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Spending and Utilization Indicators in the New Jersey Medicaid ACO Demonstration Project

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Executive Summary

This report provides a first assessment of spending and utilization indicators related to the New Jersey Medicaid Accountable Care Organization (ACO) Demonstration Project (NJ P.L. 2011, c.114). It documents quarterly trends in total costs of care (TCOC), emergency department visits, total inpatient admissions, preventable admissions, readmissions, and post-discharge follow-up visits during the pre-Demonstration period (2012-Q1 through 2015-Q2) and the first year of the Demonstration (2015-Q3 through 2016-Q2). As described below and in other reports, Demonstration Year 1 was predominantly a transitional year, as the ACOs were just beginning to receive data feeds from the state and were contending with an uncertain funding landscape. Thus, **the information in this report reflects mostly baseline conditions that the ACOