472*	*n=472*	*n=218*	*n=406*	*n=330*	*n=493*	*n=493*	*n=332*	*n=430*	*n=335*	*n=492*	*n=492*	*n=311*	*n=1497*	*n=1029*	*n=1893*	*n=1893*	*n=1097*
Always	40%	42%	57%	53%	49%	46%	46%	50%	56%	55%	41%	47%	52%	56%	53%	45%	43%	51%	53%	48%	43%	45%	53%	54%	51%
Usually	32%	32%	27%	28%	32%	27%	23%	28%	29%	25%	34%	29%	32%	28%	32%	32%	30%	29%	29%	34%	31%	28%	29%	28%	31%
Never/Sometimes	27%	26%	16%	19%	19%	27%	31%	21%	15%	20%	25%	24%	16%	16%	15%	22%	27%	20%	19%	18%	25%	27%	18%	17%	18%
Getting Care Quickly composite[a]	*n=513*	*n=363*	*n=435*	*n=230*	*n=105*	*n=433*	*n=178*	*n=386*	*n=259*	*n=97*	*n=583*	*n=474*	*n=491*	*n=393*	*n=162*	*n=607*	*n=453*	*n=476*	*n=290*	*n=152*	*n=2136*	*n=1468*	*n=1788*	*n=1172*	*n=516*
Always	50%	52%	60%	58%	53%	50%	47%	55%	60%	63%	55%	57%	60%	62%	64%	54%	56%	60%	61%	60%	52%	53%	59%	60%	60%
Usually	28%	26%	22%	25%	26%	23%	28%	22%	24%	14%	26%	23%	24%	22%	20%	25%	25%	24%	25%	28%	26%	26%	23%	24%	22%
Never/Sometimes	22%	21%	18%	17%	21%	27%	24%	22%	16%	23%	19%	20%	16%	16%	16%	22%	19%	17%	14%	12%	22%	21%	18%	16%	18%
How Well Doctors Communicate composite[a]	*n=476*	*n=344*	*n=416*	*n=225*	*n=176*	*n=407*	*n=185*	*n=366*	*n=252*	*n=194*	*n=531*	*n=442*	*n=470*	*n=386*	*n=303*	*n=574*	*n=432*	*n=466*	*n=285*	*n=271*	*n=1988*	*n=1402*	*n=1718*	*n=1148*	*n=944*
Always	68%	64%	75%	74%	71%	68%	70%	73%	73%	71%	65%	68%	71%	77%	70%	67%	65%	72%	75%	66%	67%	67%	73%	75%	70%
Usually	22%	25%	18%	17%	22%	21%	22%	19%	21%	21%	21%	21%	20%	18%	22%	22%	25%	19%	19%	26%	21%	23%	19%	19%	23%
Never/Sometimes	10%	10%	7%	9%	7%	12%	8%	8%	6%	8%	14%	12%	9%	5%	8%	11%	10%	8%	6%	8%	11%	10%	8%	6%	8%
Overall Rating of Personal Doctor	*n=576*	*n=412*	*n=485*	*n=241*	*n=236*	*n=460*	*n=209*	*n=411*	*n=266*	*n=225*	*n=622*	*n=494*	*n=547*	*n=441*	*n=347*	*n=653*	*n=494*	*n=525*	*n=329*	*n=331*	*n=2311*	*n=1609*	*n=1968*	*n=1148*	*n=1139*
Best Doctor (9-10 Rating)	56%	53%	68%	71%	62%	63%	61%	69%	73%	61%	54%	59%	66%	73%	63%	61%	55%	67%	73%	62%	58%	57%	67%	72%	62%
7-8 Rating	25%	29%	23%	16%	27%	23%	27%	22%	20%	29%	29%	22%	21%	22%	28%	24%	31%	22%	18%	25%	25%	27%	22%	19%	27%
Worst Doctor (0-6 Rating)	19%	18%	9%	13%	11%	14%	12%	9%	7%	10%	17%	19%	13%	6%	9%	15%	15%	12%	9%	13%	16%	16%	11%	9%	11%
Ease of Getting Appointments with Specialists	*n=258*	*n=204*	*n=238*	*n=137*	*n=129*	*n=238*	*n=86*	*n=230*	*n=165*	*n=114*	*n=328*	*n=262*	*n=309*	*n=231*	*n=207*	*n=331*	*n=235*	*n=286*	*n=174*	*n=188*	*n=1155*	*n=787*	*n=1063*	*n=707*	*n=638*
Always	41%	42%	56%	50%	45%	42%	47%	45%	50%	39%	39%	45%	51%	55%	43%	44%	40%	47%	51%	51%	42%	43%	50%	52%	45%
Usually	32%	30%	26%	26%	33%	26%	23%	29%	32%	26%	34%	29%	29%	25%	35%	31%	29%	28%	28%	25%	31%	28%	28%	28%	30%
Never/Sometimes	27%	28%	18%	23%	22%	32%	30%	26%	18%	35%	27%	27%	20%	20%	22%	24%	31%	24%	21%	24%	28%	29%	22%	21%	26%
Personal Doctor Informed about Other Providers	*n=210*	*n=163*	*n/a*	*n/a*	*n=105*	*n=184*	*n=77*	*n/a*	*n/a*	*n=103*	*n=285*	*n=242*	*n/a*	*n/a*	*n=184*	*n=293*	*n=209*	*n/a*	*n/a*	*n=145*	*n=972*	*n=691*	*n/a*	*n/a*	*n=537*
Always	48%	44%			54%	48%	52%			52%	50%	47%			51%	49%	46%			49%	49%	47%			52%
Usually	30%	29%			32%	27%	26%			29%	24%	27%			31%	29%	31%			29%	27%	28%			30%
Never/Sometimes	23%	26%			14%	24%	22%			19%	26%	26%			18%	22%	23%			22%	24%	24%			18%

Note: Shading scheme does not indicate statistically significant differences, only the direction of change (>1%) in point estimates from 2011-2012 to 2013-2015 as follows:

Improved

No Change or Mixed Trend

Declined

[a]Full composite scale break-downs not available for 2015; 1st item in composite reported

Table 1.6: CAHPS® measures of consumer satisfaction with child health care services, 2011–2015

New Jersey Medicaid Managed Care Population

Child Survey	Amerigroup					Healthfirst				WellCare	Horizon					United Healthcare					**Overall Plan Average**				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Getting Needed Care composite[a]	*n=242*	*n=195*	*n=195*	*n=429*	*n=318*	*n=248*	*n=101*	*n=101*	*n=474*	*n=303*	*n=276*	*n=288*	*n=288*	*n=417*	*n=383*	*n=298*	*n=242*	*n=242*	*n=348*	*n=382*	*n=1064*	*n=826*	*n=826*	*n=1668*	*n=1386*
Always	51%	50%	55%	59%	60%	44%	55%	48%	54%	56%	48%	49%	55%	59%	60%	49%	50%	59%	56%	57%	48%	51%	54%	57%	58%
Usually	25%	32%	27%	23%	23%	29%	25%	25%	21%	27%	31%	31%	30%	21%	24%	29%	24%	26%	25%	29%	28%	28%	27%	22%	26%
Never/Sometimes	24%	18%	19%	18%	17%	26%	20%	27%	25%	17%	22%	21%	15%	20%	16%	22%	25%	15%	20%	14%	24%	21%	19%	21%	16%
Getting Care Quickly composite[a]	*n=765*	*n=603*	*n=546*	*n=423*	*n=517*	*n=771*	*n=317*	*n=562*	*n=473*	*n=98*	*n=874*	*n=751*	*n=742*	*n=402*	*n=151*	*n=884*	*n=773*	*n=711*	*n=342*	*n=140*	*n=3294*	*n=2244*	*n=2561*	*n=1640*	*n=906*
Always	67%	62%	67%	65%	72%	57%	57%	54%	60%	66%	66%	64%	65%	70%	70%	65%	62%	68%	65%	76%	64%	61%	63%	65%	71%
Usually	16%	16%	17%	16%	14%	17%	19%	23%	18%	16%	15%	15%	18%	14%	13%	19%	17%	18%	13%	14%	17%	17%	19%	15%	14%
Never/Sometimes	17%	22%	16%	19%	14%	27%	25%	23%	22%	18%	19%	21%	17%	17%	17%	16%	21%	15%	23%	10%	20%	22%	18%	20%	15%
How Well Doctors Communicate composite[a]	*n=573*	*n=450*	*n=450*	*n=423*	*n=303*	*n=591*	*n=232*	*n=232*	*n=475*	*n=333*	*n=641*	*n=542*	*n=542*	*n=421*	*n=380*	*n=655*	*n=557*	*n=557*	*n=348*	*n=357*	*n=2640*	*n=1781*	*n=1781*	*n=1667*	*n=1373*
Always	74%	74%	75%	80%	78%	76%	79%	74%	76%	70%	73%	72%	73%	75%	73%	74%	78%	75%	76%	79%	74%	76%	74%	77%	75%
Usually	18%	20%	20%	17%	13%	18%	16%	20%	20%	19%	20%	21%	20%	19%	17%	19%	16%	19%	16%	13%	19%	18%	20%	18%	16%
Never/Sometimes	8%	5%	5%	4%	9%	6%	5%	6%	5%	11%	8%	7%	7%	6%	10%	7%	6%	6%	8%	8%	7%	6%	6%	6%	10%
Overall Rating of Personal Doctor	*n=663*	*n=494*	*n=476*	*n=461*	*n=359*	*n=654*	*n=257*	*n=437*	*n=532*	*n=383*	*n=718*	*n=608*	*n=570*	*n=466*	*n=438*	*n=737*	*n=637*	*n=581*	*n=387*	*n=424*	*n=2772*	*n=1996*	*n=2064*	*n=2064*	*n=1604*
Best Doctor (9-10 Rating)	70%	70%	73%	82%	74%	74%	74%	70%	74%	74%	67%	69%	72%	74%	76%	70%	73%	75%	73%	78%	70%	72%	72%	76%	76%
7-8 Rating	21%	22%	21%	14%	18%	21%	23%	22%	21%	20%	22%	22%	22%	18%	17%	21%	20%	19%	20%	20%	21%	22%	21%	18%	19%
Worst Doctor (0-6 Rating)	8%	8%	7%	4%	8%	5%	3%	8%	5%	6%	11%	9%	6%	7%	7%	9%	6%	6%	7%	2%	8%	6%	7%	6%	6%
Ease of Getting Appointments with Specialists	*n=199*	*n=185*	*n=153*	*n=153*	*n=113*	*n=175*	*n=82*	*n=121*	*n=121*	*n=97*	*n=227*	*n=250*	*n=193*	*n=193*	*n=135*	*n=288*	*n=237*	*n=241*	*n=241*	*n=136*	*n=889*	*n=754*	*n=708*	*n=708*	*n=481*
Always	46%	44%	45%	45%	53%	38%	44%	38%	38%	45%	44%	47%	51%	51%	50%	49%	47%	56%	56%	43%	44%	45%	48%	48%	48%
Usually	27%	36%	27%	27%	20%	29%	30%	23%	23%	23%	30%	30%	30%	30%	24%	26%	26%	23%	23%	28%	28%	31%	26%	26%	24%
Never/Sometimes	28%	20%	28%	28%	27%	34%	26%	39%	39%	32%	25%	23%	19%	19%	26%	25%	27%	20%	20%	29%	28%	24%	26%	26%	29%
Personal Doctor Informed about Other Providers	*n=218*	*n=190*	*n/a*	*n/a*	*n=99*	*n=196*	*n=83*	*n/a*	*n/a*	*n=95*	*n=235*	*n=236*	*n/a*	*n/a*	*n=133*	*n=267*	*n=207*	*n/a*	*n/a*	*n=130*	*n=916*	*n=716*	*n/a*	*n/a*	n=457
Always	57%	52%			52%	47%	47%			48%	51%	47%			53%	52%	49%			51%	52%	49%			51%
Usually	25%	33%			29%	29%	37%			32%	29%	34%			27%	26%	29%			29%	27%	34%			29%
Never/Sometimes	18%	15%			19%	24%	16%			20%	20%	18%			20%	21%	21%			20%	21%	18%			20%

Note: Shading scheme does not indicate statistically significant differences, only the direction of change (>1%) in point estimates from 2011-2012 to 2013-2015 as follows:

Improved

No Change or Mixed Trend

Declined

[a]Full composite scale break-downs not available for 2015; 1st item in composite reported

Discussion

In this chapter, we presented HEDIS® and CAHPS® managed care performance data for the baseline (2011-2012) and first three implementation years (2013-2015) of the Comprehensive Medicaid Waiver Demonstration. We assessed differences between these two time periods to evaluate the broad impact of the managed care expansion in long-term services and supports on access to care, and the quality, efficiency, and coordination of care for Medicaid managed care beneficiaries overall.[13] With a few exceptions, the findings presented in this chapter support the conclusion that overall quality of care for Medicaid managed care beneficiaries was at the least maintained, and in several cases improved, during the first three years of the demonstration period.

Measures related to chronic condition treatment showed no significant changes between the pre and post-waiver periods. In the preventive care quality domain, most metrics demonstrate improvement and the few declines are, on average, of a smaller magnitude than the improvements. Assessing BMI for children and adolescents increased by almost nine percentage points, and the largest decline in this domain was a four percentage point drop in cervical cancer screening. In terms of behavioral health care quality, no deterioration of quality is observed. It is important to note that the availability of data pertaining to behavioral health care was limited to only two HEDIS® metrics calculated for individuals with developmental disabilities, MLTSS beneficiaries (in 2015 only), and children prescribed ADHD medication. Some CAHPS® metrics in this domain which we proposed examining in our evaluation plan were from a standalone survey module which was not administered in 2013, 2014, or 2015 and, consequently, not reported here.[14] Metrics pertaining to behavioral health care quality were conceived in our evaluation plan to capture the impact of the behavioral health-related policy changes, namely the establishment of an ASO/MBHO, as part of the waiver demonstration. However, this change was not fully implemented during the study period presented in this report. Claims-based analyses presented in Chapter 3 will include additional findings in the behavioral health domain for Medicaid overall, as a way to gauge overall adherence to quality standards during the waiver demonstration period, and for recipients of MLTSS whose behavioral health was integrated under their MCOs.

Consumer satisfaction with care showed improvement across health plans during the first three years of waiver implementation (compared to the baseline period) and this was consistent across all measures for adults. Among children, improvements in satisfaction are also evident, most

[13] Evaluation of the impact of the managed care expansion on cost of care, which is part of Research Question 1a, will be assessed in Chapter 3 using claims-based analyses. HEDIS® and CAHPS® metrics do not address this domain.
[14] Please see our baseline report for the 2011-2012 estimates.

consistently among the health plans covering the largest number of lives. The one plan with declines on multiple measures exited the Medicaid managed care market in 2014.

While examining the findings presented in this chapter it is important to remember that they are descriptive and do not adjust for beneficiary characteristics. The change in Medicaid coverage from fee-for-service to managed care during 2011-2012 for certain eligibility groups and the statewide Medicaid expansion in 2014 brought individuals with different demographic and health profiles into managed care. CAHPS® metrics are not reported for the population of Medicaid managed care beneficiaries as a whole and the statistical significance of changes in the overall plan average or within plans could not be assessed. Nevertheless, examining unadjusted trends in the metrics presented in this chapter is an essential part of monitoring progress toward the goals of the Division of Medical Assistance and Health Services (DMAHS) Quality Strategy (DMAHS 2014) during the waiver demonstration period. The evidence from the metrics we examined in this chapter suggests that quality of care has not been compromised for most managed care beneficiaries during the demonstration period and overall consumer satisfaction in Medicaid has improved.

References

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Chapter 2: An Examination of MLTSS-related Measures Reported by Managed Care Organizations, External Quality Review, and State Government

Introduction and Background

To prepare for the transition in July 2014, when New Jersey brought four §1915(c) home and community based services (HCBS) waivers into managed care with its comprehensive §1115 waiver,[15] the state updated its Quality Strategy[16] to include 40 measures addressing several aspects of managed long-term services and supports (MLTSS). This chapter will discuss some of these measures, in addition to other relevant data that has been presented in a variety of reports and settings. Two additional reports we authored (Farnham et al. 2015 & forthcoming) provide more details about MLTSS implementation in New Jersey—in them we discuss stakeholder feedback from providers, consumer advocates, managed care organizations (MCOs) and state officials on MLTSS implementation. We have considered suggestions from stakeholders with respect to the data we draw upon in our evaluation. This chapter focuses on describing data and performance measures collected and reported by MCOs, external quality review organizations and state government relating to a post-implementation period spanning 2014 through early 2017.

Description of MLTSS Quality Oversight and Member Appeal Mechanisms

MCOs are required to report regularly on a number of measures, and to report all claims and encounter data to the state. There are monthly meetings of an MLTSS—MCO Quality Workgroup with membership from each MCO as well as the Division of Medical Assistance and Health Services (DMAHS), the Division of Aging Services (DoAS), and an external quality review organization to discuss details around reporting and ensure comparability. In addition to these measurement-focused meetings, MCOs and state divisions have more frequent standing meetings to discuss general operational issues. DMAHS and DoAS maintain hotlines for consumers and providers to report quality issues. An external quality review organization (EQRO)

[15] See NJ Department of Human Services, Division of Medical Assistance and Health Services, "Comprehensive Medicaid Waiver" web page with links to descriptive documents at http://www.nj.gov/humanservices/dmahs/home/waiver.html.

[16] See a copy of the Quality Strategy as updated June 12, 2014 at http://www.nj.gov/humanservices/dmahs/home/MLTSS_Quality_Strategy-CMS.pdf.

does annual audits of MCO case files. New Jersey participates in the National Core Indicators – Aging and Disabilities (NCI-AD)™ Survey, which involves face-to-face surveys of long-term care consumers.[17] On a quarterly basis, the state reports quality measure data to CMS.[18] It also reports regularly to the MLTSS Steering Committee and the Medical Assistance Advisory Committee.[19] Finally, as discussed in Chapter 1 of this report, New Jersey MCOs participate in the Healthcare Effectiveness Data and Information Set (HEDIS®), a system of standardized performance measures developed by the National Committee for Quality Assurance (NCQA) in conjunction with a variety of public and private partners and the CAHPS® (Consumer Assessment of Healthcare Providers and Systems) survey that, on an annual basis, assesses members' perceptions of the quality of care and services they receive in their Medicaid health plan. These measure sets apply to all MCO enrollees, not just those receiving MLTSS services.

MLTSS members looking to appeal an MCO decision may appeal directly to the MCO, call the state quality hotlines, request an independent review in some cases through New Jersey's Division of Banking and Insurance,[20] or file a Medicaid fair hearing request.[21]

MLTSS Measure Domains

The measures in the state's Quality Strategy span six areas of focus: *participant access* (timeliness of assessments and evidence of options counseling), *participant-centered service planning and delivery* (examination of care plans along several dimensions), *provider capacity* (network adequacy and credentialing timeliness), *participant safeguards* (critical incident reporting), *participant rights and responsibilities* (complaints, grievances and appeals), and *effectiveness of MLTSS activities* (hospital use, transitions between facilities and community settings, and followup after hospitalization for mental illness).

MLTSS Measure Frequency

The frequency of measure calculation and reporting varies from monthly to annually. There is also variation in the lag time needed to calculate measures due to claim filing windows that apply to some measures.

[17] See http://nci-ad.org/; data were collected through the summer and fall of 2015.
[18] Most of these reports are posted here: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/Waivers_faceted.html?filterBy=New%20Jersey.
[19] Agendas, Presentations and Meeting Minutes are posted here: http://www.state.nj.us/humanservices/dmahs/boards/maac/.
[20] See http://www.state.nj.us/dobi/division_insurance/managedcare/ihcap.htm.
[21] See http://www.state.nj.us/humanservices/dmahs/info/fads.html.

MLTSS Measure Sources

Data to calculate the measures in the Quality Strategy comes from three sources: Managed Care Organization (MCO) reports to the state, External Quality Review Organization (EQRO) review of MCO files, and state government departments, based on the data that they collect.

In addition to measures included in the Quality Strategy, the state has calculated a variety of other measures to describe LTSS-related programs and populations and included them in presentations to the MLTSS Steering Committee[22] or the Medical Assistance Advisory Council (MAAC).[23] These additional measures were calculated in response to stakeholder inquiries or as part of state efforts to describe the program and affected populations.

Finally, other relevant data are included in the CAHPS® (Consumer Assessment of Healthcare Providers and Systems) and National Core Indicators – Aging and Disabilities (NCI-AD)™ surveys.

Analytic Objective

This chapter will examine selected measures reported in the state's reports to CMS, the MLTSS Steering Committee, or the Medical Assistance Advisory Council (MAAC), and draw implications where possible on what they reflect regarding the MLTSS implementation process. Based on a review of all available data, we have selected those that seem to have the most bearing on our evaluation hypotheses and research questions, listed below.

Hypothesis 1: **"Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions."**

Research Question 1a: **"What is the impact of the managed care expansion on access to care, the quality, efficiency, and coordination of care, and the cost of care for adults and children?"**
Research Question 1b: **"What is the impact of including long-term care services in the capitated managed care benefit on access to care, quality of care, and mix of care settings employed?"**

Table 1 describes the measures we examine and their sources.

[22] See http://www.nj.gov/humanservices/dmahs/home/mltss_committee.html for more information about the MLTSS Steering Committee, including a description of members and recommendations made prior to MLTSS implementation.
[23] See http://www.state.nj.us/humanservices/dmahs/boards/maac/ for more information about the MAAC, including agendas, minutes, and presentations.

Table 1: Secondary metric list

	Metric	Metric Source	CSHP's Source	Description
1	Long-term care population by setting	NJ DMAHS	MAAC Presentation	Based on the available numbers of HCBS, PACE, and Nursing Facility Residents, we have calculated the percent of the LTC population every 6 months from August 2014 to March 2017 in each setting.
2	Setting, former waiver enrollees	NJ DMAHS	MAAC/MLTSS Steering Committee Presentations	Tracks the current status of waiver enrollees who transitioned in July 2014 as of November 2015, March 2016, and April 2017
3	Age of MLTSS Enrollees	NJ DMAHS	DMAHS 1115 Waiver Annual Report	Shows the ages of participants in MLTSS as of July 2014, 2015 and 2016
4	Assessment Timeliness	NJ OCCO,[24] MCOs	DMAHS reports to CMS	• Number and timeliness of level of care assessments (required to receive MLTSS services), monthly from July 2014 to January 2017 • Number of assessments by MCO in the period July 2014 to January 2017 and % authorized by OCCO (OCCO must approve)
6	External audit information	EQRO	DMAHS reports to CMS, EQRO reports, OCCO (for reassessment information)	• Number of files selected for review among various categories in Years 1 and 2 (Former fee-for-service, new to managed care, existing managed care) • For Years 1 and 2, the extent to which care plans were completed within 30 days of enrollment, were aligned with member needs as per assessment data, were developed using person-centered care principles, and had a back-up plan to ensure safety • Care plan completion and establishment of services within 30 days, Year 2 • Files with both assessment and plan of care information, Years 1 and 2 • Files with a documented face-to-face initial visit, Year 2

[24] Division of Aging Services, Office of Community Choice Options.

	Metric	Metric Source	CSHP's Source	Description
				• Reassessment information (includes OCCO tabulations) • Critical incident training, Year 2
6	Critical incidents	DoAS	DMAHS reports to CMS	Number, timeliness (monthly July 2014 to February 2017) and categories of reporting (Year 1 and Year 2) of incidents that had or could have adverse effects on members
7	Appeals, Grievances Complaints and Service Reductions	MCOs, DMAHS, DOBI	DMAHS reports to CMS, MLTSS Steering Committee presentations, DMAHS MAAC presentations, DMAHS final agency decisions, DOBI IHCAP reports	• MCO appeals, grievances and complaints in 2015 and 2016, including outcomes of home health and private duty nursing appeals. • MCO service reduction reports in Q3, 2015 • Fair hearing dispositions for January-July 2016 and August-December 2016 • Fair hearing outcomes 2014, 2015, 2016, and Q1 of 2017, based on all Medicaid enrollees, by plan • NJ DOBI, Independent Health Care Appeals Program (IHCAP), Jan 2014 to Jan 2017 (semiannual)
8	Transitions between nursing facility and community	MCOs	DMAHS reports to CMS	• Transitions from NF to community and back to NF within 90 days • Transitions from community to NF, short-term and long-term Years 1 and 2, continuously enrolled members
9	Hospital and ED Use	MCOs	DMAHS reports to CMS	Any hospitalization or ED visit by continuously enrolled MLTSS members: Years 1 and 2, HCBS and NF
10	Quality of health care and health plan services	CAHPS®	CAHPS®	Comparison of enrollees in MLTSS, D-SNP and NJ FamilyCare
12	Quality of life and care	NCI-AD™	NCI-AD™	• Comparison of NJ MLTSS with MLTSS in 4 other states • Comparison of NJ MLTSS with other NJ long-term care programs (fee-for-service nursing home, Program of All-

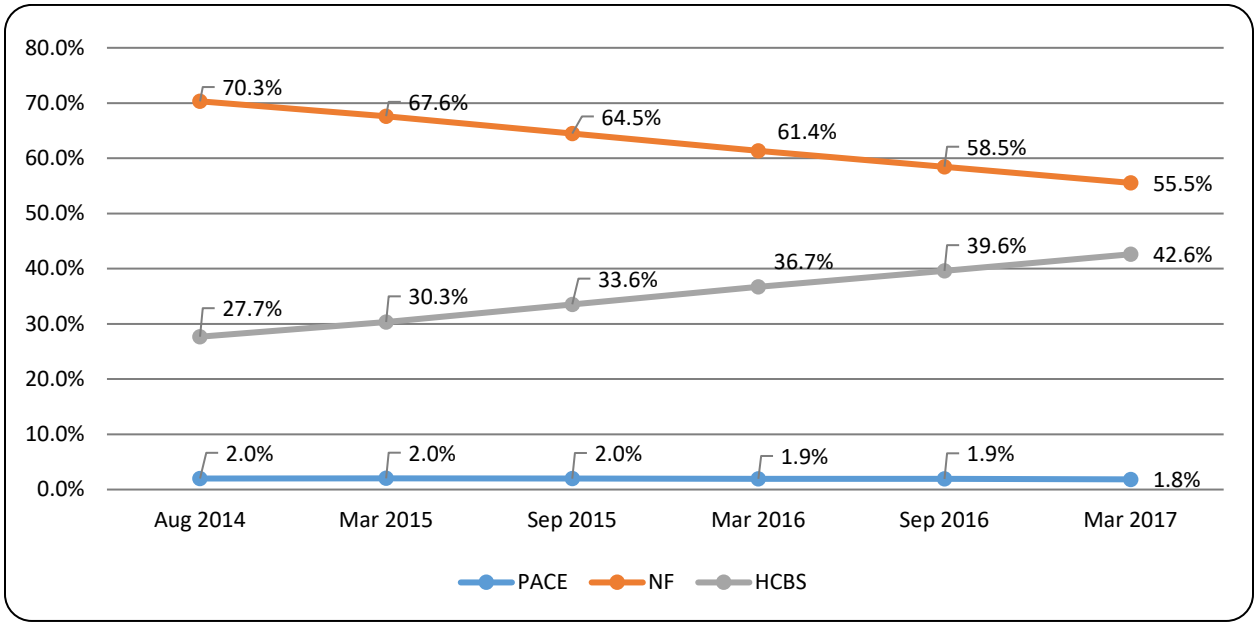
	Metric	Metric Source	CSHP's Source	Description
				inclusive Care for the Elderly (PACE), Older Americans Act HCBS services) • Comparison of NJ MLTSS member profiles and experiences by MCO

Results

Setting, All LTC Enrollees

As shown in Figure 1, the share of the population receiving long-term care services in home and community-based settings (not including PACE) increased from 28% in August 2014 to 43% in March 2017. The share of the same population in nursing facilities has dropped from 70% in August 2014 to 56% in March 2017. This appears to indicate that the state is moving toward providing more services in home and community settings. PACE has remained steady at about 2% of the long-term care population.[25] Among the HCBS population, about 15% are in assisted living facilities and the remaining 85% are in other types of community settings.[26]

Figure 1: NJ Medicaid LTC population by setting, August 2014–March 2017



Source: Calculated from MAAC Slides - April 2017 (slide 35), which is based on "Monthly Eligibility Universe (MMX) in Shared Data Warehouse (SDW), accessed on 4/4/2017."

[25] The Program of All-inclusive Care for the Elderly (PACE) enrolls people initially in community settings, but will provide nursing facility care if it becomes necessary. For more information, see http://www.state.nj.us/humanservices/doas/services/pace/.

[26] Calculated from data in MAAC Presentation 4/13/17 (slide 33), which is based on "DMAHS Shared Data Warehouse Monthly Eligibility Universe, accessed 4/4/17."

Setting, Former Waiver Enrollees

Among the group of people enrolled in the former §1915(c) waiver programs who transitioned to managed care in July 2014, 52% were still receiving HCBS services through MLTSS as of April 2017. About 8.5% are now in nursing facilities, and the remaining 36% are no longer enrolled in MLTSS or no longer enrolled in Medicaid. Many of the latter category have likely passed away. This appears to indicate that people who begin receiving services in community settings are largely able to remain there. Table 2 shows the change from November 2015 to April 2017 in the status of former waiver enrollees (on June 30, 2014 all of these enrollees were receiving HCBS waiver services).

Table 2: Current status of former waiver enrollees

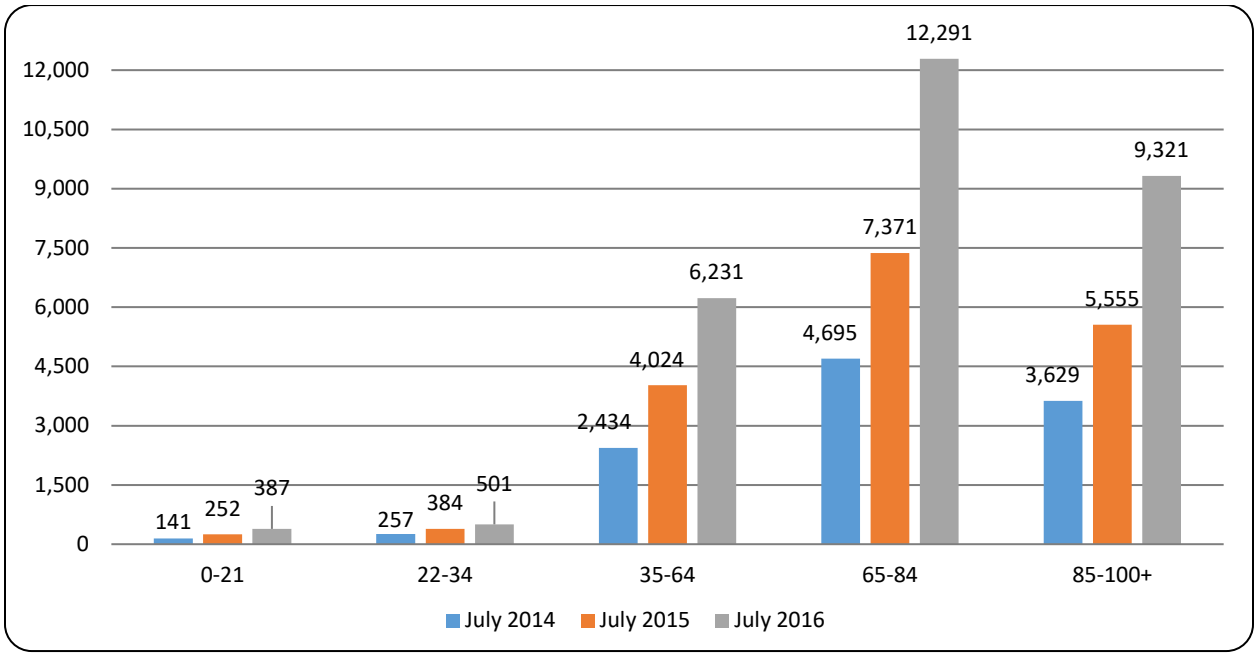
Current Service Status	Percent, July 2014	Percent, November 2015	Percent, March 2016	Percent, April 2017
MLTSS HCBS	100%	69%	65%	52%
MLTSS Nursing Facility	n/a	7%	8%	8.5%
No Longer Enrolled	n/a	20%	25%	36%
Other (Non MLTSS Medicaid)	n/a	4%	3%	3%

Sources: MAAC Meeting Presentation 4/13/17 (slide 37), based on "DMAHS Shared Data Warehouse Monthly Eligibility Universe, accessed 4/7/17"; MAAC Meeting Presentation 4/20/16, based on "DMAHS Shared Data Warehouse Monthly Eligibility Universe, accessed 3/11/16."; MLTSS Presentation for Steering Committee December 2015 (slide 12), based on "DMAHS Shared Data Warehouse Monthly Eligibility Universe, accessed 11/16/15."

Age of MLTSS Enrollees

Figure 2 shows the distribution across age groups for individuals enrolled in MLTSS in July of 2014, 2015 and 2016. Most MLTSS enrollees are ages 65 and older. The share of enrollment by age group has remained similar over time, with all age groups experiencing enrollment growth.

Figure 2: MLTSS enrollees, by age group



Source: DMAHS, New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report: Demonstration Year 4: July 1, 2015 –June 30, 2016.

Assessment Timeliness

Two of the Quality Strategy measures examine the timeliness of the assessment to determine whether or not the consumer meets a nursing facility level of care. In order to enroll into MLTSS, consumers must meet this level of care. This assessment is done by the Department of Human Services, Division of Aging Services, Office of Community Choice Options (OCCO) for consumers who are not already both on Medicaid and enrolled in managed care and by MCOs for consumers who are enrolled with them through Medicaid. The consumers for whom MCOs conduct the assessment will generally be enrolling in MLTSS. This is less true for OCCO, which receives thousands of referrals each month because assessments must be conducted for anyone going into a nursing home, whether or not they are eligible for Medicaid. There is discussion in the quality workgroup regarding how to revise the OCCO-related measure to be more specific to MLTSS.

The metric measures whether or not the assessment is completed within 30 days of the referral date (there is no measure of duration to assess the magnitude of delay beyond 30 days). Figure 3 shows the results for OCCO, the MCO average, and the individual MCO results (dashed lines). The MCOs with the most variability also have the lowest enrollment. OCCO began reporting this metric upon implementation in July 2014; MCOs began reporting this data in January 2015 due to the need for system development.[27]

[27] DMAHS, MLTSS Performance Measure Report, 1/1/2015 – 3/31/2015, p. 1.

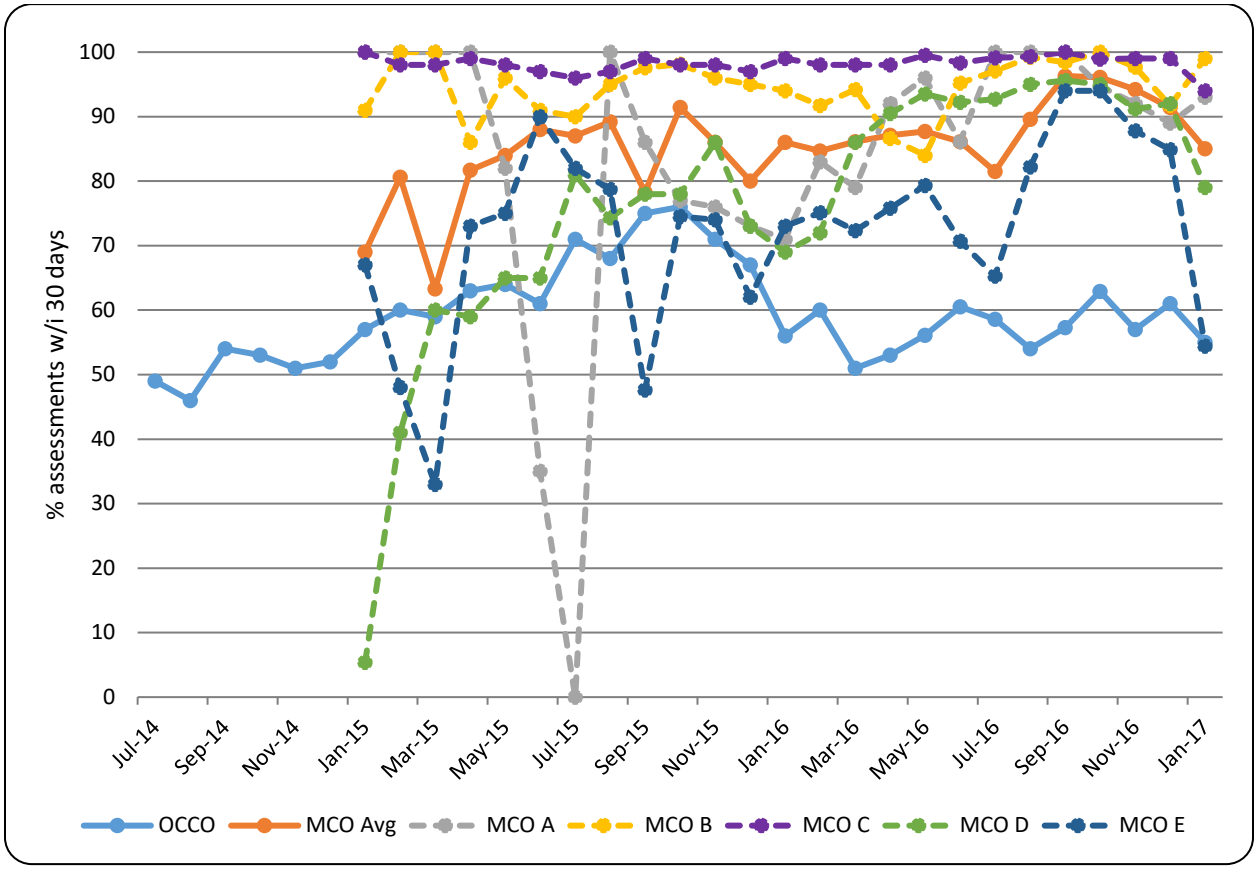
The OCCO average climbed from 49% in July 2014 to a high of 76% in October 2015, after which it decreased. The average during 2016 was 57%. There is some regional variability in this, though specific numbers are not available. It has been historically more difficult to recruit and retain staff in Northern New Jersey because of more alternative employment opportunities and a higher cost of living. Working conditions for staff making numerous home visits are frequently more onerous in the North because of greater difficulty with transportation and parking. Where possible, OCCO has shifted work to the Southern office (e.g., electronic approvals). OCCO staffing resources were strained during the initial implementation of MLTSS because they had to conduct re-assessments for after MCO assessment submissions could not be authorized (discussed in more detail in Table 4 and surrounding text).[28] OCCO has hired new staff and conducted training for MCO assessors to address the issue.[29]

The MCO overall monthly average for this metric increased from 69% in January 2015 to a high of 96% in fall 2016 and decreasing somewhat thereafter. Individual averages showed considerable range. For the period January 2015 to January 2017, individual MCO averages ranged from 73% to 98% per month, with an 85% average for all MCOs together. During the same period, OCCO's monthly average was 59%.

[28] OCCO is responsible for authorizing all MCO level of care assessments. If it looks from the MCO-submitted documents as if the client does not qualify, OCCO does its own face-to-face assessment of the client before ruling them ineligible.

[29] DMAHS, MLTSS Performance Measure Report, 7/1/14-6/30/15, p. 4.

Figure 3: Timeliness of nursing facility level of care assessment, by month (July 2014–January 2017)

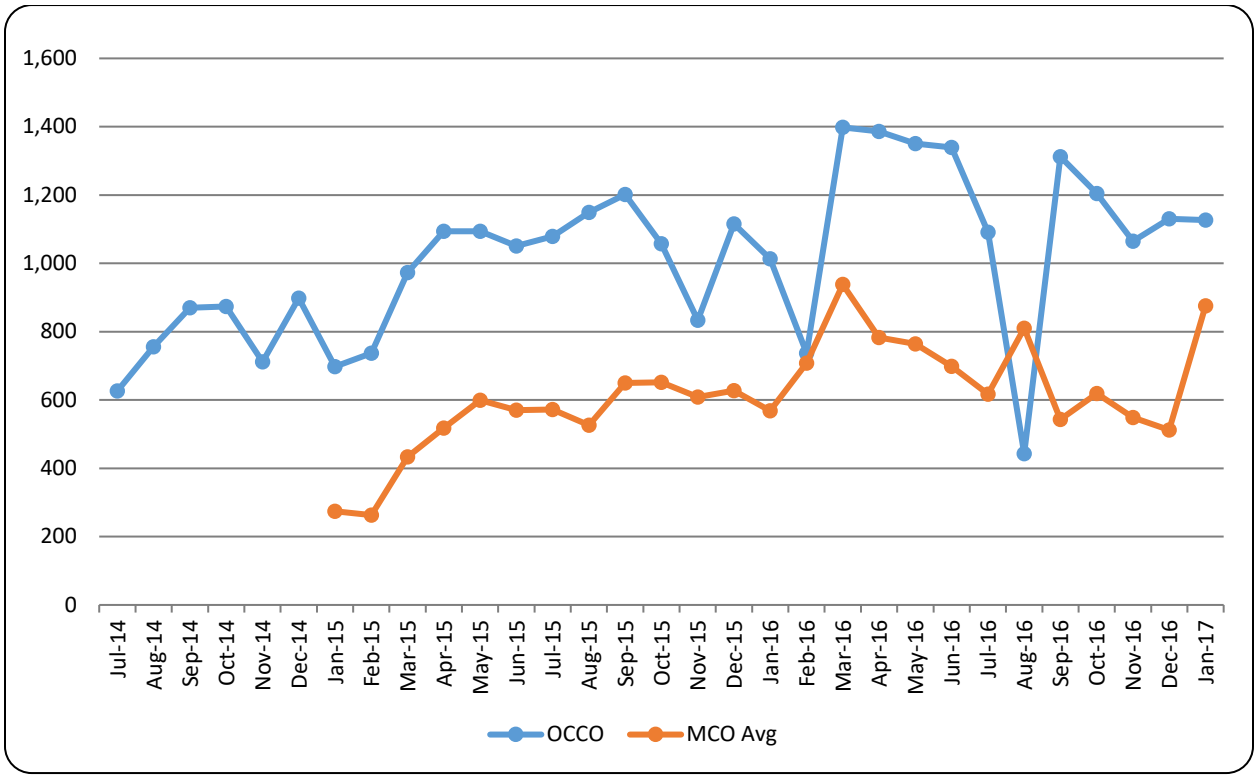


Source: DMAHS, MLTSS Performance Measure Reports.

OCCO conducts a larger volume of assessments compared with all MCOs combined, as shown in Figure 4. For the period of January 2015 to January 2017, OCCO conducted an average of 1,067 assessments per month, as compared with an average of 611 per month for all MCOs combined. OCCO staff report that referrals have increased since the implementation of MLTSS. OCCO receives referrals for anyone applying for long-term care services through Medicaid as well as anyone entering a nursing home for any reason (including rehab) who may become eligible for Medicaid within 180 days. As of April 2016, OCCO was receiving an average of 5,800 referrals a month—many of these referrals do not result in an assessment because the consumer is discharged quickly or passes away before an assessment can be done.[30] This means that OCCO is able to triage referrals when they are aware of people who need to be assessed quickly.

[30] This information as well as some other facts in this section were gathered by a telephone conversation with staff from the Division of Aging Services in April of 2016.

Figure 4: Number of level of care assessments conducted, by month (July 2014–January 2017)

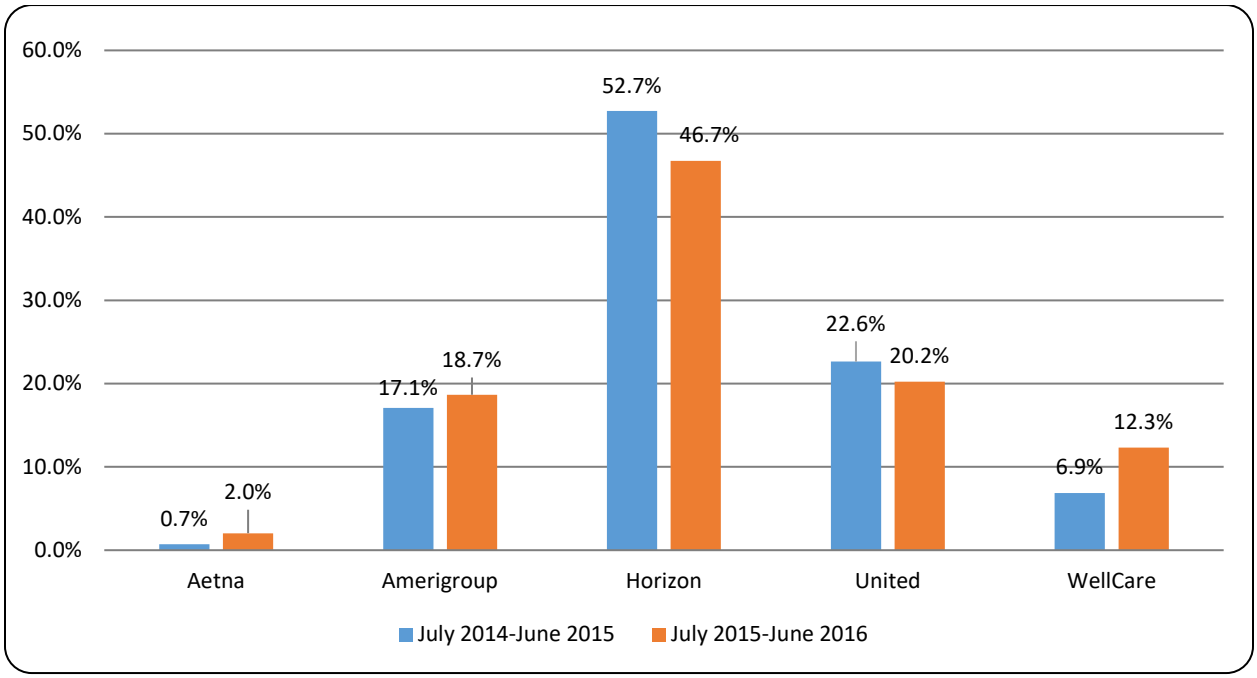


Source: DMAHS, MLTSS Performance Measure Reports.

MLTSS Level of Care Assessments by Plan

Figure 5 shows the percentage of level of care assessments done by each plan in state fiscal years 2015 and 2016. About half of the assessments were done by Horizon, meaning that their results are very influential in the overall MCO average. Between state fiscal years 2015 and 2016, Horizon and United showed small decreases in their share of assessments while the other three plans showed increases.

Figure 5: Share of level of care assessments by MCO



Source: New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 3: July 1, 2014–June 30, 2015, Attachment C.2.; New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 4: July 1, 2016–June 30, 2016, Attachment C.

Table 3 shows the number of assessments, the percentage of each plan's assessments that were authorized by OCCO (this means that OCCO was able to certify that the client met nursing facility level of care requirements based on the information provided by the MCO) and the percentage of not authorized assessments that were ultimately approved for each plan. Most clients (95% in SFY 2015 and 80% in SFY 2016) are ultimately approved. Across all plans, 5% of the not authorized assessments were ultimately denied in SFY 2015 and 20% in SFY 2016[31] (this represented 209 individuals in SFY 2015 and 273 in SFY 2016). All plans showed gains from SFY 2015 to SFY 2016 in the extent to which their assessments were authorized. There was some variation by plan in the extent to which assessments were authorized and less so in the extent to which assessments were ultimately approved, as shown in Table 3.[32] The extent to which assessments are not authorized by OCCO depends upon the completeness of the assessment information provided by the MCO as well as the acuity level or extent of care needs of the client being assessed. OCCO has provided and continues to provide training to MCOs to ensure that assessors provide all necessary information. When plans submit assessments to OCCO that cannot be authorized, this means that OCCO has to do its own face-to-face assessment, which is required before any denial of eligibility. Higher than expected rates of not authorized submissions early in MLTSS implementation resulted in an unexpected level of workload for OCCO, straining staff resources.

[31] Shown in Table 4 as 95% ultimately approved.

[32] Aetna began operations in January 2015 and had a small number of assessments.

Table 3: MLTSS level of care assessments and assessment outcomes for state fiscal years 2015 and 2016 (July 2014–June 2015 and July 2015–June 2016), by plan

MCO	Number of Assessments		% of Assessments Authorized by OCCO		% of Not Authorized Assessments Ultimately Approved	
	SFY 2015	SFY 2016	SFY 2015	SFY 2016	SFY 2015	SFY 2016
Aetna	187	721	40.0%	58.8%	88.9%	81.4%
Amerigroup	4,542	6,593	70.0%	75.6%	97.6%	83.9%
Horizon	14,012	16,513	70.0%	87.0%	93.8%	77.3%
United	6,016	7,151	65.0%	76.0%	93.9%	79.3%
WellCare	1,824	4,358	73.0%	81.4%	96.4%	79.8%
Total	*26,581*	*35,335*	*68.4%*	*81.5%*	*94.5%*	*80.0%*

Source: New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 4: July 1, 2015–June 30, 2016, Attachment C (contains SFY 2015 also).

External Quality Review Information

Overview. An external quality review organization (EQRO) audits MCO records (based on a random sample of about 100 from each of the participating MCOs), reports contract-related data and calculates metrics based on several aspects of consumers' care plans. Audits were done twice during the first year of MLTSS (with results combined to get an annual average), and will happen annually thereafter. Audits are completed over a one-week period with a standardized audit tool and ongoing communication and coordination among the review team to ensure interrater reliability. Audits involve MCO records only, with no interaction with members or caregivers.

The 2014 and 2015 samples included people who transitioned from fee-for-service LTSS, MLTSS members new to managed care and those who were previous Medicaid managed care members (but had not enrolled in MLTSS). The 2016 sample included MLTSS members new to Medicaid managed care and those who were previous Medicaid managed care (but not in MLTSS) who had enrolled in MLTSS between July 1, 2015 and January 1, 2016 and been in MLTSS HCBS for the entire period of enrollment with the same MCO. There were similar continuity requirements for inclusion in the earlier audits. Thus, members who switch MCOs or have a gap in enrollment (for instance, if they were already in Medicaid but let their financial eligibility lapse) will not be included among the audited files. In addition, nursing home residents are not included in these focused audits, though they are included among the population reviewed for the EQRO's annual assessment of the plans.

Table 4 shows the number of files of each type for each MCO. There are some deviations from 100 because the EQRO oversamples files in case some must be excluded. MCO A did not begin enrolling MLTSS participants until January 2015. There are some differences in the compositions

of samples among MCOS with respect to new versus existing managed care enrollees. We are not sure if that is due to the audit selection process or something to do with how MCOs enroll new MLTSS members.

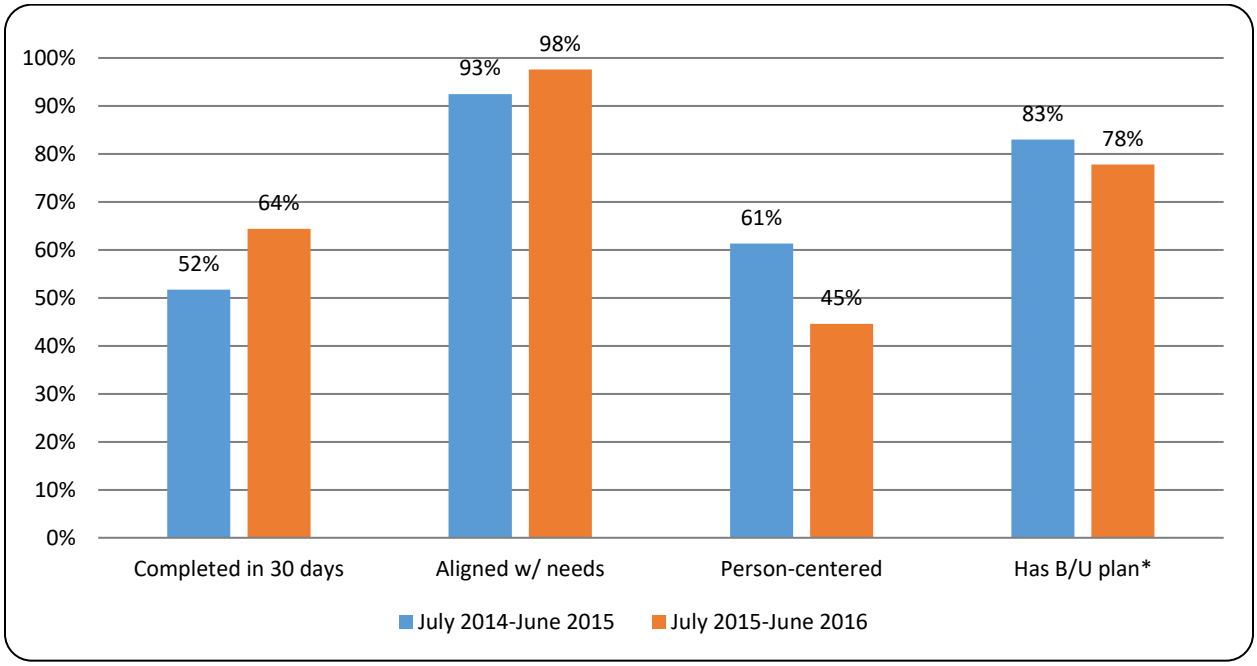
Table 4: Number of files selected for audit, by year and MCO

MCO	Year 1 (July 1, 2014–June 30, 2015)				Year 2 (July 1, 2015–June 30, 2016)		
	Former FFS	New to managed care	Existing managed care	Total	New to managed care	Existing managed care	Total
MCO A					68	11	79
MCO B	20	34	46	100	57	45	102
MCO C	34	22	44	100	46	52	98
MCO D	37	46	18	101	76	45	121
MCO E	25	28	48	101	13	86	99
All MCOs	116	130	156	402	260	239	499

Sources: IPRO, MCO MLTSS Focused Care Management Audit, 2015 and MCO MLTSS Care Management Audit, 2016.

Care Plan-Related Metrics. Our interim evaluation report (Chakravarty et al. 2016) presented four care-plan related metrics. Figure 6 shows these metrics have changed in the latest audit, and Table 5 shows results from both audits for comparison. Because the reported metrics are seen as important to ensure quality, MCOs are required to submit a work plan to improve rates less than 85%.

Figure 6: Care plan-related metrics in EQRO audits, Years 1 and 2



Source: DMAHS, MLTSS Performance Measure Reports (Oct-Dec 2015 and Jan-Mar 2017).

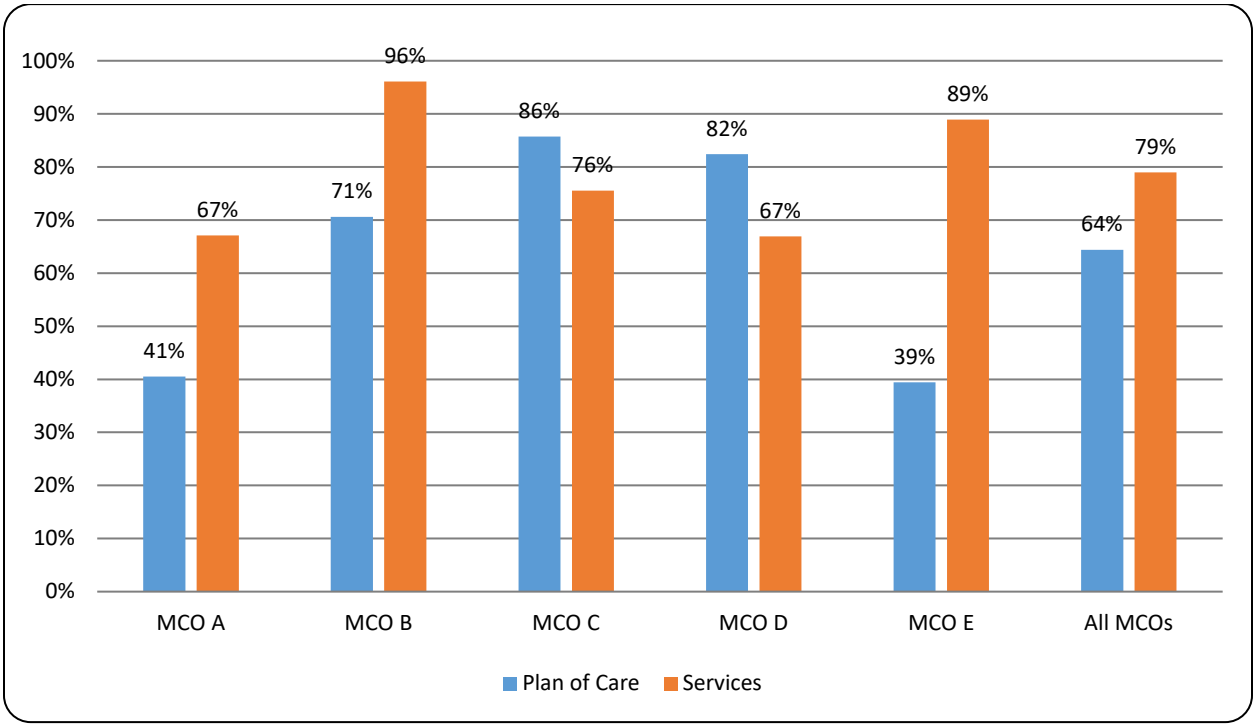
Table 5: Results of EQRO care plan audits in Year 1 (July 2014–June 2015) and Year 2 (July 2015–June 2016)

	Completed in 30 days		Aligned with needs		Person-centered		Has B/U plan*	
MCO	**Year 1**	**Year 2**	**Year 1**	**Year 2**	**Year 1**	**Year 2**	**Year 1**	**Year 2**
MCO A		40.5%		93.5%		5.1%		32.1%
MCO B	55.0%	**70.6%**	96.0%	**99.0%**	97.0%	52.0%	94.9%	83.8%
MCO C	55.0%	**85.7%**	86.6%	**95.8%**	71.4%	**73.5%**	75.9%	**91.3%**
MCO D	72.3%	**82.4%**	90.6%	**98.8%**	65.7%	52.7%	83.1%	**90.2%**
MCO E	24.8%	**39.4%**	96.8%	**98.9%**	10.3%	**32.3%**	78.7%	**84.7%**
All MCOs	51.7%	**64.4%**	92.5%	**97.6%**	61.3%	44.6%	83.0%	77.8%

Increases from Year 1 to Year 2 are indicated with boldface type.
*There were some disagreements by the MCOs about the files selected for backup plan review in the Year 1 audits.
Source: DMAHS, MLTSS Performance Measure Reports (Oct-Dec 2015 and Jan-Mar 2017).

Timeliness. Care plans completed within 30 days of enrollment into MLTSS/HCBS are considered timely. Examining the percent of care plans that were timely (out of all care plans audited) reveals that the average for all MCOs increased for all plans in Year 2, though only one met the 85% threshold. As Figure 7 shows, there is not a straightforward relationship between care plan completion within 30 days and establishment of services within 30 days. Three MCOs were more likely to show services established within 30 days than to complete care plans within 30 days, and the two MCOs exhibiting higher compliance with care plan completion were less likely than two of the less compliant plans to show services established within 30 days. It is important to note that some MLTSS-related services are state plan services (personal care assistance and adult medical daycare). Individuals who are enrolled in managed care prior to MLTSS may be getting these services already through their MCO. In addition, as we note in our report in stakeholder feedback on MLTSS (Farnham, Chakravarty & Lloyd, forthcoming), new Medicaid enrollees may enroll in state plan services on a fee-for-service basis prior to their MCO enrollment. If they do so, that could facilitate the MCO initiating services. Finally, MLTSS enrollees in assisted living or other community alternative residential settings who are new to Medicaid may be in their place of service prior to MLTSS enrollment, which facilitates the MCO establishing services quickly.

Figure 7: Care plan completion and establishment of services in EQRO audits within 30 days* of MLTSS enrollment, Year 2 (July 2015–June 2016)

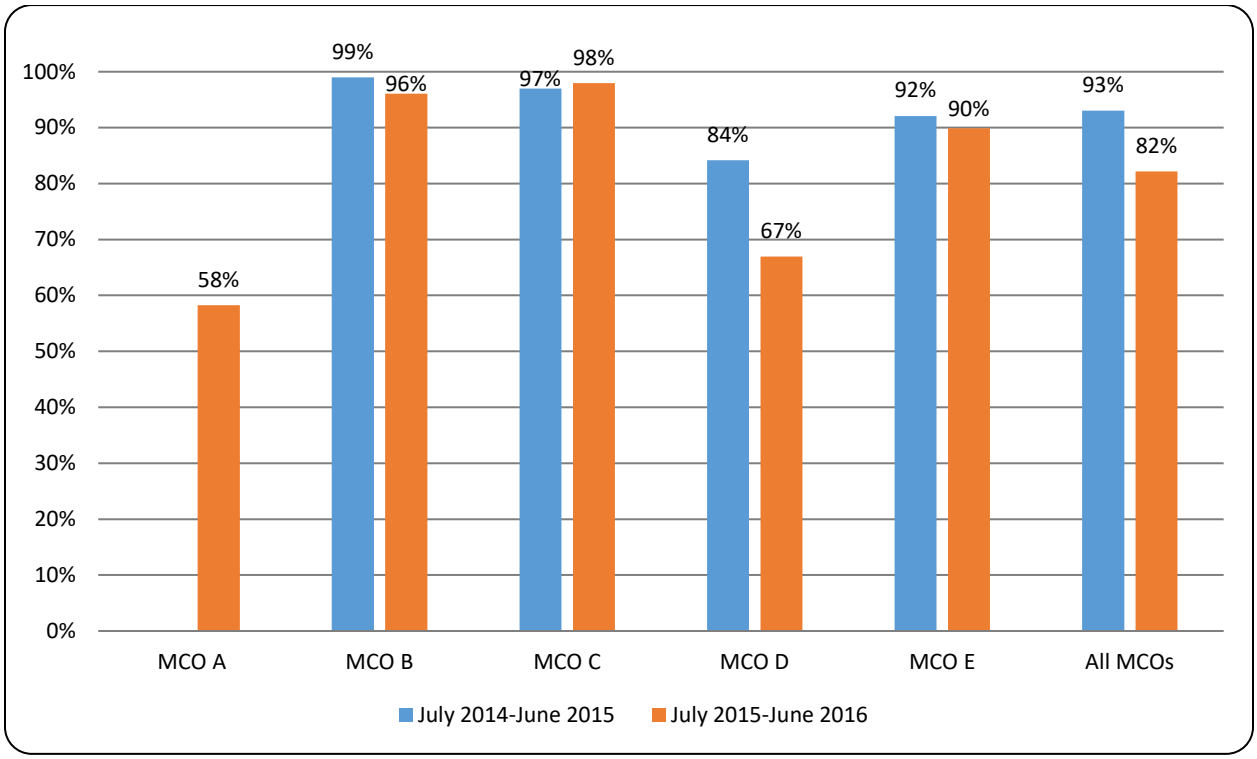


*Excludes residential and vehicle modifications.
Sources: DMAHS, MLTSS Performance Measure Reports, Jan-Mar 2017; IPRO, MCO MLTSS Care Management Audits, June 2016.

Aligned with Needs. This measure looks at the percentage of plans of care that were aligned with assessment results of the NJ Choice[33] in type, scope, amount, frequency and duration. All MCOs met the 85% threshold in both years, and all increased from Year 1 to Year 2, as shown in Table 5. We do not have any further information about the ways in which care plans were aligned or not, or what this meant for consumers. Only files with both items present are included in the measure. Figure 8 shows the extent to which files could be included for this measure for Years 1 and 2. There was some variability by MCO—the EQRO was able to include 90% or more of files for MCOs B, C, and E in both periods. MCO A did not have data for the first period and the EQRO included 58% of its files in Year 2. MCO D declined from 84% in Year 1 to 67% in Year 2. Thus, while alignment of the NJ Choice with the plan of care is high in all MCOs, the extent to which such alignment can be measured differs across the MCOs. We do not know the potential explanatory factors for this.

[33] NJ Choice is an assessment tool used by OCCO and MCOs to determine whether a consumer meets a nursing facility level of care. See http://www.state.nj.us/humanservices/dmahs/home/NJ_Level_of_Care_and_Assessment_Training.pdf for more details.

Figure 8: MCO files in EQRO audits including both NJ Choice and plan of care, Years 1 and 2



Source: DMAHS, MLTSS Performance Measure Reports (Oct-Dec 2015 and Jan-Mar 2017).

The EQRO also looks at the alignment of the PCA (personal care assistance) assessment with the NJ Choice, for members who are using that service. Those results by MCO were similar to the results for the alignment of the NJ Choice with the plan of care, with an overall value of 92% for all MCOs in Year 2 (versus 98% alignment for the plan of care with the NJ Choice).

Person-Centered Principles. This measure examines whether plans of care were developed using person-centered principles, which was determined by looking at the goals to see if they were member specific and demonstrating member involvement in their development and modification.[34] This measure showed a large range for individual MCOs in both audits, with a narrowing in Year 2 as the highest and lowest scoring MCOs came down and up, respectively. The overall rate declined from Year 1 to Year 2, with two MCOs (B and D) declining and two (C and E) increasing. None of the MCOs met the 85% standard for this measure.

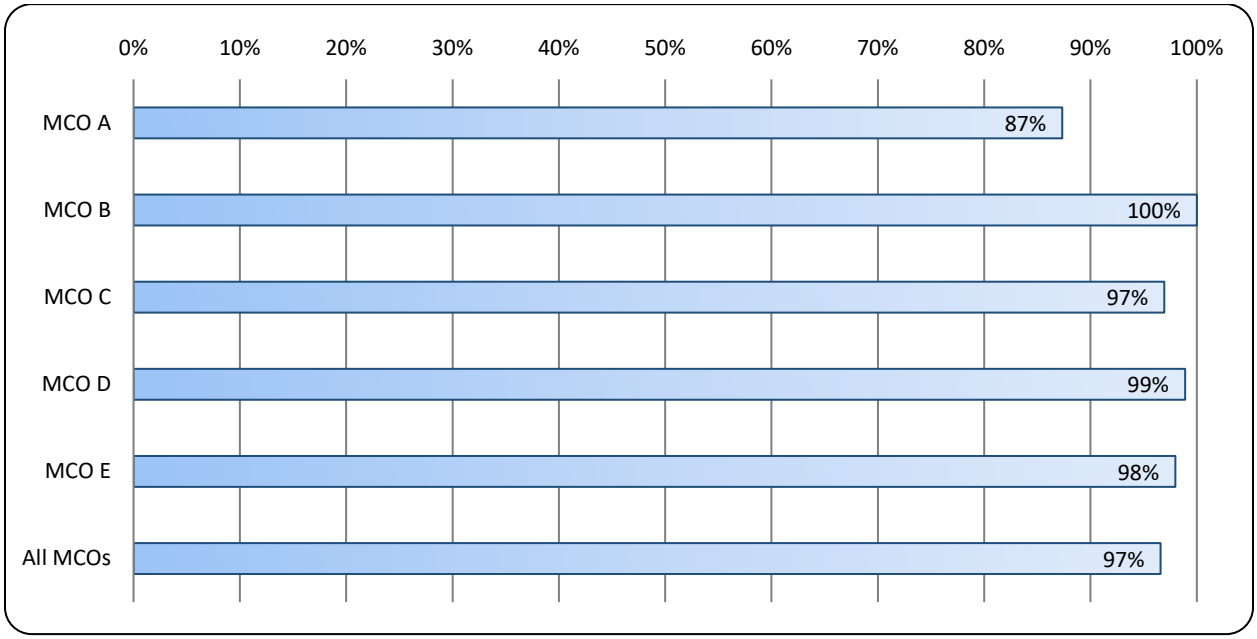
Back-up Plan. This measure documents the presence of a back-up plan (i.e., what happens if a home care aide is out sick for services delivered in a private home where there is no regularly

[34] Based on "NJ EQRO HMO Care Management Audit, Review of Care Management Files—Home Community Based Services (HCBS)" received from DMAHS personnel.

scheduled staff). As implemented in the initial audit, this was calculated for all files selected, rather than just those in an HCBS setting without regular staffing, so changes from Year 1 to Year 2 partially reflect differential file selection. In the Year 2 audit, there were 329 of 499 files selected (66%) for audit of this measure—for three of the plans (MCOs A, B and C), about 70% of their cases were audited for this measure; for MCO D, about 40% of its cases were included and for MCO E it was 86%. This may indicate some differences in the types of members served by different MCOs, which may be based somewhat on provider network relationships. Four of the plans achieved 84% or higher with this measure.

Care Management. Some stakeholders in our interviews raised questions about the quality of care management (Farnham et al., 2015 and forthcoming). We looked for information in the EQRO reports that might address these concerns. The EQRO looks at the extent to which documentation exists of initial face-to-face visits and whether they are timely. Timeliness is measured in a binary fashion where it is not possible to tell how late the visit was, or whether any delay was due to a consumer request or factor beyond the MCOs control, such as a hospitalization. Figure 9 shows the percent with any documented face-to-face initial visit (for new enrollees who had enrolled 6 months to 1 year prior to the audit). The average for all MCOs is 97%. Patterns were similar for MLTSS enrollees who were new to managed care as well as those who were existing MCO members, so they are combined in the figure. Only one MCO was below 97%, and that was the newest MCO for which this was the first audit, and represented 10 files. There is no information about the status of these 10 files to determine whether an enrollee was negatively affected by this or whether it was some kind of error (e.g., an enrollee who had passed away or was hospitalized, etc.).

Figure 9: Percent of MCO files in EQRO audits with a documented face-to-face initial visit, Year 2



Sources: IPRO, MCO MLTSS Care Management Audits, June 2016.

The EQRO looks at ongoing case management visits, but audits include members who are required to be visited every 90 days as well as every 180 days, making it difficult to interpret this measure. Those members required to be visited every 180 days might be very close to that window at the time of the audit.

The state Division of Aging Services generates a report for MCOs of any member who has not had an NJ Choice reassessment within the past 16 months and tracks to what extent the MCOs are able to conduct the reassessment or otherwise categorize the member. The most recent data from the report to CMS dated 1/1/2017-3/31/2017 noted that there were 627 members who had not had a reassessment in the past 16 months. We are not sure what kind of denominator to use for this—the MLTSS population was 16,596 in June of 2015 and 22,353 in December of 2015.[35] A conservative estimate would be that fewer than 6% of members have not had the required reassessment.[36] About 36% of the assessments were still outstanding, 51% had been done (though only 12% had been received in the state's system) and 13% involved members who had passed away or were otherwise ineligible. There may be differences by MCO, but the measure is too newly reported for us to determine.

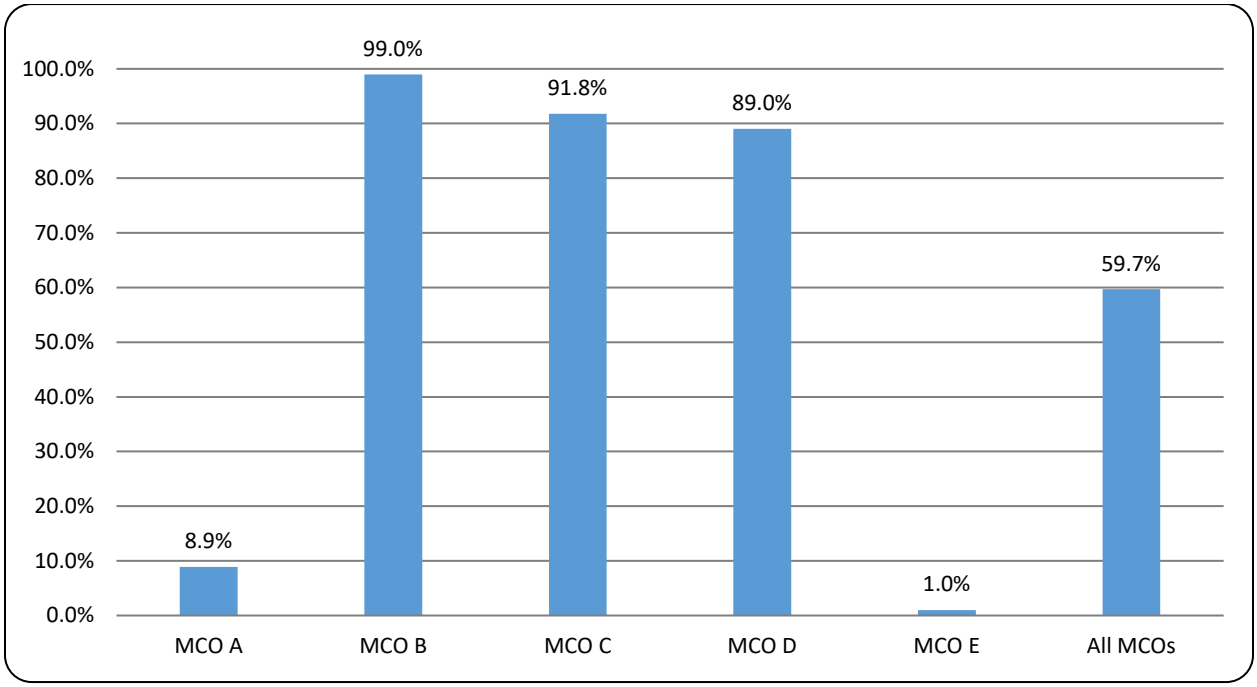
[35] MAAC Meeting Presentation January 23, 2017, slide 71.

[36] This takes the June 2015 figure and reduces it by the 32.3% no longer enrolled rate presented in slide 75 from the presentation above, which would give a denominator of 11,235 who were likely still enrolled, and a rate of 5.6% not having received a timely reassessment.

The EQRO looks at timely reassessments as well. They showed a rate of 91% timeliness, based on 35 cases (as few as 2 for one MCO). The denominator was the members who had a reassessment completed, rather than those who were required to have one. We were not sure if this would pick up a case where an assessment should have been done but wasn't, as opposed to measuring the timeliness of the reassessments that were done. Each MCO had, at most, one audited case that was not done in a timely manner (i.e., within 30 days after the redetermination date).

Critical Incident Training. The Year 2 EQRO audit included information on whether it was documented in the MCO file that the MLTSS member or authorized representative had received information and education on identifying and reporting abuse, neglect, and/or exploitation at least annually. MCOs were either high or low on this measure, as shown in Figure 10. Three of the MCOs met the 85% standard.

Figure 10: Cases with evidence of critical incident training, Year 2



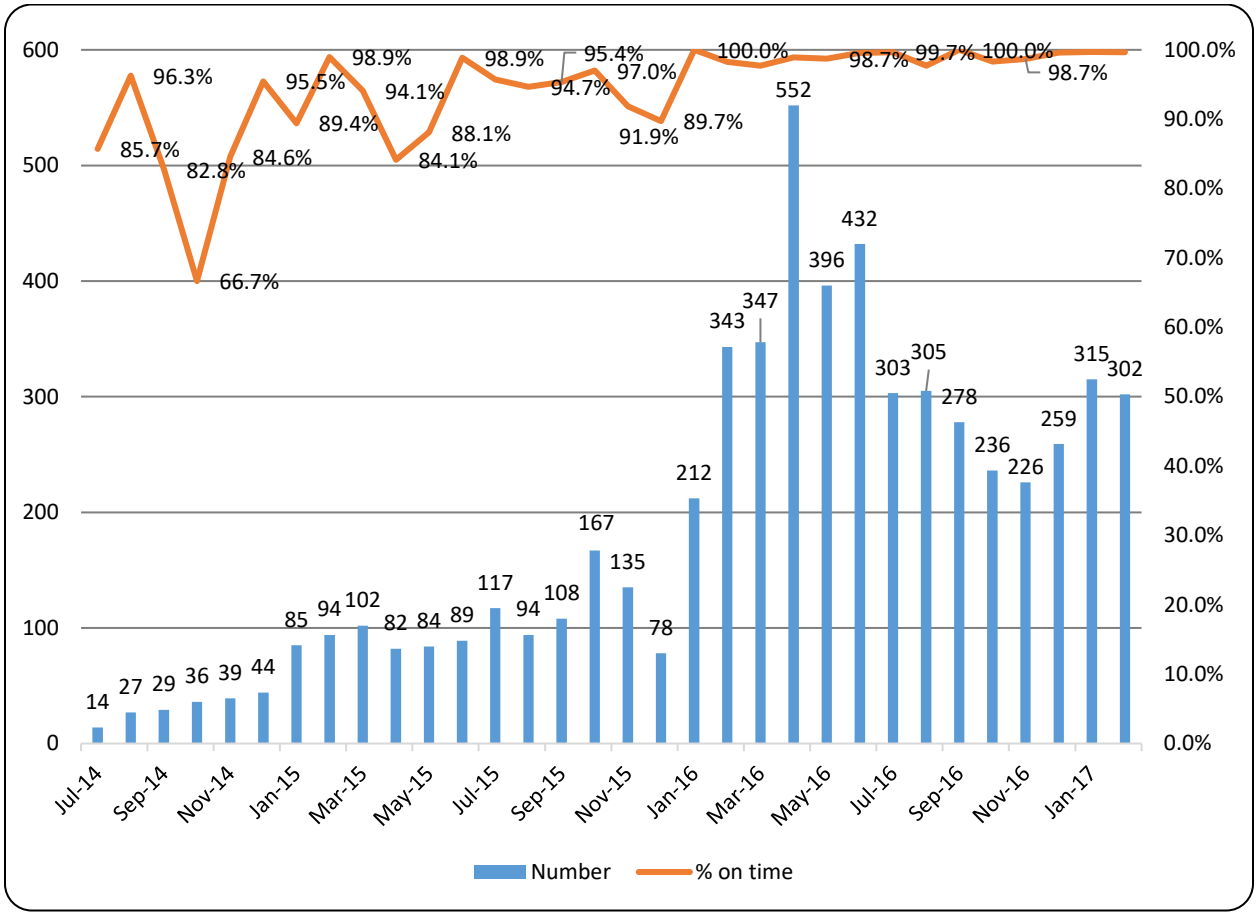
Source: DMAHS, MLTSS Performance Measure Reports, Jan-Mar 2017

Critical Incidents

Critical incidents are defined in the managed care contract as "an occurrence involving the care, supervision, or actions involving a Member that is adverse in nature or has the potential to have an adverse impact on the health, safety, and welfare of the Member or others. Critical incidents also include situations occurring with staff or individuals or affecting the operations of a

facility/institution/school."[37] Figure 11 shows the number and timeliness[38] of reporting for critical incidents from July 2014 to February 2017. The monthly average for timeliness ranged from 67% in October 2014 to nearly 100% since early 2016. The smallest number of incidents (14) were reported in July 2014 and the largest number in April 2016 (552). The April number translates into about 2% of 24,979 MLTSS enrollees reported in March of 2016 (though one member may have multiple critical incidents).[39]

Figure 11: Critical incident numbers and timeliness, July 2014–February 2017



Sources: DMAHS, MLTSS Performance Measure Reports, combined measures 17 and 17a.

Table 6 details the categories of incidents in Year 1 and Year 2. The most common incidents are injuries or falls and medical or psychiatric emergencies (including harms from medication errors).

[37] Quote from Article 1, Page 8 of the Managed Care Contract, 01/2015 Accepted, accessed March 31, 2016 from http://www.state.nj.us/humanservices/dmahs/info/resources/care/hmo-contract.pdf.
MLTSS-related critical incidents are detailed in Article 9, Pages 55-56.

[38] Timeliness is defined as within one business day for unexpected deaths or media/potential media involvement and two business days otherwise.

[39] New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 4: July 1, 2015–June 30, 2016.

Together, these account for more than half of incidents in Year 1 and more than three quarters in Year 2. Changes from Year 1 to Year 2 may include both changes in the extent to which reporting was completed as well as the frequency of the actual incidents reported.

Table 6: Critical incident categories

Critical Incident Categories	Year 1 (July 2014–June 2015)	Percent of total incidents	Year 2 (July 2015–June 2016)	Percent of total incidents
Severe injury/fall requiring treatment	262	36.7%	895	30.4%
Medical/psychiatric emergency	122	17.1%	1,425	48.5%
Missing/unable to contact or wandering from home/facility	70	9.8%	150	5.1%
Other/media involvement/medication error with serious consequences	59	8.3%	108	3.7%
Inappropriate conduct by provider	37	5.2%	60	2.0%
Theft/exploitation	35	4.9%	45	1.5%
Neglect/mistreatment, including self, caregiver overwhelmed, environmental	35	4.9%	74	2.5%
Abuse-suspected or evidenced	34	4.8%	43	1.5%
Backup plan failure	30	4.2%	20	0.7%
Eviction/utility cutoff	17	2.4%	50	1.7%
Unexpected death	13	1.8%	37	1.3%
Inaccessible for initial visit (partial 2016 only)			34	1.2%
Total	714		2,941	

Sources: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15, 7/1/15–9/30/15 and 10/1/15–12/31/15, combined measures 17 and 17a.

There aren't many differences by MCO. There were two differences that we found notable in our interim report, but it appears they may be explained by the MCOs decision about how (and perhaps whether) to report when members are not accessible for the initial face to face meeting.[40]

Appeals, Grievances and Complaints

MCOs are required to report Appeals, Grievances and Complaints for MLTSS members.[41] An appeal is a request for review of an action. A complaint is a protest regarding the MCO or contractor that could be resolved within five business days. A grievance is a complaint that could not be resolved within five business days.

[40] Based on reporting in the MLTSS Performance Measure Report, Annual (7/1/2015-6/30/16).

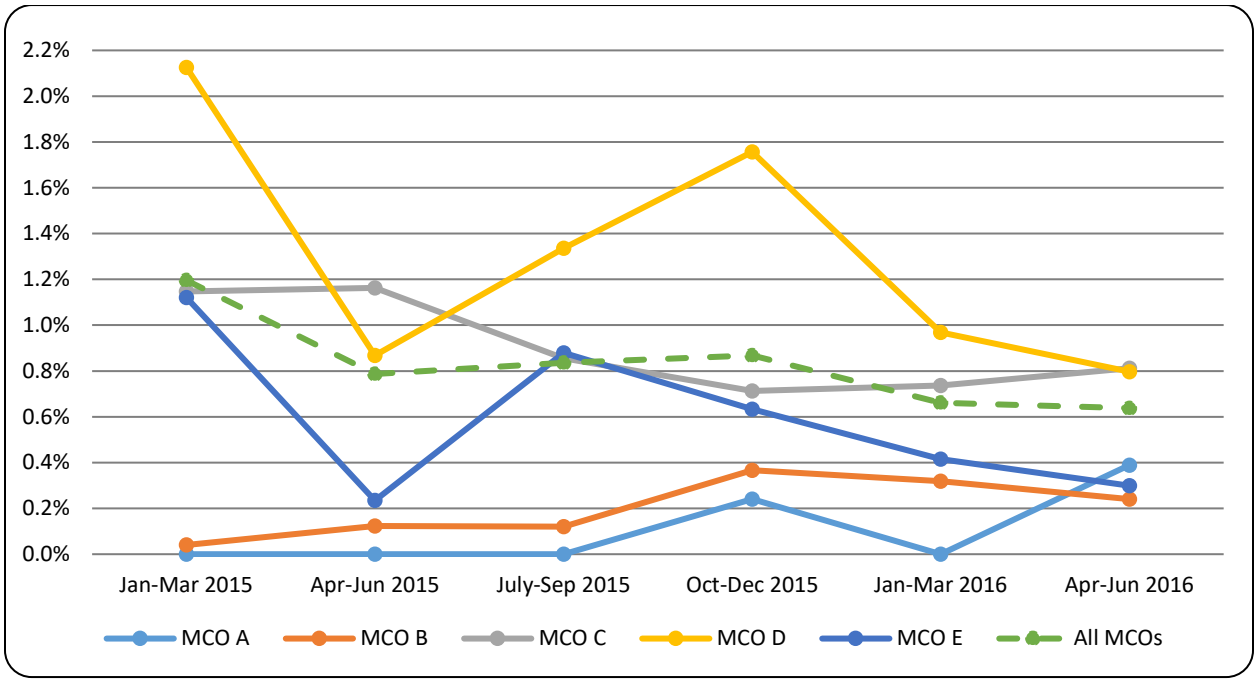
[41] See detailed definitions in Article 1 of the Managed Care Contract, 01/2015 Accepted, accessed March 31, 2016 from http://www.state.nj.us/humanservices/dmahs/info/resources/care/hmo-contract.pdf. Appeals in Article 1, p.2; Complaints in Article 1, p.6 and Grievances in Article 1, p.13.

It is important to note that there are nuances with this type of measure such that lower numbers or rates do not necessarily reflect positive member experiences relative to other organizations and higher numbers or rates may not always reflect relatively negative experiences. With respect to MCO reporting of appeals/grievances/complaints they receive, members must be able to reach the MCO, make the MCO understand that the member has an issue, and the MCO must then document and report the issue (and hopefully, address it). An MCO with fewer reported issues may actually have fewer issues, or there may be communication barriers within their organization such that they are not recognizing the issues that they have. In addition, some members are more likely to complain or to be able to complain, and this kind of reporting does not adjust for these factors.

Until January 2015, MCOs reported all Medicaid members together. As of January 2015, MLTSS members are reported as a separate category. Appeals and grievances are reported separately from complaints. Despite the five day language above, investigation is considered timely when complete within 30 days. A completed investigation does not mean that the matter has been resolved to the member's satisfaction, but rather that the MCO has considered the issue and rendered an opinion as to its merit. Timeliness for appeals, grievances and complaints is very high in all MCOs.

There were a total of 742 appeals, grievances and complaints reported by MCOs in 2015 (with as few as one per MCO to as many as 398) and a total of 887 in 2016 (with as few as 15 per MCO to as many as 505). Figure 12 shows the percent of each MCO's members with an appeal, grievance or complaint during each quarter from early 2015 through mid-2016. The average for all MCOs has declined from 1.2% to 0.6% during that time period. There is some variation by MCO, but in all cases MCOs report a small percentage of members with appeals, grievances or complaints.

Figure 12: Percent of members with appeals, grievances or complaints, by quarter



Sources: DMAHS, MLTSS Quarterly Performance Measure Reports.

Outcome of Appeals

DMAHS examined not only the MCO-reported timeliness of appeal resolution (i.e., those investigated within 30 days) but also the MCO-reported outcome of appeals regarding denials of home health (215 appeals) and private duty nursing services (40 appeals) for 2015. With home health services, the MCO upheld 197 of the denials (92%) and overturned 18 (8%) in full or part. With private duty nursing, all but one of the denials were upheld.[42] In 2016, there were 185 home health appeals, of which 177 (96%) were upheld and 6 (3%) had mixed outcomes (not a full denial after the appeal). There were 36 private duty nursing appeals, of which 34 (94%) were upheld.[43]

Relation of Appeals and Fair Hearings to Service Reductions

Service reductions and the extent to which they are associated with appeals or fair hearings has been reported publicly for one quarter, to our knowledge (Q2 of 2015).[44] MCOs reported one full reduction in physical therapy, one partial reduction in private duty nursing, 7 reductions in adult medical day (4 full; 3 partial) and 41 reductions in personal care assistance (9 full; 32 partial). There is no indication of the number or percentage of hours involved. The presentation noted that none of the 14 full reductions were appealed. Of the 36 partial reductions, 4 (11%) went to

[42] Calculated from data from MAAC_Meeting_Presentations_4_20_16 (slides 28-30), which notes that the data is pending state and IPRO validation.
[43] Accessed May 30, 2017 from http://www.state.nj.us/humanservices/dmahs/boards/maac/MAAC_Mtg_Minutes_1_23_17.pdf
[44] Slide 8 in 9.24.15 Quality Slides for MLTSS Steering Committee.

a first level appeal, 1 (3%) went to a second level appeal and 1 (3%) went to a fair hearing. It is not clear whether service reductions have an effect on client outcomes. A lack of appeals and fair hearings cannot be assumed to indicate client satisfaction. Another presentation from this time period notes that there were a total of 10,866 MLTSS HCBS members in August of 2015, plus another 3,027 in Assisted Living.[45] This is the population to which reductions would apply. While these results are not audited, it would appear that reductions affected a small proportion of members in this quarter. Without information on other time periods, it is impossible to know how typical this quarter was.

Fair Hearings

Another potential measure of member complaints is the extent to which members file Medicaid fair hearing requests with the Department of Human Services. The outcomes of fair hearing requests that proceed through to a final decision are posted on the Department of Human Services web site. It is not possible to determine the extent to which these decisions relate to members enrolled in MLTSS and often it is not possible to tell the ultimate outcome—i.e., often, the result is that the MCO is told to do a new assessment, and the reader cannot tell whether they ultimately approved the desired service. Table 7 shows the number of final agency decisions by MCO as well as the number of cases that DMAHS has transmitted to the Office of Administrative Law (OAL), along with information on the number of total Medicaid enrollees as well as MLTSS enrollees.[46] It is possible that some individuals are represented more than once in the fair hearing data. In addition, this table does not adjust for member factors that could affect the probability of filing a fair hearing request—that is, a larger number of final agency decisions could mean that an MCO is more likely to serve members that are more likely to file a fair hearing request as well as the more straightforward interpretation that larger numbers mean more members with disputes. In addition, MCOs inform their members of the right to file a request—while efforts are made by the state to ensure standard minimum language used in disclosures, it is possible that better efforts by an MCO to inform members could result in more requests.

All MCOs have small numbers of fair hearing outcomes relative to the size of their enrollment. United appears to have higher numbers than might be expected given their enrollment, but it is difficult to establish patterns with certainty given the small number of cases, potential for duplicate cases in the data, and other issues mentioned that could affect the number of cases filed. In the MAAC meeting in April of 2016, an advocate who files fair hearing requests on behalf of members noted that she had felt pressure at times from MCOs to withdraw cases before a final outcome would be posted—if there are differential efforts in this regard, that could affect

[45] Slide 3 in MLTSS Presentation Steering Committee 9.24.15.

[46] See Department of Human Services, DMAHS Final Agency Decisions, accessed April 1, 2016 from http://www.state.nj.us/humanservices/dmahs/info/fads.html.

the numbers as well.[47] For 2016, the share of cases sent to OAL is very similar to the share of final agency decisions when broken out by MCO, which would appear to indicate that, for 2016, cases in each MCO were equally likely to proceed from a filing to a final decision.

The fair hearing results appear to match reasonably well with the pattern of MCO-reported appeals, complaints, and grievances discussed earlier, which reflects positively on the validity of the MCO reports. In general, and subject to all the caveats discussed above, an MCO reporting low numbers of member disputes but showing up with a high number of fair hearing requests could be discouraging or undercounting member disputes in some way, calling their reporting into question. Alternatively, an MCO with high levels of reported member disputes (particularly if they are not resolved to members' satisfaction) but no fair hearing requests may not be adequately informing members of their right to a fair hearing.

DMAHS presented information about fair hearing dispositions at the October 2016 and January 2017 MAAC meetings. From January through July of 2016, 592 of 3,069 fair hearing requests (19%) involved an adverse decision by an MCO (MLTSS or any other Medicaid program).[48] For the MCO-related hearings that are filed, 5% to 10% of cases proceed to an initial or final decision, 11% of the time people fail to appear (no reason why known), and 60% are withdrawn (no reason why known). The remaining percentage (19-24%) was not explained, and these cases were probably still pending.[49] From August through December of 2016, 370 of 1,934 fair hearing requests (19%) were MCO-related. As of mid-January of 2017, 4% had resulted in an initial or final decision, 8% involved failure to appear for the hearing, and 47% were withdrawn. Presumably the remaining 41% were still pending.[50]

[47] See sheet 28, p.97, lines 6-13 in http://www.state.nj.us/humanservices/dmahs/boards/maac/MAAC_Mtg_Minutes_4_20_16.pdf (accessed May 26, 2017).
[48] Most decisions that are appealed involve financial eligibility for Medicaid.
[49] These data are based on notes taken by J Farnham at the MAAC meeting on October 19, 2016. The presentation was verbal only by Carol Grant; some of the information is in the minutes at http://www.state.nj.us/humanservices/dmahs/boards/maac/MAAC_Mtg_Minutes_10_19_16.pdf (accessed May 25, 2017).
[50] Accessed May 30, 2017 from http://www.state.nj.us/humanservices/dmahs/boards/maac/MAAC_Mtg_Minutes_1_23_17.pdf.

Table 7: Fair hearing information and enrollment by MCO

MCO	# of DMAHS Final Agency Decisions				# Cases Sent to OAL		Average Total Medicaid Enrollees, 2015	Enrollees eligible to receive MLTSS Services, Jul 2015–June 2016
	2014	2015	2016	2017 (Jan–Mar)	Jan–July 2016	Aug–Dec 2016		
Aetna	0	0	0	0	*	2	8,512	890
Amerigroup	1	2	5	3	32	69	210,303	6,053
Horizon	1	11	40	11	340	542	833,872	16,227
United	4	27	28	13	220	346	492,951	7,177
WellCare	0	0	1	0	*	3	58,748	4,057
Total MCO	6	40	74	27	592	370	1,604,386	34,404

*The source noted that there were a handful of cases for these MCOs, but they were not included in the total.
Sources: DMAHS Final Agency Decisions accessed May 26, 2017 from http://www.state.nj.us/humanservices/providers/rulefees/decisions/dmahs2014.html, http://www.state.nj.us/humanservices/dmahs/info/fads_2015.html and http://www.state.nj.us/humanservices/dmahs/info/fads_2016.html . Cases sent to OAL accessed May 30, 2017 from http://www.state.nj.us/humanservices/dmahs/boards/maac/MAAC_Mtg_Minutes_1_23_17.pdf and http://www.state.nj.us/humanservices/dmahs/boards/maac/MAAC_Mtg_Minutes_10_19_16.pdf. Total Medicaid enrollment from NJ Department of Banking and Insurance, Carrier Enrollment Reports (Calculated from 2015 quarters), accessed April 18, 2016 from http://www.state.nj.us/dobi/division_insurance/lhactuar.htm#HMOReports. MLTSS enrollment from MLTSS Performance Measure Report, 1/1/2017–3/31/2017.

Independent Health Care Appeals Program (IHCAP)

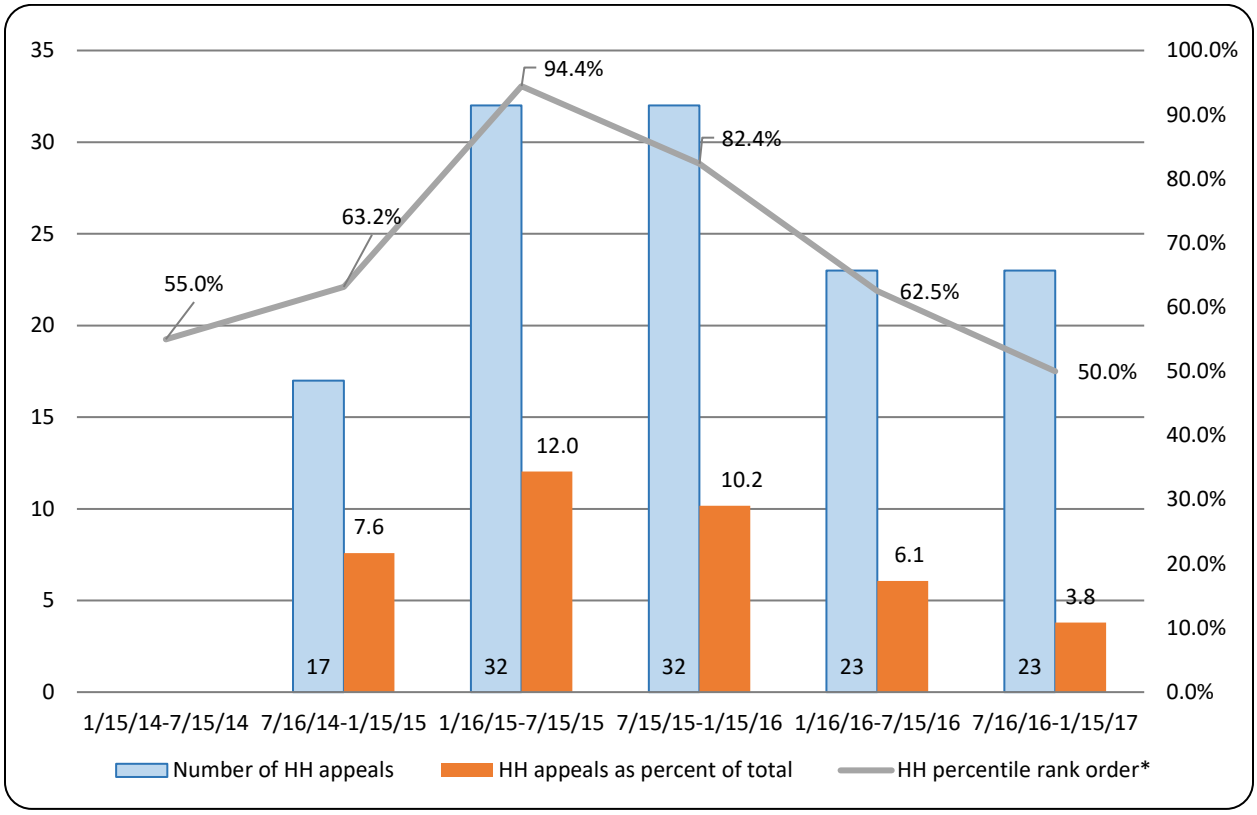
IHCAP[51] begin in 1997 and is an external review program administered by the NJ Department of Banking and Insurance (DOBI) to review adverse determinations made by insurance carriers for any health benefit. DOBI contracts with multiple Independent Utilization Review Organizations (IURO) to perform reviews. Insurance carriers bear the costs even if they reverse their decision prior to the IURO rendering a decision, or the individual or health care provider withdraws the appeal. Since 1997, DOBI has issued semi-annual reports tracking appeals and their resolution. Reports do not break out results by type of product—thus, these data contain all lines of business for each carrier (Medicaid and commercial). Self-insured and Medicare Advantage plans are not included, nor is Medicare.

Advocates tell us that the only MLTSS service that is appealable through IHCAP is private duty nursing. It was only in early 2015 that DOBI began listing the services appealed with specific

[51] See http://www.state.nj.us/dobi/division_insurance/managedcare/ihcap.htm.

frequency numbers. In the report for the first half of 2015, denial of home health care is the top category (32 appeals, 12% of the total), and the report notes "These denials involved the reduction of private duty nursing services by Medicaid HMOs."[52] Figure 13 shows the number of home health appeals, their percentage of the total number of appeals, and the percentile of the rank order of home health appeals to give a sense of how this category has varied over time and how it compares with other categories over 6 semiannual periods. It appears from these data that there was an increase in these types of cases during 2015, but the frequency of cases to some degree and their share of total appeals to a greater degree seems to have decreased in 2016. According to authors' calculations from Medicaid claims data, 343 individuals had at least one claim for private duty nursing services in 2015. The 64 IHCAP appeals during 2015 would correspond to about 19 percent of the population of individuals with one or more private duty nursing claims during that period. However, appeals may also be filed by individuals who believe they have a case for private duty nursing but who are ultimately denied without Medicaid ever paying for the service, so it is not possible to estimate an exact percentage.

Figure 13: Home health IHCAP appeals by semiannual period



*This is calculated as the percent of categories ranked below home health. For the first period, home health ranked 9 out of 20 categories, the second—7th of 19, the third—1st of 18, the fourth—3rd of 17, the fifth—6th of 16, and the sixth—8th of 16.
Source: Semi-annual legislative reports (32nd through 37th), Independent Health Care Appeals Program, Department of Banking and Insurance, accessed May 30, 2017 from http://www.state.nj.us/dobi/division_insurance/managedcare/ihcapreports.htm.

[52] See http://www.state.nj.us/dobi/division_insurance/managedcare/omc/34thihcaprpt.pdf.

Transitions between Nursing Facility and Community[53]

The reporting of member transitions between nursing facility and community settings is complicated by members who may pass away or switch between MCOs. It appears that some MCOs may interpret a requirement to report only continuously enrolled members somewhat differently, so we have not presented tables or figures for this section. The state is implementing a nursing facility transition incentive payment initiative that will require a minimum of 120 calendar days of residence in the community after the transition.

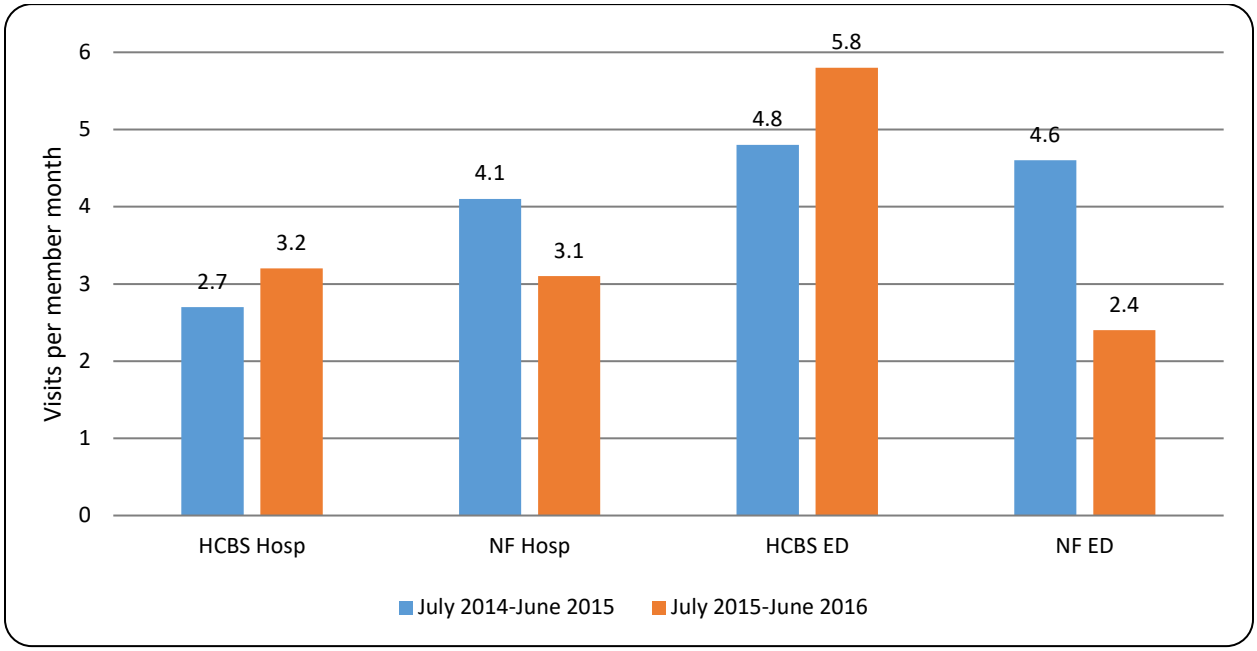
1. Transitions from Nursing Facility to Community and Back within 90 Days: MCOs report to the department the number of MLTSS members per quarter who have transitioned from a nursing facility to a community setting. There were 227 transitions out of nursing facilities in the first year of MLTSS and 371 in the second year. Fifteen of those transitioned in the first year of MLTSS and 17 of those transitioned during the second year returned to a nursing facility for more than 90 days.
2. Transitions from Community to Nursing Facility, Short-Term (less than or equal to 180 days) and Long-Term (greater than 180 days): In the first year of MLTSS, 1,199 consumers moved from HCBS settings to a nursing home, 43% for short-term stays of less than or equal to 180 days. In the second year of MLTSS, 962 consumers moved, 19% for short-term stays. Given the increase in the HCBS population, this may reflect success in keeping people in HCBS settings. There were some differences by MCO, which may result from differences in the population served given their geographic area or differing provider networks.

Hospital and Emergency Department Use

As shown in Figure 14, hospital and ED use increased for the HCBS population from Year 1 to Year 2, while decreasing for the nursing facility population. During our interviews, stakeholders told us that the acuity of people in HCBS was increasing with a better ability to keep consumers in home and community settings. Some members make multiple visits—for example, one MCO reported to DMAHS that one member made 29 visits to the ED, 13 for alcohol use.

[53] Sources for this section are DMAHS, MLTSS Performance Measure Reports dated 1/1/17-3/31/17 and 1/1/16-3/31/16.

Figure 14: Rate of hospital and ED use among continuously enrolled MLTSS members, Years 1 and 2, by setting (nursing facility or HCBS)



Sources: DMAHS, MLTSS Performance Measure Reports, 1/1/17-3/31/17 and 1/1/16-3/31/16. Members with more than one visit are counted more than once.

Network Adequacy

The New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report for Demonstrations Year 3 (covering the period of July 1, 2014 to June 30, 2015) and Year 4 (July 1, 2015 to June 30, 2016) contain GeoAccess reports for 17 acute care provider types.[54] For MLTSS services, MCOs are required to have at least two providers for each home and community-based service (other than community-based residential alternatives)—for services provided in members' residences, the provider does not need to be located in the member's county but must we willing and able to serve residents of that county.[55] Presumably for this reason, GeoAccess reports are not available for MLTSS services. However, the annual report notes that MCOs submit network files (including MLTSS providers) on a quarterly basis to DMAHS, which reviews them for potential gaps in coverage. In addition, MCOs report any potential gaps in coverage and the action they are taking to mitigate impacts on members during regular conference calls with the State. According to the annual report, should there be a gap in services for a member, MCOs will

[54] See Section VII and Attachment D--for year 3, https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/nj/Comprehensive-Waiver/nj-1115-request-Annl-rpt-demo-yr3-11102015.pdf; for year 4, https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/nj/Comprehensive-Waiver/nj-1115-request-Annl-rpt-demo-yr4-12072016.pdf.

[55] See Section 4.8.10 MLTSS Network Requirements (Article 4, p.101 of the 01/2015 Accepted contract), http://www.state.nj.us/humanservices/dmahs/info/resources/care/hmo-contract.pdf.

complete a single case agreement with a nonparticipating provider and/or arrange for transportation to a participating provider in a contiguous county.[56] We do not know how often this occurs. A summary of detailed grievance information reported by the MCOs covering the period of January to December 2015 showed 12 instances of difficulty obtaining access to MLTSS providers.[57] We are uncertain about the comprehensiveness of this number.

For the 17 acute care providers shown in the reports, there are some notable gaps in hospital participation in selected geographic areas for two MCOs in Year 4, which is noted in the DMAHS report. There are some differences in access to primary care providers (dentists, primary care doctors and pediatricians) by plan and by area, with 78.5% coverage being the lowest value in any area for any plan and many at 100%.

The accuracy of provider directories, on which these data are based, has been questioned nationally and in New Jersey. One examination notes that New Jersey is among the most strict group of states with respect to provider directory requirements.[58] It is unclear whether recent changes to requirements will be sufficient to overcome the problems found by the Mental Health Association in New Jersey in 2013 where researchers found that 33% of 525 psychiatrists had incorrect listings and that only 61% were able to provide information on their ability to accept new patients, many after multiple contact attempts.[59]

CAHPS® Survey

In this section, we examine findings from the 2015 CAHPS® (Consumer Assessment of Healthcare Providers and Systems) survey for MLTSS, D-SNP, and all adult Medicaid beneficiaries. The CAHPS® assesses members' perceptions of the quality of care and services they receive in their Medicaid health plan. Our objective is to situate the experience of individuals enrolled in MLTSS alongside that of other individuals served by the same Medicaid health plans. We examine measures related to provider and plan satisfaction.

Population Overview. MLTSS enrollees have been assessed to be clinically eligible for nursing home care as well as financially eligible for Medicaid. In 2015, MLTSS enrollees were about 1% of the NJ FamilyCare population—by the end of 2015, there were about 22,000 MLTSS enrollees,

[56] See Attachment E, PM#14 on p.8 https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/nj/Comprehensive-Waiver/nj-1115-request-Annl-rpt-demo-yr3-11102015.pdf.
[57] MAAC Meeting Presentations 4 20 16, slide 28.
[58] Hoyt B. 2015. Provider Directories: Litigation, Regulatory, And Operational Challenges. Washington, DC: Berkeley Research Group. http://www.thinkbrg.com/media/publication/579_Hoyt_DirectoryWhitePaper_032015_WEB.pdf.
[59] Mental Health Association in New Jersey. July 2013. Managed Care Network Adequacy Report. http://www.mhanj.org/wp-content/uploads/2014/09/Network-Adequacy-Report-Final.pdf.

about 16,000 of whom lived in community settings (including assisted living).[60] D-SNP enrollees are dually eligible for both Medicaid and Medicare (meaning that they are either 65 or over, or permanently disabled). In addition, they have chosen a managed care plan to jointly administer their Medicaid and Medicare benefit. In 2014 there were about 22,000 D-SNP enrollees (Wood 2014), corresponding to roughly 10% of dual eligible individuals.[61] Adult Medicaid enrollees may be any age, though most are nonelderly. In November of 2015, about 70% of New Jersey's roughly 882,000 adult Medicaid enrollees were not disabled or age 65 or above. About 20% were disabled and about 10% were age 65 or above.[62] These populations are very different, as we note further below. However, it is the goal of Medicaid that they all be satisfied with their care.

CAHPS® Overview. The CAHPS® survey was administered between November 2015 and January 2016. There were 547 useable surveys collected for the MLTSS population (response rate 35.5%), 612 surveys for the D-SNP population (response rate 36.4%), and 1,632 surveys to characterize the overall adult NJ FamilyCare population (response rate 24.4%). Surveys were sent by mail with a follow-up mailing and phone call to those for whom a valid phone number was found. Phone surveys constituted 19% of the MLTSS surveys, 27% of the D-SNP surveys, and 25% of the adult FamilyCare surveys. Samples were drawn randomly, but there is always the chance that differential non-response can reduce the representativeness of survey estimates. MLTSS results were not shown by plan.

CAHPS® Findings. In demographics and health status, these populations differ in expected ways (data not shown). Compared to the D-SNP and Adult groups, almost half (48.8%) of MLTSS beneficiaries are 75 years of age or older.[63] The largest proportion of D-SNP beneficiaries are between the ages of 65 and 74, and the majority (60.5%) of the Adult group are between the

[60] See slides 72 and 74 in of presentation to Medical Assistance Advisory Committee (MAAC) on January 23, 2017 http://www.state.nj.us/humanservices/dmahs/boards/maac/MAAC_Meeting_Presentations_1_23_17.pdf (accessed February 8, 2017).

[61] Estimate of number of dual eligible is from Kaiser State Health Facts, 2010, accessed May 16, 2017 from http://kff.org/medicaid/state-indicator/dual-eligible-beneficiaries/?dataView=0&currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D . This shows 208,300 dual eligibles in New Jersey, which seems to track reasonably well with the November 2015 Family Care enrollment report showing 265,000 ABD (aged, blind or disabled) enrollees. According to other Kaiser estimates from 2010, more than 90% of aged Medicaid enrollees are dually eligible, while about 40% of disabled Medicaid enrollees are--"Aged and Disabled Dual Eligibles as a Percent of Total Medicaid Beneficiaries," accessed May 16, 2017 from http://kff.org/medicaid/state-indicator/ageddisabled-medicaid-beneficiaries/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D.

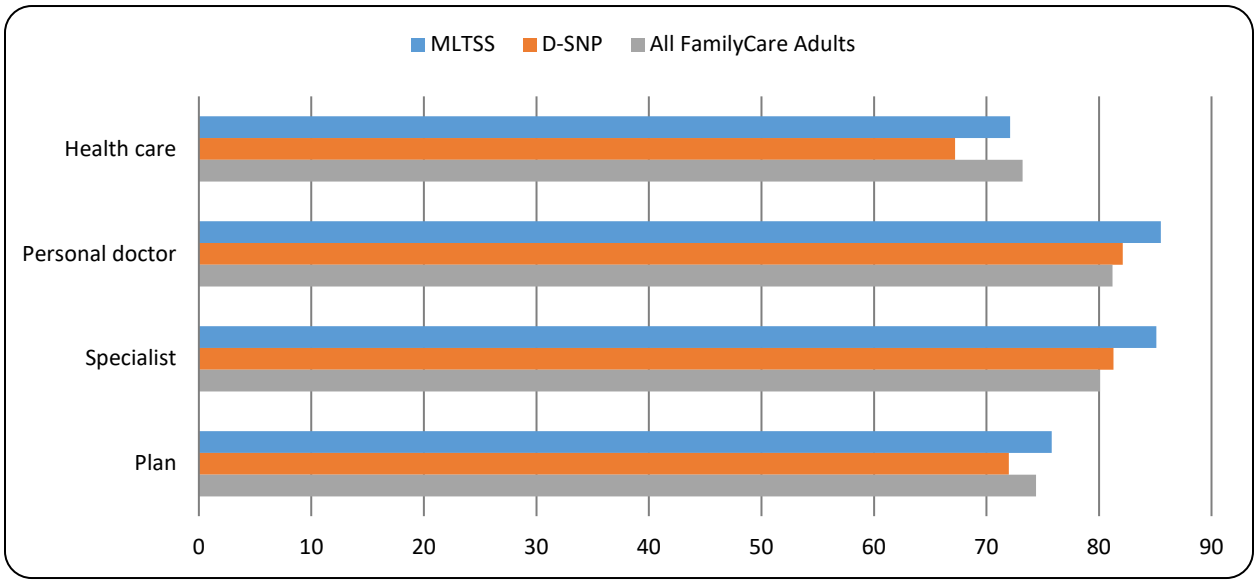
[62] NJ FamilyCare enrollment report, November, 2015. Accessed May 16, 2017 from http://www.state.nj.us/humanservices/dmahs/news/reports/enrollment_2015.pdf

[63] Data presented at the December 2015 MLTSS Steering Committee meeting showed that 59% of the MLTSS population was age 75 or older in September 2015. Thus, the very elderly may be slightly under-represented in the CAHPS® MLTSS survey.

ages of 18 and 54. The majority (78.2%) of MLTSS beneficiaries are not Hispanic or Latino and 61.1% identify as white. A greater proportion of the D-SNP respondents (41.4%) report they are Hispanic/Latino and the majority of both the D-SNP and overall adult Medicaid population identify as non-white. Only 12% of MLTSS beneficiaries rate their overall health as good or excellent, compared with 23.5% of D-SNP adults and 32.7% of adults overall. Ratings of overall mental or emotional health are similarly poorer among MLTSS beneficiaries. Only 26.6% consider their mental/emotional health to be excellent or good, whereas 36% of D-SNP beneficiaries and 46% of all FamilyCare adults rate their mental health as good or excellent.

Figure 15 shows the proportion of respondents with a positive rating of their health care, personal doctor, specialist, and health plan.[64] Individuals in MLTSS were no less likely (and often actually more likely) to positively rate these aspects of their care compared to the D-SNP and overall adult groups.

Figure 15: Respondent rating of care, personal doctor, specialist and health plan (2015 CAHPS®)

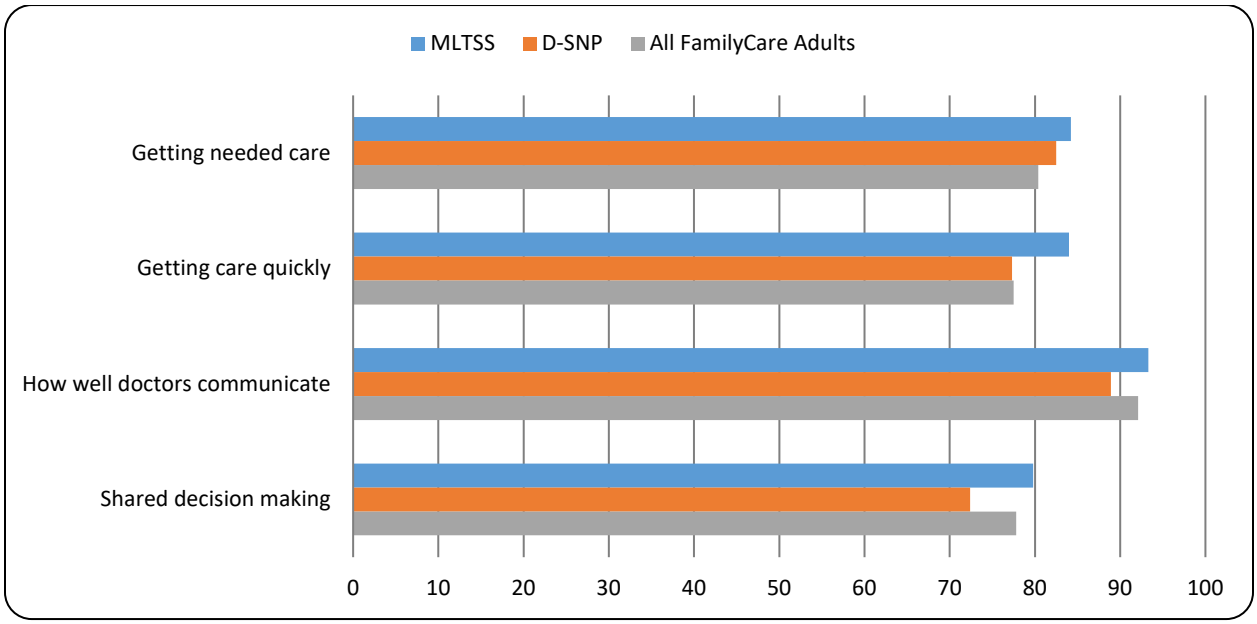


Sources: Adult Surveys (NJ FamilyCare, MLTSS, DSNP), CAHPS® 5.0H Reports, April 2016.

The same pattern of satisfaction is seen in Figure 16 which shows results for CAHPS® composite measures.[65] The experience of getting needed care, getting needed care quickly, having doctor(s) communicate well, and engaging in shared decision making with their doctors is as positive, and frequently more positive, for MLTSS beneficiaries as it is for the D-SNP and overall adult populations.

[64] Ratings of 8, 9, or 10 on a 10-point scale were considered positive.
[65] Composite measures group together questions on similar topics to simplify interpretation of the data and enhance the reliability of results.

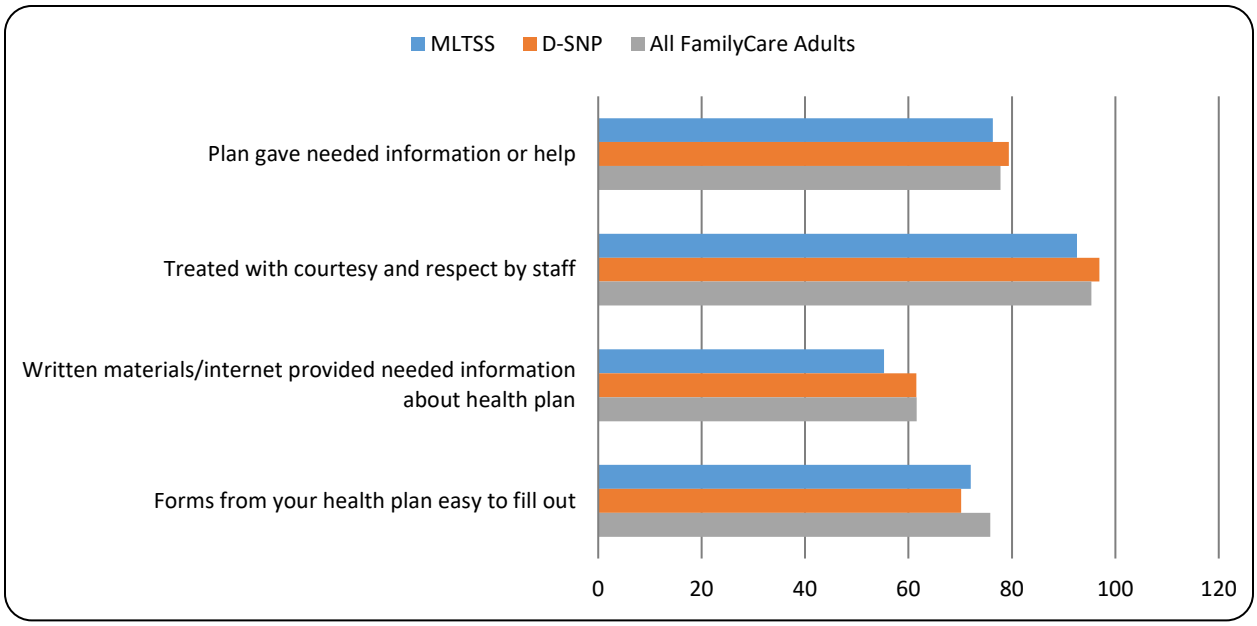
Figure 16: CAHPS® composite measures (2015)



Sources: Adult Surveys (NJ FamilyCare, MLTSS, DSNP), CAHPS® 5.0H Reports, April 2016.

Figure 17 shows the proportion of respondents reporting they usually or always had positive experiences with their health plan with respect to getting information, being treated courteously, and the ease of using forms from the plan. Here, results are slightly poorer for the MLTSS population.

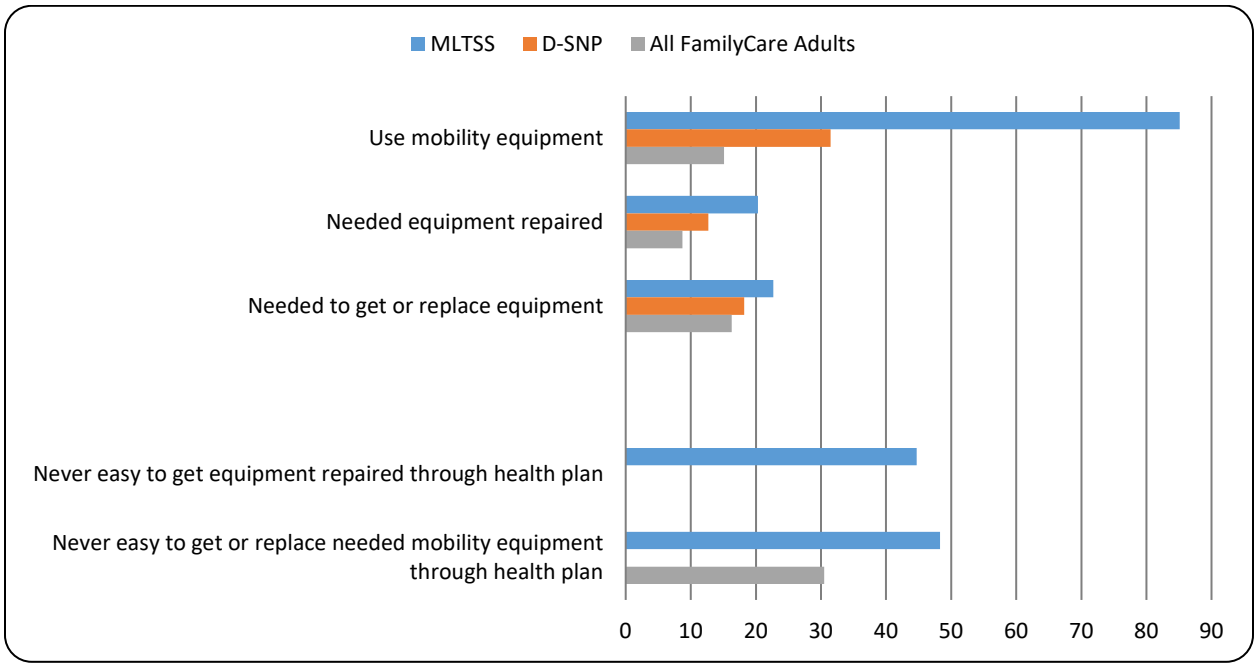
Figure 17: Respondent experiences with health plan (2015 CAHPS®)



Sources: Adult Surveys (NJ FamilyCare, MLTSS, DSNP), CAHPS® 5.0H Reports, April 2016.

Finally, Figure 18 shows respondents' experiences with their health plan in obtaining, replacing, or repairing mobility equipment. It is notable that 85% of those in MLTSS needed some type of mobility equipment (wheelchair, scooter, walker, or a cane). Less than a third of D-SNP respondents needed these devices, and only 15% of adult Medicaid beneficiaries overall needed them. Individuals in MLTSS also needed their equipment repaired or replaced more often than those in the comparison populations. Because this equipment is needed less among D-SNPs and all adults, and fewer in those samples faced the situation of needing the equipment repaired or replaced, there was not sufficient sample to show reliable estimates for some of these measures in the D-SNP and adult groups. More than 40% of individuals in MLTSS reported difficulty with their health plan getting, replacing, or repairing mobility equipment. State officials told us that frequently there is confusion about whether Medicare or Medicaid is the payer for such equipment. Most MLTSS enrollees are dual-eligible, and Medicaid requires that Medicare pay when required. In the NCI-AD™ survey (discussed later), New Jersey's MLTSS members were generally less likely to report needs for equipment than MLTSS recipients in four other states. So, while there is clearly room for improvement here, it does not appear that New Jersey is an outlier.

Figure 18: Respondent experiences with mobility equipment (2015 CAHPS®)



Sources: Adult Surveys (NJ FamilyCare, MLTSS, DSNP), CAHPS® 5.0H Reports, April 2016.

CAHPS® Discussion. Management of beneficiaries' acute and chronic health conditions, the dimensions of care predominantly tapped by CAHPS® questions, were not directly affected by the shift to MLTSS, as they were already included in Medicaid enrollees' benefit packages. Individuals in MLTSS are on par with non-MLTSS beneficiaries in overall satisfaction with their health care providers and access to care. When examining satisfaction with the administrative

responsiveness of their plan, MLTSS beneficiaries are slightly less satisfied. The move to MLTSS required health plans to build capacity and expertise in long-term care service delivery, contracting with long-term care providers and training customer service representatives on an entirely new suite of covered services. MLTSS enrollees interact with their health plan about this new group of services, while D-SNP and those in general Medicaid interact with plans about same services plans are more familiar with managing. This may explain the slightly lower results for MLTSS enrollees versus D-SNP and other adult Medicaid enrollees regarding administrative responsiveness. In terms of overall plan rating, MLTSS beneficiaries are equally or more satisfied as D-SNP enrollees and the general population of Medicaid adults.

NCI-AD (National Core Indicators, Aging and Disabilities™)

The NCI-AD™ is a face-to-face survey with questions developed by experts in long-term care, carried out by the states that implement it. To conduct the survey, New Jersey utilized staff from the Department of Human Services for consumers enrolled in Medicaid and county staff for consumers not enrolled in Medicaid. There were 75 interviewers and 727 completed interviews, beginning in July 2015 and concluding in October 2015. All interviewers were trained with the involvement of the National Association of States United for Aging and Disabilities (NASUAD) and the Human Services Research Institute (HSRI).

New Jersey was one of the first cohort of six states to participate in the 2015 inception of the rapid-cycle data collection of the NCI-AD, ™ an annual in-person survey addressing quality of life and care issues. A detailed report for New Jersey is available showing answers to all questions.[66] There is also a national report with results from 13 participating states.[67] We will discuss selected results here, focusing on areas where New Jersey's MLTSS results differed from other states, how MLTSS compared with other long term care programs in New Jersey, or where there was notable variation among individual New Jersey MCOs. The NCI-AD™ initial report includes only the four plans operating at the beginning of MLTSS: Amerigroup, Horizon NJ Health, United Healthcare, and WellCare. A sample of about 100 members receiving HCBS (not nursing facility) services was selected for each MCO. Proxies could respond for members if they desired a proxy or were unable to respond themselves. In New Jersey, about 25% of surveys for the overall sample were by proxy.[68] Fee-for-service nursing home residents were also included as a separate category in the NJ NCI-AD, ™ as were Program of All-inclusive Care for the Elderly (PACE) participants and those receiving Older Americans Act HCBS services (at least one service--including adult day, chore, homemaker, personal care and/or home delivered meals--three or more times per week).

[66] See http://nci-ad.org/resources/reports/ (accessed June 5, 2017).
[67] See http://nci-ad.org/upload/reports/NCI-AD_2015-2016_National_Report_FINAL.pdf (accessed June 6, 2017).
[68] http://nci-ad.org/upload/reports/NCI-AD_2015-2016_National_Report_FINAL.pdf , p.250.

New Jersey MLTSS Compared with Other States.[69] Although there were 13 states in the first round of the NCI-AD™, only 5 included MLTSS programs: Delaware, Minnesota, New Jersey, Tennessee and Texas. Tennessee's MLTSS results include nursing home residents. Many results are risk adjusted for age, gender, race, rurality, whether the person lives in his/her own home versus somewhere else, whether the person lives alone, mobility, assistance needed for everyday activity, assistance needed for self-care, overall health, and whether the Proxy version of the survey was used (NCI-AD™ 2015-2016 National, p.255). For most measures, New Jersey was somewhere in the middle. Margins of error for estimates were 2%-3% for Minnesota, Tennessee, and Texas; about 4% for New Jersey, and 9% for Delaware.[70]

Member Differences. There were several items that seemed to denote relevant differences between New Jersey MLTSS members and those in the 4 other states.

- Age - New Jersey serves a higher proportion of people who are age 90 and over (18% of NJ MLTSS versus 5%-14% for others, NCI-AD™ 2015-2016 National, Table 2).
- Family support - New Jersey MLTSS members were more likely than those in other states to say that a family member (paid or unpaid) was the person who helped them most (52% versus 32%-43% for others, NCI-AD™ 2015-2016 National, Table 50, risk adjusted).
- Comfort after hospital/rehab discharge – perhaps because of family support, or perhaps because of differences in coverage of hospital/rehab stays, New Jersey MLTSS members were more likely to report feeling comfortable and supported enough to go home after discharge from a hospital or rehabilitation facility in the past year (93%, versus 79%-89% for others, NCI-AD™ 2015-2016 National, Table 53, risk adjusted).
- Activities outside home - New Jersey MLTSS members were less likely than members in 3 other states to say that they were able to do things they enjoyed outside their home when and with whom they wanted (64%, versus 64%-78% for others, risk adjusted, NCI-AD™ 2015-2016 National, Table 23). The reasons why people were unable to participate were not broken down by program, but when comparing New Jersey with the other states having MLTSS programs, the only items New Jersey residents of all surveyed programs were more likely to cite than other states were transportation (49% versus 35%-45% for the 4 other states with MLTSS programs, NCI-AD™ 2015-2016 National, Table 24) and "other." When MLTSS members were asked about transportation, New Jersey respondents were the 4th lowest (ahead of Texas) with respect to doing things outside the home (73% versus 76%-82% for the 3 highest (70% for TX), risk adjusted, NCI-AD 2015-2016 National, Table 57) and the lowest with respect to medical appointments (90% for NJ versus 92%-97% for others, risk adjusted, NCI-AD™ 2015-2016 National, Table 58). Transportation is an often cited complaint among stakeholders.

[69] Page numbers and table references in this section refer to the NCI-AD 2015-2016 National Report.
[70] See p.55 in http://nci-ad.org/upload/reports/NCI-AD_2015-2016_National_Report_FINAL.pdf.

Access to Primary Care and Equipment/Modifications. New Jersey's MLTSS members frequently reported better access to primary care and equipment than other states. Table 8 lists survey items where New Jersey appeared to be different from at least 3 other states (based on simple differences and not statistical testing). One exception to the generally positive pattern is the general "other" category of equipment, as noted below (NCI-AD™ 2015-2016 National, Tables 90 and 91). There were other relevant items where New Jersey was somewhere in the middle, and we did not include those here in the interest of space.

Table 8: Access to primary care, equipment and modifications, MLTSS members, NCI-AD™ 2015–2016 National

Survey Item	New Jersey	Range, other states	NCI-AD™ Table
Can get appointment with primary care doctor when needed	92%	81%-90%	103
Had physical exam/wellness visit in past year	89%	72%-86%	105
Discussed forgetfulness with doctor or nurse (if forgot things more often in past year)	70%	51%-58%	114
Know how to manage their chronic conditions (if present)	93%	86%-91%	56
Need grab bars	8%	9%-20%	60
Need bathroom modifications	5%	6%-16%	62
Need specialized bed	4%	5%-10%	64
Need walker upgrade	4%	4%-10%	75
Need scooter	4%	6%-16%	76
Need cane	1%	2%-5%	78
Need hearing aids	7%	7%-13%	82
Need communication device	2%	3%-5%	86
Need other device	9%	3%-9%	90
Need upgrade to other device	5%	1%-3%	91

Notes—included here are measures where New Jersey appeared different than other states (no statistical testing was done). Other states are DE, MN, TN, TX. The need questions specify that the consumer has an unmet need.
Source: Accessed June 6, 2017 from http://nci-ad.org/upload/reports/NCI-AD_2015-2016_National_Report_FINAL.pdf.

Care Management/Services. Table 9 notes several items relevant to MLTSS services and care management, which we know are of great interest to stakeholders. New Jersey did not differ from the other states with respect to services meeting needs or extent of self-direction. On most related measures, New Jersey was somewhere in the middle. However, New Jersey was the most positive with respect to the extent to which care managers discussed services to help with any unmet needs (and this was not due to NJ members having higher levels of unmet needs). On a

less positive note, NJ members were more likely to say that their paid support staff changed too often, and less likely than respondents in 3 other states to say that someone discussed job options with them (if a job was desired).

Table 9: MLTSS services and care management, MLTSS members, NCI-AD™ 2015–2016 National

Survey Item	New Jersey	Range, other states	NCI-AD™ Table
Services met all needs and goals	71%	62%-73%	45
Participating in self-directed option	11%	5%-41%	127
CM talked to person about services that might help with unmet needs and goals*	71%	42%-62%	47
Paid support staff change too often	43%	17%-36%	37
Someone talked to person about job options (if job wanted)*	8%	8%-25%	132

Notes—included here are measures where New Jersey appeared different than other states (no statistical testing was done). Other states are DE, MN, TN, TX.
*These questions were asked of a selected sample of those who responded to a previous question in a certain way.
Source: Accessed June 6, 2017 from http://nci-ad.org/upload/reports/NCI-AD_2015-2016_National_Report_FINAL.pdf.

Mental Health. New Jersey was noticeably low in the proportion of MLTSS enrollees with a mental health-related diagnosis (27%, compared with 41%-55% for the others, not risk adjusted, NCI-AD™ 2015-2016 National, Table 16). New Jersey did not differ from other states in the extent to which MLTSS members took medications for sadness or depression (42%, versus 39%-43% for others, risk adjusted, NCI-AD™ 2015-2016 National, Table 115). However, NJ MLTSS members were less likely to say that they had discussed their depression with anyone else (49%, versus 65%-71% for others).[71] The others with whom they could discuss sadness or depression included friend, family member, doctor or nurse. Results for all program respondents for states with MLTSS programs showed that New Jersey lagged the four other states with respect to all potential confidant categories (NCI-AD™ 2015-2016 National, Table B57, not limited to MLTSS or risk adjusted): friends (5%, versus 8%-26% others), family (9%, versus 12%-28% others), and doctors/nurses (20%, versus 24%-49% others)

Differences among New Jersey's Long-Term Care Programs. The national report offers the opportunity to compare MLTSS respondents as a group with those from New Jersey's other long-term care programs, with risk adjustment for some measures. Our focus is on how MLTSS relates to other programs in key areas and where MLTSS differs from other programs—if a different program stands out, we generally do not discuss this. We should also note that, as we show in

[71] NJ MLTSS members were equally likely to say that they were lonely, said or depressed (risk adjusted, NCI-AD™ 2015-2016 National, Table 31, NJ 54%, others 50%-57%).

the next section, there is some variability by MCO (and probably in other ways as well) in participant profiles and experiences. This is undoubtedly true for the other categories as well—PACE may differ from site to site, as may the experiences of those in nursing homes or receiving Older Americans Act services.

In addition to about 100 members for each MCO enrolling MLTSS members, fee-for-service nursing home residents were also included as a separate category in the NJ NCI-AD™, as were (PACE) participants and those receiving Older Americans Act HCBS services (at least one service--including adult day, chore, homemaker, personal care and/or home delivered meals--three or more times per week). Margins of error for estimates are about 4% for MLTSS and about 9% for the other categories, which means that it is difficult to say that there is a true difference among categories unless it is a large difference.[72]

Table 10 shows the number of eligible participants and the number of surveys for each program type. Fee-for-service nursing home residents were the largest population, with Older Americans Act recipients not far behind. MLTSS participants are also numerous. PACE constitutes the smallest group at 840.

Table 10: Eligible participants and NCI-AD™ 2015 surveys, by program (New Jersey)

Program	Number of surveys	Number of eligible participants
MLTSS/HCBS (4 MCOs)	415	11,893
Older Americans Act	104	17,853
Program of All-Inclusive Care for the Elderly	101	840
Nursing Home Residents (FFS)	104	20,202
Total	727	50,788

Source: http://nci-ad.org/upload/reports/NCI-AD_2015-2016_National_Report_FINAL.pdf p.42.

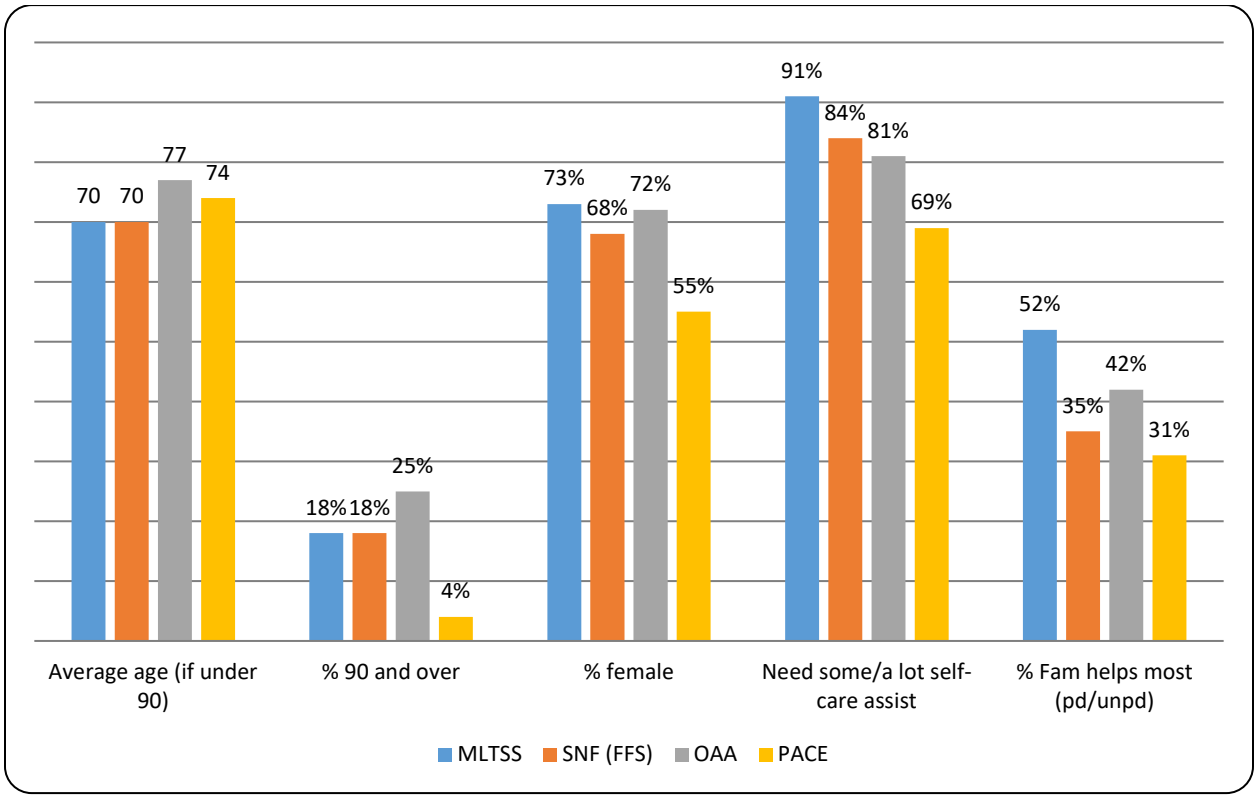
Demographics, Assistance Needs, and Who Helps Participant. As shown in Figure 19, Older Americans Act (OAA) recipients are a bit older than those in other programs. PACE has a lower percentage of participants who are 90 and over. PACE enrollees are more likely to be male compared with other programs. PACE also has a different racial/ethnic composition than the other programs--46% of PACE participants are Black or African/American, compared with 21% average overall (race/ethnicity not shown in figure). PACE also has a higher percentage of

[72] See p.55 in http://nci-ad.org/upload/reports/NCI-AD_2015-2016_National_Report_FINAL.pdf.

Hispanic or Latino participants than average (19% versus 8% average overall).[73] PACE also has fewer participants on Medicare than other programs (79%, compared with 93% overall, not shown in figure).[74]

MLTSS leads the group in the percent of members needing assistance with self-care (bathing, dressing, etc.), though it may differ only from PACE considering the estimated margins of error. Nearly all program participants needed help with everyday activities like preparing meals and housework, so we did not show that. MLTSS also leads with respect to the proportion of respondents for whom a family member (paid or unpaid) is the person providing the most help. It is important to keep in mind when reading about differences in experiences or outcomes by program that people are not randomly assigned to programs, and their characteristics influence what programs they choose.

Figure 19: Age, percent female, need for self-care assistance, and extent to which family helps the most, by NJ program (NCI-AD™ 2015)

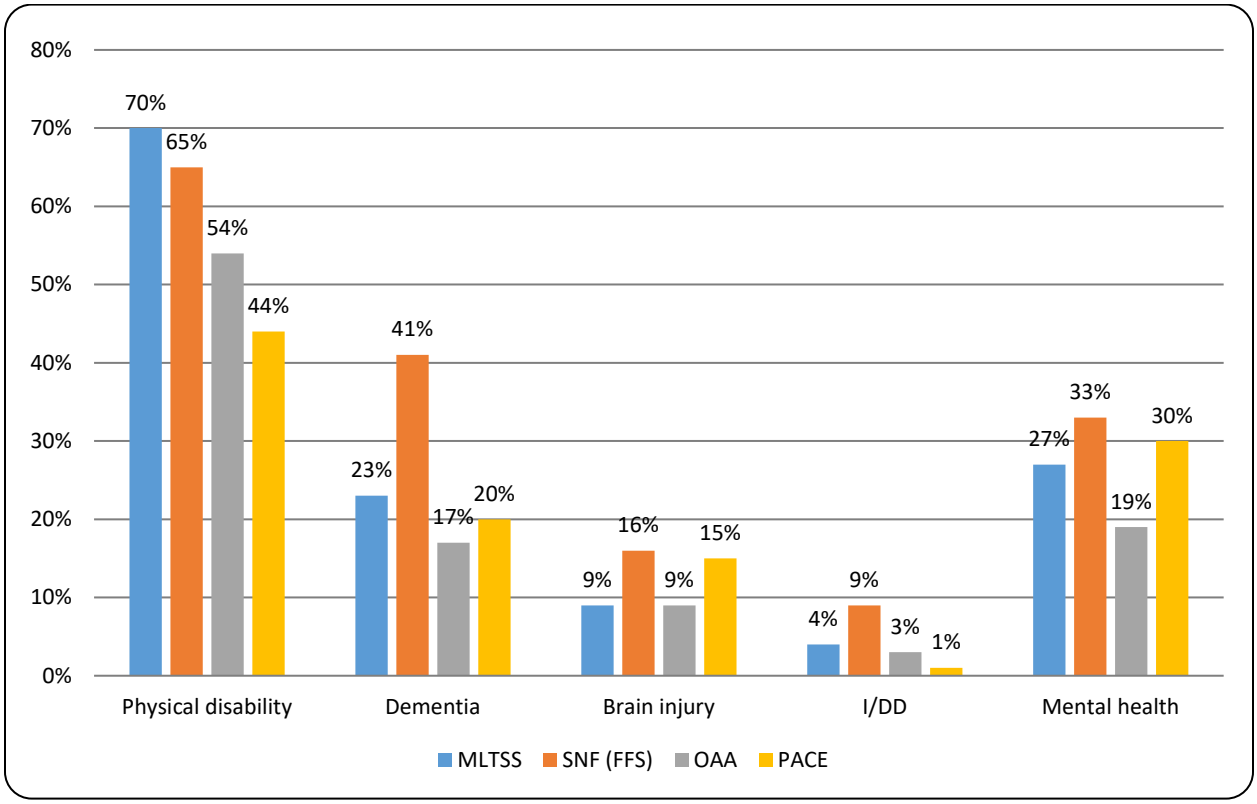


Note: Self-care and source of help are risk-adjusted; others are not.
Source: Tables 1, 2, 3, 136 & 50 in http://nci-ad.org/upload/reports/NCI-AD_2015-2016_National_Report_FINAL.pdf.

[73] Overall race/ethnicity is from Table 4 in http://nci-ad.org/upload/reports/NCI-AD_2015-2016_National_Report_FINAL.pdf ; PACE-specific numbers are from Table 4 in http://nci-ad.org/upload/reports/NCI-AD_2015-2016_NJ_state_report.pdf.
[74] Table 21 in http://nci-ad.org/upload/reports/NCI-AD_2015-2016_National_Report_FINAL.pdf.

Diagnoses. Figure 20 shows diagnoses of participants by program. MLTSS and nursing homes lead in the percentage of participants with a physical disability. Respondents with dementia were about twice as likely to be in a nursing home setting versus other programs. There were smaller differences for respondents with mental health, brain injuries and intellectual or developmental disabilities—with margins of error up to 9%, it's harder to know if these are robust differences.

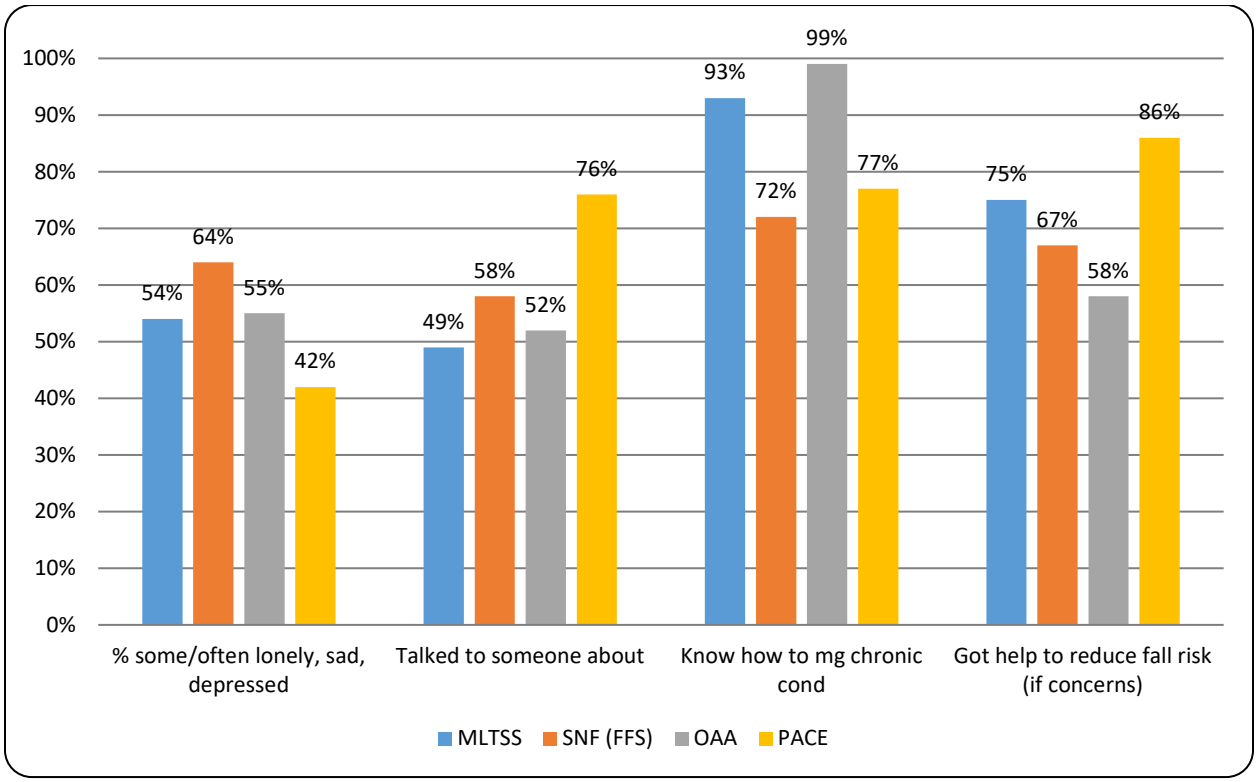
Figure 20: Participant diagnosis by program, NJ (2015 NCI-AD™)



Source: Tables 12-16, http://nci-ad.org/upload/reports/NCI-AD_2015-2016_National_Report_FINAL.pdf.

Depression/Loneliness, Engagement in Care. Figure 21 shows the extent to which participants are sometimes or often lonely, sad, or depressed; the extent to which they have talked to someone (friend, family, doctor or nurse) about their feelings; the extent to which they know how to manage chronic conditions, if they have them, and the extent to which they received help to reduce their risk of falling, if there was a concern about this.

Figure 21: Depression/loneliness and engagement in care by NJ program (2015 NCI-AD™)

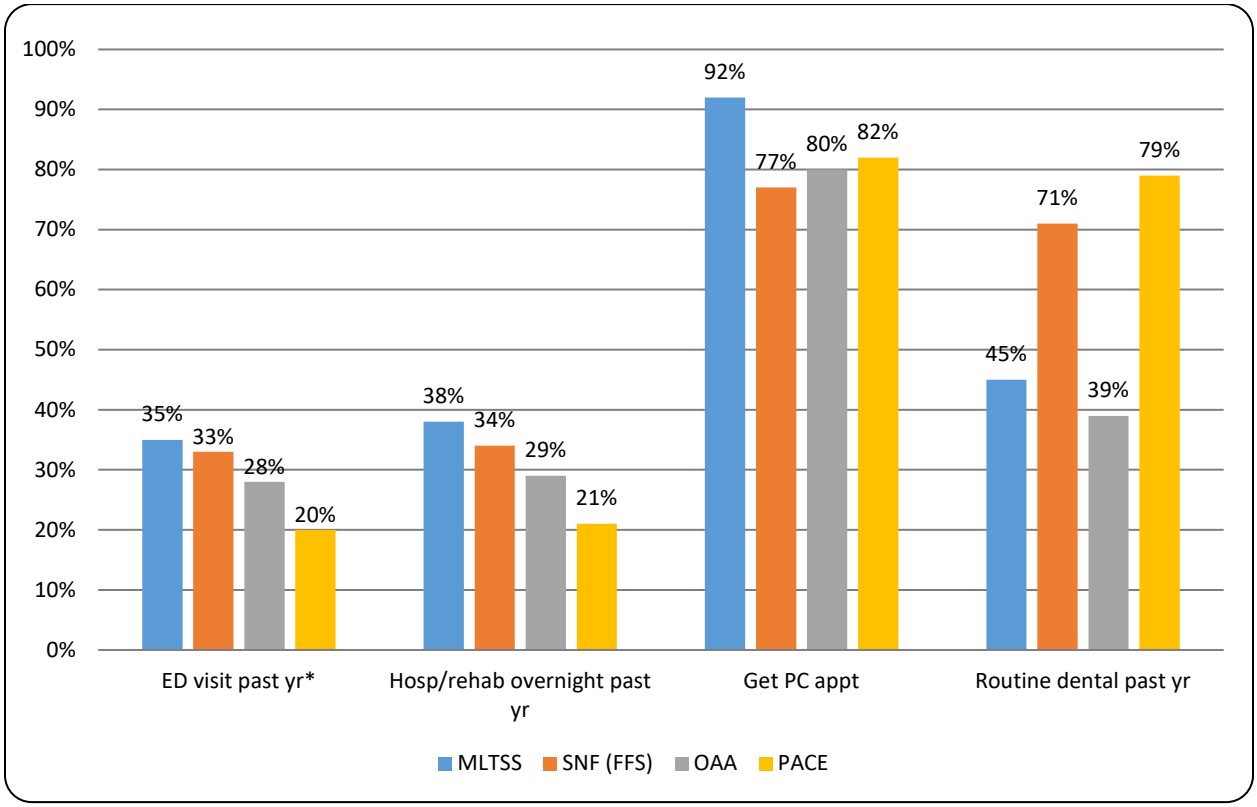


Source: Tables 31, 104, 56 & 97 in http://nci-ad.org/upload/reports/NCI-AD_2015-2016_National_Report_FINAL.pdf.
Note: Depression and knowledge of chronic condition management are risk adjusted; the others are not, though that they were only asked of people for whom the condition existed.

PACE respondents were less likely to know how to manage chronic conditions, but reported less depression and more engagement with respect to talking to someone if they were depressed or lonely, and were the most likely to get help to reduce risks of falling. MLTSS respondents were the second most likely to get help to reduce the risk of falling and more likely than PACE or nursing home respondents to know how to manage chronic conditions. Nursing home residents were the most likely to feel lonely or depressed, but were also a bit more likely to talk to someone about it than MLTSS or OAA respondents.

ED/Hospital Utilization and Primary Care Access/Use. As shown in Figure 22, MLTSS respondents were the most likely to visit the ED or have an overnight hospital or rehab stay in the past year—when taking into account the margin of error for these measures, the difference may be only with PACE, which was the lowest. These measures were risk-adjusted. MLTSS respondents were the most likely to report being able to get a primary care appointment if needed (all groups were very, and about equally, likely to have a primary care provider). However, MLTSS members were less likely than nursing home or PACE participants to have had a routine dental visit in the past year.

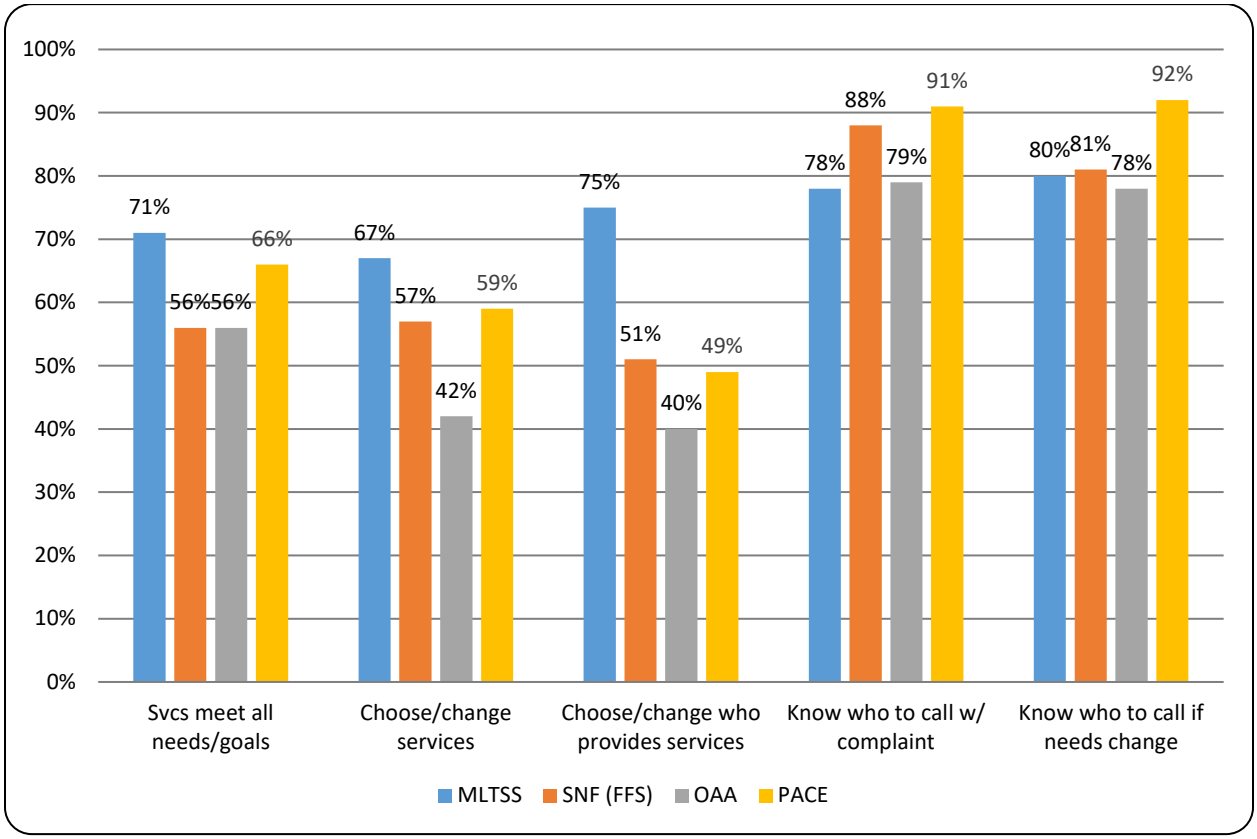
Figure 22: ED/hospital/rehab visits and primary care access/use in past year, by NJ program (2015 NCI-AD™)



Source: Tables 101, 52, 103 & 109 from http://nci-ad.org/upload/reports/NCI-AD_2015-2016_National_Report_FINAL.pdf.
Note: ED and hospital measures are risk-adjusted.

Service Adequacy, Choice, and Care Manager Accessibility. As shown in Figure 23, MLTSS respondents were the most likely to say that their services met all their needs and goals (risk-adjusted)—with the margin of error, PACE and MLTSS may be equivalent. MLTSS respondents were also the most likely to report that they could choose or change their services or who provided the services. They were a bit less likely than respondents in PACE or nursing homes to know who to call with a complaint about their services, and less likely than PACE respondents to know who to call if their needs changed.

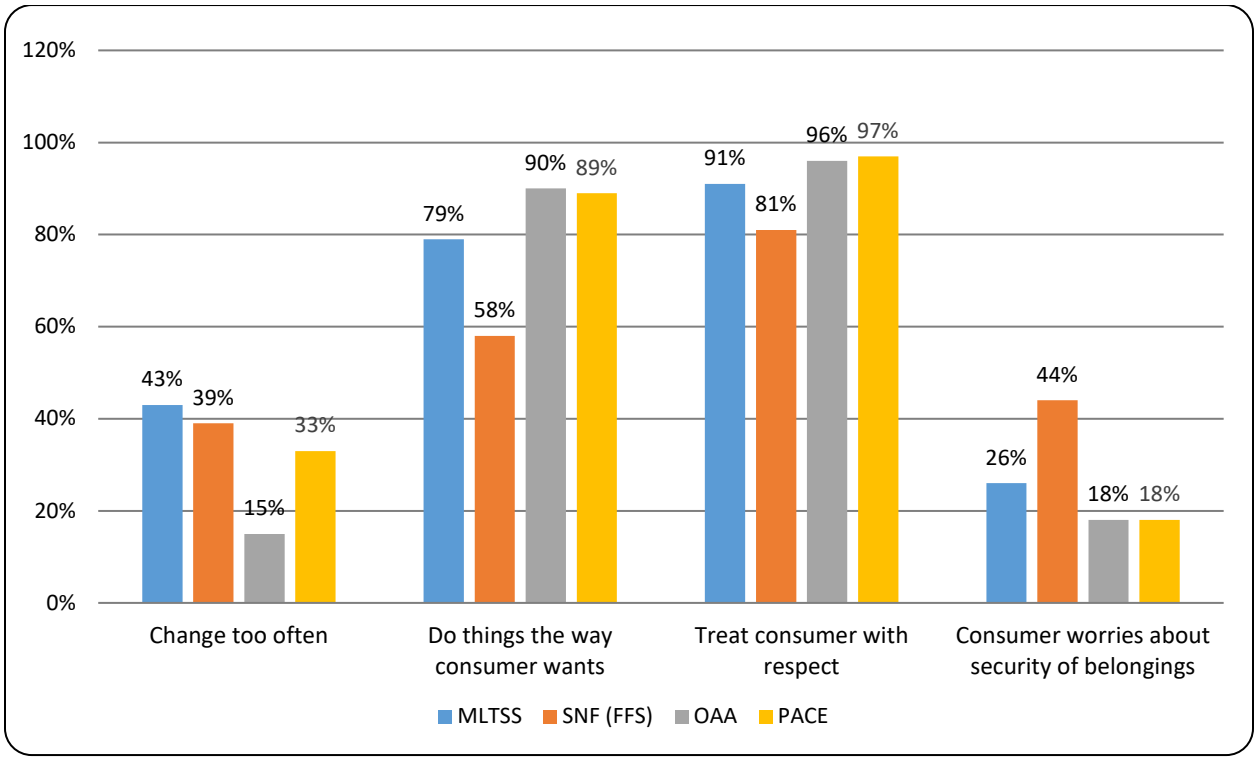
Figure 23: Service adequacy, choice, and care manager accessibility, by NJ program (NCI-AD™ 2015)



Note: only the first measure (services meet all needs/goals) is risk-adjusted.
Source: Tables 45, 128, 129, 39 & 40 in http://nci-ad.org/upload/reports/NCI-AD_2015-2016_National_Report_FINAL.pdf.

Paid Support Staff. As shown in Figure 24, MLTSS respondents were the most likely to say that their paid support staff changed too often (with margins of error, it may be a robust difference only with OAA respondents and a small difference with PACE). MLTSS respondents may be a bit less likely to feel that their paid support staff do things the way they want them to, or treat them with respect, compared with respondents in PACE or OAA, and a bit more likely to worry about the security of their belongings. However, they are more satisfied in all regards than nursing home respondents. These measures are not risk-adjusted.

Figure 24: Satisfaction with paid support staff, by NJ program (2015 NCI-AD™)



Source: Tables 37, 38, 118 & 94 in http://nci-ad.org/upload/reports/NCI-AD_2015-2016_National_Report_FINAL.pdf (not risk adjusted).

Differences among New Jersey MCOs. Unlike in the national report, the detailed New Jersey report does not adjust any results for member characteristics. This makes it impossible to know whether differences between MCOs are due to the services provided by these programs or to characteristics of their members that are not under their control. While the NJ report does not mention margins of error, estimates from the national report would suggest that it is probably about 9% for the sample sizes for each plan. It is important to keep this in mind when viewing these estimates.

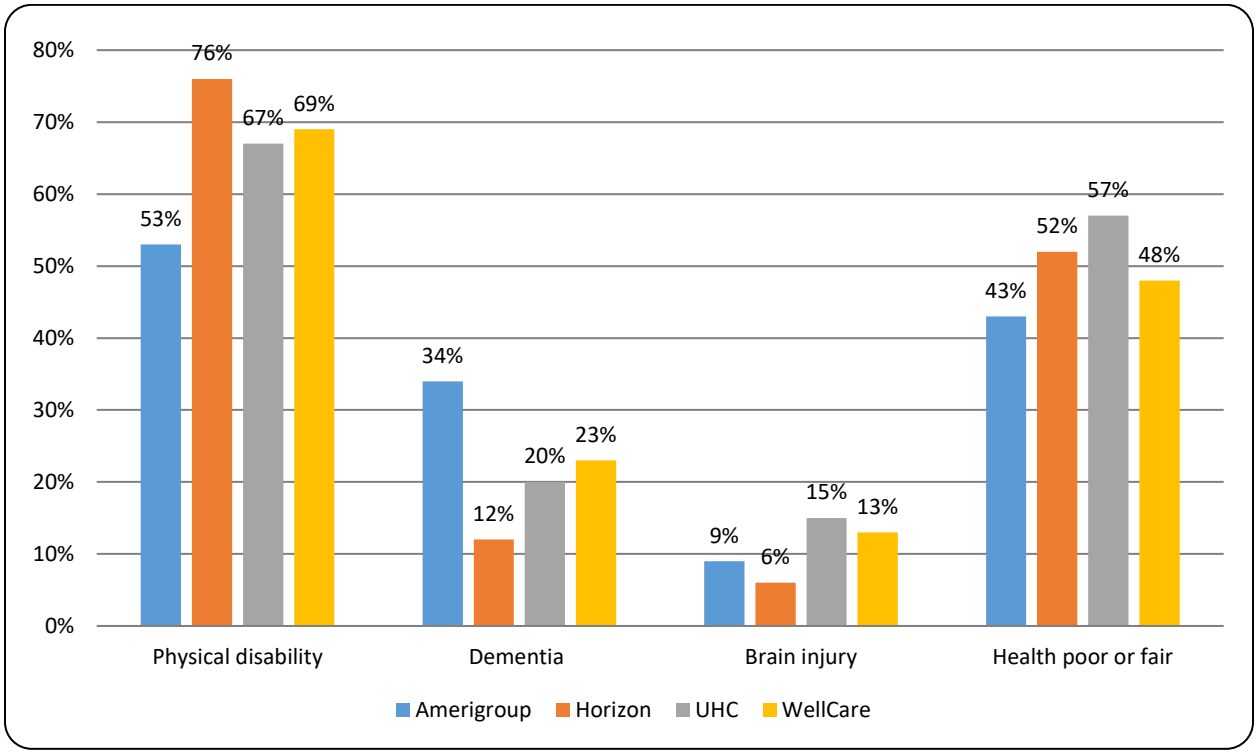
Despite these caveats, it appears that the member profile of the MCOs is different in many cases, and we wanted to show these differences. We also wanted to show that there was, in some cases, variability in how people experience MLTSS in New Jersey by plan—these differences in experience may or may not have to do with factors that are under the plan's control.

MCO Member Diagnoses, Health, and Functioning

- There were some differences in member diagnoses by MCO, as shown in Figure 25. Amerigroup is more likely than the others to serve members with a dementia diagnosis and less likely to serve members with a physical disability diagnosis. United and WellCare were more likely to serve members with a brain injury (traumatic or acquired) diagnosis. United

members were the most likely and Amerigroup members the least likely to rate their health as poor or fair.

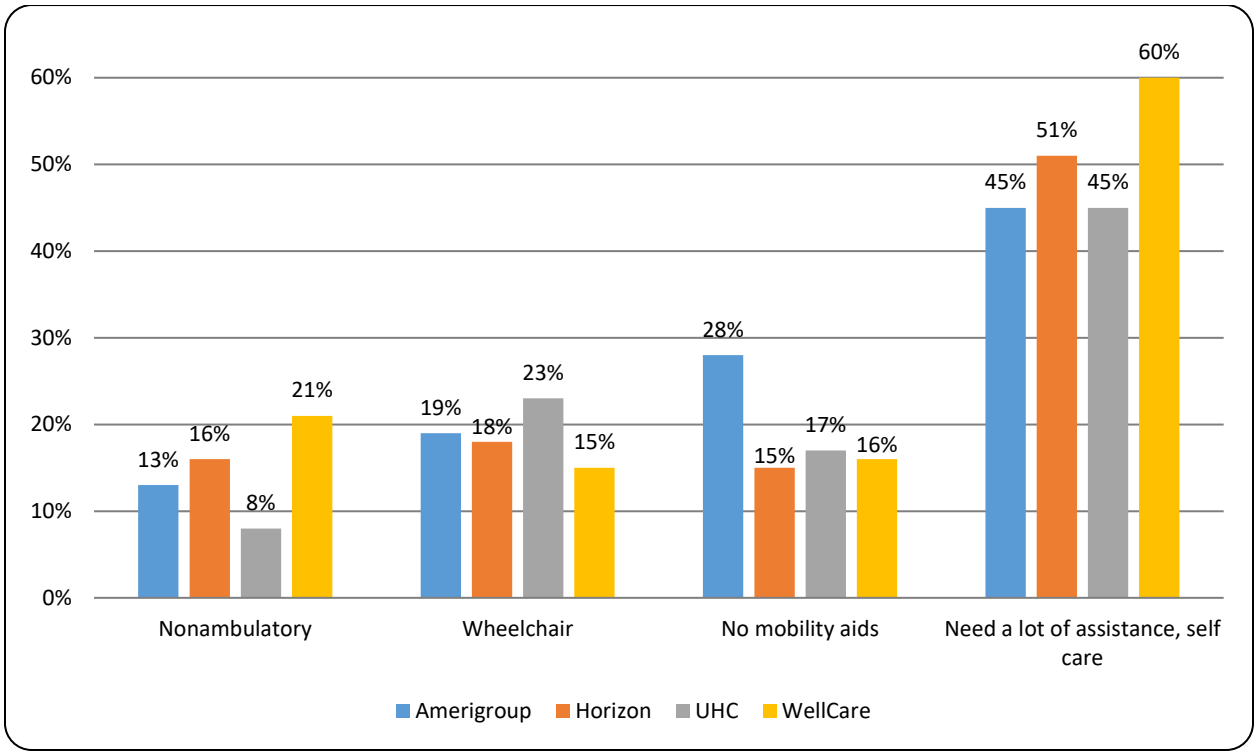
Figure 25: Member diagnosis and health rating, by MCO (2015 NCI-AD™)



Source: NCI-AD™ 2015 Survey (Tables 12, 13, 14 & 944), accessed June 5, 2017 from http://nci-ad.org/upload/reports/NCI-AD_2015-2016_NJ_state_report.pdf.

- There were some differences in member level of mobility, and need for a lot of assistance with activities (versus some or none) as shown in Figure 26. WellCare was somewhat more likely to have nonambulatory members than the other plans (21% versus 8%-16%). Amerigroup had more members who moved with no aids than the other plans (28% versus 15-17%). United was a little more likely to have members who used a wheelchair (23% versus 15%-19% for the others). WellCare members were more likely to say they needed a lot of assistance with self-care (60% versus 45-51% for the others). Patterns were similar for everyday activities (67% for WellCare versus 55-60% for the others, not shown).

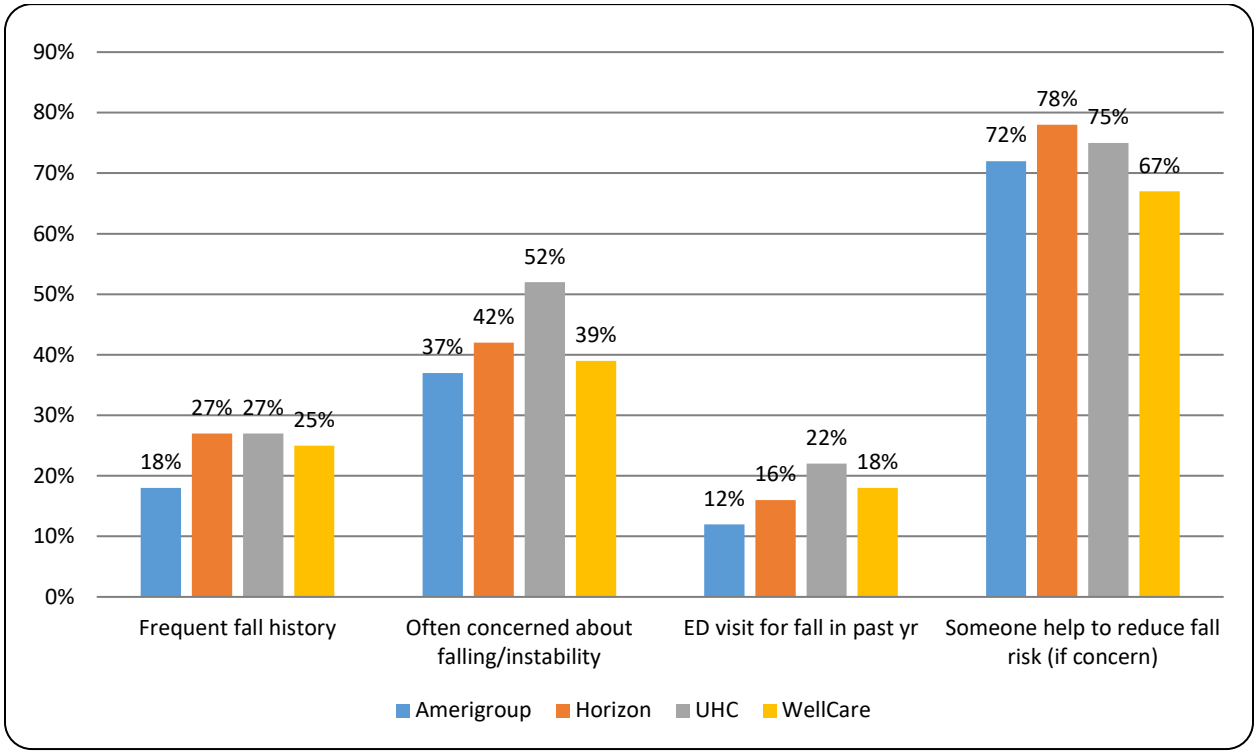
Figure 26: Member mobility and need for assistance with self-care, by MCO (2015 NCI-AD™)



Source: NCI-AD™ 2015 Survey (Tables 19 & 119), accessed June 5, 2017 from http://nci-ad.org/upload/reports/NCI-AD_2015-2016_NJ_state_report.pdf.

- There were differences in MCO members' history of frequent falls, current concerns about falling or instability, and having an ED visit in the past year after a fall, as shown in Figure 27. Amerigroup was a bit less likely to have members with a history of frequent falls (18% versus 25-27% for the others) and ED visits for falls (12% versus 16%-22% for the others), and United had a higher percentage of members who were often concerned about falling (52% versus 37%-42% for the others) and who had an ED visit after falling (22% vs 12%-18% for the others). Two-thirds or more of respondents from all plans reported that someone (not necessarily affiliated with the plan) had worked with them to reduce their risk of falling, if there were concerns about this.

Figure 27: Member history of frequent falls, concern about falls/instability, ED visits for falls, and help to reduce fall risk (if a concern) by MCO (2015 NCI-AD™)



Source: NCI-AD™ 2015 Survey (Tables 20, 79 & 83 and Graph 68), accessed June 5, 2017 from http://nci-ad.org/upload/reports/NCI-AD_2015-2016_NJ_state_report.pdf.

MCO Member Social Context. There are some differences among MCO members that may affect their experiences apart from their MCO membership. Notable differences included:

- A much higher percentage of members claiming Spanish as a primary language for WellCare (35%, versus 8%-12% for the other plans).
- WellCare's members were much more likely to live in their own home or the home of a family member (88%, versus 67% for Horizon, 59% for Amerigroup and 56% for United). The other plans had higher percentages of members in assisted living or other group facilities such as group homes or adult foster homes.
- WellCare's members were also more likely to live with a spouse or partner (30%, versus 11%-16% for the others).
- WellCare's members were the least likely to be able to get to safety quickly in case of an emergency (76%), compared with 90% of UHC's members and 80%-83% of the other MCOs.

There are other differences among MCO members that may reflect characteristics independent of their MCO, but could also be influenced by MCO care management.

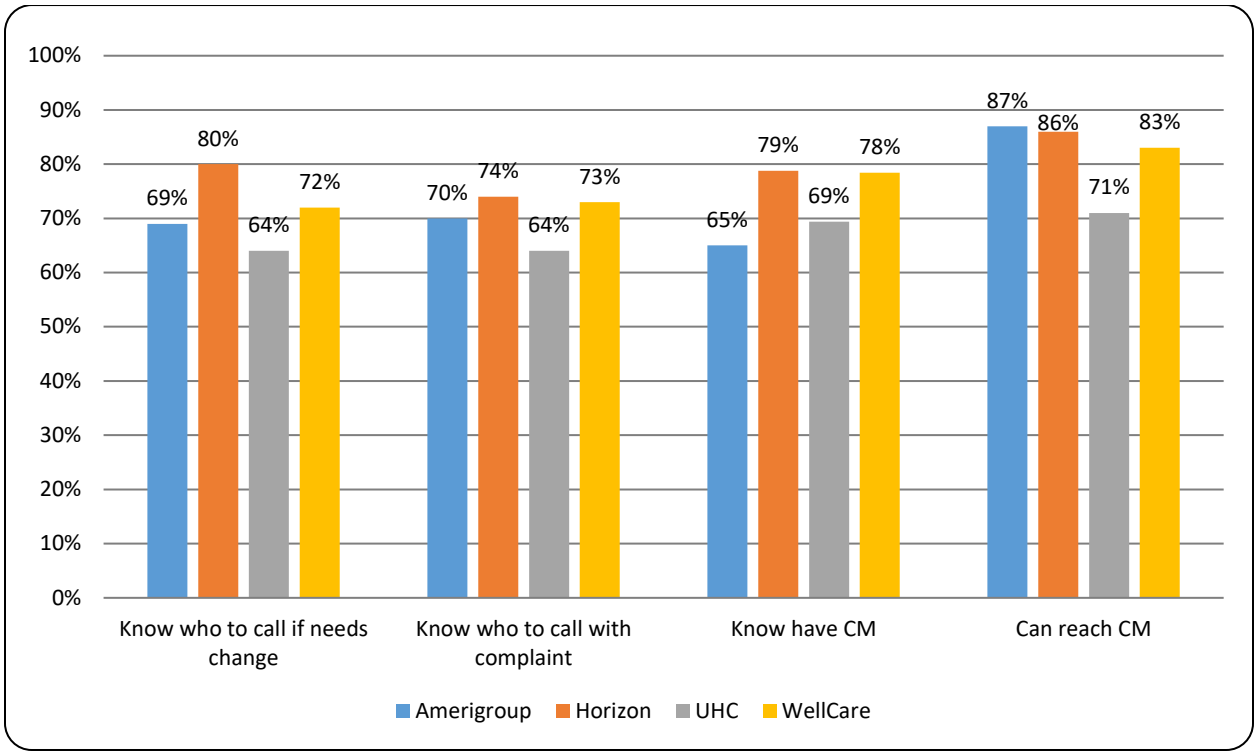
- UHC members were less likely than respondents in any other setting (including nursing facilities) to say that they were able to do things they enjoyed outside their home when and

with whom they wanted to (44% said yes versus sometimes or no, compared with 54% of nursing facility residents and 59%-64% among other MCOs). UHC members also differed in several ways with respect to the reasons they chose regarding not being able to do things they enjoyed outside their home: 14% chose cost factors (versus 3%-6% among other MCOs), 11% chose accessibility/equipment (4%-7% among other MCOs), and 10% chose lack of information (versus 0%-2% among other MCOs). On the positive side, UHC members were the least likely to say they were sometimes or often lonely, sad or depressed (51% versus 56%-61% for other MCOs). They were also the least likely to be on medications for depression (36% versus 41%-49% for other MCOs), so the lack of reported depression was not due to being more likely to be taking medication. However, they were also the most likely to say that they did not feel in control of their life (19%, versus 7%-12% for other MCOs). They were the most likely to say that nobody provided support to them on a regular basis (21%, versus 9%-14% for other MCOs) and least likely to say that the person who helped them most often was an unpaid family member or spouse/partner (29%, versus 35%-46% for other MCOs)—they were also less likely to live with a spouse/partner (11%, compared with 15%-30% for other MCOs). Taken together, these factors may indicate a social support network that is less robust for these members.

Access to Care Management. Depending on their MCO (and possibly other factors such as their level of cognition and whether they had a knowledgeable caregiver), from 64%-80% of respondents knew who to contact if their needs changed and they needed different services or supports, and 64%-74% knew who to call if they had a complaint about their services. From 65%-79% of MLTSS respondents knew that they had a care manager.[75] Of those who knew they had a care manager, from 71%-87% were able to reach them if needed. See Figure 28 for a listing by MCO.

[75] This is not a metric calculated by NCI-AD™ but can be deduced from the numbers of respondents overall (p.24) versus respondents listed in Table 40 regarding whether they are able to contact their case manager (p.139), which was only asked of people who said they had one. However, all MLTSS respondents have a case manager.

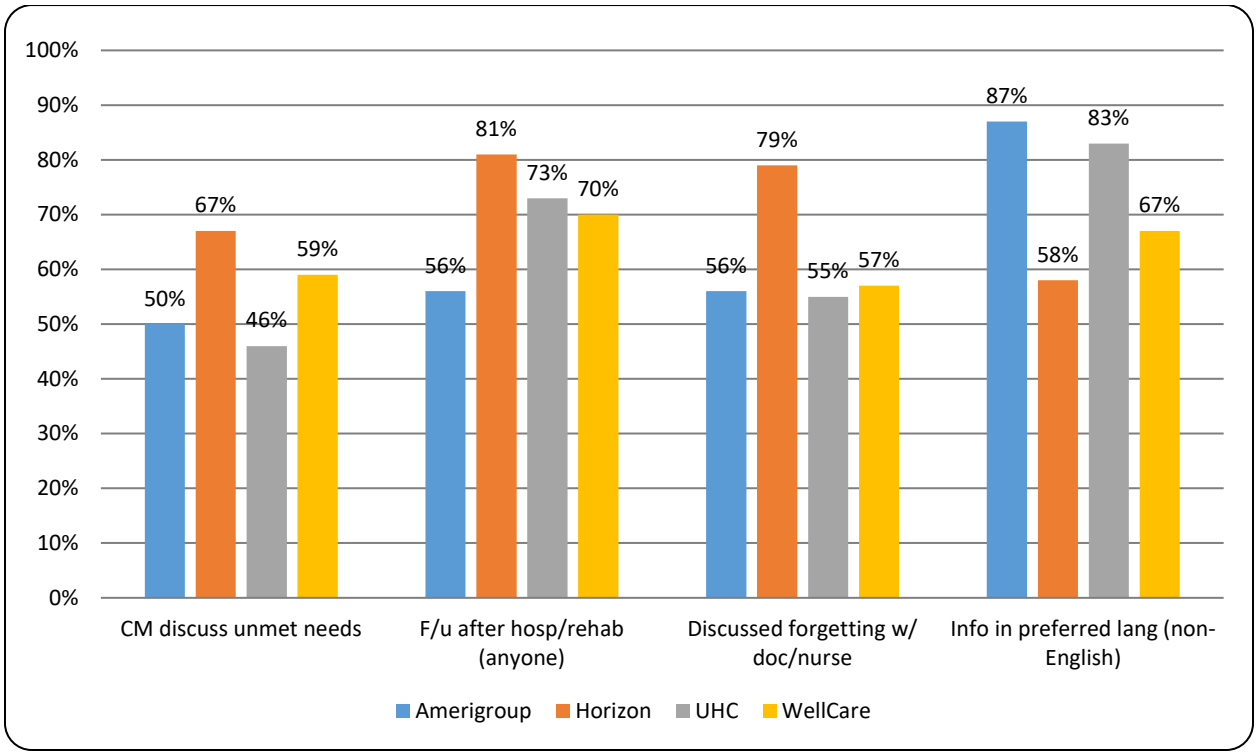
Figure 28: Access to and knowledge of care manager, by MCO (2015 NCI-AD™)



Source: NCI-AD™ 2015 Survey (Tables 38, 39, 40 and p.24 to get the % who know they have a care manager), accessed June 5, 2017 from http://nci-ad.org/upload/reports/NCI-AD_2015-2016_NJ_state_report.pdf.

Member-Specific Needs. Several measures (detailed in Figure 29) address what happens if members have specific needs. All of these measures are based on reduced numbers of between 23 and 54 respondents, so margins of error would be quite large here. While care manager discussion of unmet needs and getting information about services in the member's preferred language refer to the MCO, the others (follow-up by someone after a hospitalization, and whether the member or someone has discussed their increased forgetfulness, if this is an issue, with a nurse or doctor) may refer to providers who are not employed directly by the MCO. Member or caregiver motivation/activation may play a role in some of these as well in terms of asking for assistance.

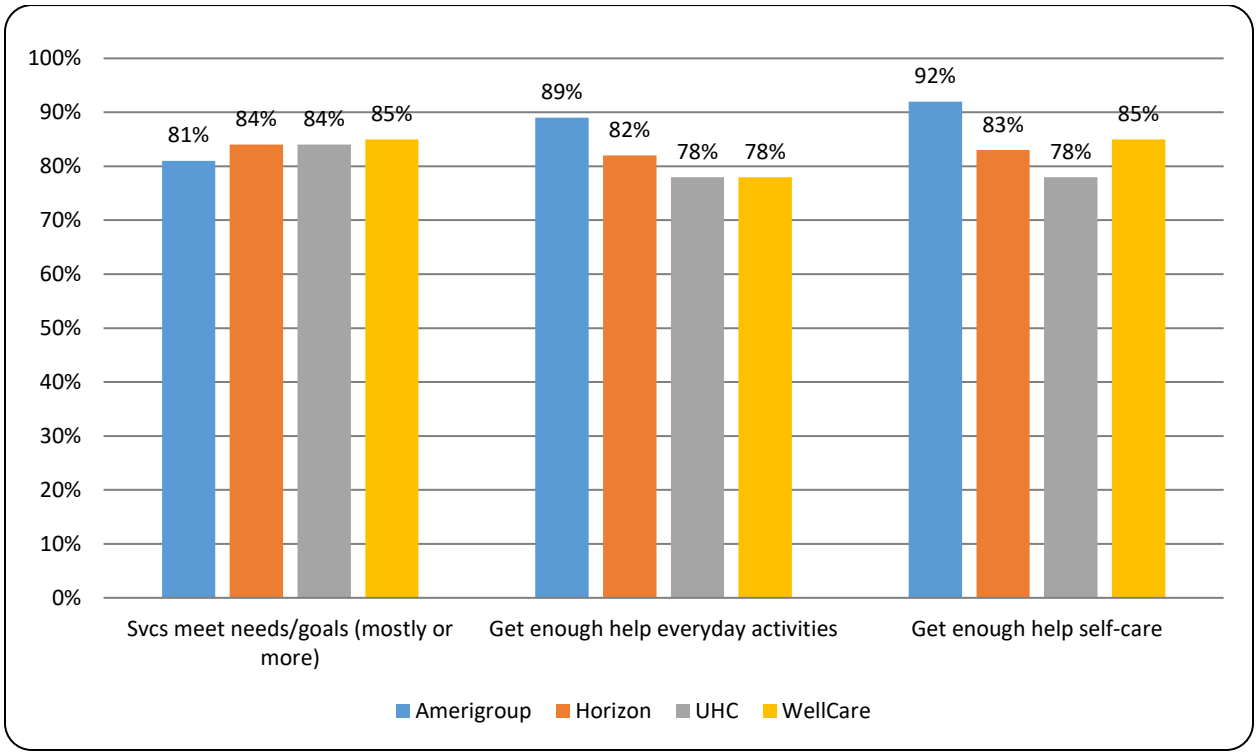
Figure 29: Member-specific needs, by MCO (2015 NCI-AD™)



Source: NCI-AD™ 2015 Survey (Tables 47, 52 & 97 and Graph 30), accessed June 5, 2017 from http://nci-ad.org/upload/reports/NCI-AD_2015-2016_NJ_state_report.pdf.

Service Adequacy. More than 80% of respondents in all plans said that services mostly or completely met their needs and goals. They were asked separately whether they always got enough assistance with everyday activities and self-care (from paid or unpaid helpers). At least 78% said they always got enough help. Figure 30 shows these measures by plan—there aren't large differences here, given the margins of error.

Figure 30: Adequacy of services and assistance to members, by MCO (2015 NCI-AD™)

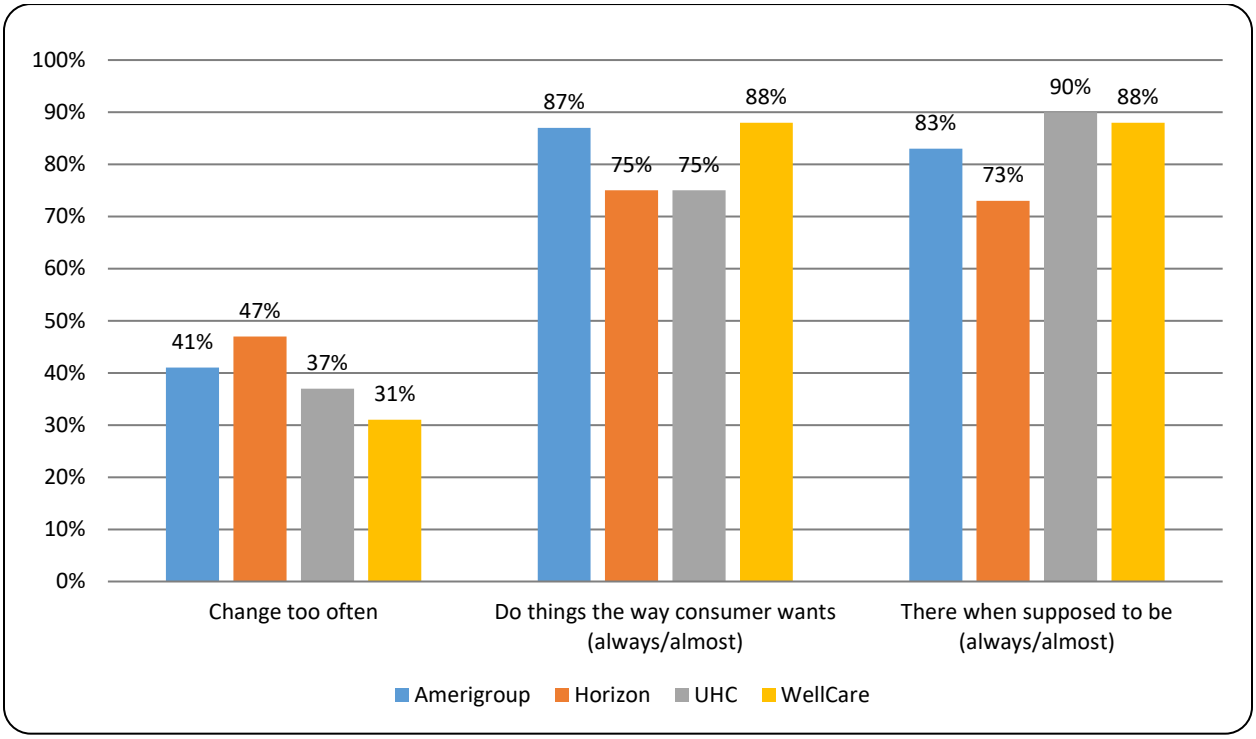


Source: NCI-AD™ 2015 Survey (Tables 44, 118 & 120), accessed June 5, 2017 from http://nci-ad.org/upload/reports/NCI-AD_2015-2016_NJ_state_report.pdf.

Paid Support Staff. Respondents were asked a number of questions about paid support staff—with respect to whether they changed too often, did things the way consumers wanted them done, arrived and left when they were supposed to, if consumers felt safe around them with respect to self and belongings, if consumers had money taken or used without permission, and if consumers were treated with respect. There weren't large differences for the safety and respect questions by plan, so we did not create a figure for them. Ninety-two percent or more of MLTSS respondents felt safe around their paid support staff, and 89% felt treated with respect.[76] At least 70% never worried about the security of their personal belongings and at least 82% never had money taken or used without permission.[77] Figure 31 presents some areas where there were larger differences. Between 31% and 47% of respondents thought paid staff changed too often; 75%-88% felt paid support staff did things the way consumers wanted them done; and 73%-90% of respondents thought staff arrived and left when they were supposed to.

[76] See Tables 76 and 101 in http://nci-ad.org/upload/reports/NCI-AD_2015-2016_NJ_state_report.pdf.
[77] See Tables 77 and 78 in http://nci-ad.org/upload/reports/NCI-AD_2015-2016_NJ_state_report.pdf.

Figure 31: Member ratings of paid support staff, by MCO (2015 NCI-AD™)



Source: NCI-AD™ 2015 Survey (Graph 11 and Tables 37 & 41), accessed June 5, 2017 from http://nci-ad.org/upload/reports/NCI-AD_2015-2016_NJ_state_report.pdf.

Discussion

The share of the Medicaid population receiving long-term services and supports in community settings has increased steadily since MLTSS implementation, and few individuals enrolled in former HCBS waiver programs who transitioned to MLTSS have moved to nursing homes.

Timeliness of clinical eligibility assessments for people enrolling into MLTSS as well as anyone at risk of entering a nursing home has shown improvement since the inception of MLTSS, but there is still room for improvement. Because nursing home stays tend to deplete people's financial resources quickly, the state requires that clinical eligibility be established for all people who are expected to enter a nursing home, whether or not they are currently financially eligible for Medicaid. There are discussions about revising this quality metric to more closely track people who are enrolling into MLTSS.

External quality review audits show a mixed picture, with some improvements and some declines in the quality of audited files from Year 1 to Year 2 of MLTSS. It is not always obvious how audit benchmarks indicate quality as experienced by consumers.

Critical incidents, appeals/grievances/complaints, and fair hearings appear to affect relatively small numbers of enrollees. Critical incidents are reported in a timely fashion. Appeals/grievances and complaints filed internally with MCOs appear to be responded to in a timely way, but MCOs overwhelmingly uphold their original decisions (more than 90% of the time). Appeals by individuals using or requesting private duty nursing services may be more prevalent than other types of appeals, but it is not possible to calculate an exact percentage (see discussion on page 34).

Individuals transitioned out of nursing facilities to community settings seem able to stay in the community, and those who move from the community to nursing facilities seem to stay there long-term as well. Transitions between settings tend to be problematic for individuals' health, so this stability is positive from that perspective.

CAHPS® survey results show that MLTSS enrollees are similar to other adult enrollees in their ratings of their health plan and providers. This is reassuring given the variety of new processes and services that health plans have undertaken for this group of enrollees.

NCI-AD™ surveys among MLTSS enrollees in New Jersey and four other states found that New Jersey respondents were equally likely to report that their services met their needs and goals, were more likely to have a case manager to discuss unmet needs, and to report access to primary care services, equipment and modifications' MLTSS, but were also more likely to think that their paid support staff changed too often.

Within New Jersey's long-term care service programs, MLTSS members' responses to the NCI-AD™ showed that they perceived more choice in their services and were equally or more likely to think that their services met their needs. However, they were also the most likely to think that their paid support staff changed too often.

Comparing responses to the NCI-AD across MCOs showed some differences in the kinds of members served by MCOs, which may affect their experiences with MLTSS.

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Chapter 3: Analysis of Medicaid Claims Data to Examine Access to Care, Quality, and Cost of Care: Assessing Avoidable Hospital Use, Readmissions, Behavioral Health Care, and Ambulatory Visits in Managed Care and MLTSS

Introduction

In this chapter, we assess the impact of the expansion of managed care to Long Term Services and Supports (LTSS) and behavioral health (for selected LTSS-eligible populations) by examining measures of access to care, quality of care, and cost of health care for NJ Medicaid beneficiaries calculated from Medicaid fee-for-service (FFS) claims and managed care encounter data over 2011-2015. We examine the effects of the policy change on the targeted LTSS-eligible population, and we also examine potential changes in the quality of care for the entire managed care population as a result of this expansion in the services. All effects are identified by examining changes in selected quality metrics from the pre- to the post-implementation period of the MLTSS program. Finally, we compare selected utilization trends in Medicaid to trends in New Jersey overall during the waiver demonstration period.

Our research strategy is guided by the Division of Medical Assistance and Health Services (DMAHS) Quality Strategy (DMAHS 2014b) which includes quality issues relevant to the expansion in managed care and more generally, guides the State's healthcare monitoring, assessment, and improvement efforts for all Medicaid managed care services. The following goals are put forth in the Quality Strategy:

To improve timely, appropriate access to primary, preventive, and long term services and supports for adults and children;
To improve the quality of care and services;
To promote person-centered health care and social services and supports;
To assure member satisfaction with services and improve quality of life.

These goals align with the specific evaluation hypothesis and research questions enumerated in the waiver Special Terms and Conditions document (CMS 2014) relating to the managed care

expansion. These evaluation aims guide our selection, analysis, and presentation of claims-based metrics in this chapter:[78]

Hypothesis 1: **"Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions.";**

Research Question 1a: **"What is the impact of the managed care expansion on access to care, the quality, efficiency, and coordination of care, and the cost of care for adults and children?"**
Research Question 1b: **"What is the impact of including long-term care services in the capitated managed care benefit on access to care, quality of care, and mix of care settings employed?"**

To answer and address these research questions, we examine changes over time of specific metrics for the overall Medicaid and Medicaid managed care populations. Examining potential changes across all managed care beneficiaries examines overall adherence to the Quality Strategy by Medicaid managed care organizations (MCOs) undertaking the MLTSS reforms and provide the evidence needed for answering Research Question 1a. These findings also supplement those presented in Chapter 1. We also examine selected metrics for specific groups of Medicaid beneficiaries targeted by the managed care expansion. These are groups of long-term care (LTC) beneficiaries meeting an institutional level of care and residing either in a nursing facility or in their homes and communities under the former §1915(c) waiver programs or, after July 1, 2014, under MLTSS. These subpopulation analyses supplement the findings presented in Chapter 2 and provide the evidence needed for answering Research Question 1b. Finally, exploring trends in metrics between Medicaid and NJ overall (based on all-payer data) helps put Medicaid findings in the context of broader health system patterns in the state. It informs us whether some of the observed changes are potentially due to broader policy changes beyond Medicaid in that their effects are reflected in both Medicaid and all-payer data. It also sheds light on whether quality trends among Medicaid patients are different from those having other insurance. This provides information that further informs our analyses around Research Question 1a with the caveat that these findings are not adjusted for patient or provider characteristics and do not exclusively relate to the managed care population.

In contrast to Chapters 1 and 2 where the data characterizing the Medicaid population come from secondary sources, here we calculate selected metrics using Medicaid claims data for populations of Medicaid beneficiaries, including the LTC population, and additionally those who

[78] Separate from this report we have also presented findings from stakeholder interviews that sheds light on member satisfaction and potential provider and payer issues that may not be captured in some of the claims-based metrics. Member satisfaction related to the overall managed care population is also analyzed in Chapters 1.

had a behavioral health (BH) diagnosis. Stratification of quality metrics to these specific subpopulations contributes to answering Research Questions 1a and 1b and more generally, Hypothesis 1. These results thus examine any indirect effects of MLTSS implementation on the quality of care for the overall Medicaid managed care population, and additionally, the direct effects of the MLTSS policy on the LTSS-eligible population that includes effects from integration of physical, behavioral, and long-term care services under MCOs. Further, the findings reveal any early effects[79] of the reforms in behavioral health care delivery (for populations outside MLTSS) authorized under the Waiver and falling under the purview of Hypothesis 1.

Broadly, this chapter is divided into three sections. Section A contains tables with annual estimates of selected quality metrics. Section B contains multivariate regression analyses that use statistical techniques such as Segmented Regression Analysis and Difference-in-Differences Modeling (see Methods section for details) to account for individual, geographic and provider characteristics while identifying the impacts of the managed care expansion under the Waiver. Section C descriptively compares trends of selected quality and utilization metrics for Medicaid and NJ overall.

Methods

Data Sources

The analyses in this chapter were generated using Medicaid FFS claims and managed care encounter data for January 1, 2011 through January 31, 2016. We used recipient and claims-level information to allow for stratification of quality metrics to relevant subpopulations. All utilization and spending estimates reflect claims adjustments and updates through a minimum of 6 months from the date of service. We also use the publically available New Jersey State Health Assessment Data (NJSHAD) query tool for estimates of statewide hospital utilization from 2011 to 2015 (OHCQA 2017).

Metrics

The metrics in this chapter are monthly, quarterly or annual estimates over the period 2011–2015[80] and can be broadly organized into several categories of outcomes: avoidable hospital use reflecting inadequate quality of ambulatory care; hospital readmissions that may reflect inadequate inpatient and outpatient care as well as gaps in care coordination; and rates of follow-up care in the post-acute phase that may reveal gaps in care coordination or care transition. We also examine spending relating to hospital use overall, avoidable hospital use, and total spending

[79] It was not until July 2015 when an Interim Managing Entity for addiction services was operationalized.

[80] While the waiver demonstration period starts on October 2012, our analytic findings here are based on full calendar years so that our estimates are not driven by seasonality differences.

by the LTSS-eligible population. We examine whether the share of this last category of spending between community-living beneficiaries and those staying in nursing facility changes over time focusing on specific components of spending such as those relating LTSS services and avoidable/preventable hospitalizations. These cost trends illustrate savings potentially realized from increased efficiencies in care delivery and assess progress in rebalancing spending from institutions to the community under MLTSS. Appendix A contains additional details on each of these measures.

Table A outlines the broad categories of metrics calculated using the Medicaid FFS claims and managed care encounter data. Metrics 1-4 are population-based and rates are assessed per unit population. Metrics 5-7, on the other hand, are based on index events that arise in a hospital setting. Metrics 8-11 measure costs and are assessed overall and per unit population.

Table A: Metrics related to quantitative evaluation of Hypothesis 1

	Metrics	Description/Motivation
	Utilization	
1	Prevention Quality Indicators (ages 18+)	Ambulatory care sensitive hospitalizations by adults that reflect inadequate community-level care.
2	Pediatric Quality Indicators (children 6-17)	Ambulatory care sensitive hospitalizations by children that reflect inadequate community-level care.
3	Avoidable emergency department (ED) visits (all ages)	ED visits that occur due to inadequate access to primary care.
4	Hospital utilization (all ages)	Inpatient and hospital emergency department utilization.
5	30-day readmissions (ages 18+)	All-cause unplanned readmissions following all hospital admissions and following hospital admissions specifically for heart failure, pneumonia, and acute myocardial infarction. All of these may reflect gaps in inpatient care and/or care coordination following discharge.
6	Follow-up after hospitalization for mental illness (ages 6+)	Follow-up with a mental health practitioner within 7 days and 30 days of an acute care hospitalization for mental illness.
7	Ambulatory visit 14 days after discharge (all ages)	Follow-up with a health practitioner after a hospital stay for medical reasons.
	Cost/Spending	
8	Cost related to avoidable hospitalizations and ED visits	Assesses potential savings by avoiding preventable hospital utilization.
9	Costs related to all inpatient hospitalizations and ED visits	Assess the effects of the managed care expansion on acute care spending overall.
10	Long-term care spending in community and nursing facilities	Spending ratio assesses whether there is rebalancing of resources from the institutional setting to the community.
11	Total spending	Assess any effects on spending including long-term care, non-long-term care, avoidable and non-avoidable.

Table B enumerates the populations for which the above metrics are calculated. It also provides a brief description of the purpose of each population stratification with additional details on definitions and motivations for the stratifications in the narrative below.

Table B: Medicaid populations related to evaluation of Hypothesis 1

Populations	Purpose/Motivation for Inclusion
All beneficiaries	Examine overall trends in quality and costs for the entire Medicaid population.
All managed care (MC) beneficiaries	Examine trends in quality and costs for all beneficiaries in managed care.
Specific Eligibility Categories Aged/Blind/Disabled (ABD), NJ FamilyCare, General Assistance (GA)	Eligibility categories offer a natural stratification for metrics based on disability-impacted health (e.g., ABD), or age and income (ABD, GA) for determining how trends vary based on these beneficiary characteristics.
Beneficiaries with behavioral health conditions	Examine quality of care for these beneficiaries since behavioral health care is carved into MCOs under MLTSS. Additionally, the demonstration plans to transition behavioral health services for all Medicaid beneficiaries out of FFS to management under an ASO.
Long-term care (LTC) beneficiaries	Examine quality and costs of care for beneficiaries directly impacted by the MLTSS demonstration program.
LTC beneficiaries residing in a nursing facility	Examine quality and costs of care for institutionalized long-term care beneficiaries undergoing a modified transition to MLTSS and remaining FFS until the transition is triggered.
LTC beneficiaries receiving home and community-based services (HCBS)	Examine quality and costs of care for community-residing beneficiaries transitioning to MLTSS under the Comprehensive Waiver. This population is comprised of the original §1915(c) waiver populations who had their acute care transitioned to MCOs in 2011 and any individuals joining MLTSS on or after July 1, 2014 and residing in their homes or in the community (assisted living).

Population Definitions

Medicaid Eligibility: Beneficiaries with any period of active enrollment in a particular year, as indicated by the effective dates of their Program Status Codes, made up the beneficiary cohort for that year. If there was any period during the year when the beneficiary had a managed care plan code, the beneficiary was considered part of the managed care population for that year. Assignment to eligibility categories was based on the protocol used for Medicaid's monthly public reporting. Using the first program status code in the calendar year along with age and any concurrent special program codes, each beneficiary was assigned to one of the following categories: Aged/Blind/Disabled, NJ FamilyCare, Children's Services, General Assistance,[81] and Other. Classification into these eligibility groups will allow us to consider differing beneficiary characteristics while assessing the impact of the Waiver on Medicaid beneficiaries overall during the demonstration period.

[81] In 2014, adult beneficiaries enrolling as part of the statewide Medicaid expansion under the Affordable Care Act are classified in the General Assistance eligibility category.

Long-Term Care Population: The Waiver combined several §1915(c) waivers serving people in the community with care needs at an institutional level into MLTSS. The largest historical §1915(c) waiver, Global Options (GO), had served older adults, and three smaller waivers included or targeted younger individuals. The Traumatic Brain Injury (TBI) waiver included people diagnosed with acquired brain injury after age 21 but before age 65. Community Resources for People with Disabilities (CRPD) served individuals of any age, including children, and the AIDS Community Care Alternatives Program (ACCAP) waiver served individuals of any age with AIDS and children under the age of 13 who were HIV positive. In addition to bringing these populations under the MLTSS umbrella, the Waiver also required new entrants to nursing facilities to enroll in MLTSS (residents of nursing facilities at the time of MLTSS implementation remain in a fee-for-service arrangement unless they have a change in the status of their level of care).

We developed an algorithm for defining the LTC population and designating each LTC beneficiary as either part of the nursing facility or home and community-based LTC population.[82] This was done on both an annual and monthly basis. The annual assignment results in a more stably defined cohort[83] and is used in descriptive tables of metrics by year. The monthly assignment is more refined, capturing transitions between different statuses within a year and allowing a more granular categorizing of claims and associated spending for a beneficiary at the time of service delivery. The monthly assignment is used in statistical models. The algorithm for these assignments is detailed in Appendix D.

In both enrollment volume and beneficiary characteristics (e.g. age, health), the original §1915(c) waiver programs (CRPD, ACCAP, TBI, or GO) were distinct. While the original waiver under which HCBS beneficiaries were entitled to services could be identified in 2011-2013, these distinct categories ceased to exist when MLTSS went into effect on July 1, 2014. In order to examine whether there were different trajectories of quality or spending for these four original populations across the interim study period, we isolated a cohort of §1915(c) waiver enrollees by their status in January 2014 and present some metrics for all years for this cohort (as allowed by sample size).

Behavioral Health Conditions: In order to assess coordination of behavioral and physical health services occurring as part of the managed care expansion under the Waiver, we defined the cohort of beneficiaries in each year with a BH condition. Using the AHRQ clinical classifications software (CCS), we scanned all claims for a diagnosis of mental health condition or substance use

[82] The LTC population evaluated in this report does not include PACE enrollees or individuals with developmental disabilities residing in developmental centers or receiving services under the Community Care Waiver, which was carved out of MLTSS. It includes only the MLTSS-eligible populations.

[83] This implies that a LTC-eligible beneficiary who received HCBS services for a small period during the year but was a NF resident for the most of the year would be designated NF resident for that year.

disorder (see Appendix A and Appendix E for additional details). Beneficiaries with any claim flagged using this methodology were considered part of the BH population in the year of the diagnosis.

Metric Definitions: Inclusion and Exclusion Criteria

Each metric has inclusion and exclusion criteria specified by the measure steward. If not already part of the metric specification, we imposed on all metrics (except for total and LTSS/non-LTSS spending) the requirement that a claim was only counted if the beneficiary had been continuously enrolled in Medicaid for at least 30 days preceding the claim date. As stated in our evaluation plan, this criteria eliminates events which might precipitate Medicaid enrollment and confound the effect of the demonstration.

Transition to ICD-10 Coding

Starting in October 2015, all ICD diagnosis and procedure codes transitioned to the ICD-10-CM/PCS coding system. We were able to use metric specifications accommodating the ICD-10 coding system when provided by the measure steward. For some metrics without updated specifications, we employed CMS's general equivalence mapping prepared by the National Bureau of Economic Research (2016). See Appendix A for further details.

Costs

Data on costs come from the payment fields in the Medicaid claims data. We only tabulated costs to Medicaid and Medicaid HMOs incurred via direct payment for services. Payments made by Medicare or from any other source are not included. Capitation payments, which include costs for the organization and procurement of services, are also excluded from totals. Costs for hospital use only reflect facility charges and do not include any physician or lab charges associated with hospitalization or outpatient visits. All costs were inflation adjusted and expressed in year 2012 purchasing power using the Consumer Price Index for medical care from Table 1A (Crawford, Church, and Rippy 2013, 164; Crawford and Church 2014, 165; Crawford, Church, and Akin 2015, 165; Crawford, Church, and Akin 2015b, 145).

Costs for LTSS were collected from both FFS and encounter claims for beneficiaries included in the LTC population (as defined above) for the time of their LTC assignment (which may be monthly or annual depending on analysis). Facility costs were counted from NF FFS claims across the entire study period, and NF encounter claims with a specific custodial revenue code were counted after July 1, 2014. Costs for community-based LTSS were counted on claims having LTSS

service codes as described in the MLTSS Service Dictionary (DMAHS 2014a) and enumerated in the spreadsheet of uniform billing codes shared with us by DMAHS.[84,85]

Reporting Criteria

For Metrics 1-4 and 8-11, which are population-based rates, denominators and estimates are not shown when the denominator for IP hospitalizations or ED visits is less than 50. For the remaining metrics (5-7), denominators and estimates are suppressed when denominators are less than 30.

Analytic Approach

In Section A we calculated and present mostly annual estimates to examine time trends in utilization and spending-related metrics over the period 2011-2015. Specific metrics include annual rates of inpatient hospitalizations and ED visits, rates of avoidable/preventable hospitalizations and ED visits, readmission rates, rates of follow up and ambulatory visits after hospitalization. We also examine categories of spending including that associated with hospital encounters, avoidable/preventable hospitalizations and LTSS-related spending among the nursing facility residents, and community based long term care individuals receiving home and community-based services.

In addition to annual estimates, for examining changes in the share of spending by the LTSS-eligible population between HCBS and NF, we examined monthly estimates of overall spending, LTSS spending, and non-LTSS spending identifying the component related to avoidable/preventable hospital use.

In our discussion of descriptive findings we will focus on the 2015 annual estimates to examine the effect of the MLTSS program on LTSS-eligible beneficiaries or the overall managed care population. The subgroups of interest in regard to Research Questions 1 and 2 will be the overall group of managed care beneficiaries and the HCBS population that shifted to managed care for their long-term care services on July 2014.

It is important to note that for descriptive analyses, observed variation for the metrics between two points in time might sometimes be the result of outliers in the data, small sample sizes within certain subpopulations, or changes in characteristics of the beneficiary population.

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[84] A current version of this spreadsheet is included on the DMAHS website among its MLTSS Resources for Consumers, Providers, and Stakeholders.
http://www.nj.gov/humanservices/dmahs/home/MLTSS_Code_Crosswalk_Old_to_New.pdf.

[85] Medical day care and personal care assistance were both State plan long-term care services that remained unchanged under MLTSS and so were not included in the service code crosswalk spreadsheet. However, we did include costs for these services in our LTSS spending tabulations across the study period.

In Section B, we report findings from multivariate regression analysis conducted to isolate and identify the effect of the managed care expansion policy on the stated outcomes (after adjusting for patient, provider and area-level characteristics). We primarily utilize two statistical techniques, namely Segmented Regression Analysis (SRA) (Wagner et al. 2002) and Difference-in-Differences (DD) estimation (Chakravarty et al. 2015; Ashenfelter and Card 1985) to determine any statistically significant effect of these policies on outcomes. Each statistical technique is distinctively suited to answer one of the two research questions under Hypothesis 1. The SRA is utilized to examine Research Question 1a and the DD is utilized to examine Research Question 1b.

For examining the effect of the MLTSS program on the overall managed care population we utilize the SRA. Such a model assumes that the policy effect leads to a change in level, and also a change in the existing time trend of the metric measuring quality or any other relevant outcome of interest. For our analysis examining the effect of the MLTSS policy on the overall managed care population, we utilize the model described in equation (1)

$$Y_{it} = \beta_0 + \beta_1(time)_t + \beta_2(waiver\ post)_t + \beta_3(waiver\ time)_t + \beta_4(expansion\ post)_t) + +\beta_5(expansion\ time)_t + \beta_6(MLTSS\ post)_t + \beta_7(MLTSS\ time)_t + \gamma X_{\ it} + \varepsilon_{it} \quad (1)$$

Here, Y_{it} reflects the outcome related to the i^{th} managed care enrollee or an index event at time t. On the right hand side of the equation, time is a continuous variable indicating time in months or calendar quarters from the start of the study period. The variables *waiver post*, *expansion post* and *MLTSS post* are indicator (0/1) variables for the period subsequent to these policy changes. The variables *waiver time*, *expansion time* and *MLTSS time*, are continuous variables equaling the number of months (or quarters) after the corresponding policy change. Coefficient β_0 estimates the baseline level of the outcome at the first time period, and coefficient β_1 indicates the baseline trend, i.e., the change in the outcome that occurs prior to the first policy change. Coefficients β_2, β_4 and β_6 estimate the level changes after each of the policy changes i.e., start of the waiver, the Medicaid expansion, and the MLTSS implementation, in October 2012, January 2014 and July 2014 respectively. Similarly β_3, β_5, and β_7 estimate the change in trend in the outcome after each of these changes. The specification detailed above, while examining the change in outcome due to the MLTSS program, is able to identify changes in outcomes that may have occurred due to the waiver implementation or the Medicaid expansion and isolate those effects from that of MLTSS implementation.

In this model, the specific effect of the MLTSS program on the overall managed care population is given by the magnitude of β_6 that gives the change in level and β_7 that gives the change in trend after the MLTSS implementation and we further test whether these values are statistically significant. Accordingly in our results section, we report the magnitudes of these two coefficients and their joint statistical significance. Lack of significance will indicate that the effect of the MLTSS implementation while not necessarily zero in magnitude is not statistically significant. For interpretability purposes, we further compare predicted values of outcomes post-MLTSS with counterfactual values (that simulate a scenario where the MLTSS implementation did not occur by setting the MLTSS variables to zero in our regression analysis). The line graphs are reported for each of outcomes in the results section. We will see that each line graph bifurcates into two after June 2014, one providing the values with MLTSS implementation and the other for the counterfactual scenario without MLTSS implementation. We further compute whether this difference is statistically significant.

While examining these effects we adjust for patient characteristics that are represented by the variable X_{it}. We incorporate hospital fixed effects (to account for time-invariant differences across hospitals) for inpatient quality-based measures and zip code fixed effects (to account for time-invariant differences across geographic locations) for measures reflecting ambulatory care. ε_{it} is the random error term utilized in the regression representing the statistical distribution of the outcome variable.

For examining the effect of the MLTSS implementation on the community-based population receiving HCBS services and the nursing facility population,[86] we utilize the DD regression model. We define a comparison group to these populations comprised of individuals who are not LTC-eligible and are categorically eligible for Medicaid (i.e. Aged, Blind, or Disabled). The DD estimation process examines changes in outcome for the HCBS, and separately, the MLTSS NF population from the pre- to the post-MLTSS implementation period and compares this change to the comparison group. Such an estimation strategy is able to identify changes in outcomes that are due to program impact and distinct from secular trends. It accounts for the effect of unobserved factors, as long as their impact on one of the groups relative to the other do not change over time. Equations (2) and (3) illustrate the general DD specification.

$$Y_{it} = \beta_0 + \beta_1(HCBS)_i + \beta_2(post\ MLTSS)_t + \beta_3(HCBS_i * post\ MLTSS_t) + \gamma X_{\ it} + \varepsilon_{it} \quad (2)$$

$$Y_{jt} = \gamma_0 + \gamma_1(NF)_j + \gamma_2(post\ MLTSS)_t + \gamma_3(NF_j * post\ MLTSS_t) + \Omega X_{\ jt} + \varepsilon_{jt} \quad (3)$$

[86] Existing NF residents continue to have their services covered by the FFS system until they experience specific triggers related to acute care events. New NF residents will be under MLTSS.

In the above equations, variables Y_{it} and Y_{jt} represent the utilization or cost-based outcomes enumerated in Table A for the patient I receiving community LTSS services or patient j residing in a nursing facility at time t. Post MLTSS is an indicator (0/1) variable that identifies the period starting July 2014. In equation (2), HCBS indicates if the individual was LTSS-eligible (due to requiring a NF level of care) and living in the community receiving HCBS services. In equation (3), NF indicates individuals who were NF residents prior to MLTSS and MLTSS NF residents in the post-MLTSS period. In these models, β_3 and γ_3 represent the two DD estimates measuring the program impact. X_{it}, X_{jt} are vectors of other control variables relating to the patient, and ε_{it}, ε_{jt} represent the random error terms.

It is important to mention that due to the phased out transition to MLTSS for NF residents, the estimation may be limited by small sample size in the months immediately after MLTSS implementation. This may affect the stability of the regression coefficients. As a result, for our discussions we will focus mainly on the effect of MLTSS on HCBS population.

The DD approach assumes that there are no unmeasured factors due to which the outcomes would change relatively between the intervention and comparison groups. If this assumption is not fulfilled and the two groups have differential trends, the effect size includes this difference over time. Accordingly, we test to see whether there existed significant differences in trends between the HCBS and comparison group prior to MLTSS implementation after adjusting for observed factors. If this difference is in the same direction of the DD estimate, and of comparable magnitude, that would imply that the DD model may be overestimating the effect.

As before, we incorporate hospital fixed effects for to account for differences in time invariant inpatient quality-based measures and zip code fixed effects for time-invariant reflecting ambulatory care. We also include indicator variables to distinguish the pre-implementation period into pre-waiver, post-waiver, and post Medicaid expansion periods.

In our findings section we first report the unadjusted DD estimate. This is based on the difference between the pre-post change in the HCBS population and the pre-post change in the comparison group. We follow this with the adjusted difference that estimates the policy effect after accounting for patient and provider or geographical characteristics. This corresponds to the coefficient of the regression interaction term between HCBS or NF indicator and post-MLTSS. The magnitude of this interaction term is reported along with its statistical significance. In the footnote to the table, we note if the pre-trends between the HCBS or NF and comparison group are significantly different.

For index-event based metrics, (Metrics 5-7) the vector of patient characteristics includes individual-level control variables such as beneficiary elderly status (age 65 and older), sex, and health status. For the non-readmission metrics in this group (*Follow-up after Hospitalization for Mental Illness* and *Ambulatory Visit 14 Days after Discharge*), the measure of health status used was a categorization of the diagnosis-based Chronic Illness and Disability Payment System (CDPS) risk score that measures disease diagnoses and burden of illness with higher values indicating greater disease burden. For readmission metrics we used the full set of risk-adjustment variables that are defined by the 2014 or 2016 (for pneumonia)[87] CMS methodology related to Risk Standardized Readmission Rates (QualityNet 2016). Appendix F lists all the risk-adjustment variables for each of the readmission outcomes.

When modeling population-based metrics (Metrics 1-4, and 8) at the person-quarter level, the vector of patient control variables includes beneficiary sex, elderly status (age 65 and older), and number of days enrolled in Medicaid during the quarter. We also account for any change in disease diagnoses and burden of illness over time within the analytic population by adjusting for the CDPS risk score category for each individual.

Our estimation procedures were conducted using STATA MP 14 or SAS Enterprise Guide 7.11 software.

In Section C, we compared the slope of linear trend lines for rates of avoidable hospitalizations and overall emergency department visits between Medicaid and NJ overall. The linear trend was fit to the average rate over the baseline years (2011-2012) and the annual estimates for each year of the demonstration period through 2015. We used only hospitalization rates for ACS conditions available statewide from the NJSHAD that approximated AHRQ's Prevention Quality Indicators.

Results

Section A

In this descriptive analysis section, we examine our quality measures for the overall group of Medicaid beneficiaries and specific subgroups related to eligibility or place of service. We will highlight notable differences in estimates over the years. Our primary focus will be on any substantive changes in these estimates during 2015, the first full year of MLTSS implementation, compared to previous years. Several significant changes in the composition of the populations we present should be kept in mind when considering the data shown. First, would be the

[87] Due to variations in hospital coding practices, CMS expanded the pneumonia cohort for fiscal year 2017 reporting. Additional risk adjustment variables were added in this process.

Medicaid expansion effective in 2014 which brought several hundred thousand low-income beneficiaries into the Medicaid managed care population. Second, would be the rebalancing of the long-term care population which made it possible for more individuals at a nursing facility level of care to live in their homes and communities. Not only were former nursing facility residents moved back to the community under MLTSS, but more existing beneficiaries and new entrants were able to access long-term care services without having to be in a nursing facility. These demographic and associated risk profile shifts are not adjusted for in the descriptive results we present here. Therefore, the findings discussed in this section do not necessarily illustrate causal effects of waiver policies, but suggest areas of potential quality and cost improvement or deterioration over the first three waiver demonstration years. Our regression analysis in the next section adjusts for the demographic and risk factors associated with these populations.

Table 3A.1 reports the percentage of NJ Medicaid beneficiaries who were MC enrollees at some point during the calendar year. In 2014 and again in 2015, there is, as expected, a sharp increase in the number of beneficiaries of the General Assistance (GA) category that includes the Medicaid expansion population. The long-term care population receiving HCBS also grew over these years with the most growth occurring between 2014 and 2015. Mandatory enrollment into an MCO for acute care services became effective for the HCBS population (existing and new entrants) in late 2011. This is reflected in the higher percentage of managed care enrollment in this population in 2012 (93%) compared to the previous year. The nursing facility population declined from 2011 to 2015, but the share of the NF population in managed care climbed over 10 percentage points from 2014 to 2015, consistent with NF residents remaining exempt from managed care until the implementation of MLTSS in July 2014.

The children's service and the residual 'other' category comprising all other eligibility categories, accounted for less than three percent of the overall Medicaid population. Because of its small base which may lead to volatility in estimates, we will not show estimates for these categories in the remainder of this section.

Tables 3A.2-3A.5 report rates of avoidable inpatient hospitalizations and primary care avoidable/preventable ED visits per 10,000 population. Rates of hospitalizations per 10,000 population are reported for all Medicaid beneficiaries, the managed care population, the HCBS and NF populations, and beneficiaries with a behavioral health condition. Figure 3A.1 displays the trends in avoidable hospital use based on the data in these tables for the overall population of Medicaid managed care beneficiaries, the HCBS population, and the NF population.

For the managed care population, avoidable hospitalization rates are generally lower by 2015 than they were in the baseline period (Table 3A.2). This holds true for the ABD and NJ FamilyCare

populations overall, which were predominantly in managed care for all the study years shown. However, for the GA category overall, which experienced major changes in size and managed care composition, the rate of avoidable hospitalizations increased by 2015.

Also in 2015, avoidable inpatient hospitalization rates were the highest among those receiving HCBS (780 per 10,000 beneficiaries; Table 3A.3), and even higher among HCBS beneficiaries with a BH condition (1,142 per 10,000 beneficiaries; Table 3A.3). This rate had decreased from 2013 to 2014, but by 2015 was back at the level of the pre-waiver baseline years (2011-2012). In contrast, the rate of avoidable hospitalizations for the nursing facility population, overall and among those with a BH condition, has been steadily declining since 2011.

The GA and the ABD population in managed care had the highest rates of avoidable ED utilization. Avoidable ED rates among the LTC population were much lower, roughly half the overall Medicaid rate (Tables 3A.4 and 3A.5). Avoidable ED rates have fallen for the nursing facility population over the study years, but are at their highest by 2015 in the HCBS population.

Tables 3A.6-3A.7 report rates of pediatric avoidable hospitalizations. These are substantially lower than the rates among adults, with the pediatric rate equaling one-tenth of the adult rate for all Medicaid beneficiaries and Medicaid managed care beneficiaries. Avoidable pediatric hospitalizations in 2015 are at their lowest in the study period for all categories.

Tables 3A.8-3A.9 report inpatient and ED utilization rates per 10,000 beneficiaries. In 2015, the ABD group had the highest rates of inpatient and ED utilization among the different eligibility groups. The long term care population had a substantially higher rate of inpatient utilization compared to the overall Medicaid rate (2,903 versus 848 per 10,000 beneficiaries), but had a lower rate of ED utilization compared to Medicaid beneficiaries overall (3,707 versus 5,200 per 10,000 beneficiaries). There was a decreasing trend in inpatient utilization among Medicaid beneficiaries overall, those with managed care, and in the long term care population over 2011-2015 although rates increased slightly from 2014 to 2015 (except in the case of the managed care population).

Figure 3A.2 further exhibits the trends in these rates for the overall managed care population and separately, the HCBS and NF populations. As with avoidable inpatient and ED visits (Figure 3A.1), we see a sharp decrease in ED visit rates from 4,933 visits per 10,000 population in 2013 to 4,168 per 10,000 population in 2014 for the HCBS population, but then sharp increases in both inpatient stays and ED visits for this population in 2015. Rates for the managed care population overall and the NF population do not show this pattern.

Tables 3A.10-3A.12 report annual levels of avoidable and overall hospital spending per person, and also total spending per person for the years 2011-2015. The ABD eligibility group enrolled in managed care has the highest per-person avoidable spending ($221) and also overall hospital spending ($1350) in 2015 compared to the other categories, but the avoidable spending for this population was even higher prior to the waiver implementation ($273 and $1605, respectively in 2011). In contrast, avoidable and overall hospital spending has been increasing slightly for the NJ FamilyCare population during this time period. Also among managed care enrollees, the ABD category also has the highest overall per-person spending, $14,493 per beneficiary in 2015, but this is again the lowest per person spending for that population since 2011.

Figure 3A.3 examines trends in different categories of hospital and overall spending over 2011-2015 among all Medicaid beneficiaries. We find that total spending per beneficiary decreased after 2013 from $5,744 in 2013 to $5,069 in 2015, but this is largely due to drops in non-hospital spending. Hospital-based spending per beneficiary actually ended up at a higher level in 2015 than in the baseline years primarily attributable to growth in ED costs. Hospital spending accounted for 13% of total spending in 2015.

Table 3A.13 examines avoidable hospital spending by LTC beneficiaries in NF and in the community receiving HCBS services. Around three quarters of total avoidable costs among the LTC population was incurred by NF residents in 2011-2014, but the growth in avoidable costs among the HCBS population, and decrease among the NF population after 2014 shifts this to a nearly even split between these two LTC populations by 2015. When considering per person costs, NF residents on average had higher avoidable costs per person in 2011 than the HCBS population ($193 vs. $145). This difference was almost non-existent in 2014 ($130 vs. $129) largely due to a steeper decline in avoidable costs per person for the NF population, and reversed by 2015 ($104 vs. $204) due to the increase between 2014 and 2015 in spending for the HCBS population. It should also be noted that overall avoidable hospital spending and per person avoidable spending was still lower for the LTC population during the waiver demonstration years than during the baseline period.

Table 3A.14 reports 30-day hospital-wide readmission rates as well as 30-day all-cause readmission rates after an index hospitalization for heart failure (HF), pneumonia (PN), and acute myocardial infarction (AMI) for Medicaid beneficiaries overall, for long term care eligible beneficiaries, and those with a behavioral health condition. Heart failure readmission rates were the highest among all readmission rates for every category and year except for the LTC population in 2014. In every category of readmission, and every year, beneficiaries with a BH condition had a higher readmission rate compared to those who were LTC-eligible and also Medicaid beneficiaries overall.

Tables 3A.15-3A.22 report these readmission rates for the different Medicaid eligibility groups and separately for NF residents and the beneficiaries receiving HCBS services among the LTC population. Figures 3A.4-3A.7 report trends in each type of readmission for the overall managed care population and the HCBS and NF populations. We compare the change in readmission rates from 2013 to 2015 to the underlying trend between 2012 and 2013. For the overall managed care population, we find an improvement in quality reflected through AMI readmission rates, but a worsening for HF readmission rates. For the HCBS population, all readmission rates exhibited a worsening except for AMI which had no clear trend. For the NF population, readmission rates indicate improvements in care except for HF readmission which increased between 2014 and 2015, consistent with the trends seen for the entire managed care and HCBS populations.

Tables 3A.23-24 report rates of follow-up visit during the seven and thirty-day period following a mental illness hospitalization for beneficiaries in different Medicaid eligibility categories and LTC beneficiaries. Separate estimates for this metric were not generated for beneficiaries in nursing facilities since these beneficiaries may have follow-up care provided within the facility itself. For Medicaid beneficiaries overall and in managed care, rates of follow-up seven days and thirty days after discharge from a mental illness hospitalization do not change very much over 2011-2015, but there is an indication of a slightly increasing trend starting in 2014 after slight declines from 2011-2013.

Tables 3A.25-26 report rates of ambulatory visit within 14 days of hospital discharge for these same beneficiary categories. Recognizing that ambulatory visit rates may vary depending on where the patient was discharged, rates of ambulatory visits are distinguished based on whether the patient was discharged to home, to a rehabilitation facility, or to another facility. Focusing on those who were discharged home, rates have declined since 2011 for managed care overall and for the ABD and NJ FamilyCare populations. They have also declined for the HCBS population through 2014, but then increase by 7.5 percentage points from 2014 to 2015.

Figure 3A.8 exhibits rates of these two types of follow-up for all managed care beneficiaries, overall, and additionally for the LTC HCBS population. The noticeable trend is a decrease in ambulatory visits for the managed care and HCBS populations over the period 2011-2014. However, this rate climbs back up in 2015 for the HCBS population, although not for managed care overall.

Figure 3A.9 displays the avoidable hospitalization rate, the 30-day hospital readmission rate, and the 30-day follow-up after hospitalization for mental illness rate for all Medicaid beneficiaries with a behavioral health condition, excluding those in MLTSS or served by DDD whose behavioral health benefit is administered by their MCO. This is the population of beneficiaries affected by

the transition of some aspects of BH management to the Interim Managing Entity in July 2015. During the first two quarters when the IME was operational, avoidable hospitalizations are lower than in prior years, but the declines were underway in 2013. Thirty-day readmission and mental health follow-up visits are not markedly different in the last two quarters of 2015 compared to the period prior to IME operation.

Table 3A.27 examines three quality metrics for a cohort of beneficiaries enrolled under each of the §1915(c) HCBS waivers in January 2014. Rates of avoidable hospitalizations and 30-day readmissions have not improved for those in the TBI waiver over the first three demonstration years compared to the pre-waiver period. Because children in the CRPD waiver often have private insurance, we may not be capturing all their hospitalizations in claims data. Qualifying index hospitalizations for mental illness are rare in these small cohorts, so trends in follow-up care cannot be examined through 2015.

Tables 3A.28 shows the total and per person LTSS, non-LTSS, and total spending for the LTC population. Total spending is higher for the NF population compared to the HCBS population and this is largely driven by their high LTSS spending, although that spending is at its lowest in 2015. The share of LTSS and total spending has shifted more towards the HCBS population by 2015 compared to 2011-2012. The average per person spending is also lower in 2015 than it was in 2011-2012, except for non-LTSS spending for the NF population. The per-capita differences in overall costs are lower than those in total costs demonstrating that a part of the cost differential between NF and HCBS is driven by a higher number of NF residents.

Figure 3A.10 shows the proportion of total Medicaid spending on the LTC population attributable to the HCBS and NF populations on a monthly basis over the study period. Here we observe that the majority of total spending over 2011-2015 is for individuals living in nursing facilities. The proportion of spending attributable to the NF population has declined from a high of 89% in January 2011 to 81% by December 2015. The greatest increases in the proportion of spending for the HCBS population occurred after implementation of MLTSS in July 2014.

Figure 3A.11 shows the inflation-adjusted amount (in millions of dollars) of total monthly spending for the NF and HCBS populations. Overall monthly spending has declined by about $21 million over the study period mostly as a result of declines in the magnitude of spending for the NF population. That decline is evident prior to the MLTSS policy initiation. Spending for the HCBS population is at its highest in December 2015.

Figure 3A.12 shows the components of total spending by month over the study period for the NF and HCBS populations. Most of this spending is accounted for by NF LTSS (73.8% in December

2015). HCBS LTSS spending accounted for 13.3%. We see a decrease in the NF LTSS share and an increase in the HCBS LTSS share from 2014-2015. Spending related to avoidable hospitalizations accounted for less than1% of overall spending.

Table 3A.1: New Jersey Medicaid population total enrollment and percentage in managed care, 2011-2015

	2011		2012		2013		2014		2015	
	Total	**% MC**	**Total**	**% MC**	**Total**	**% MC**	**Total**	**% MC**	**Total**	**% MC**
All Medicaid Beneficiaries	1,569,730	85%	1,581,262	87%	1,592,727	88%	1,954,216	89%	2,144,195	92%
Aged/Blind/Disabled	319,150	76%	327,344	81%	332,339	82%	331,784	85%	327,867	87%
NJ FamilyCare	1,120,576	94%	1,138,332	95%	1,153,344	95%	1,246,307	94%	1,321,238	95%
General Assistance	88,495	7%	76,637	6%	67,955	6%	335,282	78%	456,093	89%
Children's Service	34,519	65%	31,709	71%	31,959	70%	33,672	67%	33,342	68%
Other	6,990	3%	7,240	3%	7,130	2%	7,171	21%	5,655	13%
Long-Term Care Beneficiaries	49,912	22%	49,534	28%	49,337	30%	47,721	32%	47,573	43%
Nursing Facility	37,009	1%	36,011	4%	35,384	4%	34,373	6%	32,121	17%
HCBS	12,903	81%	13,523	93%	13,953	94%	13,348	98%	15,452	98%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: MC=Managed Care; HCBS=Home and Community-Based Services.

Table 3A.2: Rates of avoidable inpatient hospitalizations per 10,000 adults by Medicaid eligibility category and among adults with a behavioral health condition

	2011		2012	2013	2014	2015	
	Population (N)	Rate	Rate	Rate	Rate	Population (N)	Rate
Medicaid Overall	786,549	229	228	196	145	1,269,215	147
Aged/Blind/Disabled	293,507	530	521	439	367	302,435	387
NJ FamilyCare	391,159	53	46	41	42	500,111	41
General Assistance	88,489	41	32	25	89	456,084	106
Managed Care	602,394	256	264	225	160	1,138,611	153
Aged/Blind/Disabled	231,027	566	565	471	387	264,177	409
NJ FamilyCare	360,855	57	50	44	45	464,307	43
General Assistance	6,861	363	339	296	104	405,836	113

	2011		2012	2013	2014	2015	
Medicaid Overall	Population (N)	Rate	Rate	Rate	Rate	Population (N)	Rate
Behavioral Health Condition	237,715	553	510	440	352	383,353	373

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: Rates are calculated per 10,000 adults age 18 and above.

Table 3A.3: Rates of avoidable inpatient hospitalizations per 10,000 adults among LTC-eligible populations overall and with a behavioral health condition

	2011		2012	2013	2014	2015	
	Population (N)	Rate	Rate	Rate	Rate	Population (N)	Rate
Long-Term Care Population	49,654	625	591	495	422	47,232	488
Nursing Facility	36,850	535	461	388	361	31,978	348
HCBS	12,804	886	938	767	581	15,254	780

	2011		2012	2013	2014	2015	
With a Behavioral Health Condition	Population (N)	Rate	Rate	Rate	Rate	Population (N)	Rate
Long-Term Care Population	33,923	800	730	594	518	32,617	587
Nursing Facility	26,510	696	594	484	456	24,882	415
HCBS	7,413	1,170	1,174	966	744	7,735	1,142

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: Rates are calculated per 10,000 adults age 18 and above.

Table 3A.4: Rates of avoidable emergency department visits per 10,000 population by Medicaid eligibility category

	2011		2012	2013	2014	2015	
	Population (N)	Rate	Rate	Rate	Rate	Population (N)	Rate
Medicaid Overall	1,569,730	2,643	2,717	2,659	2,637	2,144,195	2,708
Aged/Blind/Disabled	319,150	3,308	3,334	3,146	2,973	327,867	3,090
NJ FamilyCare	1,120,576	2,677	2,745	2,703	2,658	1,321,238	2,644
General Assistance	88,495	458	387	313	2,388	456,093	2,731
Managed Care	1,347,033	2,995	3,032	2,936	2,869	1,977,817	2,894
Aged/Blind/Disabled	255,504	3,819	3,691	3,418	3,178	289,115	3,396
NJ FamilyCare	1,061,569	2,803	2,871	2,818	2,801	1,259,147	2,757
General Assistance	6,863	4,838	4,702	4,344	2,878	405,843	2,998

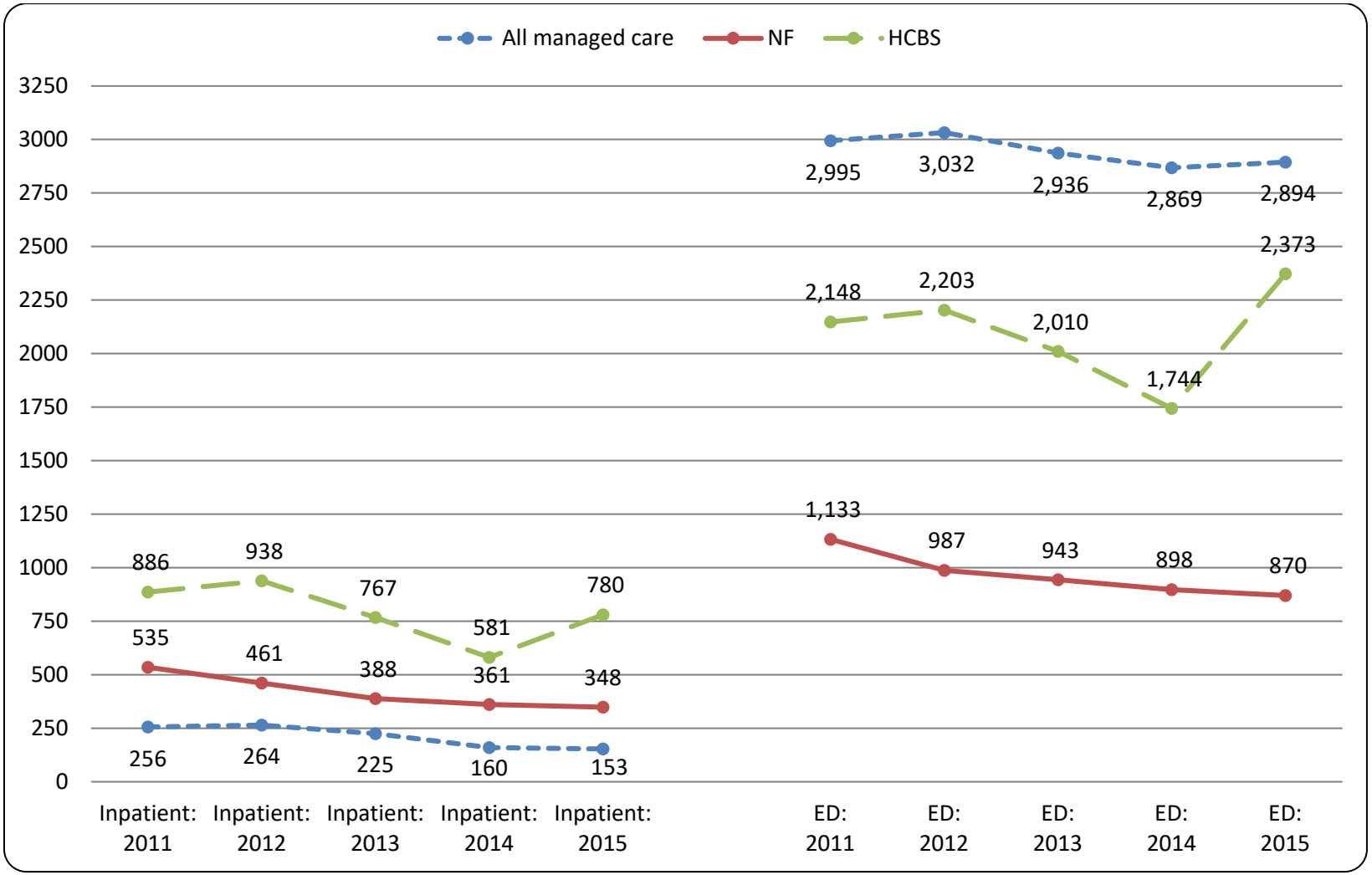
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Table 3A.5: Rates of avoidable emergency department visits per 10,000 population among LTC-eligible populations

	2011		2012	2013	2014	2015	
	Population (N)	Rate	Rate	Rate	Rate	Population (N)	Rate
Long-Term Care Population	49,912	1,395	1,319	1,245	1,134	47,573	1,358
Nursing Facility	37,009	1,133	987	943	898	32,121	870
HCBS	12,903	2,148	2,203	2,010	1,744	15,452	2,373

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services

Figure 3A.1: Rates of avoidable hospital utilization per 10,000 beneficiaries for the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; NF=Nursing Facility; ED=Emergency Department.

Table 3A.6: Rates of avoidable pediatric hospitalizations per 10,000 children by Medicaid eligibility category

	2011		2012	2013	2014	2015	
	Population (N)	Rate	Rate	Rate	Rate	Population (N)	Rate
Medicaid Overall	479,503	24	24	23	19	568,579	15
Aged/Blind/Disabled	20,985	73	79	78	76	21,253	52
NJ FamilyCare	435,687	22	22	21	17	524,014	14
General Assistance	*	*	*	*	*	*	*
Managed Care	456,961	25	25	24	20	547,473	16
Aged/Blind/Disabled	20,289	75	79	79	76	20,998	52
NJ FamilyCare	422,039	23	22	21	18	511,595	14
General Assistance	*	*	--	*	*	*	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: Rates calculated per 10,000 children ages 6 to 17.
*Estimate suppressed due to insufficient sample size.
--population denominator equals 0.

Table 3A.7: Rates of avoidable pediatric hospitalizations per 10,000 children among LTC-eligible populations

	2011		2012	2013	2014	2015	
	Population (N)	Rate	Rate	Rate	Rate	Population (N)	Rate
Long-Term Care Population	152	329	190	179	58	203	0
Nursing Facility	102	294	288	92	101	98	0
HCBS	50	400	0	339	0	105	0

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS= Home and Community-Based Services.
Rates calculated per 10,000 children ages 6 to 17.

Table 3A.8: Rates of inpatient and emergency department use per 10,000 population by Medicaid eligibility category

	Inpatient Utilization Rate					Emergency Department Visit Rate				
	2011	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**
Medicaid Overall	1,061	1,048	928	828	848	4,948	5,069	4,949	4,959	5,200
Aged/Blind/Disabled	2,814	2,811	2,407	2,094	2,167	7,053	7,048	6,708	6,404	6,726
NJ FamilyCare	643	614	563	520	496	4,741	4,858	4,762	4,688	4,757
General Assistance	358	297	236	781	965	892	777	619	4,760	5,553
Managed Care	1,067	1,084	962	860	853	5,556	5,625	5,440	5,375	5,533
Aged/Blind/Disabled	2,872	2,932	2,500	2,150	2,196	7,950	7,680	7,199	6,773	7,280
NJ FamilyCare	628	599	550	518	488	4,965	5,082	4,963	4,942	4,957
General Assistance	3,363	3,348	2,987	928	1,051	9,311	9,419	8,417	5,722	6,090

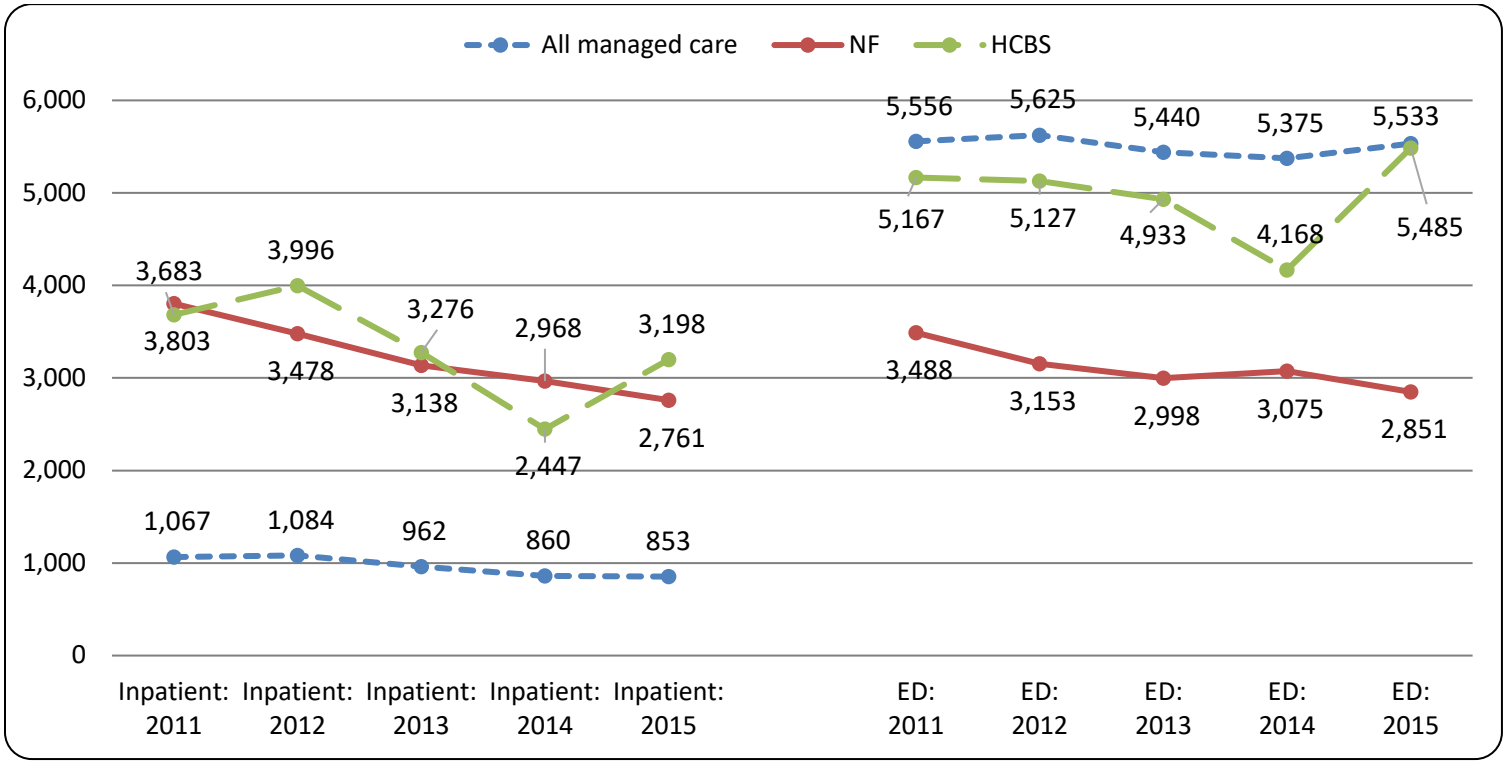
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Table 3A.9: Rates of inpatient and emergency department use per 10,000 population among LTC-eligible populations

	Inpatient Utilization Rate					Emergency Department Visit Rate				
	2011	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**
Long-Term Care Population	3,772	3,620	3,177	2,822	2,903	3,922	3,692	3,545	3,380	3,707
Nursing Facility	3,803	3,478	3,138	2,968	2,761	3,488	3,153	2,998	3,075	2,851
HCBS	3,683	3,996	3,276	2,447	3,198	5,167	5,127	4,933	4,168	5,485

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services.

Figure 3A.2: Rates of inpatient and emergency department use per 10,000 beneficiaries for the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; NF=Nursing Facility; ED=Emergency Department.

Table 3A.10: Spending per person associated with avoidable hospital use by Medicaid eligibility category

	Per Person Avoidable Inpatient Spending					Per Person Avoidable ED Spending					Per Person All Avoidable Spending (IP+ED)				
	2011	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**
Medicaid Overall	$47	$46	$41	$42	$42	$65	$69	$72	$81	$81	$112	$115	$113	$123	$123
Aged/Blind/Disabled	$178	$176	$154	$147	$134	$68	$65	$66	$77	$70	$245	$241	$220	$223	$204
NJ FamilyCare	$12	$11	$11	$11	$11	$69	$75	$78	$85	$83	$82	$87	$89	$96	$94
General Assistance	$29	$26	$20	$57	$68	$14	$12	$10	$77	$86	$43	$38	$31	$134	$154
Managed Care	$49	$49	$44	$45	$43	$74	$77	$79	$88	$87	$122	$126	$123	$133	$130
Aged/Blind/Disabled	$194	$189	$164	$155	$144	$79	$72	$72	$82	$77	$273	$261	$236	$238	$221
NJ FamilyCare	$13	$12	$11	$12	$11	$73	$79	$81	$89	$87	$86	$91	$92	$101	$98
General Assistance	$239	$263	$241	$66	$72	$146	$145	$139	$94	$95	$385	$407	$380	$160	$167

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: IP=Inpatient; ED=Emergency Department.
Avoidable hospital spending is tabulated for all ages.
All spending is in 2012 dollars.

Table 3A.11: Spending per person associated with overall hospital use by Medicaid eligibility category

	Per Person Inpatient Spending					Per Person ED Spending					Per Person All Hospital Spending				
	2011	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**
Medicaid Overall	$549	$549	$513	$515	$523	$121	$127	$132	$152	$159	$670	$676	$645	$668	$683
Aged/Blind/Disabled	$1,346	$1,349	$1,261	$1,247	$1,120	$145	$138	$141	$163	$156	$1,491	$1,486	$1,402	$1,410	$1,276
NJ FamilyCare	$351	$346	$323	$312	$307	$122	$133	$138	$150	$153	$473	$478	$461	$462	$460
General Assistance	$316	$270	$229	$581	$744	$28	$25	$20	$157	$186	$344	$295	$249	$737	$930
Managed Care	$570	$577	$539	$544	$539	$136	$141	$146	$166	$170	$706	$718	$684	$710	$709
Aged/Blind/Disabled	$1,440	$1,425	$1,323	$1,307	$1,181	$165	$149	$151	$174	$170	$1,605	$1,574	$1,474	$1,481	$1,350
NJ FamilyCare	$351	$347	$324	$319	$308	$128	$139	$144	$158	$160	$479	$485	$467	$477	$467
General Assistance	$2,538	$2,933	$2,675	$688	$808	$283	$292	$272	$189	$205	$2,820	$3,225	$2,947	$877	$1,013

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: ED=Emergency Department.

Spending is tabulated for all ages.

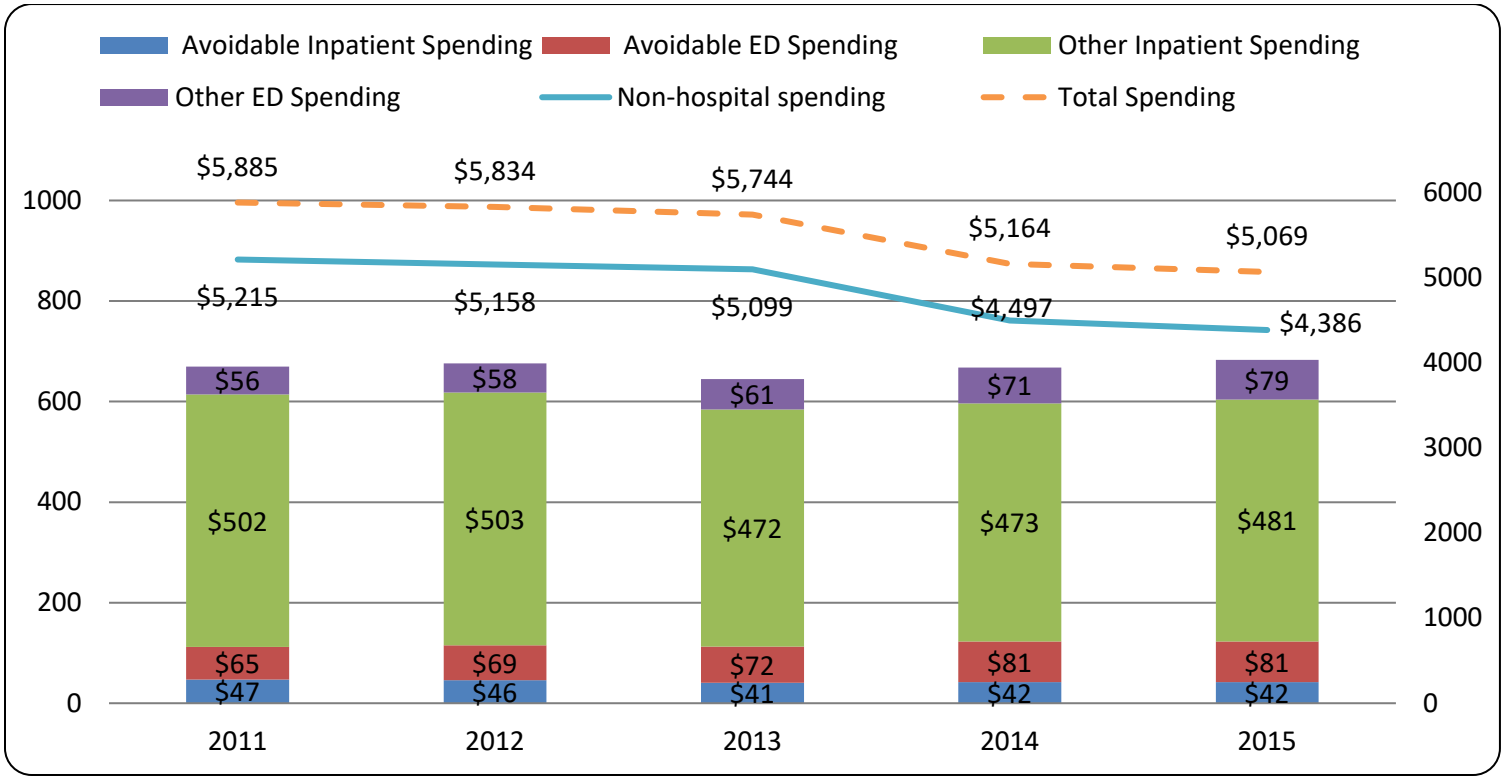
All spending is in 2012 dollars.

Table 3A:12: Total spending per person by Medicaid eligibility category

	2011	2012	2013	2014	2015
Medicaid Overall	$5,885	$5,834	$5,744	$5,164	$5,069
Aged/Blind/Disabled	$19,503	$19,007	$18,637	$18,213	$17,756
NJ FamilyCare	$2,253	$2,272	$2,224	$2,241	$2,286
General Assistance	$2,680	$2,560	$2,601	$3,050	$3,970
Managed Care	$5,048	$5,260	$5,300	$5,007	$4,593
Aged/Blind/Disabled	$15,865	$16,038	$16,207	$16,246	$14,493
NJ FamilyCare	$2,300	$2,326	$2,273	$2,323	$2,342
General Assistance	$10,341	$11,292	$10,754	$3,607	$4,276

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Spending is tabulated for all ages.
All spending is in 2012 dollars.

Figure 3A.3: Trends in avoidable and overall hospital spending and total spending for the Medicaid population overall



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: ED=Emergency Department.
Spending is tabulated for all ages.
All spending is in 2012 dollars.

Table 3A.13: Total and per person spending associated with avoidable hospital use among LTC-eligible populations

	Total Avoidable Inpatient (IP) Spending										Per Person Avoidable Inpatient Spending				
	2011		2012		2013		2014		2015		2011	2012	2013	2014	2015
Long-Term Care Pop.	$7,879,992	100%	$6,534,098	100%	$5,781,438	100%	$5,290,153	100%	$5,456,735	100%	$158	$132	$117	$111	$115
Nursing Facility	$6,382,956	81%	$4,836,681	74%	$4,078,996	71%	$3,862,378	73%	$2,815,902	52%	$172	$134	$115	$112	$88
HCBS	$1,497,036	19%	$1,697,418	26%	$1,702,442	29%	$1,427,775	27%	$2,640,834	48%	$116	$126	$122	$107	$171

	Total Avoidable Emergency Department (ED) Spending										Per Person Avoidable ED Spending				
	2011		2012		2013		2014		2015		2011	2012	2013	2014	2015
Long-Term Care Pop.	$1,118,722	100%	$925,985	100%	$893,851	100%	$923,407	100%	$1,041,756	100%	$22	$19	$18	$19	$22
Nursing Facility	$750,243	67%	$683,925	74%	$639,611	72%	$622,896	67%	$527,916	51%	$20	$19	$18	$18	$16
HCBS	$368,479	33%	$242,061	26%	$254,240	28%	$300,510	33%	$513,840	49%	$29	$18	$18	$23	$33

	Overall Avoidable Hospital Spending (Inpatient + ED)										Per Person Total Avoidable Hospital Spending				
	2011		2012		2013		2014		2015		2011	2012	2013	2014	2015
Long-Term Care Pop.	$8,998,714	100%	$7,460,084	100%	$6,675,289	100%	$6,213,559	100%	$6,498,491	100%	$180	$151	$135	$130	$137
Nursing Facility	$7,133,200	79%	$5,520,605	74%	$4,718,607	71%	$4,485,274	72%	$3,343,818	51%	$193	$153	$133	$130	$104
HCBS	$1,865,515	21%	$1,939,478	74%	$1,956,682	29%	$1,728,285	28%	$3,154,674	49%	$145	$143	$140	$129	$204

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; ED=Emergency Department.
All spending is in 2012 dollars.

Table 3A.14: Thirty-day readmission rates among groups of Medicaid beneficiaries

	2012			2013			2014			2015		
	Medicaid Overall	LTC	Behavioral Health	Medicaid Overall	LTC	Behavioral Health	Medicaid Overall	LTC	Behavioral Health	Medicaid Overall	LTC	Behavioral Health
Hospital-Wide	12.7%	10.9%	15.9%	11.7%	9.6%	14.9%	11.4%	8.6%	14.6%	11.1%	8.9%	13.9%
Heart Failure	18.7%	11.0%	23.5%	15.6%	11.7%	19.7%	15.4%	6.3%	18.8%	16.8%	11.3%	21.2%
AMI	11.4%	10.2%	12.0%	11.7%	6.8%	14.1%	9.4%	5.8%	11.4%	9.3%	3.4%	11.5%
Pneumonia	11.8%	10.7%	12.4%	10.0%	7.6%	10.7%	9.9%	9.0%	10.9%	9.8%	8.0%	11.0%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: LTC=Long-Term Care; AMI=Acute Myocardial Infarction.

Table 3A.15: Hospital-wide 30-day readmission rates by Medicaid eligibility category

	2012	2013	2014	2015
Medicaid Overall	12.7%	11.7%	11.5%	11.1%
Aged/Blind/Disabled	15.0%	13.7%	13.8%	12.7%
NJ FamilyCare	6.0%	6.3%	5.6%	6.1%
General Assistance	17.3%	17.5%	14.1%	13.4%
Managed Care	12.9%	11.9%	11.7%	11.4%
Aged/Blind/Disabled	15.6%	14.2%	14.3%	13.6%
NJ FamilyCare	6.0%	6.2%	5.6%	6.1%
General Assistance	15.0%	17.1%	14.1%	13.3%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: Readmission rates are calculated for adults ages 18 and above.

Table 3A.16: Hospital-wide 30-day readmission rates among LTC-eligible populations

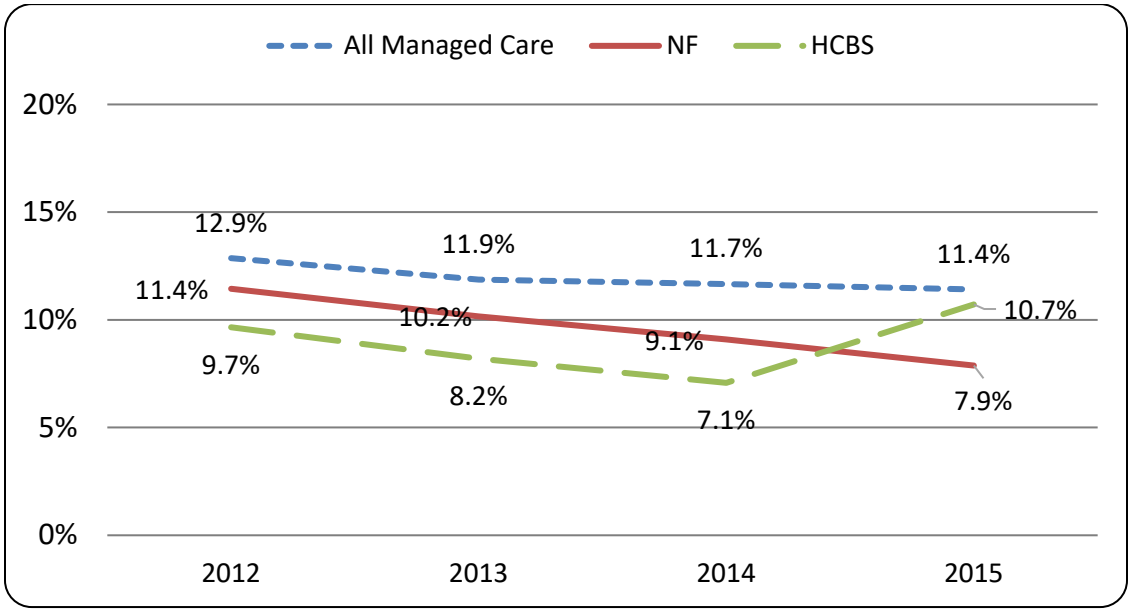
	2012	2013	2014	2015
Long-Term Care Population	10.9%	9.6%	8.6%	8.9%
Nursing Facility	11.4%	10.2%	9.1%	7.9%
HCBS	9.7%	8.2%	7.1%	10.7%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Figure 3A.4: Trends in hospital-wide readmission rates among the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Table 3A.17: Heart failure 30-day readmission rates by Medicaid eligibility category

	2012	2013	2014	2015
Medicaid Overall	18.7%	15.6%	15.4%	16.8%
Aged/Blind/Disabled	18.8%	15.3%	15.1%	15.9%
NJ FamilyCare	15.2%	21.8%	16.2%	17.2%
General Assistance	*	*	21.6%	22.6%
Managed Care	19.2%	15.8%	15.8%	17.8%
Aged/Blind/Disabled	19.4%	15.7%	15.5%	17.0%
NJ FamilyCare	15.2%	20.4%	16.2%	17.2%
General Assistance	*	*	21.6%	22.6%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: Readmission rates are calculated for adults ages 18 and above.

*Estimate suppressed due to insufficient sample size.

Table 3A.18: Heart failure 30-day readmission rates among LTC-eligible populations

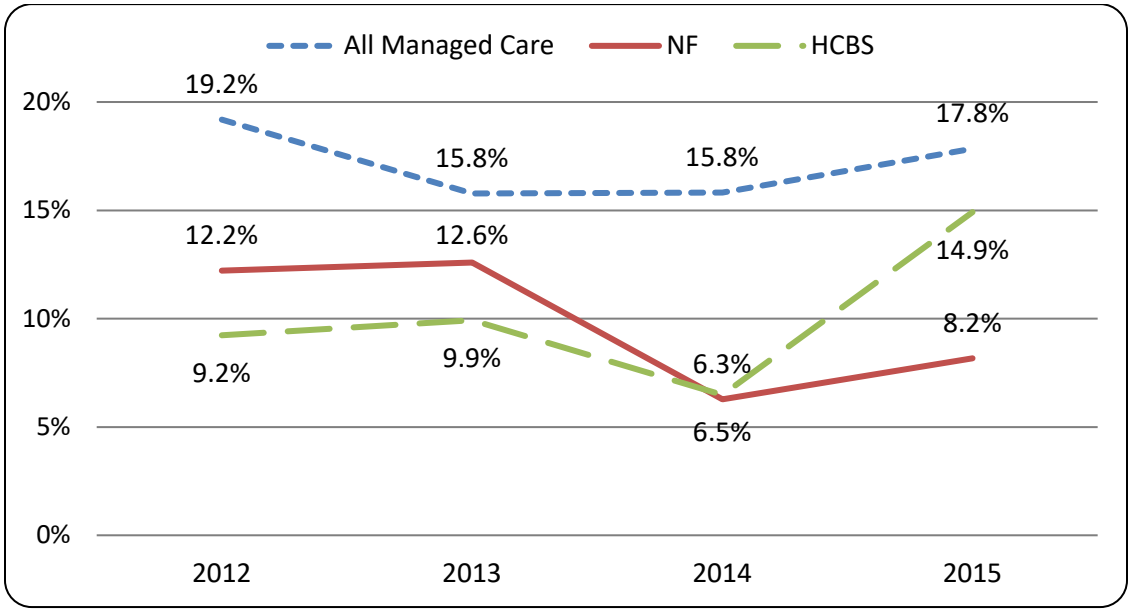
	2012	2013	2014	2015
Long-Term Care Population	11.0%	11.7%	6.3%	11.3%
Nursing Facility	12.2%	12.6%	6.3%	8.2%
HCBS	9.2%	9.9%	6.5%	14.9%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Figure 3A.5: Trends in heart failure readmission rates among the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Table 3A.19: Pneumonia 30-day readmission rates by Medicaid eligibility category

	2012	2013	2014	2015
Medicaid Overall	11.8%	10.0%	9.9%	9.8%
Aged/Blind/Disabled	12.2%	10.0%	9.8%	9.4%
NJ FamilyCare	5.3%	7.9%	8.8%	8.0%
General Assistance	*	*	15.2%	13.3%
Managed Care	12.6%	10.6%	10.7%	11.1%
Aged/Blind/Disabled	13.3%	10.8%	10.6%	11.0%
NJ FamilyCare	5.3%	7.9%	8.8%	8.0%
General Assistance	*	*	15.2%	13.4%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: Readmission rates are calculated for adults ages 18 and above.

*Estimate suppressed due to insufficient sample size

Table 3A.20: Pneumonia 30-day readmission rates among LTC-eligible populations

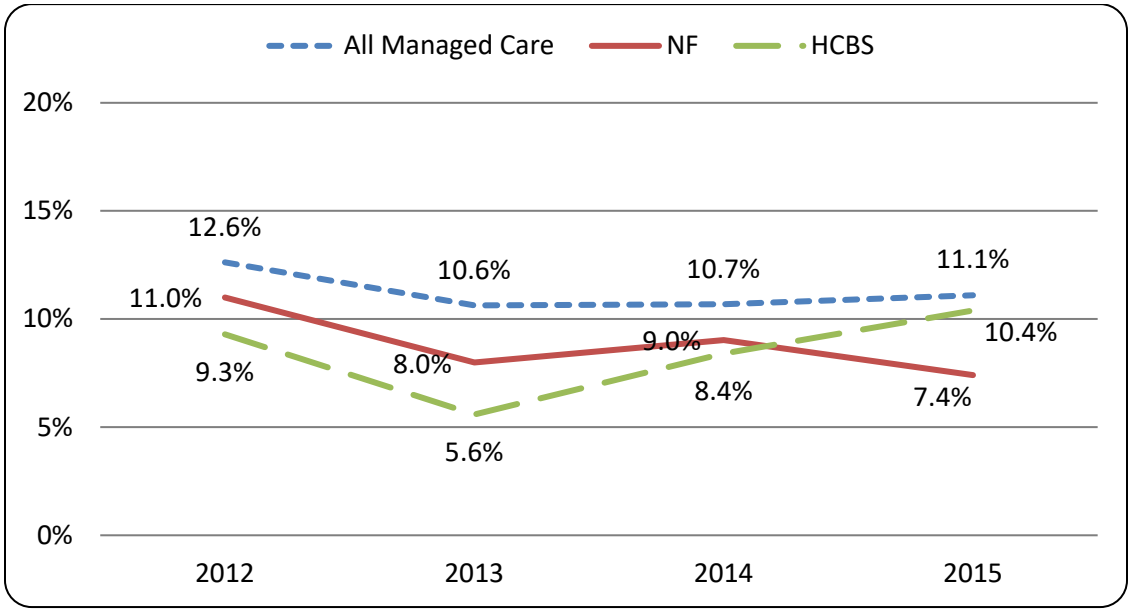
	2012	2013	2014	2015
Long-Term Care Population	10.7%	7.6%	9.0%	8.0%
Nursing Facility	11.0%	8.0%	9.0%	7.4%
HCBS	9.3%	5.6%	8.4%	10.4%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Figure 3A.6: Trends in pneumonia readmission rates among the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Table 3A.21: Acute myocardial infarction 30-day readmission rates by Medicaid eligibility category

	2012	2013	2014	2015
Medicaid Overall	11.4%	11.7%	9.4%	9.3%
Aged/Blind/Disabled	11.5%	11.0%	10.8%	8.6%
NJ FamilyCare	9.9%	16.3%	3.9%	12.1%
General Assistance	*	*	3.4%	9.5%
Managed Care	11.3%	12.0%	9.5%	9.6%
Aged/Blind/Disabled	11.5%	11.3%	11.1%	9.1%
NJ FamilyCare	9.9%	16.3%	3.9%	12.1%
General Assistance	*	*	3.4%	9.5%

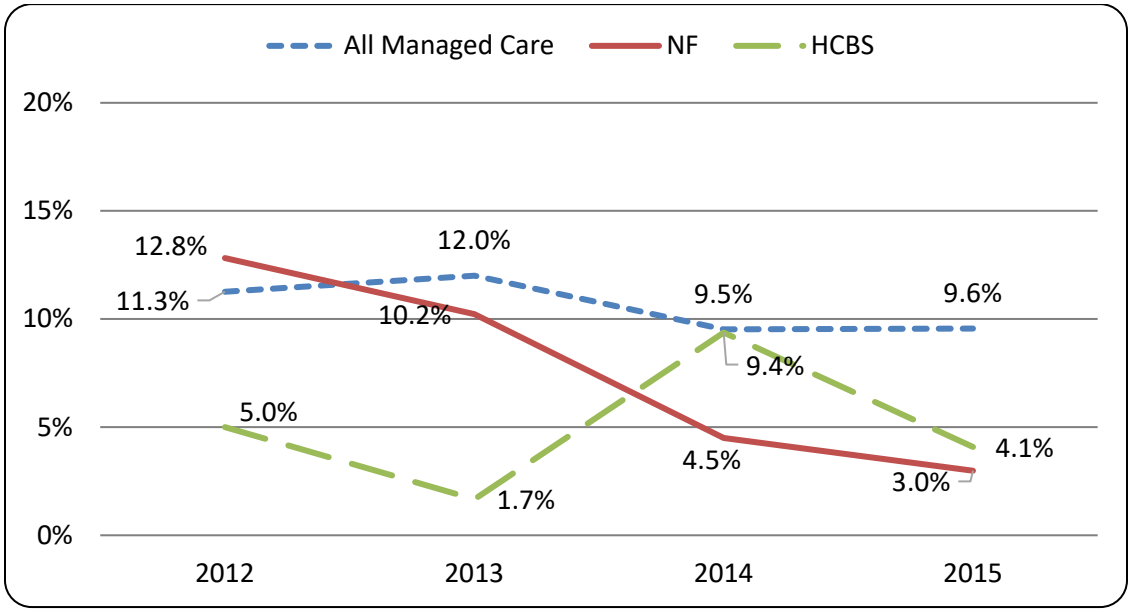
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy
Notes: Readmission rates are calculated for adults ages 18 and above.
*Estimate suppressed due to insufficient sample size.

Table 3A.22: Acute myocardial infarction 30-day readmission rates among LTC- eligible populations

	2012	2013	2014	2015
Long-Term Care Population	10.2%	6.8%	5.8%	3.4%
Nursing Facility	12.8%	10.2%	4.5%	3.0%
HCBS	5.0%	1.7%	9.4%	4.1%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services.
Readmission rates are calculated for adults ages 18 and above.

Figure 3A.7: Trends in acute myocardial infarction readmission rates among the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Table 3A.23: Follow-up after hospitalization for mental illness by Medicaid eligibility category

	7-Day Follow-up					30-Day Follow-up				
	2011	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**
Medicaid Overall	29.7%	28.9%	28.3%	30.4%	31.3%	54.7%	53.9%	54.0%	55.0%	56.9%
Aged/Blind/Disabled	26.6%	25.8%	24.1%	26.0%	27.7%	50.8%	49.6%	48.8%	49.7%	53.4%
NJ FamilyCare	36.5%	36.6%	36.7%	37.8%	37.5%	62.6%	63.9%	64.1%	66.7%	64.9%
General Assistance	25.3%	27.7%	20.7%	30.4%	30.6%	52.0%	46.7%	48.3%	51.2%	54.3%
Managed Care	30.0%	29.2%	28.5%	30.7%	31.6%	55.3%	54.5%	54.3%	55.6%	57.2%
Aged/Blind/Disabled	26.6%	26.0%	24.1%	26.1%	27.8%	51.4%	50.1%	48.9%	49.8%	53.5%
NJ FamilyCare	36.6%	36.9%	36.8%	38.0%	37.7%	62.7%	64.3%	64.3%	67.0%	65.1%
General Assistance	32.2%	33.8%	21.6%	31.5%	31.1%	55.4%	51.9%	48.6%	53.2%	54.8%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: Follow-up after hospitalization for mental illness is calculated for the population ages 6 and older.

Table 3A.24: Follow-up after hospitalization for mental illness among LTC-eligible populations

	7-Day Follow-up					30-Day Follow-up				
	2011	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**
Long-Term Care Population										
HCBS	25.0%	30.4%	17.0%	*	*	40.6%	52.2%	29.8%	*	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: Follow-up after hospitalization for mental illness is calculated for the population ages 6 and older.
Estimates not calculated for the nursing facility population since follow-up visits must occur in the community to meet metric specifications.
*Estimate suppressed due to insufficient sample size.

Table 3A.25: Ambulatory visit within 14 days of discharge by Medicaid eligibility category

	All Discharges					Discharged Home				
	2011	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**
Medicaid Overall	33.0%	34.2%	33.1%	30.1%	30.5%	38.5%	39.5%	38.2%	33.7%	33.7%
Aged/Blind/Disabled	25.0%	26.4%	24.7%	22.2%	23.1%	31.5%	32.8%	30.7%	27.4%	27.9%
NJ FamilyCare	50.2%	49.9%	49.3%	46.5%	45.2%	50.6%	50.3%	49.7%	46.9%	45.7%
General Assistance	23.5%	23.2%	21.7%	26.1%	28.5%	24.5%	24.8%	24.3%	26.6%	29.4%
Managed Care	36.6%	36.7%	34.8%	31.5%	32.3%	40.0%	40.6%	39.0%	34.7%	34.4%
Aged/Blind/Disabled	28.8%	29.2%	26.5%	23.4%	25.5%	33.0%	33.9%	31.5%	28.0%	28.7%
NJ FamilyCare	50.6%	50.3%	49.6%	46.9%	45.6%	51.0%	50.7%	50.0%	47.4%	46.1%
General Assistance	27.8%	29.9%	25.5%	27.8%	29.2%	29.2%	32.3%	28.7%	28.4%	30.1%

	Discharged to Facility-based Rehabilitation					Discharged to Other Facility				
	2011	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**
Medicaid Overall	5.2%	5.1%	5.4%	5.1%	6.4%	11.7%	16.8%	14.2%	15.9%	17.7%
Aged/Blind/Disabled	5.1%	5.0%	5.4%	4.7%	5.9%	8.0%	14.6%	11.1%	12.3%	14.5%
NJ FamilyCare	12.5%	16.7%	16.1%	8.9%	11.9%	34.9%	33.8%	32.2%	29.7%	26.6%
General Assistance	11.5%	8.5%	0.0%	11.8%	10.7%	*	*	*	20.3%	20.8%
Managed Care	6.1%	5.8%	5.9%	5.0%	7.2%	17.1%	20.4%	15.9%	17.5%	19.0%
Aged/Blind/Disabled	5.9%	5.6%	5.8%	4.6%	6.4%	12.2%	18.1%	12.5%	13.9%	15.9%
NJ FamilyCare	12.8%	16.9%	16.7%	8.1%	12.3%	35.1%	33.8%	32.4%	30.0%	26.8%
General Assistance	13.3%	11.5%	0.0%	12.3%	11.1%	*	*	*	20.5%	21.1%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: Only one hospitalization per person is randomly chosen in each year to be an index hospitalization.
*Estimate suppressed due to insufficient sample size.

Table 3A.26: Ambulatory visit within 14 days of discharge among LTC-eligible populations

	All Discharges					Discharged Home				
	2011	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**
Long-Term Care Population										
HCBS	18%	19.4%	15.7%	9.7%	16.4%	23.6%	24.2%	19.8%	12.9%	20.5%

	Discharged to Facility-Based Rehabilitation					Discharged to Other Facility				
	2011	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**
Long-Term Care Population										
HCBS	4.9%	4.9%	4.5%	2.0%	4.9%	9.6%	14.4%	6.5%	1.9%	3.3%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: Only one hospitalization per person is randomly chosen in each year to be an index hospitalization.
Estimates not calculated for the nursing facility population since follow-up visits must occur in the community to meet metric specifications.

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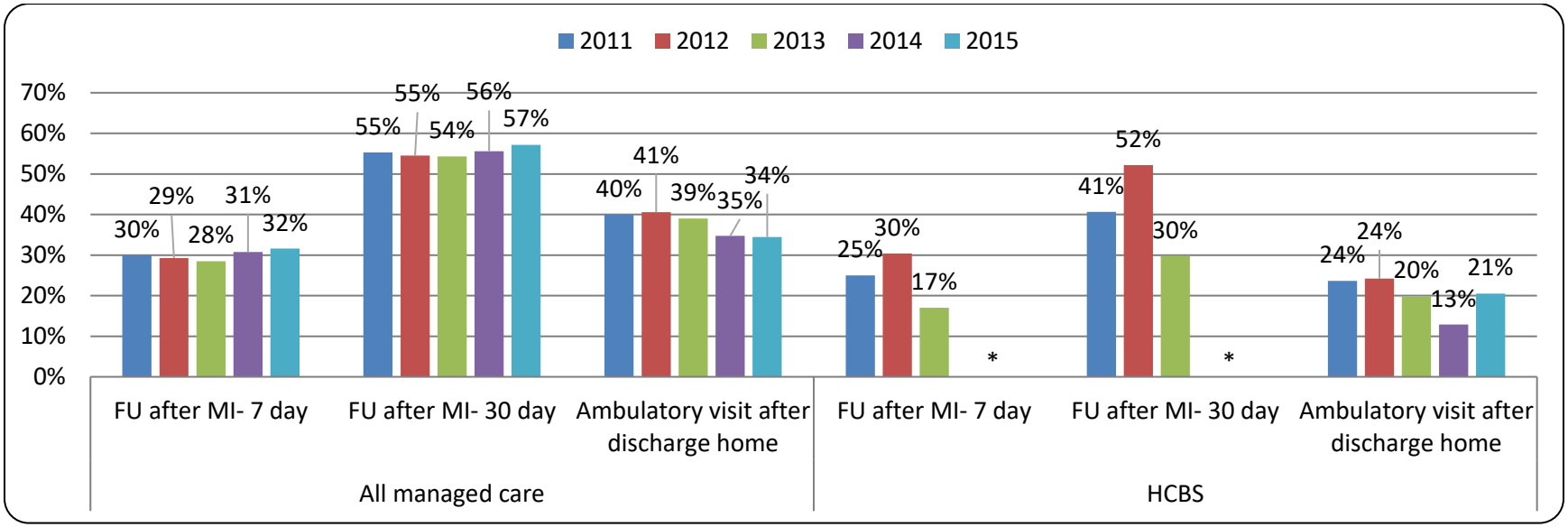
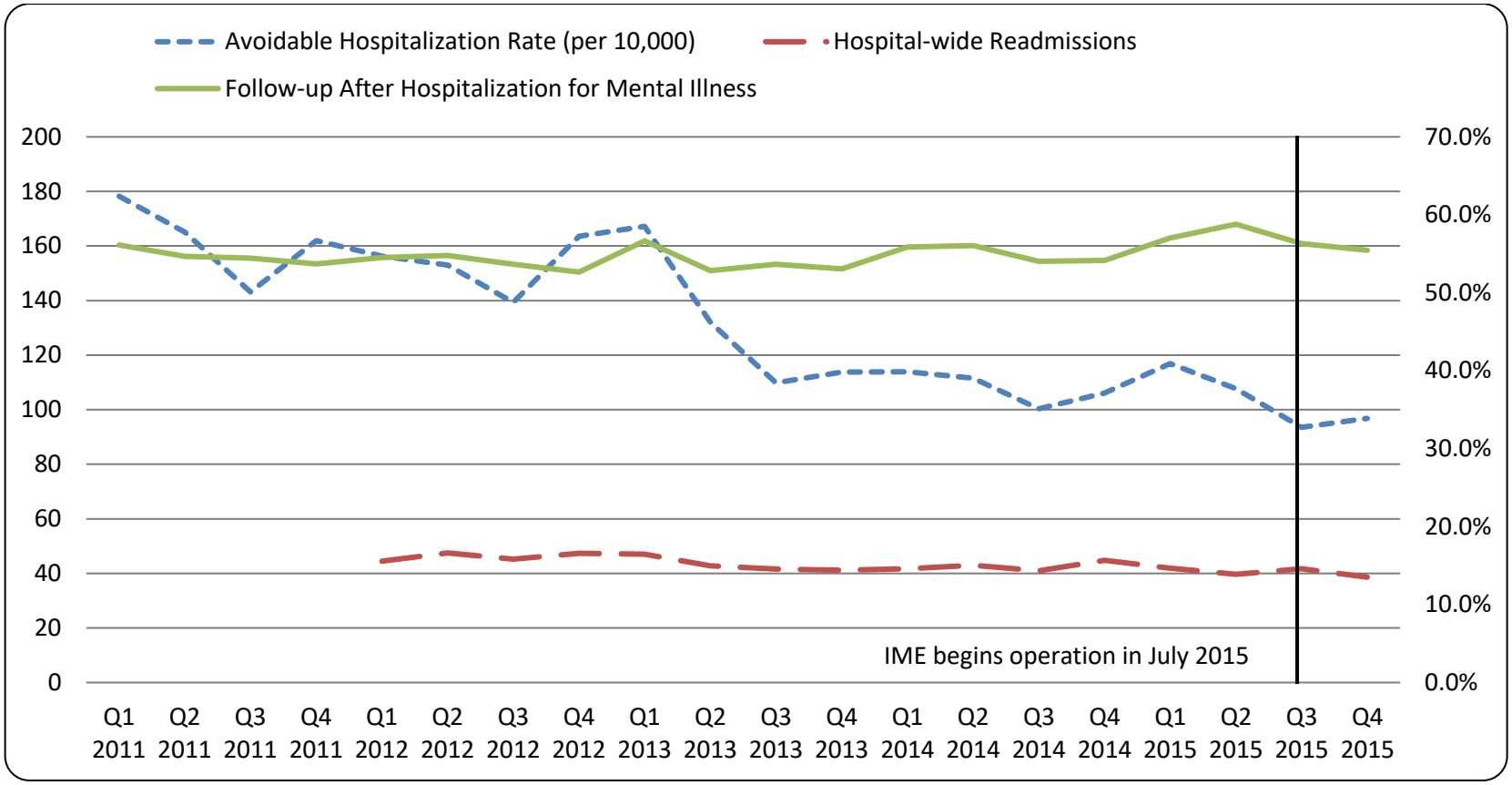
Figure 3A.8: Rates of follow-up and ambulatory visits after hospitalization among the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; FU=Follow-up; MI=Mental Illness.
*Estimates for 2014 and 2015 suppressed due to insufficient sample size.

Figure 3A.9: Selected quality metrics for the overall Medicaid population without managed behavioral health and having a behavioral health condition



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: The DDD and MLTSS populations are excluded since their behavioral health care is managed by their MCO.

Table 3A.27: Selected quality metrics for a cohort of HCBS beneficiaries by pre-MLTSS §1915(c) waiver program

	Hospital-Wide 30-Day Readmission Rate				Avoidable Hospitalizations (per 10,000 beneficiaries)				
	2012	2013	2014	2015	2011	2012	2013	2014	2015
1915(c) Enrollees	9.1%	6.9%	7.4%	6.4%	738	788	686	609	714
CRPD	15.9%	15.9%	2.4%	7.3%	526	358	479	208	161
ACCAP	13.3%	6.7%	*	15.6%	387	449	179	298	189
TBI	4.9%	8.1%	16.0%	14.0%	135	132	225	257	329
GO	8.9%	6.6%	7.3%	6.1%	777	830	713	636	753

	Follow-up After Hospitalization for Mental Illness									
	7-day					30-Day				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
1915(c) Enrollees	26.3%	38.9%	13.3%	*	*	50.0%	61.1%	28.9%	*	*
CRPD	--	--	--	--	--	--	--	--	--	--
ACCAP	--	*	*	--	--	--	*	*	--	--
TBI	*	*	*	--	*	*	*	*	--	*
GO	25.0%	40.0%	4.9%	*	*	50.0%	60.0%	12.2%	*	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services.
*Estimate suppressed due to insufficient sample size.
--No qualifying index admission in this category.

Table 3A.28: Total and per person spending for LTSS and non-LTSS services among LTC-eligible populations

	LTSS Spending (in millions of dollars)										LTSS Spending per LTC Person				
	2011		2012		2013		2014		2015		2011	2012	2013	2014	2015
Long-Term Care Pop.	$2,012	100%	$1,927	100%	$1,900	100%	$1,839	100%	$1,721	100%	$40,304	$38,904	$38,505	$38,544	$36,178
Nursing Facility	$1,805	90%	$1,707	89%	$1,672	88%	$1,628	88%	$1,482	86%	$48,773	$47,412	$47,262	$47,353	$46,152
HCBS	$207	10%	$220	11%	$227	12%	$212	12%	$239	14%	$16,012	$16,247	$16,296	$15,860	$15,444

	Non-LTSS Spending (in millions of dollars)										Non-LTSS Spending per LTC Person				
	2011		2012		2013		2014		2015		2011	2012	2013	2014	2015
Long-Term Care Pop.	$253	100%	$250	100%	$249	100%	$244	100%	$244	100%	$5,071	$5,057	$5,055	$5,118	$5,119
Nursing Facility	$171	68%	$162	65%	$159	64%	$168	69%	$150	62%	$4,634	$4,487	$4,493	$4,882	$4,670
HCBS	$82	32%	$89	35%	$90	36%	$76	31%	$94	38%	$6,327	$6,574	$6,479	$5,726	$6,052

	Total Spending (in millions of dollars)										Total Spending per LTC Person				
	2011		2012		2013		2014		2015		2011	2012	2013	2014	2015
Long-Term Care Pop.	$2,265	100%	$2,178	100%	$2,149	100%	$2,084	100%	$1,965	100%	$45,375	$43,961	$43,559	$43,662	$41,297
Nursing Facility	$1,977	87%	$1,869	86%	$1,831	85%	$1,795	86%	$1,632	83%	$53,407	$51,899	$51,755	$52,234	$50,822
HCBS	$288	13%	$309	14%	$318	15%	$288	14%	$332	17%	$22,339	$22,821	$22,775	$21,587	$21,496

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: LTSS=Long-term services and supports; LTC=Long-term care; HCBS=Home and Community-Based Services.
All spending is in 2012 dollars.

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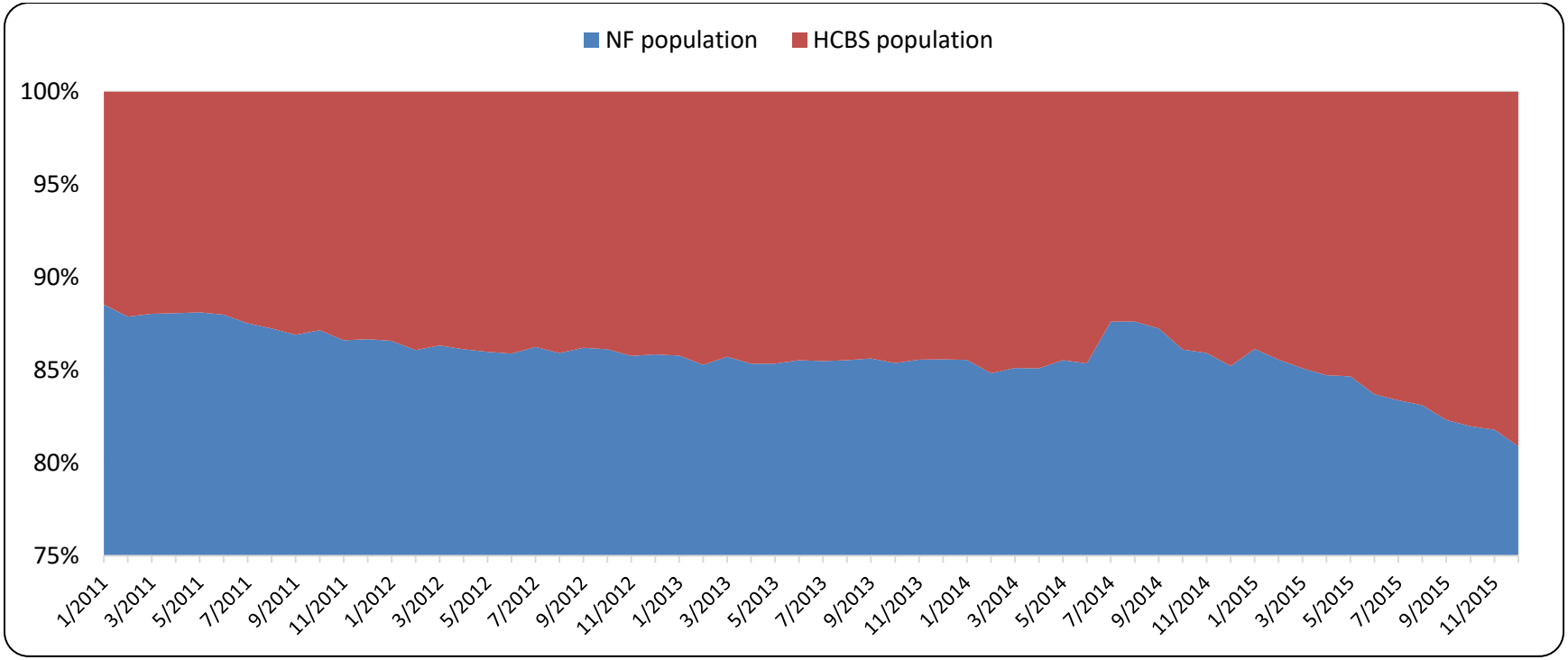
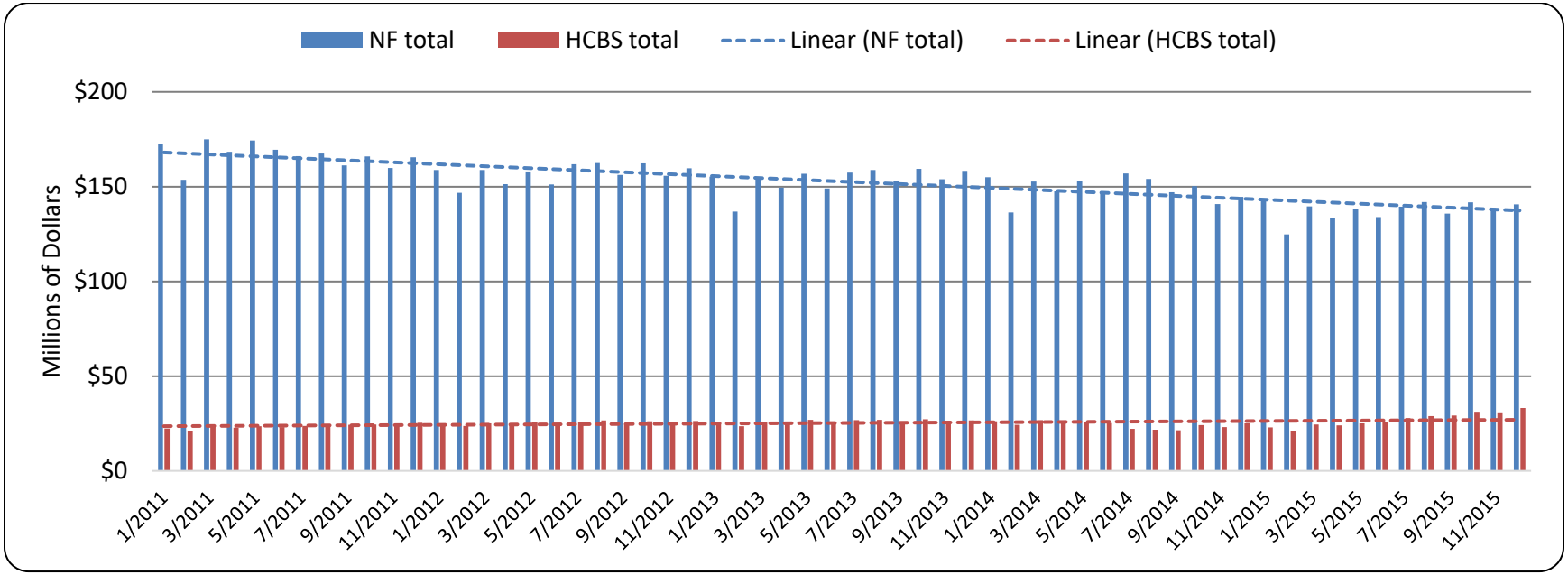
Figure 3A.10: Share of total spending for the nursing facility and HCBS populations



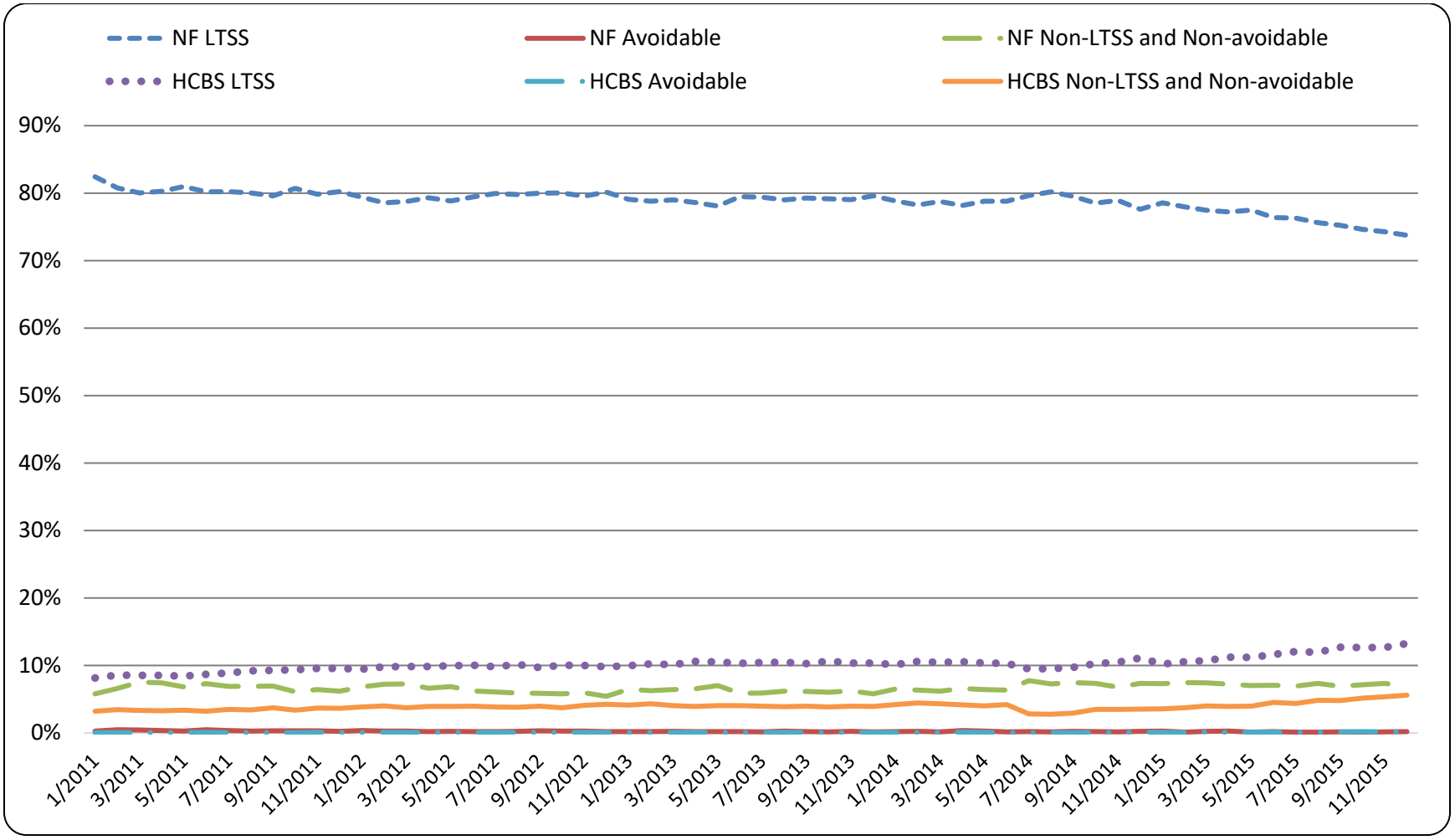
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: NF=Nursing Facility; HCBS=Home and Community-Based Services.
Vertical axis begins at 75%.

Figure 3A.11: Total spending for the nursing facility and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: NF=Nursing Facility; HCBS=Home and Community-Based Services.
All spending is in 2012 dollars.

Figure 3A.12: Shares of different components of spending for the NF and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: NF=Nursing Facility; HCBS=Home and Community-Based Services; LTSS=Long-Term Services and Supports.
All spending is in 2012 dollars.

Section B

Avoidable Inpatient Hospitalizations, ED Visit Rates, and Associated Costs: Table 3B.1 reports the Segmented Regression Analysis-based effect of the MLTSS program on the overall managed care population reflected in potential changes in rates of avoidable inpatient hospitalizations and ED visits among the universe of managed care enrollees. There is no significant impact of MLTSS on avoidable inpatient utilization, but we observe significant effects on avoidable ED utilization. While there is a statistically significant increase in avoidable ED visits immediately following the implementation of MLTSS, there is also a significant decrease in the trend over the subsequent six quarters. The magnitude of these changes are two or less visits per 1,000 managed care beneficiaries per quarter. By the end of 2015 that amounts to 11 (=1000*-0.01097) fewer avoidable ED visits per 1,000 beneficiaries than there would have been without MLTSS. The corresponding change in terms of avoidable hospitalizations is 1 additional outcome per 10,000 beneficiaries, but this is not statistically significant.

Figures 3B.1 and 3B.2 provide graphical interpretations of the *net changes* reported in Table 3B.1 by line graphs denoting probability of avoidable utilization based on the regression modeling. In the post-implementation period spanning July-December 2015, the solid line graph gives the values taking into account the MLTSS implementation, and the dotted line graph gives counterfactual values without MLTSS implementation. The difference between the two line graphs gives the effect of the MLTSS program. Specifically, if at any point of time the dotted line is above the solid line (implying that the counterfactual value is higher than the MLTSS-based value) this reflects a decrease in avoidable utilizations signifying a positive effect on ambulatory/primary care-related quality. It is important to note that this difference may change over the post-implementation period. Table 3B.1 above provided the difference at the end of the study period, i.e., at the sixth quarter, post MLTSS implementation.

Table 3B.2 provides the unadjusted DD estimate based on the observed rates of the two types of avoidable events separately for the HCBS population, the NF population, and the comparison group in the pre- and post-MLTSS period. Table 3B.3 reports the adjusted effects based on the DD estimation comparing changes over time in the HCBS population relative to the comparison group, and separately, for the MLTSS NF population compared to the comparison group. We observe no statistically significant impact of MLTSS on avoidable inpatient utilization by the HCBS or NF population. The avoidable ED impact estimate, however, indicates the MLTSS implementation increased the rate of avoidable ED visits over a quarter by 13 per 1,000 HCBS beneficiaries and this change was statistically significant. The effect for the nursing facility population over a quarter was a decline of 5 per 1,000 beneficiaries and this effect was only marginally significant ($p<0.1$). There was a statistically significant difference in avoidable ED visit trends between HCBS and the comparison group prior to MLTSS, and this trend was in the same

direction of the estimated effect which results in the statistical model overestimating the true effect. That said, the overestimation was less than one-tenth the magnitude of the reported DD-estimated effect size and does not necessitate modification of our inferred policy effect.

Table 3B.4 reports per person, per quarter costs associated with avoidable inpatient hospitalizations or ED visits for the HCBS, NF, and comparison group for the pre- and post-MLTSS periods. This table further reports the ratio of ratios (ROR) of these costs where a magnitude greater than one reflects a positive association between the policy and avoidable costs. Table 3B.5 reports a similar ROR estimate that is calculated using a gamma regression with a log link that adjusts for patient and area level characteristics. We find that the MLTSS policy significantly increases avoidable IP costs for the HCBS population, but not the NF population. It also significantly decreases avoidable ED costs in the NF population, but does not have a significant impact on avoidable ED costs for the HCBS population.

Hospital Readmissions: Table 3B.6 reports the SRA-based effect of the MLTSS program on the overall managed care population reflected in potential changes in readmission rates among the universe of managed care enrollees. The coefficients corresponding to the variable *MLTSS post* give the change in the *level* of readmission likelihood immediately after the MLTSS implementation, and we find mixed results depending on the type of admission. The level change in 30-day readmission likelihood is positive for hospital-wide and heart failure admissions and negative for AMI and pneumonia admissions. None of the level changes are statistically significant. The change in trend given by the coefficients corresponding to *MLTSS time* are negative for all readmission metrics we examined and only significant for hospital-wide readmissions. We assess the joint statistical significant of these effects and find that there is a significant negative effect ($p<0.05$) on hospital-wide readmissions. This can be interpreted as an improvement in readmission related quality for the Medicaid managed care population as a whole. Specifically this represents a decrease in the likelihood of readmission by 4.6 pp by the last month of 2015.

As explained above, Figures 3B.3-3B.6 compare the MLTSS rates to the counterfactual rate for the four readmission metrics. While the distance between bifurcating lines represent the effect of the MLTSS program, only that relating to hospital wide readmissions represents a statistical significant effect.

Table 3B.7 provides the unadjusted DD estimate capturing the effect of the MLTSS implementation on the HCBS and NF populations that is based on the observed readmission rates for the HCBS, NF, and comparison population in the pre- and post-MLTSS implementation period. While these estimates do not take into account the differing beneficiary and provider

characteristics that are important to account for while examining the policy effect, they are informative since in addition to providing a starting estimate, they further demonstrate the way DD estimates are computed. Taking the case of pneumonia readmissions among the HCBS population, the unadjusted DD estimate is the change in readmission rate for the HCBS population from pre to post-MLTSS implementation period less the change for the comparison group over the same period. The difference in these two differences reflects the unadjusted policy effect, in this case a 6.1 percentage point (pp) increase in readmissions following hospitalization for pneumonia among the HCBS population.

Table 3B.8 reports the adjusted effects that take into account differences in patient and provider characteristics. These may be different from the unadjusted estimates and are relevant for estimating the true policy effect. Across all readmission metrics, estimated effects are positive indicating increases in the probability of hospital readmission for the HCBS and NF populations in MLTSS, but these increases are only statistically significant at the 5% level or less in two cases. Among the MLTSS NF population, the adjusted effect size was 0.0865. This should be interpreted as an 8.7 pp increase in hospital-wide 30-day readmissions due to MLTSS implementation for the NF population. We observe a 1.2 pp increase for the HCBS population, but this was only marginally significant ($p<0.1$). The other strongly significant finding was for pneumonia readmissions, where the adjusted effect size for the HCBS population indicates a 6.1 pp increase in pneumonia readmission rates due to the MLTSS implementation (in this case, unchanged from the unadjusted estimate). Due to small numbers of MLTSS NF residents with a qualifying heart failure or AMI index hospitalization in the post-MLTSS period, there are statistical issues with the reliability of the results of these two models.

Table 3B.9 shows the SRA-based effect of the MLTSS policy on hospital-wide readmissions among Medicaid managed care beneficiaries with a behavioral health condition. Similar to the findings for the entire managed care population, there was no statistically significant impact of MLTSS on the level, but the 0.3 pp decline each month of MLTSS in the probability of readmission for this population was statistically significant at the 5% level. The combined effect of both the level and trend changes was also significant. By December 2015, hospital-wide readmissions were 5.2 pp lower for the managed care population with a BH condition than they would have been without MLTSS. Figure 3B.7 depicts the probability of readmission for a managed care beneficiary with a behavioral health condition with the MLTSS effect and alongside, the calculated counterfactual.

Table 3B.10 provides the unadjusted DD estimate based on the observed rates of hospital-wide readmission for the HCBS population with a behavioral health condition, the NF population with a BH condition, and the comparison group in the pre- and post-MLTSS periods. The unadjusted difference in the differences is a 3.2 pp increase in the readmission rate among the HCBS

population with a BH condition in the post-MLTSS period and a 7.3 pp increase in the rate for the NF population with a BH condition during that period. Table 3B.11 reports the adjusted effects based on the DD estimation comparing changes over time of hospital-wide readmissions for the HCBS population with a BH condition compared to that in the comparison group. Based on these estimates, the increased probability of a readmission for the HCBS population after adjustment is a 1.5 pp increase that is only marginally significant. In contrast, the adjusted effect for the NF population is 0.09, meaning the MLTSS implementation increased the hospital-wide readmission rate among the NF population with a BH condition by 9 pp. The effect is statistically significant.

Follow-up after Hospitalization for Mental Illness: Table 3B.12 reports the SRA-based effect of the MLTSS program on the overall managed care population reflected in potential changes in follow-up after hospitalizations for mental illness among the universe of managed care enrollees. Residents of nursing facilities or intermediate care facilities were excluded in the regression model since follow-up care provided in the facility might not be captured in claims data. There are decreases in level and also the trend in follow up rates within 7 and 30 days of hospitalization as indicated by the coefficients of *MLTSS post* and *MLTSS time*. Figure 3B.8 shows the rates after MLTSS are lower than the calculated counterfactual rates. These decreases are not statistically significant.

Table 3B.13 provides the unadjusted estimates based on the observed rates of follow up for the HCBS population and the comparison group in the pre- and post-MLTSS period. Due to small numbers of qualifying mental illness index hospitalizations for the HCBS population post-MLTSS, estimates of the follow-up visit rates could not be reported. Table 3B.14 reports the adjusted effects based on the DD estimation comparing changes over time in the HCBS population compared to that in the comparison group. Residents of intermediate care facilities were excluded from the comparison population in the regression model since follow-up care provided in the facility might not be captured in claims data. Based on these estimates, the MLTSS implementation increased the follow up rate within 7 days of a mental illness hospitalization by 6.7 pp, but decreased the follow-up within 30 days by 3.1 pp. Neither effect is statistically significant, and, due to small numbers of HCBS beneficiaries with a qualifying mental illness index hospitalization in the post-MLTSS period, there are statistical issues with the reliability of these results.

Ambulatory Visit after Hospitalization: Table 3B.15 reports the SRA-based effect of the MLTSS program on the overall managed care population reflected in potential changes in ambulatory visit rates after discharge home from hospitalization among the universe of managed care enrollees. Residents of nursing facilities or intermediate care facilities were excluded in the regression model since follow-up care provided in the facility might not be captured in claims

data. The increases in the level and also the trend of such visits as indicated by the coefficients of *MLTSS post* and *MLTSS time* respectively are positive. The level estimate shows a 1.4 pp increase in the probability of an ambulatory visit following discharge home and this is statistically significant. The trend effect is less than one-hundredth of a pp and is not statistically significant. Figure 3B.9 demonstrates that the rates based on MLTSS are higher than the calculated counterfactual rates. In December 2015, the likelihood of an ambulatory visit was 1.6 pp higher due to MLTSS though the effect was statistically significant at only 10% level.

Table 3B.16 provides the unadjusted DD estimate based on the observed rates of post-discharge ambulatory visits for the HCBS population and the comparison group in the pre- and post-MLTSS period. Table 3B.17 reports the adjusted effects based on the DD estimation comparing changes over time in the HCBS population compared to the comparison group. Residents of intermediate care facilities were excluded from the comparison population in the regression model since follow-up care provided in the facility might not be captured in claims data, and this outcome was not modeled for the NF population for the same reason. Based on this estimate, the MLTSS implementation increased the probability of an ambulatory visit 14 days following discharge from a medical hospitalization by 0.6 pp. This effect is not statistically significant.

Racial/Ethnic Disparities in Avoidable Inpatient Hospitalizations and Hospital-Wide Readmissions: Table 3B.18 provides the race-specific unadjusted DD estimates based on the observed rates of avoidable inpatient hospitalizations and observed hospital-wide readmission rates separately for the HCBS population, the NF population, and the comparison group in the pre- and post-MLTSS period. It then shows the difference between these unadjusted DD estimates for black, Hispanic, and beneficiaries of other race/ethnicity compared to whites. Taking the black HCBS population and avoidable hospitalizations as an example, the unadjusted disparity effect of 0.16 indicates that the change in the probability of an avoidable hospitalization after MLTSS was 0.16 pp higher for black individuals receiving HCBS than for white HCBS recipients. This reflects a worsening in readmission care for blacks relative to whites. Table 3B.19 reports the adjusted effects based on the DD estimation comparing changes over time in the HCBS population relative to the comparison group, and separately, for the MLTSS NF population compared to the comparison group. We observe no statistically significant racial/ethnic disparities in the impact of MLTSS on avoidable hospitalizations. We do observe a statistically significant increase in the probability of hospital readmissions for black individuals receiving HCBS. This should be interpreted as a 4.4 pp greater increase in the readmission rate for blacks compared to whites after MLTSS implementation.

Table 3B.1: MLTSS impact on avoidable hospitalizations and ED visits among the Medicaid managed care population

MLTSS Impact Estimates *(n=28,728,949)*	**Avoidable Inpatient Utilization**	**Avoidable ED Utilization**
mltss_post	-0.00005	0.00126**
	(0.00005)	(0.00061)
mltss_quarter	0.00003	-0.00204***
	(0.00005)	(0.00057)
Overall statistical significance		***
Net change as of Dec. 2015	0.00011	-0.01097***

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: ED=Emergency Department.

Person-quarter level segmented regression analysis with zip code fixed effects.

Avoidable inpatient utilization rate denotes the likelihood of at least one avoidable hospitalization by a Medicaid beneficiary during the quarter. Avoidable ED utilization rate denotes the sum total of ED visits by a person during a quarter.

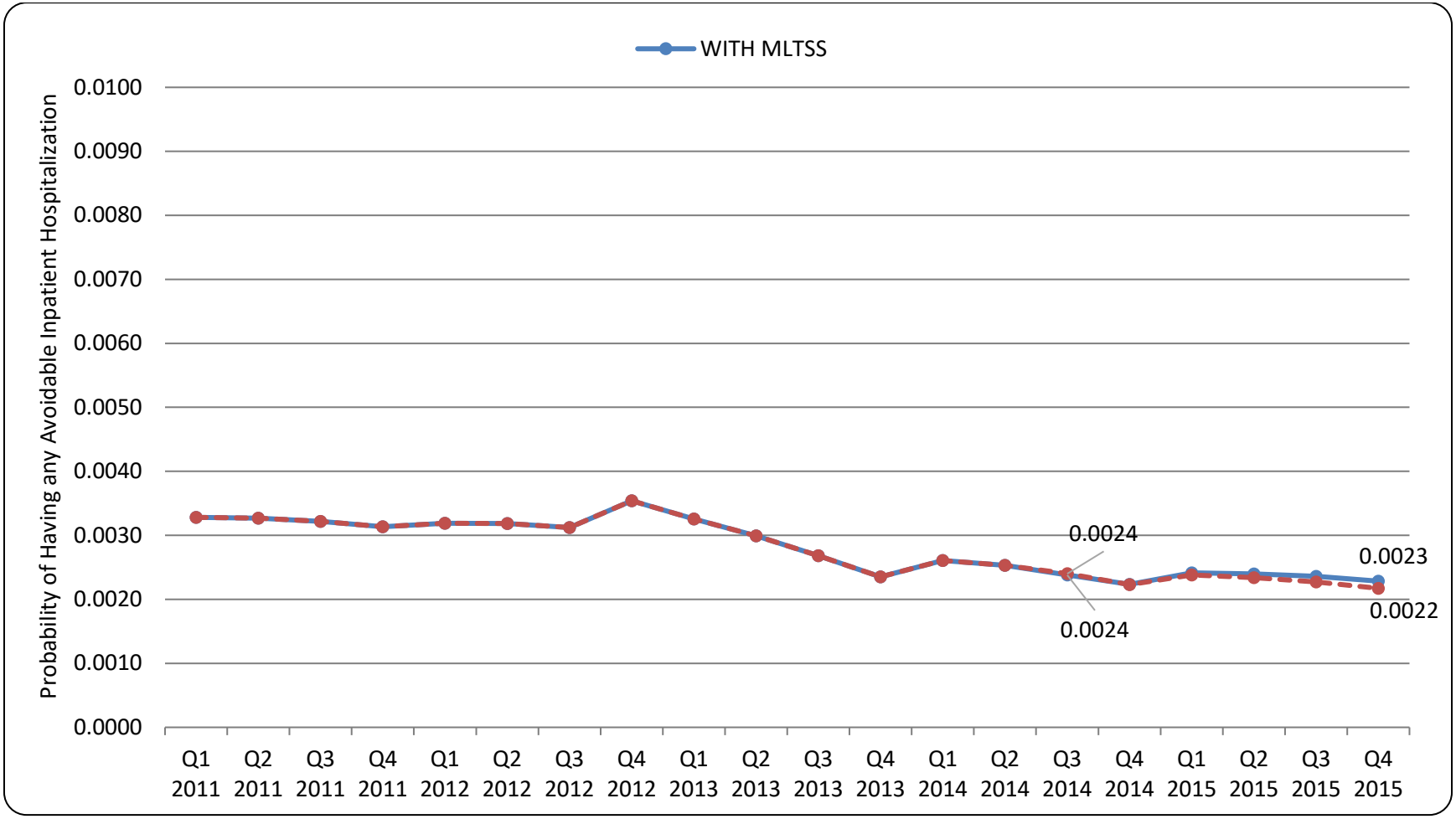
Models adjusted for sex, elderly status, quarterly time trends, waiver initiation, Medicaid expansion, CDPS risk category, and enrollment days per quarter.

Overall statistical significance is noted as n.s. (not significant) if the joint effect of mltss_post and mltss_quarter was not significant.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

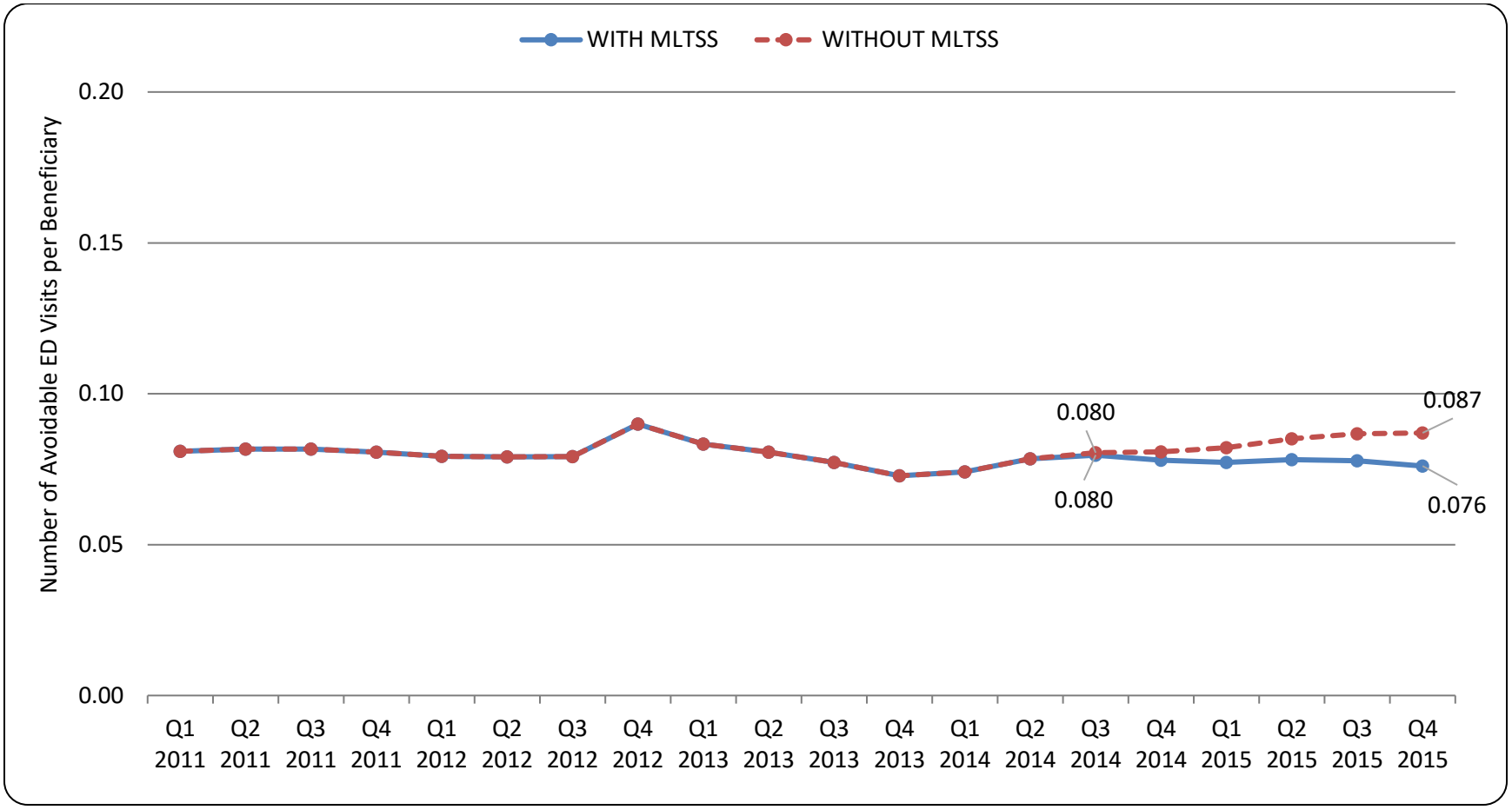
Figure 3B.1: Regression-based rates of avoidable inpatient hospitalizations with and without MLTSS effect among the Medicaid managed care population



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: The vertical axis denotes the numerical probability of hospitalization. This ranges from zero to a maximum of 1 denoting 100% probability. Here, the probability of an avoidable inpatient hospitalization is <1% in every quarter.

Figure 3B.2: Regression-based rates of avoidable ED visits with and without MLTSS effect among the Medicaid managed care population



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: ED=Emergency Department.

Table 3B.2: Unadjusted MLTSS impact on avoidable hospitalizations and ED visit rates among the HCBS and NF populations

	non-LTC ABD		HCBS			NF		
	pre-MLTSS	post-MLTSS	pre-MLTSS	post-MLTSS	Unadjusted DD[a]	pre-MLTSS	post-MLTSS	Unadjusted DD[b]
	(a)	*(b)*	*(c)*	*(d)*		*(e)*	*(f)*	
Average rate of avoidable IP hospitalizations per quarter	1.0%	0.8%	2.2%	1.7%	-0.2	1.2%	1.2%	0.3
Average number of avoidable ED visits per quarter	0.10	0.09	0.06	0.06	0.01	0.03	0.03	0.01

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled; DD=Difference in Differences; IP=Inpatient; ED=Emergency Department; NF=Nursing Facility.

Avoidable inpatient utilization rate denotes the average likelihood of at least one avoidable hospitalization by a Medicaid beneficiary during the quarter.

Avoidable ED utilization rate denotes the sum total of ED visits by a person during a quarter.

Not adjusted for beneficiary or area characteristics.

For avoidable inpatient hospitalizations the unadjusted difference in differences is a percentage point change.

[a]Calculated as [*d*-*c*]-[*b*-*a*]

[b]Calculated as [*f*-*e*]-[*b*-*a*]

Table 3B.3: Adjusted MLTSS impact on avoidable inpatient hospitalizations and ED visit rates among the HCBS and NF populations

MLTSS Impact Estimates	Avoidable Inpatient Utilization	Avoidable ED Utilization
(n=5,472,818)		
HCBS * Post-MLTSS	0.00041	0.01335***
	(0.00064)	(0.00223)
(n=5,670,368)		
NF * Post-MLTSS	0.00041	-0.00538*
	(0.00095)	(0.003)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: ED=Emergency Department; HCBS=Home and Community-Based Services; NF=Nursing Facility.
Person-quarter level difference-in-differences regression analysis with zip code fixed effects.
Models adjusted for sex, elderly status, quarterly time trends, waiver initiation, Medicaid expansion, CDPS risk category, and enrollment days per quarter.
Significant difference in avoidable ED pre-trends between HCBS and comparison group equaling 0.00065.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table 3B.4: Unadjusted MLTSS impact on average per person, per quarter costs related to avoidable inpatient hospitalizations and ED visits among the HCBS and NF populations

	non-LTC ABD		HCBS			NF		
	pre-MLTSS	post-MLTSS	pre-MLTSS	post-MLTSS	Unadjusted Ratio of Ratios[a]	pre-MLTSS	post-MLTSS	Unadjusted Ratio of Ratios[b]
	(a)	*(b)*	*(c)*	*(d)*		*(e)*	*(f)*	
Avoidable IP cost	$47.19	$36.14	$35.34	$37.78	1.40	$38.50	$44.57	1.51
Avoidable ED cost	$20.60	$21.20	$6.32	$8.22	1.26	$5.48	$5.20	0.92

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: IP=Inpatient; ED=Emergency Department; HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled; NF=Nursing Facility.

Unadjusted observed costs calculated by dividing total costs relating to a group by the number of person-quarters in the period.

Not adjusted for beneficiary or area characteristics.

[a]Calculated as [*d/c*]/[*b/a*]

[b]Calculated as [f*/e*]/[*b/a*]

Table 3B.5: Adjusted MLTSS impact on avoidable inpatient and avoidable ED costs among the HCBS and NF populations

MLTSS Impact Estimates	Avoidable Inpatient Costs	Avoidable ED Costs
(n=5,472,818)		
HCBS * Post-MLTSS	2.3274***	.9418
	(0.450)	(0.0543)
(n=5,670,368)		
NF * Post-MLTSS	1.3596	.6817***
	(0.269)	(0.0682)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: ED=Emergency Department; HCBS=Home and Community-Based Services; NF=Nursing Facility.

Person-quarter level gamma regression analysis with log link and zip code fixed effects. Table reports the exponentiated coefficient of the interaction term giving the ratio of the two ratios as described in Table 3B.4, but after adjusting for patient and geographic factors.

Models adjusted for sex, elderly status, CDPS risk category, and enrollment days per quarter.

Robust standard errors in parentheses.

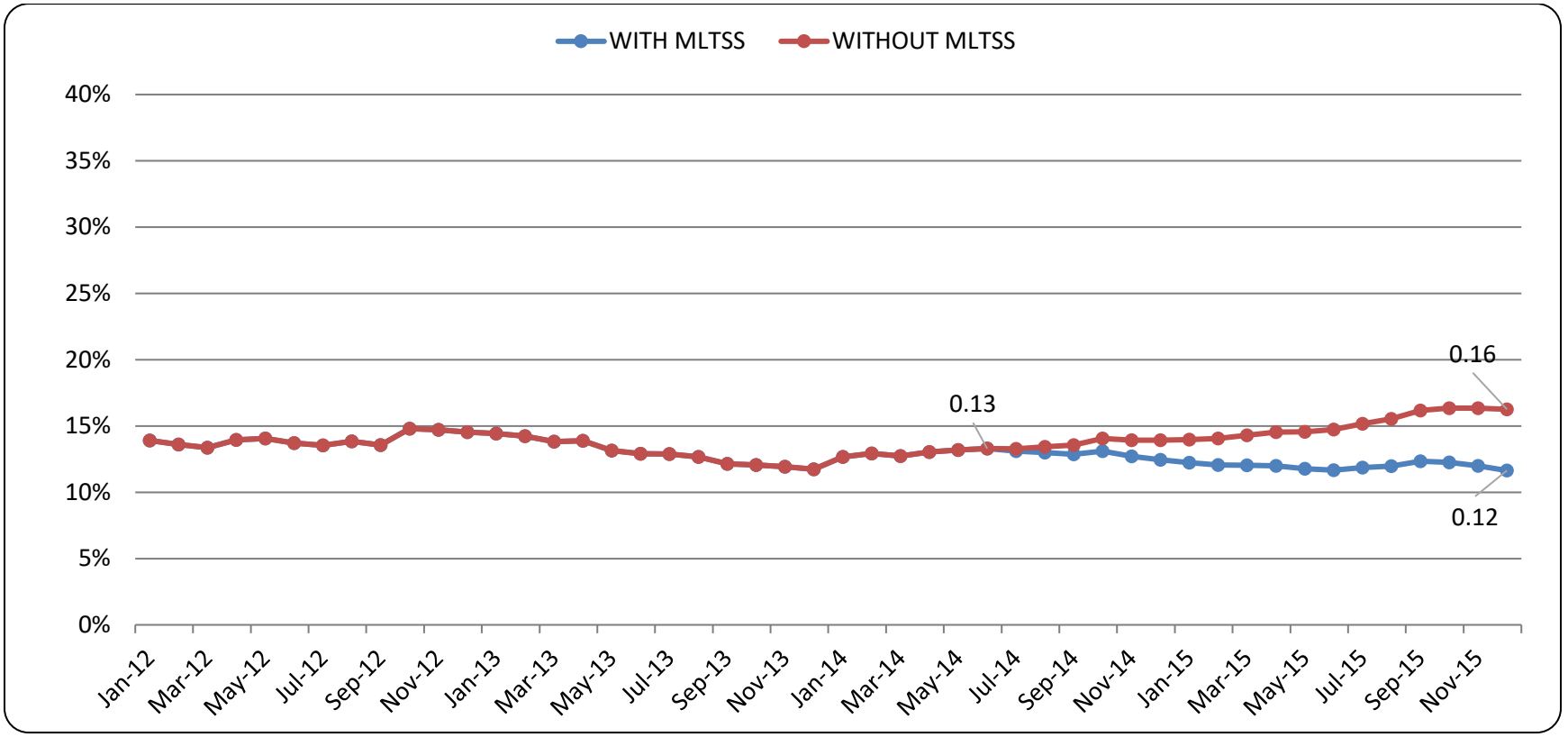
*** p<0.01, ** p<0.05, * p<0.1

Table 3B.6: MLTSS impact on hospital readmissions among the Medicaid managed care population

MLTSS Impact Estimates	Hospital-Wide *(n=283,930)*	Heart Failure *(n=8,573)*	AMI *(n=3,450)*	Pneumonia *(n=8,297)*
mltss_post	0.00089	0.02243	-0.04616	-0.00738
	(0.00394)	(0.02418)	(0.03422)	(0.02751)
mltss_time	-0.00261***	-0.00588	-0.01396	-0.00396
	(0.00101)	(0.00673)	(0.00933)	(0.00539)
Overall statistical significance	***	n.s.	n.s.	n.s.
Net change as of Dec. 2015	-0.04617**	-0.08334	-0.29736	-0.07866

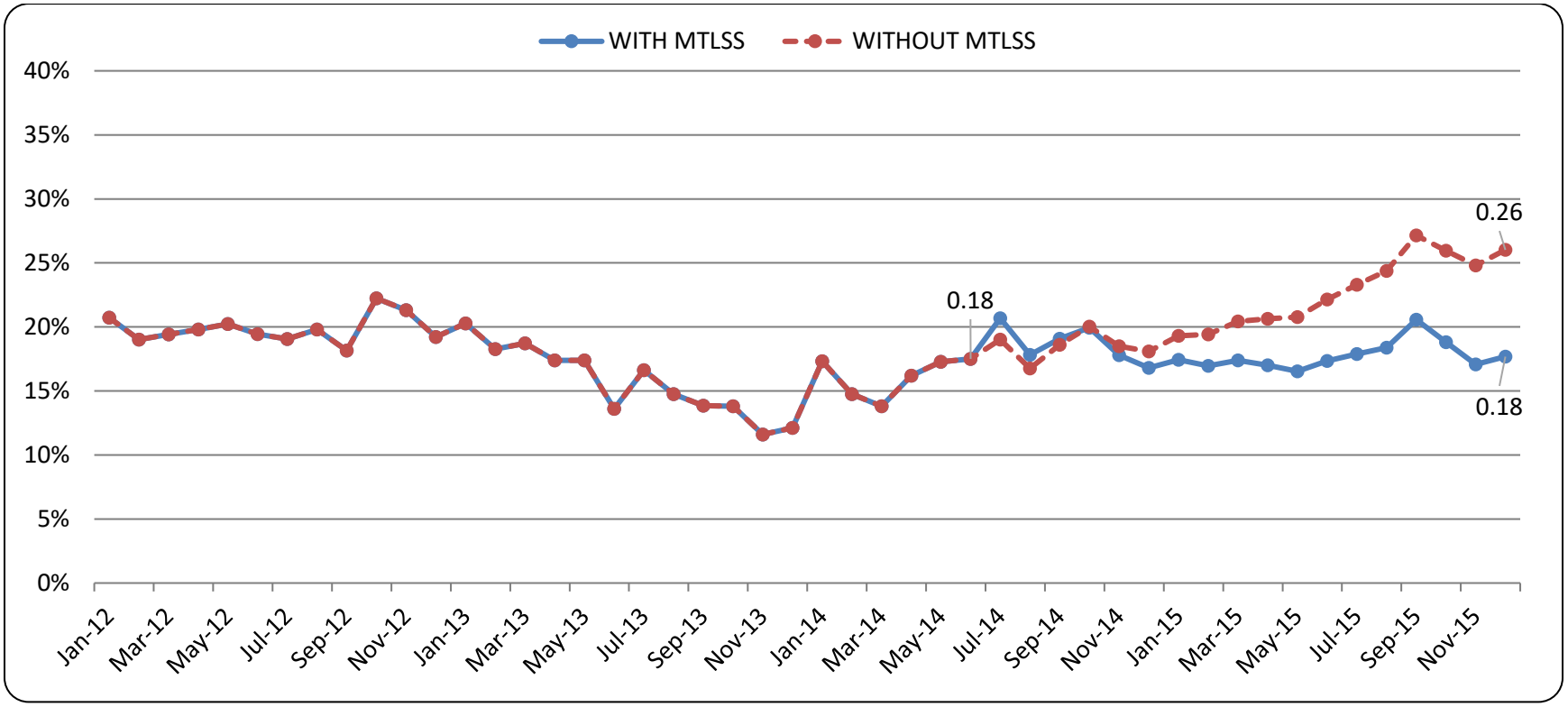
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: AMI=Acute Myocardial Infarction.
Hospital readmissions for initial index hospitalizations that may be all-cause or related to heart failure, AMI, or pneumonia.
Discharge-level segmented regression analysis with hospital fixed effects.
Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and all condition-specific risk factors listed in Appendix F.
Overall statistical significance is noted as n.s. (not significant) if the joint effect of mltss_post and mltss_time was not significant.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Figure 3B.3: Regression-based probability of 30-day readmission following all-cause hospitalizations with and without MLTSS effect among the Medicaid managed care population



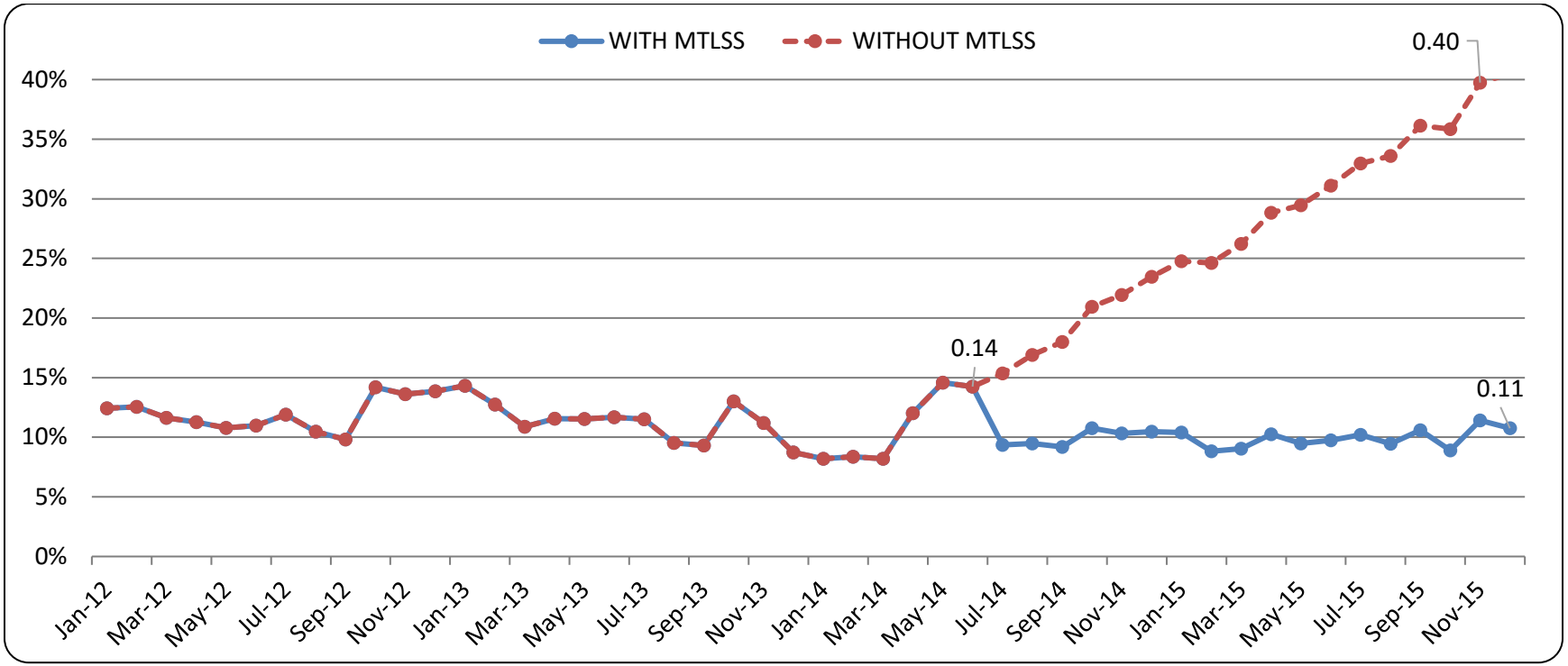
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Figure 3B.4: Regression-based probability of 30-day readmission following heart failure hospitalizations with and without MLTSS effect among the Medicaid managed care population



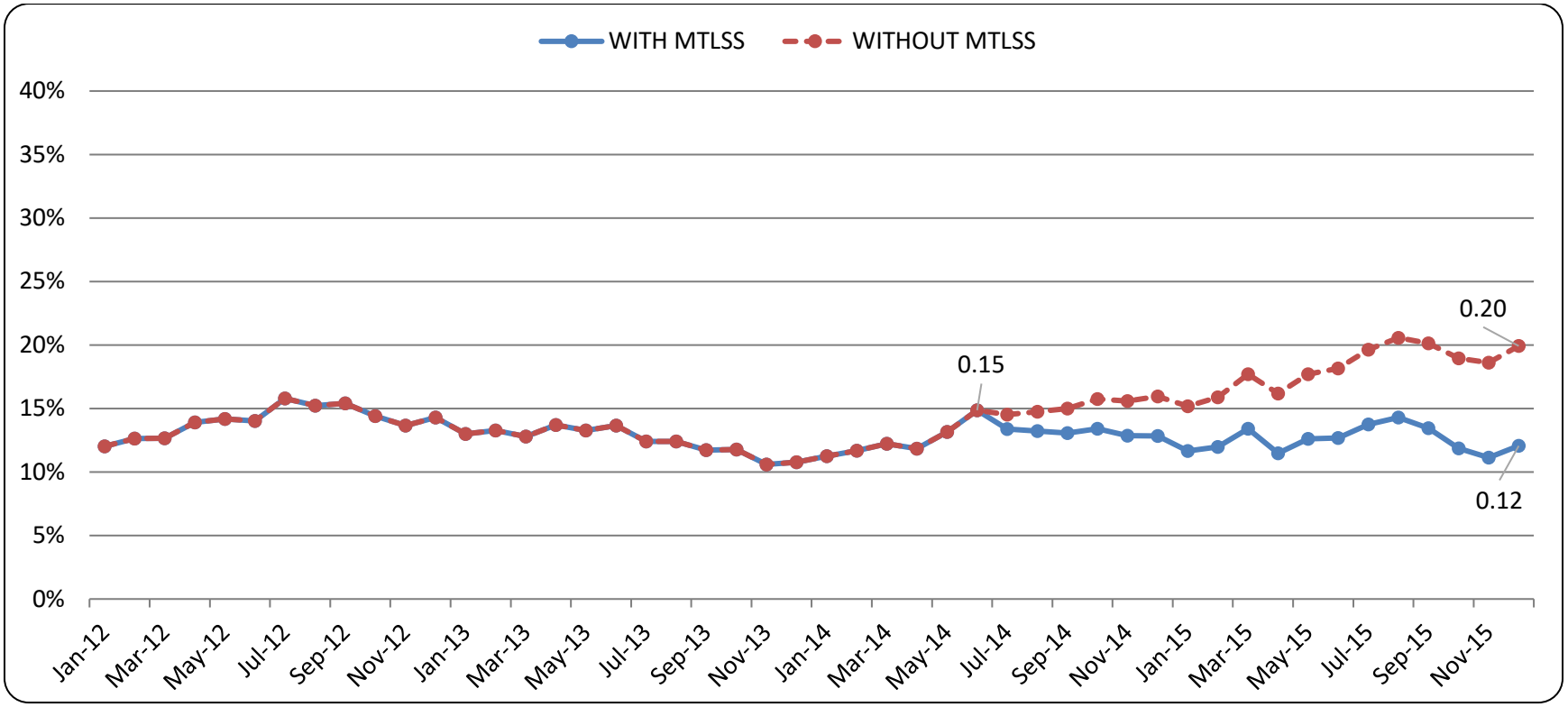
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Figure 3B.5: Regression-based probability of 30-day readmission following acute myocardial infarction hospitalizations with and without MLTSS effect among the Medicaid managed care population



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Figure 3B.6: Regression-based probability of 30-day readmission following pneumonia hospitalizations with and without MLTSS effect among the Medicaid managed care population



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Table 3B.7: Unadjusted MLTSS impact on 30-day hospital readmission rates among the HCBS and NF populations

	non-LTC ABD		HCBS			NF		
Readmission Type	**pre-MLTSS** *(a)*	**post-MLTSS** *(b)*	**pre-MLTSS** *(c)*	**post-MLTSS** *(d)*	**Unadjusted DD[a]**	**pre-MLTSS** *(e)*	**post-MLTSS** *(f)*	**Unadjusted DD[b]**
Hospital-Wide	15.4%	14.3%	8.8%	9.8%	2.2	10.3%	15.9%	6.8
Heart Failure	18.3%	17.2%	8.7%	11.7%	4.2	10.3%	*	*
AMI	12.4%	10.0%	4.5%	5.9%	3.8	7.7%	*	*
Pneumonia	11.9%	10.6%	7.0%	11.7%	6.1	9.6%	12.2%	3.9

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled; NF=Nursing Facility; DD= Difference in Differences; AMI=Acute Myocardial Infarction.

Not adjusted for beneficiary or provider characteristics.

Units of unadjusted difference in differences is a percentage point change.

[a]Calculated as [*d*-*c*]-[*b*-*a*]

[b]Calculated as [*f*-*e*]-[*b*-*a*]

*Estimate suppressed due to insufficient sample size.

Table 3B.8: Adjusted MLTSS impact on hospital readmission rates among the HCBS and NF populations

MLTSS Impact Estimates	Hospital-Wide *HCBS (n=173,272)* *NF (n=181,619)*	Heart Failure *HCBS (n=7,852)* *NF (n=7,933)*	AMI *HCBS (n=2,698)* *NF (n=2,735)*	Pneumonia *HCBS (n=7,571)* *NF (n=9,350)*
HCBS * Post-MLTSS	0.01162*	0.03055	0.02551	0.06072**
	(0.00686)	(0.02855)	(0.02990)	(0.02404)
NF * Post-MLTSS	0.08650***	0.12381*	0.05237	0.03930
	(0.02522)	(0.07120)	(0.05150)	(0.05315)

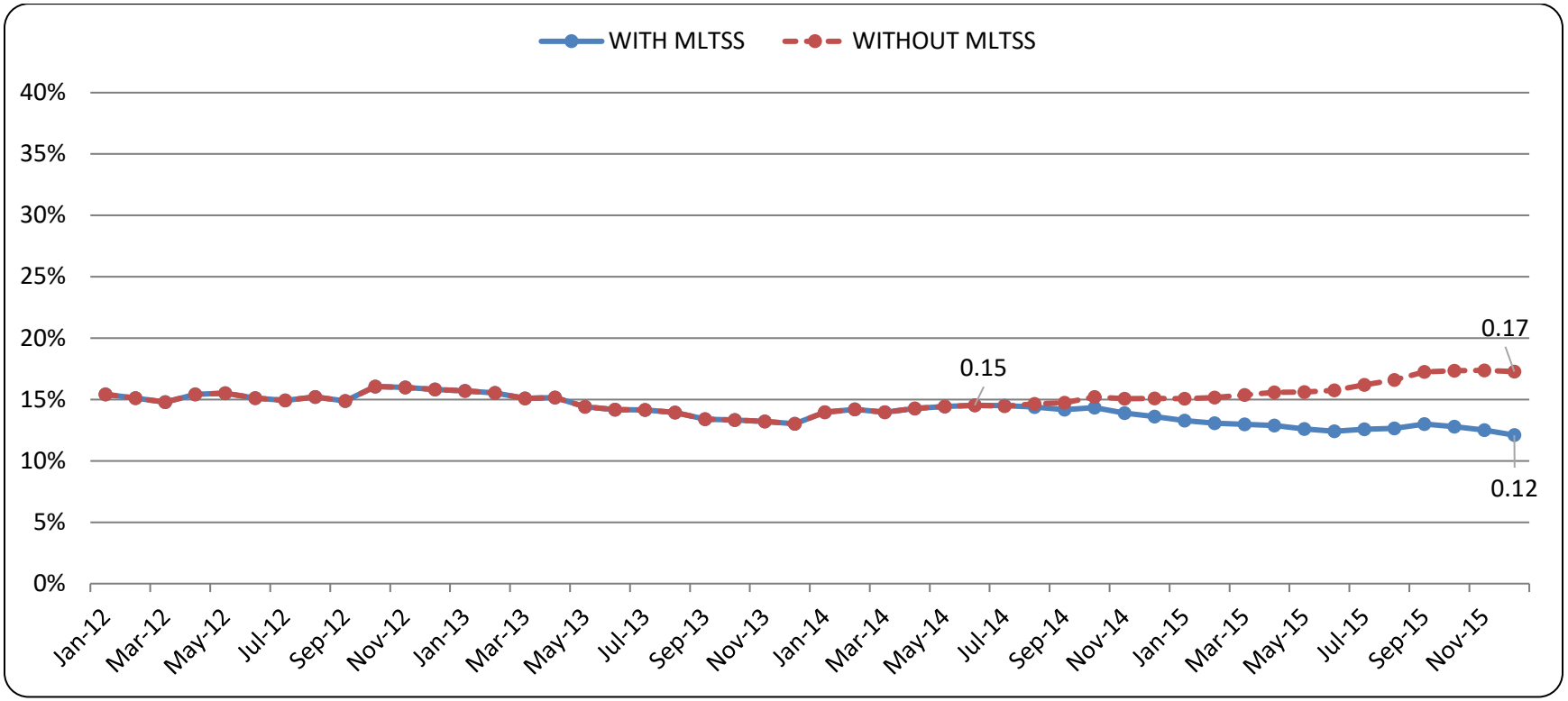
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: AMI=Acute Myocardial Infarction; HCBS=Home and Community-Based Services; NF=Nursing Facility.
Hospital readmissions for initial index hospitalizations that may be all-cause or related to heart failure, AMI, or pneumonia.
Discharge level difference-in-differences regression analysis with hospital fixed effects.
Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and all condition-specific risk factors listed in Appendix F.
Shaded estimates are based on small sample sizes that may affect the reliability of these estimates.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table 3B.9: MLTSS impact on hospital-wide readmissions among the Medicaid managed care population with a behavioral health condition

MLTSS Impact Estimates	Hospital-Wide *(n=179,182)*
mltss_post	0.00365
	(0.00577)
mltss_time	-0.00308**
	(0.00149)
Overall statistical significance	**
Net change as of Dec. 2015	-0.05176*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Discharge-level segmented regression analysis with hospital fixed effects.
Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and all condition-specific risk factors listed in Appendix F.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Figure 3B.7: Regression-based probability of 30-day readmission following all-cause hospitalizations with and without MLTSS effect for the Medicaid managed care population with a behavioral health condition



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Table 3B.10: Unadjusted MLTSS impact on 30-day hospital-wide readmission rates among the HCBS and NF populations with a behavioral health condition

	non-LTC ABD with a BH condition		HCBS with a BH condition			NF with a BH condition		
	pre-MLTSS	post-MLTSS	pre-MLTSS	post-MLTSS	Unadjusted DD[a]	pre-MLTSS	post-MLTSS	Unadjusted DD[b]
	(a)	*(b)*	*(c)*	*(d)*		*(e)*	*(f)*	
Hospital-Wide Readmissions	18.4%	16.8%	10.3%	12.0%	3.2	10.3%	16.0%	7.3

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled; NF=Nursing Facility; BH=Behavioral Health; DD= Difference in Differences.

Not adjusted for beneficiary or provider characteristics.

Units of unadjusted difference in differences is a percentage point change.

[a]Calculated as [*d*-*c*]-[*b*-*a*]

[b]Calculated as [*f*-*e*]-[*b*-*a*]

Table 3B.11: Adjusted MLTSS impact on hospital-wide readmission rates among the HCBS and NF populations with a behavioral health condition

MLTSS Impact Estimate	Hospital-Wide Readmissions
(n=122,877)	
HCBS * Post-MLTSS	0.01459*
	(0.00813)
(n=133,138)	
NF * Post-MLTSS	0.09008***
	(0.02581)

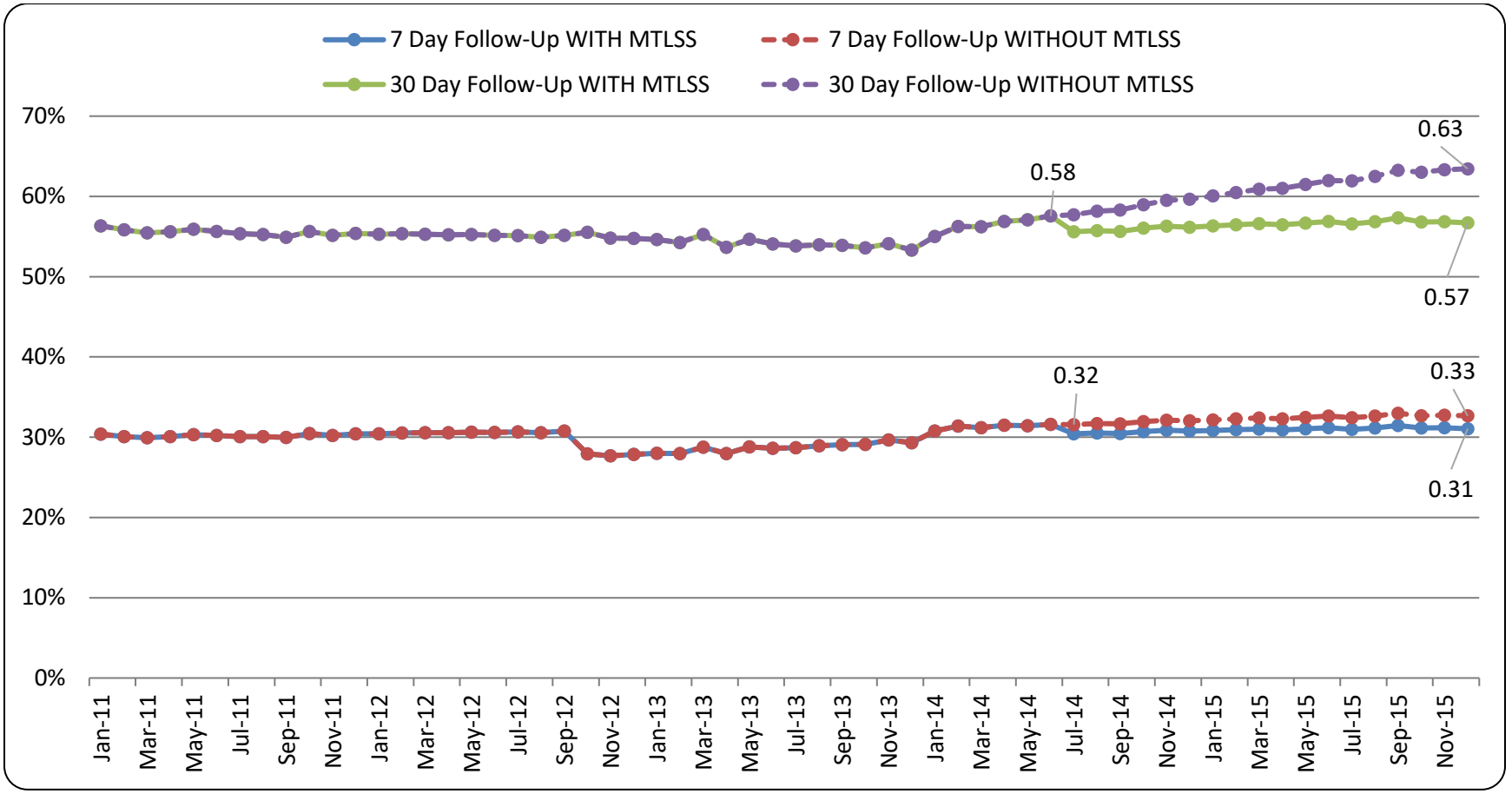
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; NF=Nursing Facility.
Discharge level difference-in-differences regression analysis with hospital fixed effects.
Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and all condition-specific risk factors listed in Appendix F.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table 3B.12: MLTSS impact on follow-up after mental illness hospitalization among the Medicaid managed care population

MLTSS Impact Estimates *(n=44,821)*	**Follow-up within 7 days**	**Follow-up within 30 days**
mltss_post	-0.01132	-0.01852
	(0.01407)	(0.01667)
mltss_time	-0.00026	-0.00271
	(0.00402)	(0.00447)
Overall statistical significance	n.s.	n.s.
Net change as of Dec. 2015	-0.01597	-0.06729

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level segmented regression analysis with hospital fixed effects.
Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and CDPS risk score category.
Overall statistical significance is noted as n.s. (not significant) if the joint effect of mltss_post and mltss_time was not significant.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Figure 3B.8: Regression-based rates of follow-up after mental illness hospitalization with and without MLTSS effect



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Table 3B.13: Unadjusted MLTSS impact on follow-up after mental illness hospitalization among the HCBS population

	non-LTC ABD		HCBS		Unadjusted Difference in Differences[a]
	pre-MLTSS	post-MLTSS	pre-MLTSS	post-MLTSS	
	(a)	*(b)*	*(c)*	*(d)*	
Follow-up within 7 days	25.6%	27.0%	23.6%	*	*
Follow-up within 30 days	49.8%	52.1%	40.7%	*	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.
Not adjusted for beneficiary and provider characteristics.
[a]Calculated as [*d*-*c*]-[*b*-*a*]; Units of unadjusted difference in differences is a percentage point change.
*Estimate suppressed due to insufficient sample size.

Table 3B.14: Adjusted MLTSS impact on follow-up after mental illness hospitalization among the HCBS population

MLTSS Impact Estimates *(n=24,594)*	Follow-up within 7 days	Follow-up within 30 days
HCBS * Post-MLTSS	0.06752	-0.03100
	(0.11585)	(0.12018)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Discharge level difference-in-differences regression analysis with hospital fixed effects.

Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and CDPS risk score category.

Shaded estimates are based on small sample sizes that may affect the reliability of these estimates.

Robust standard errors in parentheses.

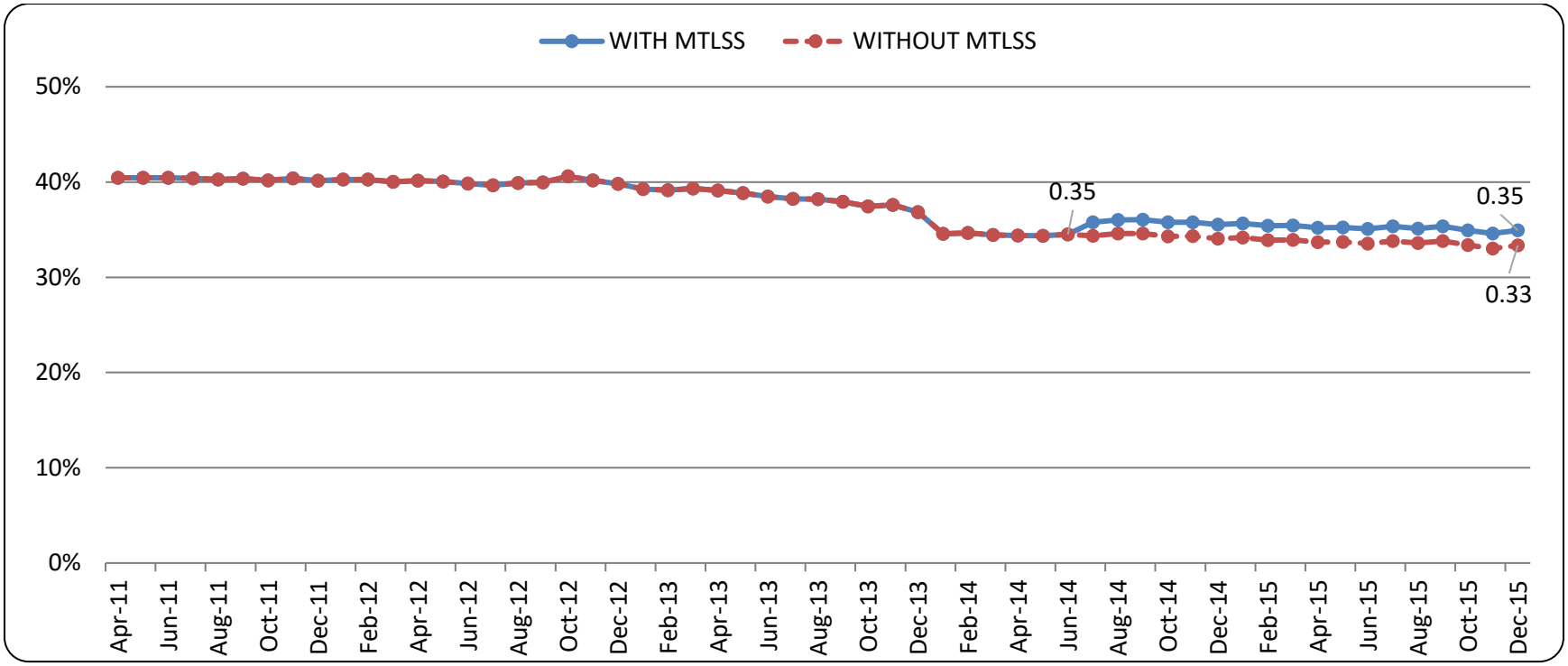
*** p<0.01, ** p<0.05, * p<0.1

Table 3B.15: MLTSS impact on 14-day ambulatory visit rates after hospitalization among the Medicaid managed care population

MLTSS Impact Estimates	Ambulatory Visit 14 Days After Discharge Home *(n=252,000)*
mltss_post	0.01423**
	(0.00684)
mltss_time	0.00009
	(0.00253)
Overall statistical significance	*
Net change as of Dec. 2015	0.01579*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Discharge-level segmented regression analysis with hospital fixed effects.
Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and CDPS risk score category.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Figure 3B.9: Regression-based 14-day ambulatory visit rates after hospitalization with and without MLTSS effect



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Table 3B.16: Unadjusted MLTSS impact on 14-day ambulatory visit rates after hospitalization among the HCBS population

	non-LTC ABD		HCBS		Unadjusted Difference in Differences[a]
	pre-MLTSS *(a)*	post-MLTSS *(b)*	pre-MLTSS *(c)*	post-MLTSS *(d)*	
Ambulatory visit 14 days after discharge home	32.4%	29.2%	21.4%	18.6%	0.4

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.
Not adjusted for beneficiary and provider characteristics.
[a]Calculated as [*d*-*c*]-[*b*-*a*]; Units of unadjusted difference in differences is a percentage point change.

Table 3B.17: Adjusted MLTSS impact on ambulatory visit rates after hospitalization among the HCBS population

MLTSS Impact Estimates	Ambulatory Visit 14 Days After Discharge Home *(n=131,149)*
HCBS * Post-MLTSS	0.00588
	(0.01049)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services.
Discharge level difference-in-differences regression analysis with hospital fixed effects.
Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and CDPS risk score category.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table 3B.18: Unadjusted MLTSS impact on racial/ethnic disparities in avoidable hospitalizations and hospital-wide readmissions among the HCBS and NF populations

	non-LTC ABD		HCBS				NF			
Average rate of avoidable IP hospitalizations per quarter	**pre-MLTSS** *(a)*	**post-MLTSS** *(b)*	**pre-MLTSS** *(c)*	**post-MLTSS** *(d)*	**Unadjusted DD[a]** *(e)*	**Unadjusted Disparity Effect[c]**	**pre-MLTSS** *(f)*	**post-MLTSS** *(g)*	**Unadjusted DD[b]** *(h)*	**Unadjusted Disparity Effect[d]**
(1) White	0.9%	0.7%	2.0%	1.5%	-0.3		1.0%	1.0%	0.3	
(2) Black	1.3%	1.0%	2.9%	2.4%	-0.1	0.16	1.6%	1.5%	0.2	-0.04
(3) Hispanic	1.0%	0.7%	2.6%	1.9%	-0.4	-0.14	1.9%	2.6%	1.0	0.71
(4) Other	0.9%	0.6%	2.4%	1.8%	-0.4	-0.06	1.6%	1.3%	-0.1	-0.38
Hospital-wide Readmissions										
(1) White	13.6%	12.4%	7.5%	5.8%	-0.6		7.9%	14.1%	7.3	
(2) Black	19.4%	19.1%	11.1%	16.0%	5.2	5.76	14.4%	19.0%	4.9	-2.40
(3) Hispanic	13.3%	10.9%	8.2%	10.8%	5.0	5.62	9.6%	18.6%	11.5	4.15
(4) Other	12.9%	10.8%	12.0%	11.6%	1.8	2.34	12.4%	15.0%	4.7	-2.56

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled; NF=Nursing Facility.
Not adjusted for beneficiary and provider characteristics.
Units of unadjusted difference in differences and unadjusted disparity effects are a percentage point change.
[a]Calculated as [*d-c*]-[*b-a*]
[b]Calculated as [g-f]-[b-a]
[c]Calculated as *[e-e(1)]*
[d]Calculated as *[h-h(1)]*

Table 3B.19: Adjusted MLTSS impact on racial/ethnic disparities in avoidable hospitalizations and hospital-wide readmissions among the HCBS and NF populations

MLTSS Disparity Effect Estimates	Avoidable Inpatient Utilization *HCBS (n=5,466,537)* *NF (n=5,663,924)*	Hospital-wide Readmissions *HCBS (n=173,028)* *NF (n=181,366)*
Black * HCBS * Post-MLTSS	0.00097	0.04352**
	(0.00188)	(0.01910)
Hispanic * HCBS * Post-MLTSS	-0.00219	0.03727
	(0.00185)	(0.02327)
Other * HCBS * Post-MLTSS	-0.00211	0.02223
	(0.00246)	(0.02855)
Black * NF * Post-MLTSS	0.00160	-0.02908
	(0.00244)	(0.04562)
Hispanic * NF * Post-MLTSS	0.00830	0.07200
	(0.00520)	(0.04663)
Other * NF * Post-MLTSS	-0.00136	0.02867
	(0.00282)	(0.05332)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; NF=Nursing Facility.
Discharge level difference-in-differences regression analysis with hospital fixed effects.
Avoidable inpatient hospitalization models adjusted for sex, elderly status, quarterly time trends, waiver initiation, Medicaid expansion, CDPS risk category, and enrollment days per quarter.
Hospital-wide readmission models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and all condition-specific risk factors listed in Appendix F.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Section C

In this descriptive analysis section, we examine rates of admissions for ambulatory care sensitive (ACS) conditions and overall emergency department visits for all Medicaid beneficiaries compared to similar rates for the entire NJ population based on all-payer data. These findings explore whether hospital utilization trends differ or are similar between Medicaid and other payers, thus putting the Medicaid-specific results discussed in sections A and B in the context of broader health system performance. It is important to note that the inclusion and exclusion criteria for the ACS conditions are not identical between the data used to generate all-payer rates and the methodology we employed for calculating ACS rates in the Medicaid claims data. However, comparing the trends for each group over time can be illustrative, and we focus on the slope of the linear trend from the baseline average through 2015 as the relevant indicator of the similarity or difference in utilization trends. The noted comparisons have not been tested for statistical significance.

Figures 3C.1 and 3C.2 show trends in ACS hospitalizations for diabetes-related conditions. Admissions for short-term diabetes complications have grown more rapidly among Medicaid beneficiaries during the waiver demonstration period than in New Jersey overall (0.55 vs. 0.10, respectively). The linear trend for uncontrolled diabetes over this period is nearly identical between Medicaid and NJ overall, although between 2014 and 2015 there was a marked increase in such admissions for Medicaid beneficiaries.

Figures 3C.3 and 3C.4 display trends in avoidable admissions for COPD and asthma. The trend has been declining in NJ and Medicaid overall, but for older adults (age 40+), the rate of these admissions declined more rapidly in the Medicaid population over the waiver demonstration period. For younger adults (age 18-39), the Medicaid trend has been more volatile and declining only slightly more rapidly overall than for all of New Jersey's young adults.

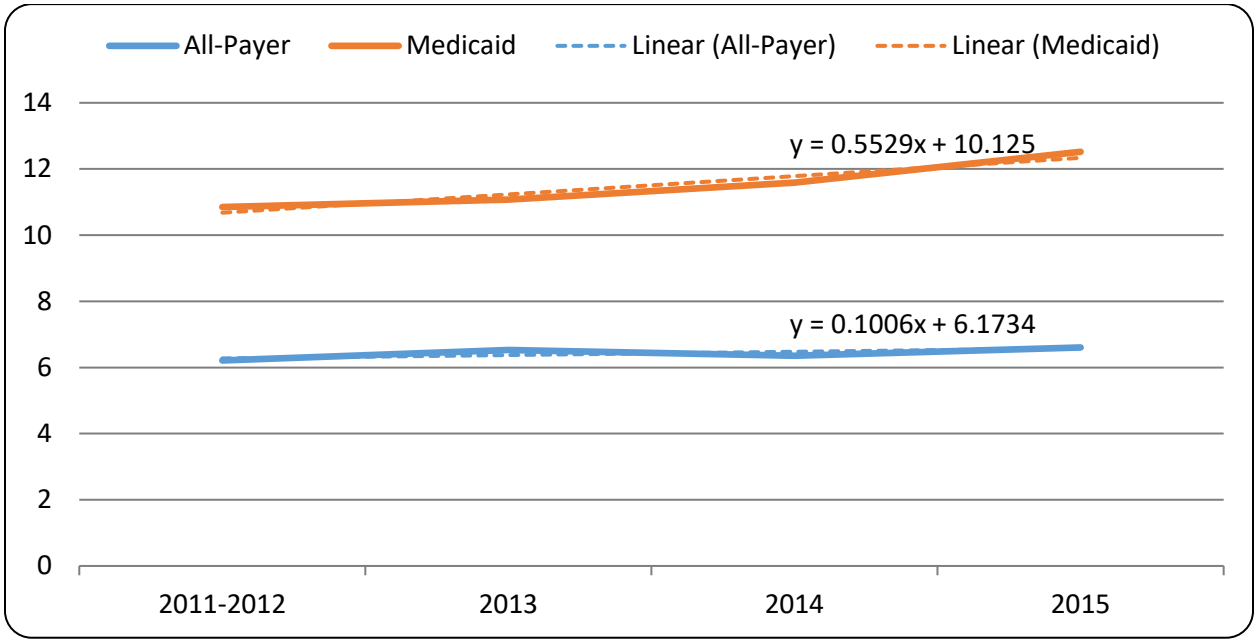
Figure 3C.5 has trends in preventable hospitalizations for hypertension. These have been declining at a similar rate for both Medicaid beneficiaries and NJ adults overall. For preventable heart failure admissions, Figure 3C.6 shows a more rapid decline for the Medicaid population than in NJ overall, but that declining trend reverses between 2014 and 2015. In Figure 3C.7, rates of avoidable admissions for angina are also declining more rapidly for the Medicaid population that in NJ overall, but this measure is not available for the Medicaid population in 2015 to determine whether that trend continues.

Turning to figures 3C.8 and 3C.9 which show avoidable admissions for two acute conditions, bacterial pneumonia and kidney/urinary tract infections, we again see the more rapidly declining

trend in these admissions among Medicaid beneficiaries compared to NJ overall, but a leveling out occurring Medicaid between 2014-2015 that does not occur for NJ overall.

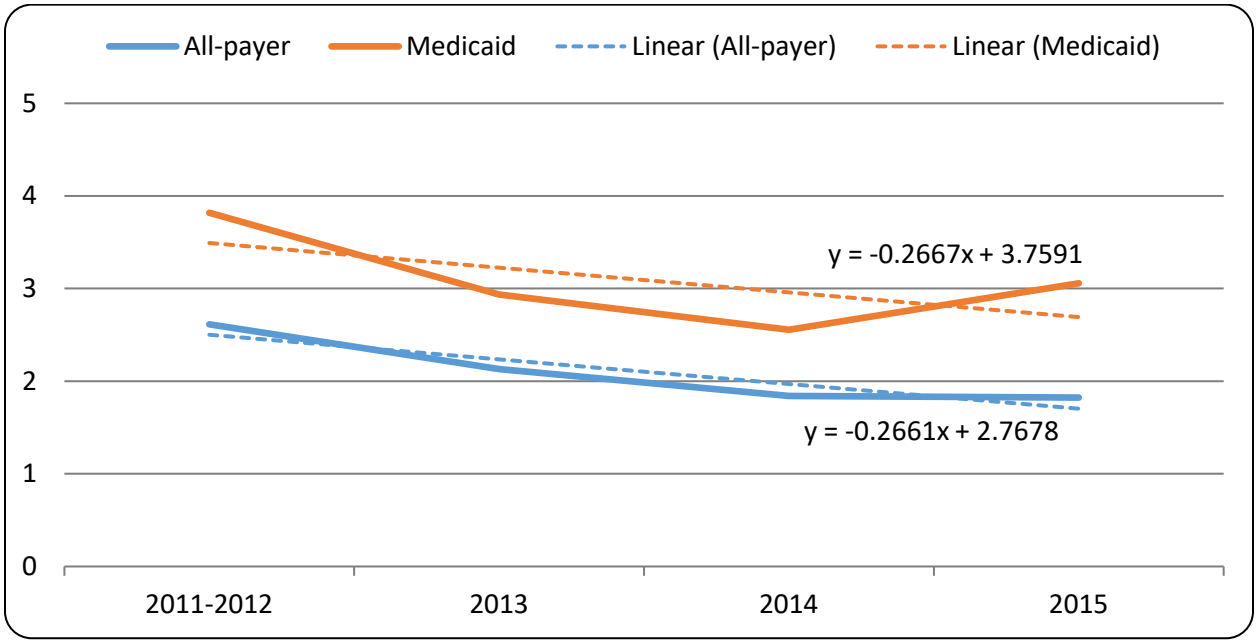
Finally in Figure 3C.10 we see rates of emergency department visits. The rate of ED visits has climbed slightly during the waiver demonstration period for both Medicaid beneficiaries and NJ overall. The degree of increase has been a little higher in the Medicaid population (58.6 vs. 45.6).

Figure 3C.1: Rates of diabetes short-term complications admissions per 10,000 adults for the NJ all-payer and overall Medicaid populations



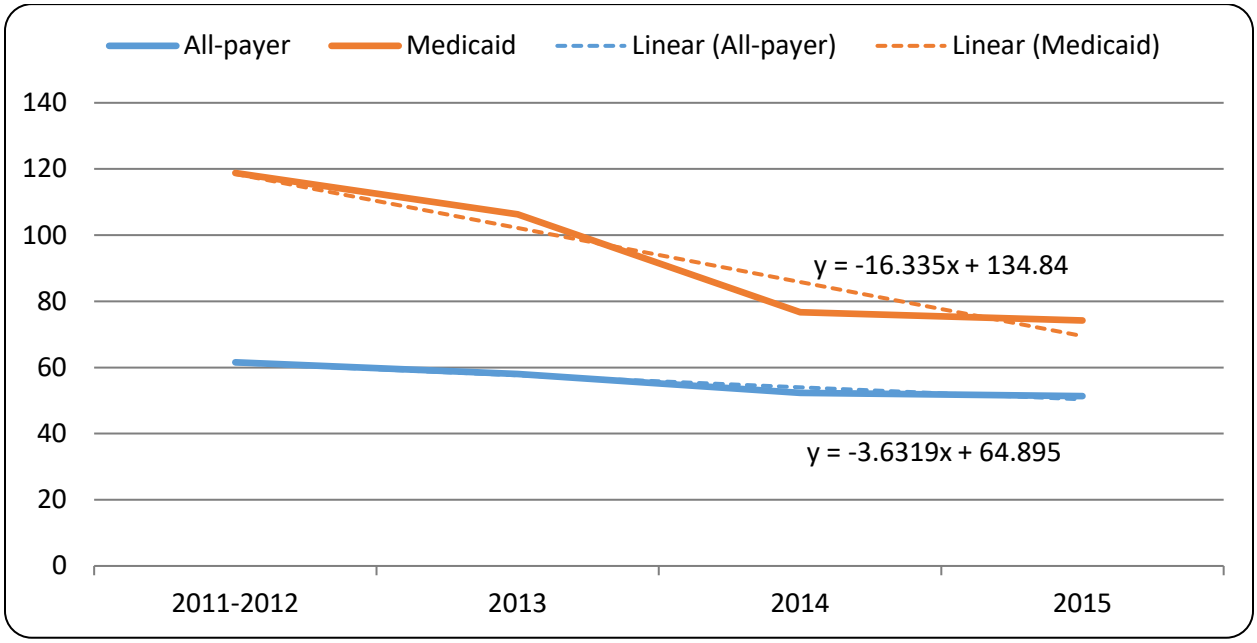
Source: NJSHAD Hospitalization Data and Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Figure 3C.2: Rates of uncontrolled diabetes admissions per 10,000 adults for the NJ all-payer and overall Medicaid populations



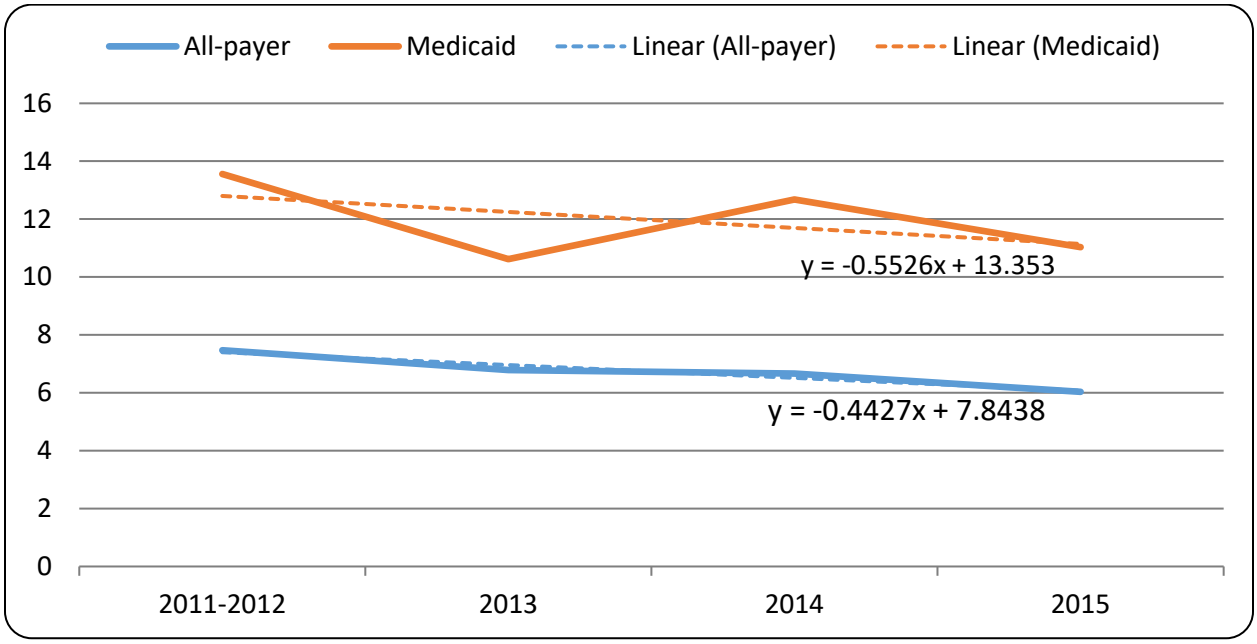
Source: NJSHAD Hospitalization Data and Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Figure 3C.3: Rates of COPD and asthma admissions per 10,000 older adults for the NJ all-payer and overall Medicaid populations



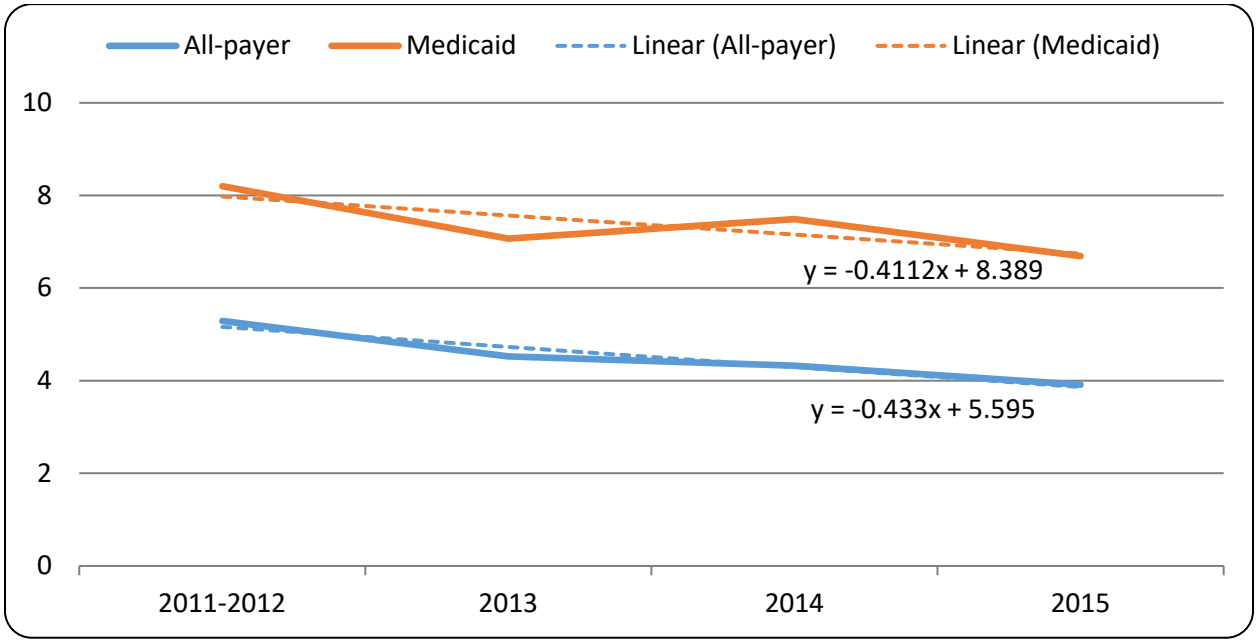
Source: NJSHAD Hospitalization Data and Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Figure 3C.4: Rates of asthma admissions per 10,000 young adults for the NJ all-payer and overall Medicaid populations



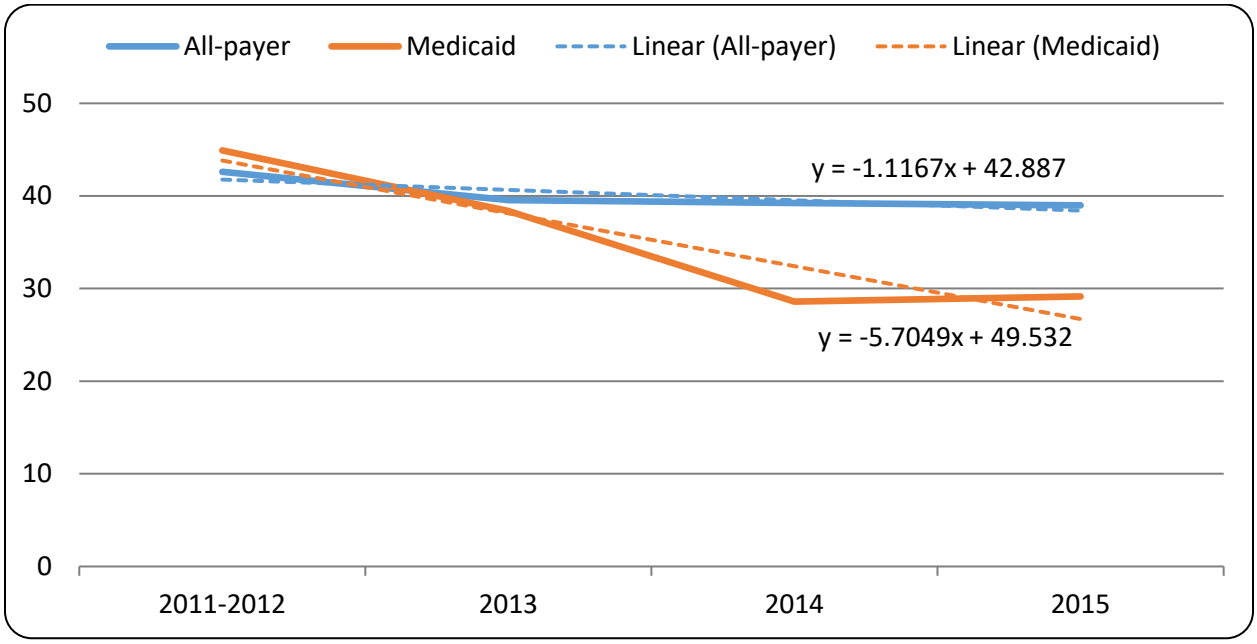
Source: NJSHAD Hospitalization Data and Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Figure 3C.5: Rates of hypertension admissions per 10,000 adults for the NJ all-payer and overall Medicaid populations



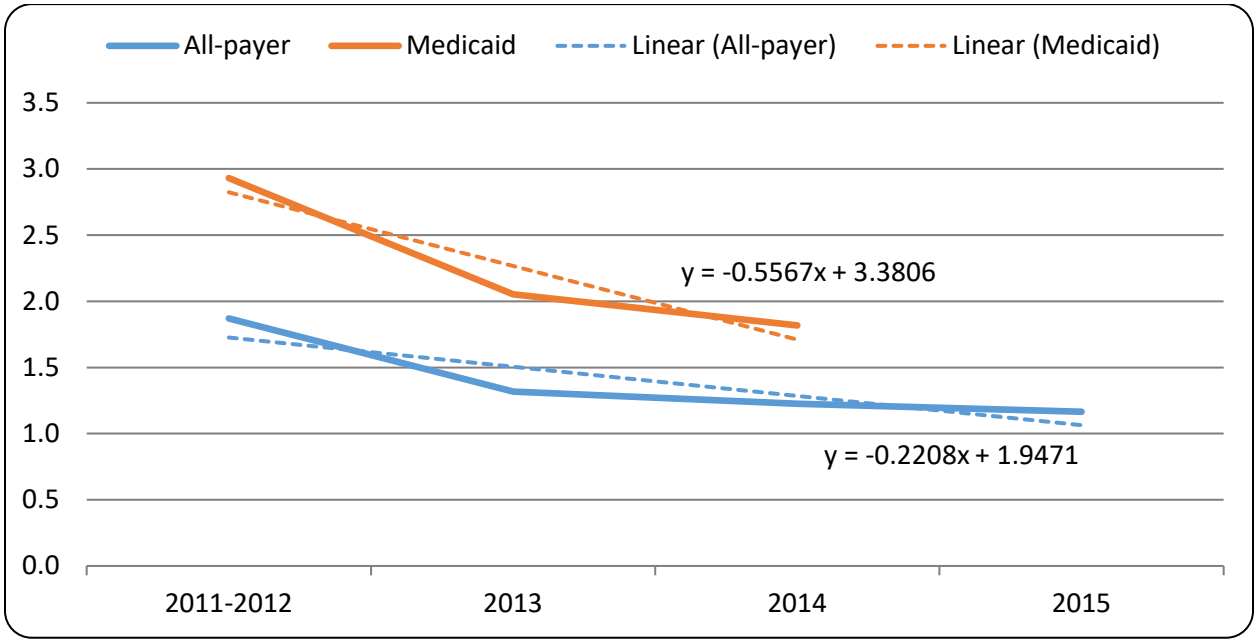
Source: NJSHAD Hospitalization Data and Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Figure 3C.6: Rates of heart failure admissions per 10,000 adults for the NJ all-payer and overall Medicaid populations



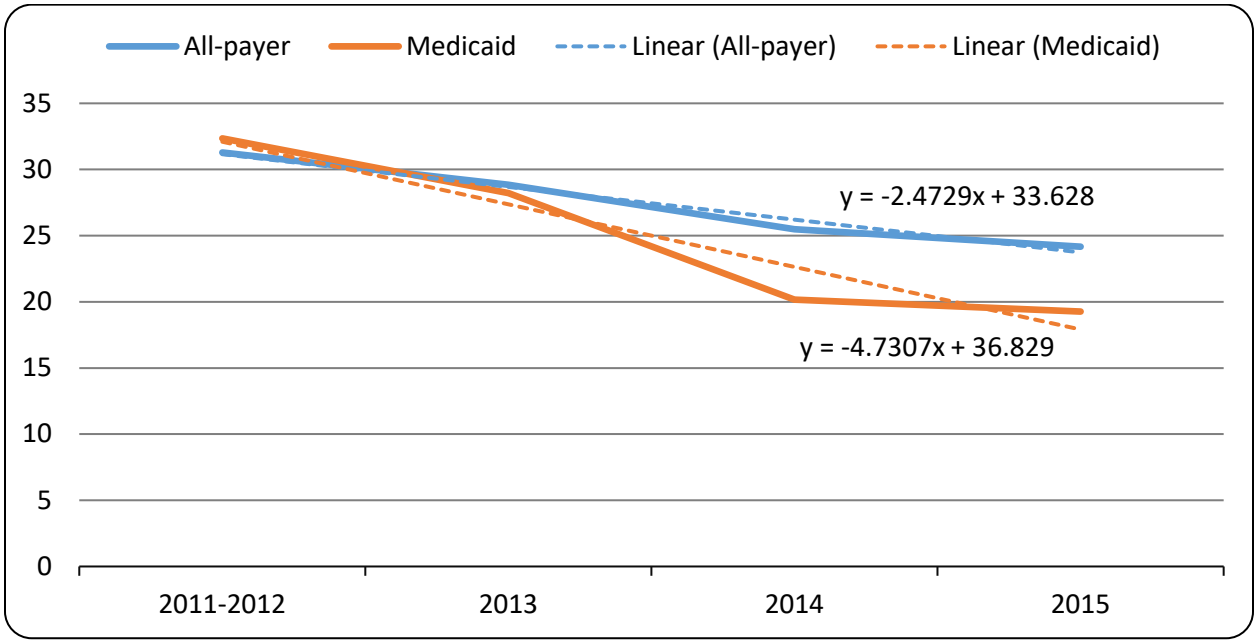
Source: NJSHAD Hospitalization Data and Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Figure 3C.7: Rates of angina admissions per 10,000 adults for the NJ all-payer and overall Medicaid populations



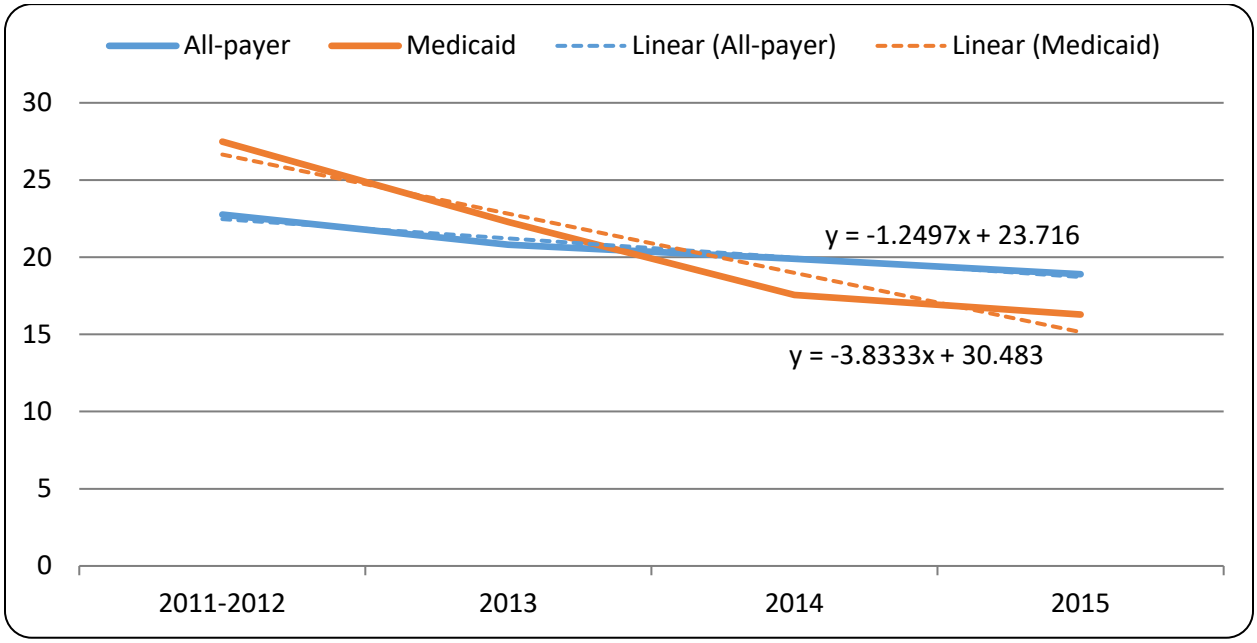
Source: NJSHAD Hospitalization Data and Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Figure 3C.8: Rates of bacterial pneumonia admissions per 10,000 adults for the NJ all-payer and overall Medicaid populations



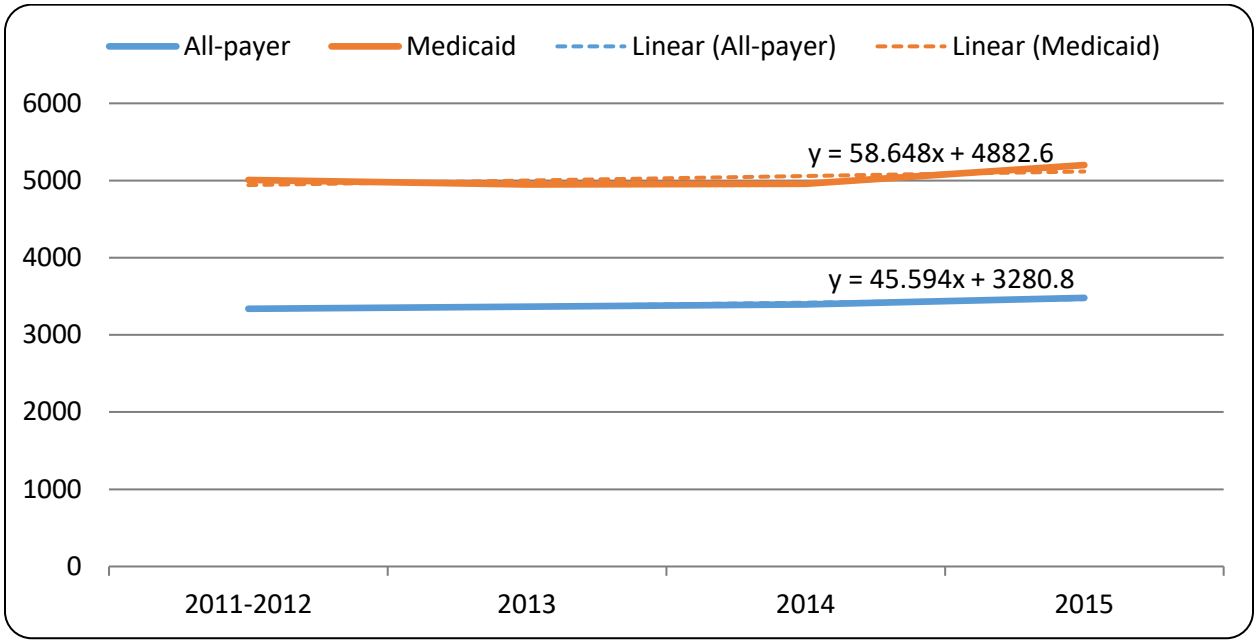
Source: NJSHAD Hospitalization Data and Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Figure 3C.9: Rates of kidney and/or urinary tract infection admissions per 10,000 adults for the NJ all-payer and overall Medicaid populations



Source: NJSHAD Hospitalization Data and Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Figure 3C.10: Rates of emergency department visits per 10,000 population for the NJ all-payer and overall Medicaid populations



Source: NJSHAD Hospitalization Data and Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.

Discussion

In this chapter, we utilized Medicaid claims data to calculate a set of metrics relevant for evaluating the transition to Managed Long-term Service and Supports under the Waiver. These metrics include avoidable inpatient hospitalizations and ED visits that arise due to inadequate ambulatory or primary care in the community; hospital readmissions overall and for specific diseases that reflect potentially inadequate inpatient care and lack of care coordination; follow-up after mental illness hospitalizations that examines similar issues specifically for individuals with behavioral health conditions; and ambulatory visit rates that reflect the quality of care transitions. We also constructed several spending-related measures to see potential changes in distribution of spending over time and across places-of-care. Finally, we compared trends in avoidable inpatient hospitalizations and ED visits between Medicaid recipients and NJ patients overall, using all–payer information.

We will distill the many results presented in this chapter down to the key points relevant for answering the two research questions under our first evaluation hypothesis. First we discuss findings for the entire managed care population over the baseline and demonstration period. Then we comment on the evidence for rebalancing of spending from the nursing facility to the community. And finally, we summarize the direct impact of MLTSS on those long-term care beneficiaries enrolled in the program.

Overall Managed Care Population

The pattern in the descriptive trends for avoidable hospital use and ED visits that we observe in all-payer data for NJ overall, and in claims data for Medicaid and Medicaid managed care overall, reveal that the most notable trend differences occur starting in 2014 when both the Medicaid expansion and MLTSS commenced. This suggests that controlling for the impact of the Medicaid expansion is essential to isolating any potential influence of MLTSS on outcomes for the overall managed care population. Thus, we emphasize here the results of our adjusted regression analyses of the findings related to the first evaluation research question.

We find no significant impact of MLTSS on avoidable inpatient visits for the managed care population overall. We do estimate significant changes in avoidable ED visits when MLTSS was in effect, but the magnitude of such changes, while favorable, are small. By the end of 2015 there were 11 fewer avoidable ED visits per 1,000 beneficiaries than there would have been without MLTSS. It is also important to note that descriptive trends show avoidable inpatient and avoidable ED use for the Medicaid managed care population to be slightly decreasing, in line with overall inpatient and ED use.

For all four types of hospital readmissions, there is a declining trend in readmission rates associated with MLTSS, but that decline is only significant for hospital-wide readmissions, both for the overall managed care population (a 4.6 pp decline by December 2015, $p<0.05$) and for the subset with a diagnosed BH condition (5.2 pp decline by December 2015, $p<0.1$). Examination of follow-up after hospitalizations yielded mixed results. Despite the slight improvements we see in the descriptive unadjusted rates of follow-up after hospitalization for mental illness from baseline through 2015, our regression models estimate a decrease in these 7 and 30-day follow up rates post-MLTSS. However, these decreases are not significant. There is a small (1.6 percentage point) and significant ($p<0.10$) increase in ambulatory visits 14 days after discharge home.

Overall, there were no negative effects on the quality, efficiency, and coordination of care for the managed care population during the first 18 months of MLTSS implementation.

Rebalancing

The bulk of spending related to the LTC population across 2011-2015 is accounted for by the NF LTSS spending. Shifting spending away from facility care when possible is a promising strategy to control costs, and MLTSS has helped accelerate this rebalancing. Overall annual spending for the HCBS and NF populations has declined by about $300 million over 2011-2015, mostly as a result of declines in the magnitude of spending for the NF population. The greatest increases in the proportion of spending for the HCBS population occurred after implementation of MLTSS in July 2014.

We examined the effect of the MLTSS policy on the HCBS and NF populations that transitioned to managed care for their long-term care services on July 1, 2014. Our difference-in-differences analyses used the non-LTC ABD population as a comparison group to identify the extent to which differences in outcomes over time could be attributed to the effect of MLTSS. Thus, while descriptive results demonstrate overall changes in outcomes for the HCBS or NF populations, our regression analyses statistically estimates changes in outcomes associated with MLTSS.

HCBS Population

Descriptive results show increases in inpatient utilization and ED visits rates and commensurate increases in avoidable inpatient and ED use between 2014 and 2015 for the HCBS population. There is also an increase in avoidable hospital spending for the HCBS population. The increases in avoidable ED visits and avoidable inpatient spending persist in adjusted regression analyses and are statistically significant.

Hospital-wide, heart failure, and pneumonia readmission rates are all higher in 2015 than they were at baseline for the HCBS population, sometimes with pronounced increases between 2014 and 2015. Our adjusted DD estimate for all four readmission metrics also indicate increases in readmissions for the HCBS population, but only the increases in readmissions following hospitalization for pneumonia are statistically significant at the 5% level. The adjusted effect size for the HCBS population indicates a 6.1 pp increase in pneumonia readmission rates due to the MLTSS implementation. We also observe a 1.2 pp increase for the HCBS population in hospital-wide readmissions, but this was only marginally significant ($p<0.1$).

Regression analyses of follow-up after mental illness hospitalizations showed mixed results with an increase in 7 day follow ups and a decrease in 30 day follow ups. No effects were statistically significant, and the small sample for this analysis may limit the reliability of this finding. This small sample size limitation reduces our ability to assess the impact of the behavioral health integration under managed care which was also part of MLTSS. In descriptive analyses of avoidable hospitalizations, we do observe sharp increases among those HCBS beneficiaries with a BH condition between 2014 and 2015. Further, our regression analysis indicates a marginally significant increase (1.5 pp, $p<0.10$) in the likelihood of readmissions among the HCBS population with a BH problem. There thus does not appear to be any evidence of improvements in behavioral health care under MLTSS so far.

Total spending per person for the HCBS population did not increase over the waiver demonstration period. LTSS spending per HCBS person decreased, and avoidable hospital spending (both inpatient and ED) increased. Other non-LTSS, non-avoidable hospital spending also exhibited some growth during the MLTSS months, which is consistent with the increases in ED utilization and readmissions we observe for the HCBS population.

We examined whether there was worsening of racial and ethnic disparities in care by comparing changes in rates of avoidable inpatient hospitalizations and hospital wide readmission rates in minority population groups compared to whites. The only significant result was an increase in hospital wide readmission rates by black HCBS beneficiaries relative to white beneficiaries.

In summary, during the first 18 months of MLTSS, there was a worsening of several of the outcomes we examined in the HCBS population. These findings are largely consistent between our descriptive results and our adjusted regression results.

NF Population

The majority of the nursing facility population remained outside of MLTSS during the demonstration period, only transitioning when certain triggers, like a change in level of care,

were experienced. Our descriptive analyses show trends for the entire NF population in the baseline and demonstration years, while our adjusted regression analyses focus on outcomes only for those NF residents who switched into MLTSS. Therefore, the findings between the two approaches may not be concordant. Also, although we do adjust for an annual measure of health risk in our regressions, the fact that the NF residents who become MLTSS are those going through changes in condition or setting of care could still cause outcomes measured subsequent to these periods of short-term vulnerability look different when compared to the entire, more stable NF population pre-MLTSS. Finally, the smaller sample creates more instability in estimates for the NF population. Our NF findings are thus subject to these important caveats and it is important not to overemphasize them.

Descriptive analyses show steady or declining overall inpatient, ED, avoidable inpatient, avoidable ED, and spending related to avoidable hospital use between 2014 and 2015 for the entire NF population. In adjusted regression analyses, the decline in avoidable ED visits and associated spending persist as statistically significant effects (although only at the 10% level for avoidable ED visits) of MLTSS on NF residents in the program. Avoidable inpatient visits and associated spending for the NF population in MLTSS is estimated to be increasing in our DD model, but this was not statistically significant.

While we observe declines in hospital-wide, AMI, and pneumonia readmission rates for the NF population overall between 2014 and 2015 in descriptive analyses, in the regression analyses, there is evidence of net increases in all readmission rates for the MLTSS NF population relative to the comparison population. Only the increase of 8.7 percentage points in hospital-wide readmissions (and 9 percentage points among the NF residents in MLTSS with a BH condition) is significant, however.

We did not detect changes in racial and ethnic disparities among the NF population as a consequence of MLTSS.

Conclusions

The analyses in this chapter provide evidence that quality of care for the entire Medicaid managed care population has not suffered during the waiver demonstration period, but the transition to MLTSS for the HCBS population has been accompanied by increases in types of utilization such as avoidable ED visits and hospital readmissions. There was a slight decrease in avoidable ED visits and avoidable ED visit related costs for NF population. Data are not yet robust enough to determine the impact of MLTSS on the NF population.

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Appendix A: Description of Measures

Inpatient Utilization and Emergency Department Visits: These measures assess the extent to which individuals receive inpatient hospital treatment or seek ambulatory care in the emergency department because of pregnancy and childbirth, for surgery, or for nonsurgical medical treatment. These measures of service use gather information about the provision of care to individuals and how organizations managing that care use and allocate resources. Use of inpatient and emergency department services is affected by many member characteristics such as age, sex, health, and socioeconomic status.

Our preparation of these metrics considers utilization at any general acute care hospital, inside or outside NJ. The costs associated with all identified inpatient and emergency department visits are also aggregated by beneficiary.

Ambulatory Care Sensitive (ACS) Inpatient Hospitalizations and Avoidable/Preventable Emergency Department Visits: We calculate rates of ACS inpatient (IP) hospitalizations and avoidable treat-and-release ED visits that may occur due to inadequate ambulatory/primary care within communities. Avoidable hospitalizations have been widely used in previous research to measure access to primary care, and disparities in health outcomes (Basu, Friedman, and Burstin 2004; Billings et al. 1993; Bindman et al. 1995; Howard et al. 2007). The federal Agency for Healthcare Research and Quality (AHRQ) provides validated programming algorithms to calculate rates of avoidable ACS hospitalizations which are used in this analysis. These are known as the Prevention Quality Indicators (PQI) for adults (ages 18 and above) and Pediatric Quality Indicators for children (ages 6-17). The latest version (version 6.0) of AHRQ's quality indicators software accommodates ICD-10 codes and was used for calculating PQIs and PDIs from October through December 2015. Other updates and enhancements made to the version 6.0 software, such as the exclusion of one very low prevalence component indicator, were thus also applied to these three months of data (AHRQ 2016). Appendix B gives a list of ACS conditions that constitute a composite index that measures the overall rate of avoidable IP hospitalizations per unit of population. Appendix B also lists the constituents of the two other composite indicators (based on acute and chronic conditions).

We also calculate avoidable treat-and-release ED visits based on the methodology provided by the New York University, Center for Health and Public Service Research (Billings, Parikh, and Mijanovich 2000), which are part of AHRQ's Safety Net Monitoring Toolkit. These comprise three categories of avoidable ED visits that could have been treated in an outpatient primary care setting or could have been prevented with timely access to primary care. Detailed definitions of

these classifications are provided with examples in Appendix C. ICD-10 versions of diagnosis codes for this metric were provided on New York University website.[88]

Our preparation of these metrics considers utilization at any general acute care hospital, inside or outside NJ. The costs associated with all identified avoidable inpatient and emergency department visits are also aggregated by beneficiary.

Readmissions: Because hospital readmissions can result from poor quality of care or inadequate transitional care, 30-day readmissions metrics are used to broadly measure the quality of care delivered by hospitals (Benbassat and Taragin 2000; Jencks, Williams, and Coleman 2009). Such 'potentially preventable' readmissions are defined as readmission for any cause within 30 days of the discharge date for the index hospitalization, excluding a specified set of planned readmissions. While readmissions rates have been most heavily utilized to assess quality for the Medicare population, calculating these measures among the Medicaid population has received growing attention (Trudnak et al. 2014). The readmissions metrics we calculate are endorsed by the National Quality Forum (NQF) and are adapted from the 2014 (for hospital-wide, heart failure, and acute myocardial infarction) and 2016 (for pneumonia) Centers for Medicare and Medicaid Services methodology available at QualityNet.[89] To accommodate the transition in October 2015 to the ICD10-CM coding system, diagnoses on claims from this last quarter of 2015 were mapped back to the ICD9-CM system using crosswalks from CMS's general equivalence mappings prepared by the National Bureau of Economic Research (2016).

We consider index admissions and readmissions at any general acute care hospital, inside or outside NJ. In accordance with specifications for all Centers for Medicare and Medicaid Services (CMS) readmissions metrics, we required that the beneficiary be enrolled for 12 months prior to the index hospitalization (ignoring gaps of 45 days or less) to allow for sufficient claims history for risk-adjustment. Therefore, estimates for year 2011 could not be calculated due to this restriction.

Follow-up after Hospitalization for Mental Illness: Following an acute hospitalization for mental illness, it is recommended that patients have an outpatient visit with a mental health practitioner to ensure appropriate and regular follow-up therapy and medication monitoring. This measure is used to assess the percentage of discharges for members hospitalized for the treatment of selected mental health disorders that were followed by a qualifying visit with a mental health practitioner within 7 and 30 days. Our preparation of this measure considers index admissions at any general acute care hospital or short-term psychiatric hospital, inside or outside NJ. This

[88] http://wagner.nyu.edu/faculty/billings/nyued-background.
[89] https://www.qualitynet.org.

measure is endorsed by the NQF and is part of the Medicaid Adult Core and Child Core Sets of Health Care Quality Measures.

We followed the National Committee of Quality Assurance's specifications for the calculation of this metric (NCQA 2014) using value sets from the 2016 specifications (NCQA 2016) only when necessary for accommodating the ICD-10 transition and crosswalks from the New Jersey Department of Health to identify mental health practitioners and place of service codes (NJDOH 2017). We also modified the metric slightly by identifying follow-up visits for hospital discharges through December 31 of the calendar year (instead of through December 1) in order to support time series regression analyses.

Finally, since patients residing in medical facilities, such as a nursing homes, may have follow-up care provided within the facility itself, metrics relating to post-acute ambulatory care cannot be accurately calculated for this population if follow-up services are not billed separately within these facilities. Specifically, some care provided by physicians to NF residents in NJ are included in the facility per diem rate and thus claims are not generated for these services. Therefore, populations in nursing facilities or intermediate care facilities were excluded from the analytic population when conducting regression analyses on this metric.

Ambulatory Care Visit 14 Days after Discharge: Motivated by research showing that readmissions and ED visits are less likely to occur if patients are seen by a primary clinician or specialist shortly after discharge, this measure assesses the frequency of clinician follow-up visits within 14 days after patients are discharged from the hospital for medical conditions. It was developed by the Dartmouth Atlas Project for use in the Medicare population. Using their methodology and adapting it for the Medicaid claims data, access to ambulatory care is assessed among all discharges and then separately for discharges home (with or without home health services), to facility-based rehabilitation (SNFs, inpatient rehabilitation facilities, long-term acute care hospitals), and to other facilities (such as an intermediate care facility) (Goodman, Fisher, and Chang 2011).

In our preparation of this measure, we consider discharges from only general acute care hospitals in NJ. Hospitalizations outside NJ could not be included because this measure requires identification of medical discharges from AP-DRG billing codes. Hospitals in other states may use different DRG systems to which our crosswalk would not apply. Also, this measure requires a negative 90-day hospitalization history. Our claims database begins on January 1, 2011 so this negative history could not be established for hospitalizations in the first three months of 2011. Therefore, this metric was only based on April through December in year 2011.

Finally, since patients residing in medical facilities, such as a nursing homes, may have follow-up care provided within the facility itself, metrics relating to post-acute ambulatory care cannot be accurately calculated for this population if follow-up services are not billed separately within these facilities. Specifically, some care provided by physicians to NF residents in NJ are included in the facility per diem rate and thus claims are not generated for these services. Therefore, populations in nursing facilities or intermediate care facilities were excluded from the analytic population when conducting regression analyses on this metric.

Behavioral Health Comorbidities: Behavioral health comprises two mutually exclusive categories: problems related to mental health (MH) and substance use disorders/substance abuse (SA). We adapt the Agency for Health Care Research and Quality (AHRQ) Clinical Classification Software (CCS) to identify BH problems among Medicaid beneficiaries. The software uses information from ICD-9 and ICD-10 diagnosis and procedure codes to classify hospital discharges into a number of clinically meaningful disease categories (HCUP 2015, 2017). Mental health conditions include mood disorders; schizophrenia; anxiety disorder; delirium; dementia and substance abuse includes alcohol and substance-related disorders (See Appendix E for details).

Appendix B: AHRQ Prevention Quality Indicators and Pediatric Quality Indicators – Composites and Constituents

Overall Composite (PQI #90)	
PQI #01 Diabetes Short-Term Complications Admission Rate	PQI #11 Bacterial Pneumonia Admission Rate
PQI #03 Diabetes Long-Term Complications Admission Rate	PQI #12 Urinary Tract Infection Admission Rate
PQI #05 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	PQI #13 Angina without Procedure Admission Rate[90]
PQI #07 Hypertension Admission Rate	PQI #14 Uncontrolled Diabetes Admission Rate
PQI #08 Congestive Heart Failure (CHF) Admission Rate	PQI #15 Asthma in Younger Adults Admission Rate
PQI #10 Dehydration Admission Rate	PQI #16 Rate of Lower-Extremity Amputation Among Patients With Diabetes
Acute Composite (PQI #91)	
PQI #10 Dehydration Admission Rate	PQI #12 Urinary Tract Infection Admission Rate
PQI #11 Bacterial Pneumonia Admission Rate	
Chronic Composite (PQI #92)	
PQI #01 Diabetes Short-Term Complications Admission Rate	PQI #13 Angina without Procedure Admission Rate[13]
PQI #03 Diabetes Long-Term Complications Admission Rate	PQI #14 Uncontrolled Diabetes Admission Rate
PQI #05 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	PQI #15 Asthma in Younger Adults Admission Rate
PQI #07 Hypertension Admission Rate	PQI #16 Rate of Lower-Extremity Amputation Among Patients With Diabetes
PQI #08 Congestive Heart Failure (CHF) Admission Rate	

Source: Prevention Quality Indicators Technical Specifications - Version 5.0, March 2015; http://www.qualityindicators.ahrq.gov/Modules/PQI_TechSpec.aspx.

[90] This component was retired in Version 6.0 of the PQI software which accommodated ICD-10 coding. This software version was used for generating the overall composite indicator in October-December 2015.

Overall Composite (PDI #90)
PDI #14 Asthma Admission Rate
PDI #15 Diabetes Short-Term Complications Admission Rate
PDI #16 Gastroenteritis Admission Rate
PDI #18 Urinary Tract Infection Admission Rate

Source: Pediatric Quality Indicators Technical Specifications - Version 5.0, March 2015; http://www.qualityindicators.ahrq.gov/modules/PDI_TechSpec.aspx.

Appendix C: Classification of Emergency Department Visits

Type Description	Diagnoses
Non-Emergent: The patient's initial complaint, presenting symptoms, vital signs, medical history, and age indicated that immediate medical care was not required within 12 hours.	Headache, Dental disorder, Types of migraine
Emergent, Primary Care Treatable: Conditions for which treatment was required within 12 hours, but care could have been provided effectively and safely in a primary care setting. The complaint did not require continuous observation, and no procedures were performed or resources used that are not available in a primary care setting (e.g., CAT scan or certain lab tests)	Acute bronchitis, Painful respiration, etc.
Emergent, ED Care Needed, Preventable/Avoidable: Emergency department care was required based on the complaint or procedures performed/resources used, but the emergent nature of the condition was potentially preventable/avoidable if timely and effective ambulatory care had been received during the episode of illness	Flare-ups of asthma, diabetes, congestive heart failure, etc.
Emergent, ED Care Needed, Not Preventable/Avoidable: Emergency department care was required and ambulatory care treatment could not have prevented the condition	Trauma, appendicitis, myocardial infarction

The first three categories are considered to be avoidable/preventable.
Type descriptions taken from http://wagner.nyu.edu/faculty/billings/nyued-background.php.

Appendix D: Long-Term Care Assignment Algorithms

Monthly Assignment: For every month in which a beneficiary had at least one day of active enrollment as determined by the effective dates of the Program Status Code, assignment to one of the following categories was implemented hierarchically: facility, home and community-based services (HBCS), or other. The rules for assignment were: If at least one claim showed up for a nursing facility (Category of Service=07) in the month or the post-MLTSS Special Program Code (SPC) for facility resident (61,63-67) was effective at least one day in the month, the month was assigned as NF (nursing facility). For the remaining beneficiary-months, if there was ever an active pre-MLTSS SPC in the month indicating the beneficiary was in one of the §1915(c) waiver programs (3,4,6=CRPD, 5=ACCAP, 17=TBI, 32,33=GO) or an active post-MLTSS SPC code in the month indicating home or community-based residence (60=community, 62=assisted living), the month was designated as HCBS. The remaining months fell into the 'Other' category. Any month classified as facility or HCBS was a long-term care month (LTC). Months in the 'Other' category were non-LTC.

Quarterly Assignment: For any beneficiary ever having at least one day of active enrollment in the quarter as determined by the effective dates of the Program Status Code, a quarterly assignment to either NF, HCBS, or non-LTC was implemented using the monthly assignment and a majority rule. In cases where there was no majority, assignment was hierarchical based on the order: NF, HCBS, non-LTC.

Annual Assignment: For any beneficiary ever having at least one day of active enrollment in the calendar year as determined by the effective dates of the Program Status Code, 'X' was the number of months designated as facility months in the monthly assignment. 'Y' was the number of months designated HCBS. If at least half of the beneficiary's enrolled months during that year had one of these LTC designations then the beneficiary was classified as part of the LTC population for that year. If less than half, then the beneficiary was non-LTC. Within the LTC population, 'X' and 'Y' were compared to make an annual assignment to either the facility or community. If 'X' was greater than or equal to 'Y' then the beneficiary was in the facility population for the entire year. If 'X' was less than 'Y' then the beneficiary was designated as being a LTC HCBS recipient.

Appendix E: Definition of Mental Health and Substance Abuse

Mental Health	
5.1	Adjustment disorders [650]
5.2	Anxiety disorders [651]
5.3	Attention deficit conduct and disruptive behavior disorders [652]
5.4	Delirium dementia and amnestic and other cognitive disorders [653]
5.5	Developmental disorders [654]
5.6	Disorders usually diagnosed in infancy childhood or adolescence [655]
5.7	Impulse control disorders not elsewhere classified [656]
5.8	Mood disorders [657]
5.9	Personality disorders [658]
5.10	Schizophrenia and other psychotic disorders [659]
5.13	Suicide and intentional self-inflicted injury [662]
5.14	Screening and history of mental health codes [663]
5.15	Miscellaneous mental disorders [670]
Substance Abuse	
5.11	Alcohol-related disorders [660]
5.12	Substance-related disorders [661]
5.14	Screening and history of substance abuse codes [663]

Source: AHRQ Clinical Classification Software (CCS). Numbers in the first column denote multi-level CCS diagnostic categories. Numbers in the second column denote single-level categories.

Appendix F: Risk-Adjustment Variables for Readmissions Metrics

For the 30-day readmission metrics, control variables for health status come from a full year of data prior to the index admission date and encompass clinically relevant comorbidities (not complications) that have strong relationships with readmission for the specific condition being analyzed.

Heart Failure Readmissions

• Age • Sex • History of Coronary Artery Bypass Graft • History of Percutaneous Transluminal Coronary Angioplasty • Diabetes Mellitus (DM) or DM Complications • Disorders of Fluid/Electrolyte/Acid-Base • Iron Deficiency or Other Unspecified Anemias and Blood Disease • Cardio-Respiratory Failure or Shock • Congestive Heart Failure • Vascular or Circulatory Disease • Chronic obstructive pulmonary disease • Pneumonia • Renal Failure • Other Urinary Tract Disorders • Decubitus Ulcer or Chronic Skin Ulcer • Other Gastrointestinal Disorders • Acute Coronary Syndrome • Valvular or Rheumatic Heart Disease	• Specified Arrhythmias • Asthma • Peptic Ulcer, Hemorrhage, Other Specified Gastrointestinal Disorders • Cancer • Drug/Alcohol Abuse/Dependence/Psychosis • Major Psychiatric Disorders • End-Stage Renal Disease or Dialysis • Severe Hematological Disorders • Nephritis • Liver or Biliary Disease • Metastatic Cancer or Acute Leukemia • Stroke • Dementia or Other Specified Brain Disorders • Coronary Atherosclerosis or Angina • Other or Unspecified Heart Disease • Other Psychiatric Disorders • Fibrosis of Lung or Other Chronic Lung Disorders • Hemiplegia, Paraplegia, Paralysis, Functional Disability • Depression

Acute Myocardial Infarction (AMI) Readmissions

• Age • Sex • History of Coronary Artery Bypass Graft • History of Percutaneous Transluminal Coronary Angioplasty	• Vascular or Circulatory Disease • Disorders of Fluid/Electrolyte/Acid-Base Coronary Atherosclerosis • History of infection • Cerebrovascular Disease

Acute Myocardial Infarction (AMI) Readmissions (continued)

• Diabetes Mellitus (DM) or DM Complications • Iron Deficiency or Other Unspecified Anemias and Blood Disease • Congestive Heart Failure • Valvular or Rheumatic Heart Disease • Chronic obstructive pulmonary disease • End-Stage Renal Disease or Dialysis • Other Urinary Tract Disorders • Specified Arrhythmias • Pneumonia • Renal Failure	• Metastatic Cancer or Acute Leukemia • Cancer • Decubitus Ulcer or Chronic Skin Ulcer • Dementia or Other Specified Brain Disorders • Angina Pectoris/Old Myocardial Infarction • Stroke • Asthma • Acute Coronary Syndrome • Hemiplegia, Paraplegia, Paralysis, Functional Disability • 'Protein-Calorie Malnutrition; • Anterior Myocardial Infarction • Other Location of Myocardial Infarction

Pneumonia Readmissions

• Age • Sex • History of Coronary Artery Bypass Graft • History of infection • Septicemia/Shock • Metastatic Cancer or Acute Leukemia • Lung, Upper Digestive Tract, and Other Severe Cancers • Other Major Cancers • Diabetes Mellitus (DM) or DM Complications • Protein-calorie malnutrition • Disorders of Fluid/Electrolyte/Acid-Base • Other Gastrointestinal Disorders • Severe Hematological Disorders • Iron Deficiency or Other Unspecified Anemias and Blood Disease • Dementia or Other Specified Brain Disorders • Drug/Alcohol Abuse/Dependence/Psychosis • Major Psychiatric Disorders • Other Psychiatric Disorders • Hemiplegia, Paraplegia, Paralysis, Functional Disability	• Cardio-Respiratory Failure or Shock • Congestive Heart Failure • Acute Coronary Syndrome • Chronic Atherosclerosis or Angina • Valvular or Rheumatic Heart Disease • Specified Arrhythmias • Stroke • Vascular or Circulatory Disease • Chronic obstructive pulmonary disease • Fibrosis of Lung or Chronic Lung Disorders • Asthma • Pneumonia • Pleural Effusion/Pneumothorax • Other Lung Disorders • Dialysis Status • Renal Failure • Urinary Tract Infection • Other Urinary Tract Disorders • Decubitus Ulcer or Chronic Skin Ulcer • Vertebral fractures • Other Injuries • Respirator dependence/tracheostomy status

Hospital-Wide Readmissions

• Age • Metastatic cancer/acute leukemia • Severe Cancer • Other Cancers • Severe Hematological Disorders • Coagulation Defects and Other Specified Hematological Disorders • Iron Deficiency or Other Unspecified Anemia and Blood Disease • End-stage Liver Disease • Pancreatic Disease • Dialysis Status • Acute Renal Failure • Transplants • Severe Infection • Other Infectious Diseases and Pneumonias • Septicemia/Shock • Congestive Heart Failure • Polyneuropathy • Congestive Heart Failure • Chronic Atherosclerosis or Angina, Cerebrovascular Disease	• Specified Arrhythmias • Cardio-respiratory Failure or Cardio-respiratory Shock • Chronic Obstructive Pulmonary Disease • Fibrosis of Lung or Other Chronic Lung Disorders • Protein-calorie Malnutrition • Disorders of Fluid, Electrolyte, Acid-Base • Rheumatoid Arthritis and Inflammatory Connective Tissue Disease • Diabetes Mellitus • Decubitus Ulcer or Chronic Skin Ulcer • Hemiplegia, Paraplegia, Paralysis, Functional Disability • Seizure Disorders and Convulsions • Respirator Dependence/Tracheostomy Status • Drug and Alcohol Disorders • Psychiatric Comorbidity • Hip Fracture/Dislocation

Chapter 4: Examining Care Outcomes for Populations of Children and Youth Eligible for Targeted Home and Community-Based Services

Introduction

In this chapter, we present metrics calculated from Medicaid claims and managed care encounter data for the baseline (2011-2012) and demonstration period (2013-2015) for several populations of children targeted for additional home and community-based services (HCBS) under the Waiver. Specifically, the Waiver authorizes the NJ Department of Children and Families' Division of Children's System of Care (DCF's CSOC)[91] to coordinate new supportive services for children with Autism Spectrum Disorder (ASD), co-occurring intellectual/developmental disabilities and mental illness (ID-DD/MI), and Serious Emotional Disturbance (SED). The Waiver also expands Medicaid eligibility for children with SED.

Our selection, analysis, and presentation of quality metrics in this report is guided by the following evaluation hypothesis and research questions in the waiver Special Terms and Conditions document (CMS 2014) relating to this expansion in targeted home and community-based services.

Hypothesis 2: **"Providing home and community-based services to Medicaid and CHIP beneficiaries and others with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities will lead to better care outcomes."**

Research Question 2a: **" What is the impact of providing additional home and community-based services to Medicaid and CHIP beneficiaries with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities?"**
Research Question 2b: **"What is the impact of the program to provide a safe, stable, and therapeutically supportive environment for children from age 5 up to age 21 with serious emotional disturbance who have, or who otherwise would be at risk for, institutionalization?"**

[91] By January of 2013, DCF assumed responsibility for all children previously managed by the Division of Developmental Disabilities (DDD).

All metrics in this chapter are calculated for the calendar years of the waiver baseline period, (2011-2012)[92] and the first three years of the demonstration period (2013-2015). All of the services authorized under the Waiver for the DCF populations started being offered during calendar year 2014 or later, limiting the data on the post-implementation period available for this final report.

Background

A brief background on the service packages and target populations for each of the DCF CSOC waiver initiatives is provided here as context for the analytic methods and quantitative findings on quality of care we present in this chapter.

ASD

The services provided through the ASD pilot program are evidence-based habilitative services often covered under private insurance that improve adaptive behavior, language, and cognitive outcomes. The new components of the ASD service package authorized under the Waiver are:

- Behavior Consultative Supports
- Individual Behavior Supports

Up to 200 children under 13 years of age with ASD who are Medicaid/CHIP eligible and who have a functional behavioral assessment indicating their condition is of high or moderate acuity are eligible for these behavioral therapies through the ASD pilot program. This program became operational in the spring of 2014 with enrollment ongoing as newly eligible children were identified.[93]

ID-DD/MI

The pilot program for children with ID-DD/MI provides intensive in-home and out-of-home services that help to stabilize children in the least restrictive setting. There are seven services in the ID-DD/MI package authorized under the Waiver:

- Case/Care Management
- Individual Supports
- Natural Supports Training
- Intensive In-Community Services – Habilitation
- Respite

[92] While the waiver demonstration period starts on October 2012, our analytic findings here are based on full calendar years so that our estimates are not driven by seasonality differences.

[93] Service codes for the new behavioral therapies were not built into the administrative claims system of the State's fiscal agent (Molina) at the time the pilot program began. Claims were handled manually until March 2015 when the service codes become operational.

- Non-medical Transportation
- Interpreter Services

Children ages 5-20 years old with dual diagnoses of ID-DD/MI, Medicaid/CHIP eligible, who meet the level of care criteria, and are involved with a Care Management Organization, are eligible for these services through the ID-DD/MI pilot program.[94] Two services, case management and intensive in-community services, started in March 2015. Individual Supports began in June 2015, respite was operationalized in January 2016, and interpreter services were offered beginning in January 2017. Natural supports and non-medical transportation were not yet operational as of the writing of this report.

SED

The SED component of the Waiver (1) expands Medicaid/CHIP eligibility to youth with SED who are at-risk for hospitalization or who require a hospital level of care regardless of parental income, (2) federalizes general behavioral health services paid for on the state dollar for all SED children in Medicaid/CHIP, and (3) provides three new behavioral health services shown to be critical in supporting children with serious emotional disturbance in the community:

- Transitioning Youth Life Skill Building (ages 16-20)
- Youth Support and Training (ages 5-16)
- Non-medical Transportation

The expansion in eligibility for CSOC services (including new waiver services) to youth with SED, and the federalization of these behavioral health services became effective immediately after approval of the Waiver in October 2012. The expansion granting youth at a hospital-level of care Medicaid State Plan eligibility began in July 2016. The new waiver services are targeted at children with SED ages 5-20 years old who are involved with a Care Management Organization. The Transitioning Youth Life Skill Building and Youth Support and Training services were operationalized in the fall of 2015.

Methods

Data Sources

The analyses in this chapter were generated using Medicaid fee-for-service (FFS) claims and managed care encounter data for January 1, 2011 through December 31, 2015. We used recipient-level program enrollment information through September 2015 to allow for stratification of quality metrics to relevant subpopulations.

[94] The services are delivered on a FFS basis as part of the Individual Service Plan implemented by the child's Care Management Organization.

Metrics

The metrics in this chapter span the baseline period (2011-2012) and first three years of the Waiver demonstration period (2013-2015).[95] They are intended to examine health care outcomes and associated spending for specific subpopulations of children directly affected by the changes implemented under the Waiver. The metrics we utilize are based on specific types of hospital utilization that reflect quality of care in the community and therefore, are applicable only to children also receiving acute care services under Medicaid such that their hospital utilization is reflected in claims data. We examine inpatient (IP) utilization overall and for mental illness, avoidable hospital admissions, emergency department (ED) visits, and hospital readmissions or ED visits following an initial hospitalization (all-cause or specifically for mental illness). We also calculate annual spending relating to hospital use overall. This metric illustrates potential savings to be realized from the improved home and community-based support provided to children through waiver services. For children with SED, we separately examine rates of placement in residential treatment facilities.

Table A outlines the planned metrics calculated using the Medicaid FFS claims and managed care encounter data. Due to identification and accuracy concerns, only those metrics where the denominator criterion is fulfilled (see Reporting Criteria below) are reported. The facility type(s) included in the calculation are also noted. Metrics 1-8 and 12 are population-based and rates are assessed per unit population. Metrics 9-11, on the other hand, are based on index events that arise in a hospital setting. Our purpose was to capture aspects of utilization relevant to the populations being evaluated and potentially impacted by changes under the Waiver. To achieve this, several of these metrics are adaptations of existing metrics. Appendix A contains additional details on each of these measures.

Table A: Metrics related to quantitative evaluation of Hypothesis 2

	Metrics	Description	Facility Type(s)
	Utilization		
1	Pediatric Quality Indicators (children 6-17)	Ambulatory care sensitive hospitalizations by children that reflect inadequate community-level care.	General acute care hospitals
2	Inpatient hospital utilization (all ages)	Admissions to general acute care hospitals.	General acute care hospitals
3	Inpatient days (all ages)	Total duration of hospital stays.	General acute care hospitals
4	Mental illness admissions (ages 6+)	Discharges from an acute inpatient facility with a primary admitting diagnosis of mental illness.	General acute care hospitals

[95] While the waiver demonstration period starts on October 2012, our analytic findings here are based on full calendar years so that our estimates are not driven by seasonality differences.

	Metrics	Description	Facility Type(s)
5	Severe mental illness admissions (ages 6+)	Discharges from an acute inpatient facility with a primary admitting diagnosis of severe mental illness.*	General acute care hospitals
6	Psychiatric hospital utilization (all ages)	Discharges from psychiatric hospitals.	Short-term and long-term psychiatric hospitals
7	Emergency department utilization (all ages)	Visits to emergency departments.	General acute care hospitals
8	Residential treatment facility admissions (all ages)	Admissions to a residential treatment facility	Residential treatment facilities
	Post-Acute Care		
9	All-cause: 30-day readmissions or 30-day post-discharge ED visits (all ages)	All-cause unplanned readmissions or ED visit(s) during a 30-day period following an initial hospital admission. These may reflect post-discharge gaps in inpatient care and/or care coordination following discharge.	General acute care hospitals and short-term psychiatric hospitals
10	Mental illness: 30-day readmissions or 30-day post-discharge ED visits (age 6+)	All-cause unplanned readmissions or ED visit(s) during a 30-day period following an initial hospital admission for mental illness. These may reflect post-discharge gaps in inpatient care and/or care coordination specific to patients with mental illness.	General acute care hospitals and short-term psychiatric hospitals
11	Severe mental illness: 30-day readmissions or 30-day post-discharge ED visits (ages 6+)	All-cause unplanned readmissions or ED visit(s) during a 30-day period following an initial hospital admission for severe mental illness (SMI). These may reflect post-discharge gaps in inpatient care and/or care coordination for patients with SMI.	General acute care hospitals and short-term psychiatric hospitals
	Spending		
12	Spending related to all inpatient hospitalizations and ED visits	Assess the effects of the targeted HCBS on acute care spending overall.	General acute care hospitals

* This metric is assessed only among hospitalizations for beneficiaries meeting the criteria for a mental illness admission (metric 4). Therefore, admissions for some of the diagnoses falling within the severe mental illness designation but outside of the HEDIS mental illness designation, specifically those related to substance abuse, are not included in this metric. See Appendix C for the diagnosis codes included in the definition of severe mental illness used in this chapter.

If not already part of the metric specification, an inclusion criteria imposed on all metrics was the requirement that a claim for utilization was only counted if the beneficiary had been continuously enrolled in Medicaid for at least 30 days preceding the claim date. As stated in our evaluation plan, this criteria eliminates events which might precipitate Medicaid enrollment and confound the effect of the demonstration.

Mental Illness Designations

We used information from the primary diagnosis code present on inpatient claims to identify hospitalizations for mental illness and severe mental illness. Specifically, we used the National

Committee for Quality Assurance's 2014 HEDIS Mental Illness Value Set to identify hospitalizations for mental illness (NCQA 2014). To accommodate the transition in October 2015 to the ICD10-CM coding system, diagnoses on claims from this last quarter of 2015 were mapped back to the ICD9-CM system using crosswalks from CMS's general equivalence mappings prepared by the National Bureau of Economic Research (2016). Within this universe of designated mental illness hospitalizations we further identified those hospitalizations which were for severe mental illness conditions based on findings from the national comorbidity survey – replication (Kessler et al. 2005) and subsequent work by Coffey et al. (2011) at the Agency for Health Care Research and Quality (AHRQ). Appendix C lists the diagnosis codes included in the definition of severe mental illness used in this chapter.

Spending

Data on spending come from the payment fields in the Medicaid claims data. We only tabulated spending by Medicaid and Medicaid HMOs incurred via direct payment for services to providers. Payments made by Medicare or from any other source are not included. Spending for hospital use only reflect facility charges and do not include any physician or lab charges associated with hospitalization or outpatient visits. All spending was inflation adjusted and expressed in year 2012 purchasing power using the Consumer Price Index for medical care from Table 1A (Crawford, Church, and Rippy 2013, 164; Crawford and Church 2014, 165; Crawford, Church, and Akin 2015a, 145; Crawford, Church, and Akin 2015b, 165).

Population Definitions

Medicaid Youth: Beneficiaries, ages 0-20, with any period of active enrollment in a particular calendar year, as indicated by the effective dates of their Program Status Codes, made up the Medicaid youth cohort for that year. Metrics are presented for this population to capture any trends in quality metrics that impact all Medicaid children and youth.

ASD: The cohort of children enrolled in the ASD pilot program was identified starting with recipient-level program and waiver enrollment data extending through September 2015. Any child with an active 'Special Program Code' (SPC) of 48 (indicating ASD moderate acuity) or 49 (indicating ASD high acuity) was included in the ASD cohort. All children in this cohort who were identified in years 2011-2015, as indicated by their presence in the respective Medicaid youth eligibility cohort, made up the ASD study population for each of these years.

ID-DD/MI: The cohort of children enrolled in the ID-DD/MI pilot program was identified starting with recipient-level program and waiver enrollment data extending through September 2015. Any child with an active SPC of 38 was included in the ID-DD/MI cohort. All children in this cohort

who were identified in years 2011-2015, as indicated by their presence in the respective Medicaid youth eligibility cohort, made up the ID-DD/MI study population for each of these years.

SED: The cohort of children with SED and eligible to receive waiver services was identified starting with recipient-level data from September 2015. Any child age 5-20, with a SPC of 37 and a concurrently active Program Status Code of 641 was included in the SED cohort. All children in this cohort who were identified in years 2011-2015, as indicated by their presence in the respective Medicaid youth eligibility cohort, made up the SED population for each of these years.

As of March 31, 2017, 170 youth have been identified for the ASD pilot and 736 youth have been identified for the ID-DD/MI pilot. The SED demonstration had 3,641 SED at-risk youth participating and 179 youth with SED at a hospital-level of care receiving waiver and State Plan services. Table B shows the number of children identified in each cohort using enrollment data and special program codes from the period(s) available in our claims data over 2011-2015 when the new waiver services were operational and attrition of those population totals as enrollment was tracked back to the years in the study period. Children with SED newly enrolled as a result of the eligibility expansion under the Waiver would not be in the recipient-level data in the baseline years unless they qualified under pre-waiver eligibility criteria at that time, thus explaining the larger declines in the SED population.

Table B: Population totals for cohorts of children and youth eligible for home and community-based waiver services

	2015	2014	2013	2012	2011
ASD	54	54	52	49	40
ID-DD/MI	220	219	202	187	180
SED*	2,780	1,369	767	546	507

*Only enrollment in September 2015, when waiver services for this population were operationalized, was considered when identifying the SED cohort.

Reporting Criteria

For Metrics 1-8 and 12, which are population-based rates, estimates are not shown when the denominator for IP hospitalizations or ED visits is less than 50. For the remaining three metrics, denominators and estimates are suppressed when denominators are less than 30. We calculated annual estimates over 2011-2015.

While we have already suppressed estimates based on small denominators, it is important to note due to small numbers of children in the ASD and ID-DD/MI cohorts, the observed variation for the metrics between years might be the result of outliers in the data or random events. Estimates based on small samples should be interpreted with this caveat. Additionally, the

expansion SED at-risk population was eligible for only CSOC and waiver services starting in October 2012. Hospitalizations and emergency department use for these individuals would only be present in our claims data if the child happened to be eligible for and enrolled to receive State Plan services under pre-waiver eligibility criteria during the years prior to 2015 when we identified the cohort. The population of children with SED eligible for waiver services and also legacy eligible for State Plan services was not sufficient to meet our reporting criteria threshold. Thus, metrics reflecting rates of acute care utilization are not shown for the SED cohort. These legacy children were, however, included in the estimates of post-acute care following hospitalization for the combined waiver cohorts since there is no denominator eligibility issue for metrics based on index hospital events.

Data Analysis

Where sample size was sufficient, we conducted statistical testing on utilization rates, comparing estimates for 2015 to the year prior to waiver service initiation; The comparison year was therefore 2013 for the ASD cohort and 2014 for the ID-DD/MI and SED cohorts. We calculated the ratio of the utilization rate in 2015 to that in the comparison year and calculated the 95% confidence interval for this ratio using established methods (Breslow and Day 1987; NYSDH 2011; WSDH 2012). If the confidence interval included one then we inferred that the rates of utilization did not change significantly from the period prior to delivery of waiver services to the period after; otherwise there was a statistically significant change ($p<0.05$).

Results

ASD and ID-DD/MI

Tables 4.1 and 4.2 show rates of hospital utilization, overall, and those related to pediatric ambulatory care sensitive conditions or mental health conditions for the ASD and ID-DD/MI cohorts of Medicaid youth eligible for home and community-based waiver services, and for all Medicaid youth.[96] Our sample was insufficient to present some of these rates for the ASD waiver population.

Avoidable Inpatient Hospitalizations: In general, rates of avoidable hospitalizations were very low (Table 4.1). There were 0.2 avoidable hospitalizations per 100 Medicaid youth in four out of five years during the study period. The rate was higher in the ID-DD/MI cohort through 2014, reaching 1.8 per 100 ID-DD/MI youth in 2013, but dropping down to zero in 2015.

[96] It is important to note that rates are consistently presented as events per 100 population, however, the relevant denominators related to some of the presented statistics are sometimes less than 100.

Hospitalization Rates and Inpatient Days: We observe a slight downward trend in hospital utilization for Medicaid youth overall over 2011-2015 which is seen in the ID-DD/MI as well as the ASD cohort (See Table 4.1). However, none of these declines are statistically significant. The number of inpatient days did significantly decline between 2015 and 2013 for the ASD and ID-DD/MI cohorts. We observe declines in inpatient days for Medicaid youth overall as well, though not as steep.

ED Visits: The emergency department visit rate for all cohorts increased between 2014 and 2015 following a steady or declining trend in the preceding year(s). These increases, from 53.8 ED visits per 100 youth to 94.4 visits per 100 ASD youth in 2015, and 60.4 to 89.5 visits per 100 youth with ID-DD/MI, were statistically significant.

Hospital Per-capita Spending: This was generally greater for the ID-DD/MI cohort in all years compared to the ASD and all-Medicaid cohorts, reflecting their higher rates of inpatient stays. The overall trend in declining inpatient use and duration of stay in the ASD cohort may be responsible for the general decline in hospital spending per beneficiary despite increases in ED use. Per capita spending for the ASD and the ID-DD/MI cohorts were statistically significantly lower in 2015 versus the year preceding waiver service initiation (($644 vs. $954 and $856 vs. $2,847, respectively).

Inpatient Hospital Use for Mental Health Conditions: Table 4.2 demonstrates that all the three rates for Medicaid youth overall were steady over the study period. For the ASD cohort, the rates could either be not reported because of small samples, or were zero, except for a rate of 1.9 mental illness hospitalizations per 100 youth in 2015. Rates of MI hospitalizations for the ID-DD/MI cohort dropped to their lowest level of 2.8 per 100 youth in 2015, although this decline was not statistically significant. Admissions to either long-term or short-term psychiatric hospitals for children in the ID-DD/MI cohort reached their highest in 2015 at 4.1 per 100 youth, but this was not a statistically significant increase.

SED

Admission to Residential Treatment Facilities: Table 4.3 shows rates of admission to residential treatment facilities for the cohort of children with SED at-risk for, or having, an institutional level of care. In 2011, 1 in every 100 children with SED had at least one admission to a residential treatment facility. The corresponding rate climbed to 1.7 per 100 children in 2013 and was down to 0.4 per 100 children in 2015 having at least one admission for treatment in a residential facility. The decline from 2014 to 2015 was statistically significant.

Combined Cohorts

Table 4.4 presents 30-day readmission rates and rates of ED treat-and-release visits within 30 days of discharge for different types of hospitalizations occurring in 2012 through 2015. These estimates are presented for the cohorts of children combined to ensure the minimum denominator of 30 index hospitalizations. In the one baseline year (2012), nearly 6% of hospitalizations among all children eventually eligible for waiver home and community-based services were followed by a readmission within 30 days. Eleven percent were followed by an ED visit within the same window resulting in 14% being followed by either one or both of these outcomes. These rates were generally better (lower) than the corresponding rates for all Medicaid youth. However, in the early demonstration years (2013-2014) this pattern inverts. Readmission and ED visits post-discharge improve slightly (reflected in lower percentages) among Medicaid youth overall, but appear to worsen among the combined ASD, ID-DD/MI, and SED cohort. By 2015, there is an improvement from 2014 rates for the waiver cohorts, but these changes are not statistically significant. The infrequency of mental illness and serious mental illness hospitalizations in these cohorts prevent us from assessing their trends in the first three demonstration years.

Table 4.1: Overall hospital utilization rates (per 100 population) and spending per beneficiary for Medicaid youth eligible for home and community-based waiver services

	ASD					ID-DD/MI					Medicaid Youth				
Overall Hospital Utilization	**2011**	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**
Avoidable pediatric hospitalizations	*	*	*	*	0.0	1.4	0.0	1.8	0.6	0.0	0.2	0.2	0.2	0.2	0.1
Hospital utilization	*	*	15.4	9.3	11.1	16.7	13.9	11.9	11.9	10.0	3.6	3.4	3.1	2.8	2.5
Inpatient days	*	*	46.2	25.9	24.1ł	71.1	43.3	57.4	158.0	45.5ł	13.6	13.3	12.8	11.7	11.1
Emergency department visits	*	*	53.8	44.4	94.4ł	73.9	59.9	60.4	61.2	89.5ł	43.1	44.2	43.9	42.8	43.3
Hospital spending per beneficiary	*	*	$954	$656	$644ł	$1,118	$1,085	$903	$2,847	$856ł	$337	$350	$352	$350	$342

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2015; Analysis by Rutgers Center for State Health Policy.
Notes: ASD=Autism Spectrum Disorder; ID-DD/MI=Co-occurring intellectual/developmental disability and mental illness; ED=Emergency Department.
Rates are per 100 population; Medicaid youth includes all beneficiaries ages 0–20.
*Estimate suppressed due to insufficient sample size.
ł Difference from 2013 estimate (ASD) or 2014 estimate (ID-DD/MI) is significant at the 5% level.

Cohort Sizes	ASD					ID-DD/MI					Medicaid Youth				
Overall Hospital Utilization	**2011**	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**	**2011**	**2012**	**2013**	**2014**	**2015**
Avoidable hospitalizations	15	23	35	43	51	143	153	169	173	176	479,503	497,129	512,211	539,136	568,579
Hospital utilization	40	49	52	54	54	180	187	202	219	220	868,829	886,595	897,412	941,512	982,818
Inpatient days	40	49	52	54	54	180	187	202	219	220	868,829	886,595	897,412	941,512	982,818
Emergency department visits	40	49	52	54	54	180	187	202	219	220	868,829	886,595	897,412	941,512	982,818
Hospital spending per beneficiary	40	49	52	54	54	180	187	202	219	220	868,829	886,595	897,412	941,512	982,818

Notes: These Ns reflect relevant denominators for rates reported in the top panel.
See Appendix A for details on inclusion/exclusion criteria resulting in eligible population for each metric.

Table 4.2: Mental health inpatient utilization rates (per 100 population) for Medicaid youth eligible for home and community-based waiver services

Inpatient Hospital Utilization for Mental Health Conditions	ASD					ID-DD/MI					Medicaid Youth				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Mental Illness hospitalizations	*	*	*	*	1.9	6.3	3.1	4.2	4.8	2.8	0.4	0.4	0.4	0.4	0.4
SMI hospitalizations	*	*	*	*	0.0	0.7	0.6	0.0	1.0	0.0	0.2	0.2	0.3	0.3	0.3
Hospitalizations at psych. hospitals	*	*	0.0	0.0	0.0	1.7	2.1	1.5	1.8	4.1	0.2	0.1	0.1	0.1	0.2

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2015; Analysis by Rutgers Center for State Health Policy.
Notes: ASD=Autism Spectrum Disorder; ID-DD/MI=Co-occurring intellectual/developmental disability and mental illness; SMI=Severe Mental Illness.
Rates are per 100 population; Medicaid youth includes all beneficiaries ages 0–20.
*Estimate suppressed due to insufficient sample size.

Cohort Sizes	ASD					ID-DD/MI					Medicaid Youth				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Mental Illness hospitalizations	15	23	35	44	52	143	162	189	207	218	565,150	581,855	596,448	637,731	676,417
SMI hospitalizations	15	23	35	44	52	143	162	189	207	218	565,150	581,855	596,448	637,731	676,417
Hospitalizations at psych. hospitals	40	49	52	54	54	180	187	202	219	220	868,829	886,595	897,412	941,512	982,818

Notes: These Ns reflect relevant denominators for rates reported in the top panel.
See Appendix A for details on inclusion/exclusion criteria resulting in eligible population for each metric.

Table 4.3: Residential treatment facility admission rates for Medicaid youth with serious emotional disturbance eligible for home and community-based waiver services

	SED				
	2011	**2012**	**2013**	**2014**	**2015**
Residential Treatment Facility Admissions	1.0	0.7	1.7	1.0	0.4ǂ

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015;
Analysis by Rutgers Center for State Health Policy.
Notes: SED=Serious Emotional Disturbance.
Rates are per 100 population.
ǂ Difference from 2014 estimate is significant at the 5% level.

	SED				
Cohort Sizes	**2011**	**2012**	**2013**	**2014**	**2015**
Residential Treatment Facility Admissions	516	556	767	1369	2776

Notes: These Ns reflect relevant denominators for rates reported in the top panel.
See Appendix A for details on inclusion/exclusion criteria resulting in eligible population for each metric.

Table 4.4: Post-acute care following hospitalization of Medicaid youth eligible for home and community-based waiver services

	Combined Waiver Populations (ASD, ID-DD/MI, SED)				Medicaid Youth			
Post-Acute Care Following Types of Hospitalizations	**2012**	**2013**	**2014**	**2015**	**2012**	**2013**	**2014**	**2015**
All-Cause Hospitalizations								
Readmission within 30 days	5.7%	9.8%	16.1%	6.3%	8.5%	8.2%	7.1%	7.3%
ED Visit within 30 days	11.4%	14.6%	19.4%	18.8%	14.1%	13.8%	14.0%	14.9%
Either of above	14.3%	22.0%	25.8%	21.9%	19.6%	19.0%	18.6%	19.7%
Mental Illness Hospitalizations								
Readmission within 30 days	*	*	*	*	11.6%	10.7%	10.8%	10.8%
ED Visit within 30 days	*	*	*	*	21.0%	18.8%	20.5%	22.4%
Either of above	*	*	*	*	25.8%	23.1%	23.8%	25.7%
Severe Mental Illness Hospitalizations								
Readmission within 30 days	*	*	*	*	11.3%	11.6%	11.7%	11.6%
ED Visit within 30 days	*	*	*	*	20.6%	19.3%	21.3%	23.7%
Either of above	*	*	*	*	24.9%	24.0%	25.2%	27.3%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Notes: ASD=Autism Spectrum Disorder; ID-DD/MI=Co-occurring intellectual/developmental disability and mental illness; SED=Serious Emotional Disturbance; ED=Emergency Department.
Medicaid youth includes all beneficiaries ages 0-20.
*Estimate suppressed due to insufficient sample size.

Discussion

This chapter presents estimates for the baseline and first three waiver demonstration years for the metrics we proposed to assess the impact of expanded home and community-based services authorized under the Comprehensive Medicaid Waiver for children with autism spectrum disorder, co-occurring intellectual disabilities/developmental disabilities and mental illness, and serious emotional disturbance. With respect to the waiver services for children with ASD and ID-DD/MI, it is worth noting that DCF delivers these services to more children than just those enrolled in the pilot programs established by the Waiver. Thus, while the scope of our evaluation is limited to the cohorts meeting the inclusion criteria for the pilot programs, and our analysis is structured to that end, it will not fully reflect the impact of these supportive home and community-based services on all children receiving them.

Below we highlight some key takeaway points from this chapter's findings. Due to small sample sizes in the ASD cohort and because waiver services for the other two cohorts were not delivered until 2015, we have limited data for assessing the full impact of these new services on health outcomes for these populations of children. We noted differences between estimates for individual years or between populations, but these should be interpreted with the caveat that the differences discussed have not been adjusted for patient and provider characteristics and can be influenced by outlier events in small populations. Making those adjustments would require regression analyses which are not feasible due to the small sample sizes.

Among children with ASD and ID-DD/MI enrolled in the waiver pilot program any time up through September 2015, there is a mixed trend in outcomes for overall hospital use, with frequency and duration of inpatient stays declining but rates of ED visits increasing. Because the same trends are observed in Medicaid youth overall, this may not be related to waiver services provided in the pilot programs. Children in the ASD cohort barely ever had inpatient utilization for mental illness, prior to or after the pilot program began. There were different trends in utilization between inpatient facility types for the ID-DD/MI cohort, with increasing rates of utilization at short-term and long-term psychiatric hospitals and declines in hospitalizations at general acute care facilities. This is relevant to consider given the goal of expanded home and community-based services in maintaining children in their own homes. However, these observed changes were not statistically significant between 2014 and 2015 when some of the waiver services began for this population of children and youth. Thus, there is no net positive or negative impact on acute care utilization outcomes that we can attribute to these additional waiver services for children in the ASD or ID-DD/MI pilot programs.

It may be that more proximal behavioral health outcomes reflect early impacts of these waiver services. Data from secondary sources extending further out than our claims analysis are suggestive that the pilots are being implemented successfully. According to the annual report for demonstration year 4 prepared by the State (DMAHS 2016), all of the children in the ASD and ID-DD/MI programs were identified as at-risk for out-of-home placement, but less than 5% of children participating in the pilots had to be placed out-of-home. This is suggestive that the waiver services provided were successful at maintaining a majority of children in their homes. Moreover, review of case files and administrative data undertaken as part of CSOC's Quality Strategy show very close to or at 100% achievement of process measures reflecting quality of life, appropriateness of level and plan of care procedures, and use of qualified service providers for the children enrolled in these pilot programs. Measures related to health and welfare and financial accountability are still in development. These findings supplement those from our hospital based quality metrics.

The statistically significant decline in the number of children with SED ever being admitted to a residential treatment facility in 2015 is also a positive finding, but there would be, at most, three months of exposure to the new waiver services for this cohort of children in 2015. So while the declining trend is promising, it is not conclusive regarding the impact of these new services on reducing the need for out-of-home placement in a residential treatment facility for children with SED. Finally the metrics calculated for the combined cohorts shed light on specific domains of quality for the overall HCBS waiver populations.

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Appendix A: Description of Measures

Inpatient Utilization and Emergency Department Visits: These measures assess the extent to which individuals receive inpatient hospital treatment or care in the emergency department. These measures of acute care and emergency medical utilization shed light on overall health of individuals and capture potential policy impact on health and healthcare. It is however important to remember that use of inpatient and emergency department services is affected by many member characteristics such as age, sex, health, and socioeconomic status.

Our preparation of these measures consider utilization at any general acute care hospital, inside or outside NJ, by members of our defined child cohorts (ASD, ID-DD/MI, and Youth). The days associated with all identified inpatient hospitalizations, and the spending associated with all identified inpatient and emergency department visits are also aggregated over cohort members.

Ambulatory Care Sensitive (ACS) Inpatient Hospitalizations: We calculate rates of ACS inpatient (IP) hospitalizations that may occur due to inadequate quality of ambulatory/primary care within communities. Avoidable hospitalizations have been widely used in previous research to measure access to primary care, and disparities in health outcomes (Basu, Friedman, and Burstin 2004; Billings et al. 1993; Bindman et al. 1995; Howard et al. 2007). The federal Agency for Healthcare Research and Quality (AHRQ) provides validated programming algorithms to calculate rates of avoidable ACS hospitalizations which are used in this analysis. These are known as the Pediatric Quality Indicators for children (ages 6-17). Appendix B gives a list of ACS conditions that constitute a composite index that measures the overall rate of avoidable IP hospitalizations per unit of population.

Our preparation of this metric considers avoidable hospitalizations occurring at any general acute care hospital, inside or outside NJ, by members of our defined child cohorts (ASD, ID-DD/MI, and Youth).

Mental Illness Admissions: This measure of inpatient utilization assesses the extent to which individuals receive inpatient hospital treatment for mental illness. Like general measures of hospital utilization, this measure of service use gathers information about the provision of care to individuals and how organizations managing that care use and allocate resources. Use of inpatient services is affected by many member characteristics such as age, sex, health, and socioeconomic status.

This metric was adapted from the National Committee of Quality Assurance's Follow-up after Hospitalization for Mental Illness (FUH) metric which is endorsed by NQF. Our preparation of this metric considers hospitalizations for mental illness occurring at any general acute care hospital, inside or outside NJ, by members of our defined child cohorts (ASD, ID-DD/MI, and Youth). In accordance with the metric specification for FUH, index hospitalizations for mental illness were only identified for the population age 6 and older.

Severe Mental Illness Admissions: Preparation of this metric followed the same specifications as Mental Illness Admissions. The only difference was that the admissions counted were a subset of the mental illness admissions, defined as those admissions with a diagnosis qualifying as severe mental illness. Therefore, admissions for some of the diagnoses falling within the severe mental illness designation but outside of the HEDIS Mental Illness Value Set, specifically those related to substance abuse, are not included in this metric. See Appendix C for the list of diagnosis codes designated as severe mental illness in this report.

Admissions to Psychiatric Hospitals: This measures assesses the extent to which individuals receive inpatient treatment at a short-term or long-term psychiatric hospital. Our preparation of this metric considers utilization at any psychiatric hospital, inside or outside NJ, by members of our defined child cohorts (ASD, ID-DD/MI, and Youth).

Admissions to Residential Treatment Facilities: This measure assesses the extent to which children with SED received treatment in a residential facility. Returning for treatment after a leave was not counted as a separate admission. Our preparation of this metric considers utilization at any Joint Commission-accredited residential treatment facility, inside or outside NJ, by members of our defined SED cohort.

Readmissions: Thirty-day readmissions metrics are used to broadly measure the quality of care delivered by hospitals (Benbassat and Taragin 2000; Jencks, Williams, and Coleman 2009) and post-discharge care coordination. Such 'potentially preventable' readmissions are defined as readmission for any cause within 30 days of the discharge date for the index hospitalization, excluding a specified set of planned readmissions. While readmissions rates have been most heavily utilized to assess quality for the Medicare population, calculating these measures among the Medicaid population has received growing attention (Trudnak et al. 2014).

We prepared readmission metrics considering hospitalizations at acute inpatient facilities, both general acute care hospitals and short-term psychiatric hospitals, inside or outside NJ, by members of our defined child cohorts (ASD, ID-DD/MI, SED, and Youth). In accordance with specifications for all Centers for Medicare and Medicaid Services (CMS) readmissions metrics, we

required that the beneficiary be enrolled for 12 months prior to the index hospitalization (ignoring gaps of 45 days or less) to allow for sufficient claims history if risk-adjustment were to be undertaken. While estimates presented in this chapter are not risk-adjusted, estimates for year 2011 could not be calculated due to this restriction.

Hospital-Wide All-Cause Unplanned Readmissions: This readmission metric is endorsed by the National Quality Forum (NQF) and it was calculated by adapting the federal CMS methodology available at QualityNet[97] to the Medicaid FFS claims and encounter data. It was calculated for children ages 0-17 so it could be used to assess quality for the populations of children affected by the Waiver policies, and, additionally, we included index admissions with a principal psychiatric diagnosis.

Readmission Following Hospitalization for Mental Illness: We adapted the National Committee of Quality Assurance's 'Follow up after hospitalization' (FUH) specifications for the identification of a hospitalization for mental illness in the calculation of this metric (NCQA 2014). For this metric, we considered admissions to any general acute care hospital or short-term psychiatric hospital with a diagnosis of mental illness. In accordance with the metric specification for FUH, index hospitalizations for mental illness were only identified for the population age 6 and older.

Readmission Following Hospitalization for Severe Mental Illness: Preparation of this metric followed the same specifications as *Readmission Following Hospitalization for Mental Illness*. The only difference was that the universe of index admissions considered was a subset of the mental illness index admissions defined as those admissions with a diagnosis qualifying as severe mental illness. Therefore, admissions for some of the diagnoses falling within the severe mental illness designation but outside of the HEDIS mental illness designation, specifically those related to substance abuse, are not included in this metric. See Appendix C for the list of diagnosis codes designated as severe mental illness.

Emergency Department Visits within 30 Days of Discharge: Return visits to the ED after a hospital discharge can be an important indicator of inadequate post-discharge follow-up and care coordination. Although not a validated quality metric, research on this topic is growing (DeLia et al. 2014). For each of the index admission universes identified for the readmission metrics described above, we also flagged whether there was an ED treat-and-release visit at any general acute care hospital inside or outside NJ within 30 days of discharge.

[97] https://www.qualitynet.org.

Appendix B: AHRQ Pediatric Quality Composite Indicator – Constituents

Overall Composite (PDI #90)
PDI #14 Asthma Admission Rate
PDI #15 Diabetes Short-Term Complications Admission Rate
PDI #16 Gastroenteritis Admission Rate
PDI #18 Urinary Tract Infection Admission Rate

Source: Pediatric Quality Indicators Technical Specifications - Version 5.0, March 2015; http://www.qualityindicators.ahrq.gov/Archive/PDI_TechSpec_V45.aspx.

Appendix C: Severe Mental Illness Diagnoses

Severe Mental Illness ICD9-CM Diagnoses	
295, 297, 298	Psychotic disorders
296.00-06, 296.10-16, 296.40-46, 296.50-56, 296.60-66, 296.7, 296.80-82, 296.89, 296.90, 296.99	Bipolar disorders
300.3	Obsessive compulsive disorder
300.4, 309.1, 301.11-12	Dysthymia (chronic depression)
313.81	Oppositional defiant disorder
296.20, 296.23, 296.24, 296.30, 296.33, 296.34	Depressive disorders
301.20	Personality disorder
312.03, 312.13, 312.21	Conduct disorder

Note: To accommodate the transition in October 2015 to the ICD10-CM coding system, diagnoses on claims from this last quarter of 2015 were mapped back to the ICD9-CM system using crosswalks from CMS's general equivalence mappings prepared by the National Bureau of Economic Research (2016).

Chapter 5: Impact of Administrative Simplifications to Streamline Medicaid Eligibility Processes

Introduction

In this chapter, we examine the reforms under the Medicaid Comprehensive Waiver intended to streamline eligibility processes for new applicants and existing beneficiaries in need of long-term care services. The following evaluation hypothesis and research questions in the waiver Special Terms and Conditions document (CMS 2014) are addressed:[98]

Hypothesis 3: **"Utilizing a projected spend-down provision and eliminating the look back period at time of application for transfer of assets for applicants or beneficiaries seeking long term services and supports whose income is at or below 100% of the FPL will simplify Medicaid eligibility and enrollment processes without compromising program integrity."**

Research Question 3a: **"What is the impact of the projected spend-down provision on the Medicaid eligibility and enrollment process? What economies or efficiencies were achieved, and if so, what were they? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"**

Research Question 3b: **"What is the impact of eliminating the transfer of assets look-back period for long term care and home and community based services for individuals who are at or below 100% of the FPL? Was there a change in the number of individuals or in the mix of individuals qualifying for Medicaid due to this provision?"**

To evaluate these reforms we draw on statistics from administrative records provided to us by State officials or available in public reports and presentations. We also rely on audit data collected by the State's Bureau of Quality Control (BQC) and contextual information on the audit process and findings from direct communications with State officials.

[98] The hypothesis and associated research questions enumerated here reflect the wording used in the waiver Special Terms and Conditions document as approved by CMS (CMS 2014). The projected spend-down provision originally proposed in the Waiver was not implemented since the State chose to adopt Qualified Income Trusts (QITs), and we assess the impact of QIT implementation

Background

Transfer of Assets Self-Attestation

Medicaid eligibility for long-term care services requires that applicants have not transferred any assets or resources for less than fair market value during the five years preceding their date of application. If an initial check using an asset verification system (AVS) shows questionable activity, applicants are often required to furnish bank statements and financial documents proving compliance with this requirement before eligibility can be granted. If a transfer of assets did occur then a penalty period is imposed delaying eligibility for long-term care services.

Under the Waiver, individuals with income at or below 100% of the Federal Poverty Level (FPL) applying for institutional or home and community-based services are permitted to self-attest that they have made no disqualifying asset transfers during the past five years. This attestation is a sworn statement documented on an addendum to the Medicaid application used by County Welfare Agencies (CWAs) for new entrants, or collected during the clinical eligibility determination conducted by Managed Care Organizations (MCOs) for existing beneficiaries moving into Managed Long-term Services and Supports (MLTSS) after July 1, 2014. This form, which was approved for use in December 2012 for CWAs and in 2016 for MCOs, eliminates the need for the time intensive five-year lookback process, and was intended to expedite eligibility approvals for very low-income applicants (Harr 2012, Harr 2013, Harr 2016).

Qualified Income Trusts

The adoption of Qualified Income Trusts (QITs) in December 2014 (Harr 2014) replaced the hypothetical spend-down provision for community-residing individuals having a nursing facility level-of-care which was originally proposed in the Waiver. QITs allow clinically eligible individuals whose monthly income is above 300% of the Supplemental Security Income rate (recently $2,205) to have excess income disregarded in determining Medicaid eligibility. Income above the threshold is deposited in a separate bank account which is dedicated exclusively to approved uses such as Medicaid cost-sharing expenses (which could include long-term services and supports delivered in their homes/communities or in a nursing facility), personal or medical needs allowances, or uncovered medical costs. Prior to the Waiver, a spend-down provision for higher income applicants was only available for nursing facility residents through a Medically Needy designation, which may have led people with income higher than the eligibility threshold to choose nursing facilities at a higher cost to the state. QITs effectively create a new eligibility pathway for long-term care services in home and community settings for such individuals. The introduction of the QIT mechanism required discontinuing the Medically Needy program, which could have posed a disadvantage to existing enrollees residing in nursing facilities since the resource limits for eligibility are lowered to the community levels ($2,000 for an individual or

$3,000 for a couple). However, the State grandfathered all individuals enrolled in the Medically Needy program prior to December 2014 so they could maintain their Medicaid eligibility under the old resource limits ($4,000 for an individual or $6,000 for a couple).

Methods

Data Sources

In this section, we use statistics collected by the State for public- and CMS-reporting purposes as well as data collected by the Bureau of Quality Control specifically for evaluation of the self-attestation policy. We also use Medicaid fee-for-service (FFS) claims and managed care encounter data for January 1, 2011 through December 31, 2015.

Measures

Drawing from quarterly reports from DMAHS to CMS, we present counts of self-attestation forms received by the State. We also report the error rate of audited self-attestations resulting from the BQC's review process as reported to us by the State. Using data from the Department of Human Services' response to the Office of Legislative Services on the budget (state fiscal years 2015-2016 and 2016-2017), we present here the count of applicants using QITs, reported approval rates, and the our estimated number of community-residing long-term care Medicaid beneficiaries enrolled because of the QIT mechanism. Finally, we present trends in settings of care (HCBS v Nursing Facility) for long-term care beneficiaries calculated from Medicaid claims data.

Quality Control Review of Transfer of Assets Self-Attestation

In July through September 2015, the BQC piloted a review protocol to measure the accuracy and effectiveness of the transfer of assets self-attestation procedure. Completed self-attestations provided to BQC each quarter from the Office of Eligibility were sampled for detailed review. First a random sample of 30 forms from each batch was selected, and then 8 of the 30 were randomly selected. The 8 applications then underwent an audit process. In this process, electronic asset verification was conducted. If any questionable activity was detected, applicants would be contacted and asked to provide a representative sample of financial documents (i.e. information on bank accounts, properties, investments, and any other resource or asset) for up to five years prior to the time of application in order to determine whether any assets had been transferred for less than fair market value. Any finding on the sample of 8 would trigger a review of all 30 of the sampled cases. The error rate was calculated as the percentage of all reviewed cases having a positive finding, meaning a transfer penalty would have been imposed under a pre-waiver financial eligibility determination.

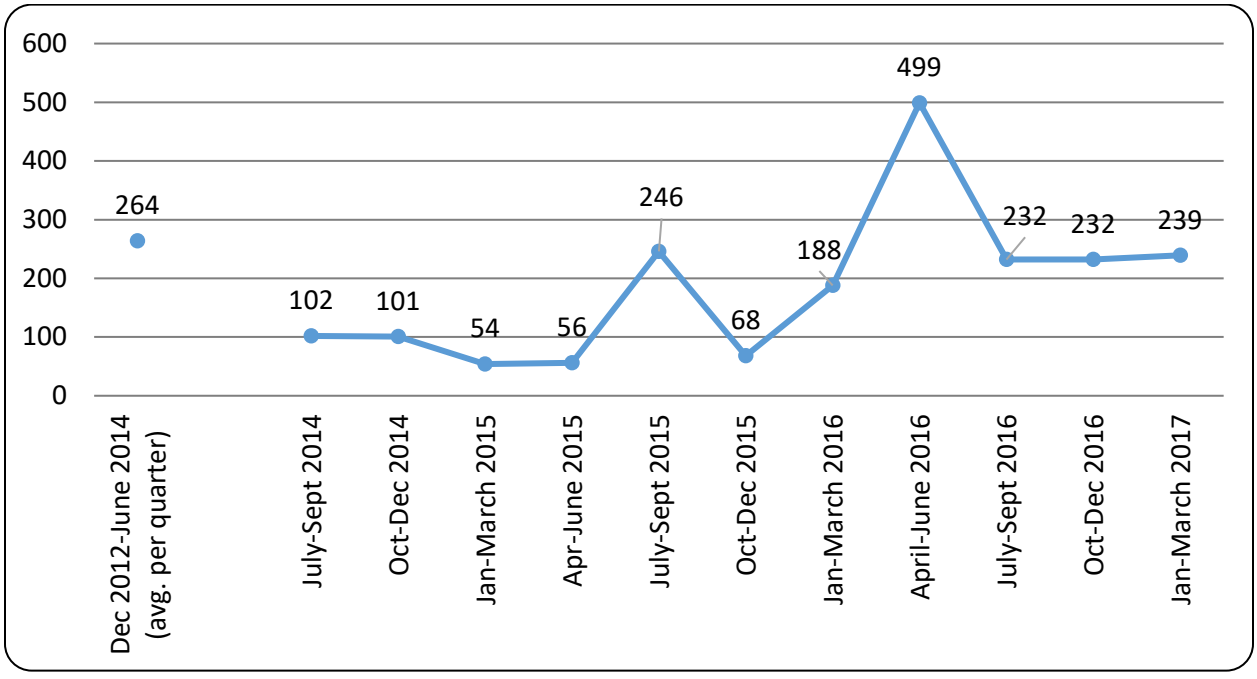
The BQC was unable to provide the average time from application to approval in each quarter for all cases reviewed in the audit process due to concerns about the accuracy of the measure. This information routes through county welfare agencies (CWAs) and MCOs, depending on the application pathway, which poses difficulty for collecting the information in a standardized way . Moreover, delays by applicants in providing other documentation requested by the CWA, as well as delays in determination of clinical eligibility, could all prolong the time from application to approval . Therefore, we are unable to provide data for this proposed evaluation outcome.

Results

Transfer of Assets Self-Attestation

Figure 5.1 shows the number of self-attestations collected during each quarter after MLTSS implementation in July 2014. Prior to MLTSS, 1,670 self-attestations were collected from CWAs and this is presented as an average per quarter on the chart. Post-MLTSS, until March 2017, another 2,017 self-attestations were collected.

Figure 5.1: Quarterly number of self-attestation forms received from Medicaid long-term care applicants, December 2012 to March 2017



Source: DMAHS, Quarterly reports to CMS.

Table 5.1 shows results of BQC's self-attestation review process for each quarter between October 2015 and December 2016. The error rate on the eight sampled applicants in each quarter was 0%.

Table 5.1: Error rate and time to approval from quality control review of self-attestation forms

Quarter	Self-attestations received	Number reviewed	Error rate
Oct-Dec 2015	67	8	0%
Jan-March 2016	183	8	0%
April-June 2016	499	8	0%
July-Sept 2016	232	8	0%
Oct-Dec 2016	232	8	0%
Jan-March 2017	239	*	*

Source: DMAHS, Communication from Bureau of Quality Control shared in October 2016 and March 2017.

*Data being collected, but unavailable for this report.

Qualified Income Trusts

During fiscal year 2015,[99] 544 QIT applications were approved out of the 1,800 received (30%). Projections made by the State for fiscal years 2016 and 2017 show similar rates of approval (36% and 33%, respectively; DHS 2016, p.23).

Table 5.2 shows the number of Medicaid Only beneficiaries with QITs in different settings from December 2014 until March 1, 2016. During that period, there were 1,054 QIT users, of whom 72% were in nursing facilities, 21% were in Assisted Living (considered a community setting) and 7% were living at home. These data show that at least 291 people have been able to enroll in MLTSS and stay in the community that would not have been able to without the QIT mechanism. In addition, these data, along with a report of QIT application counts from December 1, 2014 through March 1, 2015 (DHS 2015, p.42) show that around 25% of QIT applications are for community-residing individuals seeking long-term care services.

Table 5.2: Cumulative amount of individuals eligible for Medicaid Only using a QIT from December 1, 2014 to March 1, 2016

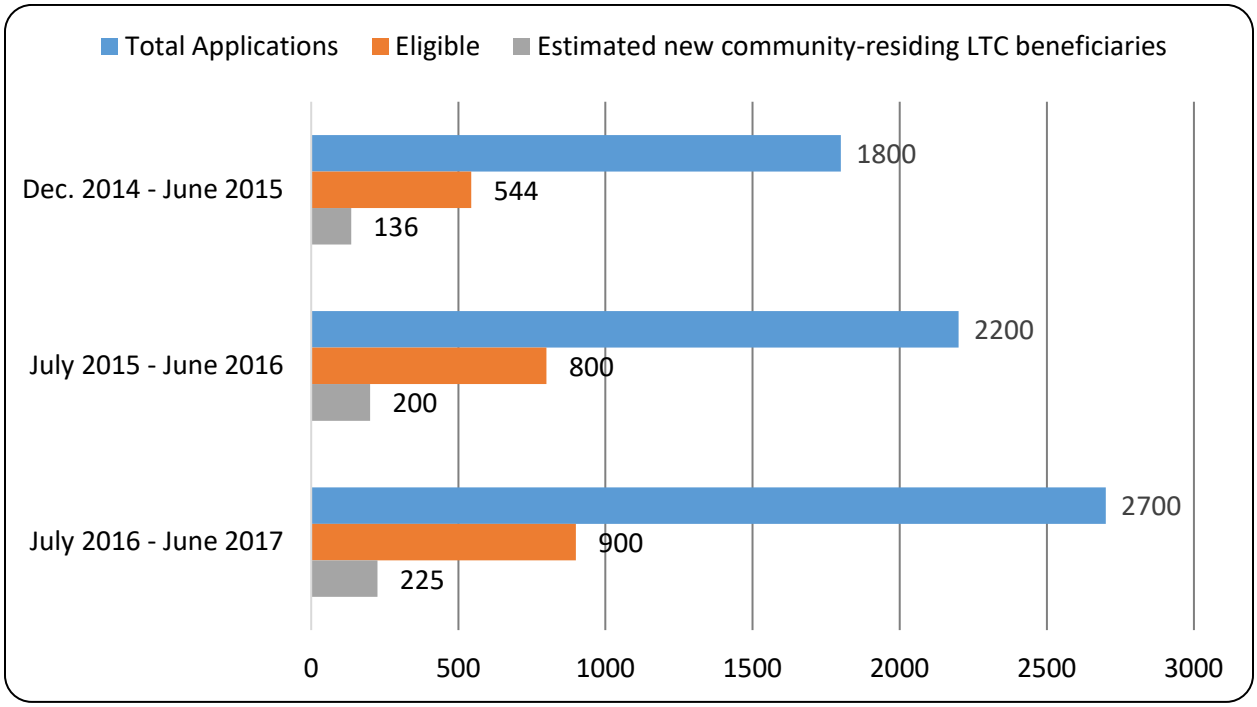
Setting	Number	Percent
Nursing Facility	763	72%
Assisted Living	218	21%
Living at Home	73	7%
Total	**1054**	**100%**

Source: Department of Human Services response to Office of Legislative Services, State Fiscal Year 2016-2017.

[99] July 1, 2014 through June 30, 2015 (QIT applications were accepted beginning December 1, 2014).

Figure 5.2 uses the application counts and (actual and projected) eligibility rates reported by the State along with the distribution of QIT applicant living arrangements to estimate the number of individuals given a pathway into MLTSS HCBS by the use of QITs through June 30, 2017.

Figure 5.2: Number of QIT applications received, determined eligible, and the estimated number of new MLTSS community-residing beneficiaries from December 2014 to June 2017

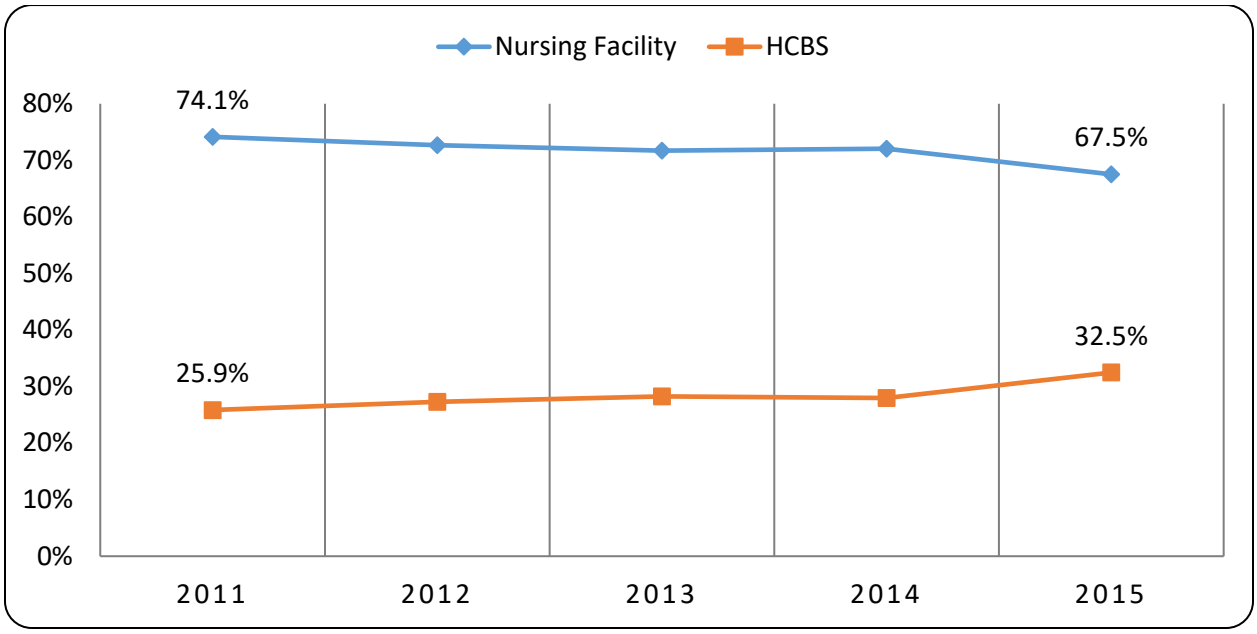


Source: QIT application count and number determined eligible from Department of Human Services response to Office of Legislative Services, State Fiscal Years 2015-2016 and 2016-2017; Estimates of new community-residing beneficiaries calculated using the assumption that 25% of approved QIT applications are for individuals residing in the community.

Figure 5.3 shows the percentage of long-term care (LTC) designated[100] recipients receiving services in nursing facilities or in their homes and communities (which includes assisted living) from 2011-2015. The proportion of all LTC recipients in community settings increases after the Waiver was approved (2013-2015) compared to the baseline period (2011-2012). While our analysis of Medicaid claims data for this final evaluation did not extend beyond 2015, data from secondary sources presented in Figure 1, Chapter 2 of this report shows a continuing increase in the percentage of LTC beneficiaries receiving HCBS through the beginning of 2017. As of March 2017, 43% of the long-term care population receives home and community-based services (HCBS), and 56% resides in nursing facilities.

[100] See Chapter 3 for definition of the long-term care assignment algorithm used in analysis of Medicaid claims data.

Figure 5.3: New Jersey long-term care population by setting of care, 2011–2015



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2015; Analysis by Rutgers Center for State Health Policy.
Note: HCBS=Home and Community-Based Services.

Discussion

This chapter presents findings to date on the administrative simplifications approved under the Waiver and designed to ease the application and approval process for existing beneficiaries and new applicants in need of an institutional level of care. These new processes are being used and monitored, and they very likely have expanded and streamlined the eligibility process for a number of Medicaid applicants. With regards to self-attestation for transfer of assets, a 0% error rate on audited cases is promising evidence that the often burdensome five year lookback process can be safely eliminated for many low-income applicants. As of March 2016, it is known that the availability of QITs has allowed 291 new applicants to qualify for Medicaid home and community-based services who would have otherwise been ineligible at their current income level. We estimate at least a couple hundred more have gained eligibility because of the QIT pathway since then, assuming initial trends did not change substantially.

There are many different reasons why nearly two-thirds of QIT applications are not approved. Some applications are denied because they remain incomplete even after the CWA has requested the missing information from the applicant. These requests could be for documentation of an individual's resources for the last five years, information on other trusts held by the applicant, or proof of citizenship or identity. Applications could also be denied if the applicant's income is over the average price of paying privately for long-term care in NJ ($9,300 per month in a nursing

home and about $6,000 in assisted living). Some proportion of received applications will also be in a pending status, for instance, if there is an issue with the trust and the trustee is working through the issue with the CWA. Finally, some applications could be withdrawn. We do not know the reasons for this, but in the first few months when QITs were available, 19 of the 460 received applications were withdrawn (DHS 2015, p.42).

Whether these new processes are being used uniformly and equitably is not clear. The BQC has noted that, although all CWAs have been provided with the self-attestation form, the counties drawn in the early samples were not representative of the distribution of the Medicaid population in the state, suggesting that some counties may not be regularly using the form. This would mean some applicants who should get the benefit of self-attestation may not be, depending on county-specific practices. In audits for more recent quarters, the BQC reports that the sample is more diverse, but there are other reasons why not all counties are adequately represented. It could be because not all counties are sending their self-attestation forms in to BQC, or the number received in a less populated county is so small that only one or two forms show up in their samples. The small sample of reviewed cases and uncertainty around its uniform use also mean the error rate may not be representative of the statewide error rate. With regard to QITs, stakeholders have expressed concerns about access to legal assistance for consumers with limited financial or social resources at a disadvantage for drawing up the trust documents and designating a representative to administer the trust over time. The State has informed the CWAs to reach out if they encounter these situations, but as of April 2017, only one or two such cases have been brought to the State's attention and they have been resolved.

The existence of these new avenues into the Medicaid long-term care system, particularly the establishment of QITs, has the potential to impact the number and mix of individuals in the MLTSS program. While self-attestation could potentially increase the number of eligible beneficiaries by streamlining the process, establishment of QITs would potentially increase the share of beneficiaries in the community. This motivates our examination of the percentage of long-term care beneficiaries receiving HCBS. This shift does appear to be taking place, and although we cannot directly attribute all of this shift to these administrative changes implemented under the Waiver, it is reasonable to conclude that they have created an easier pathway into home and community-based long-term care services.

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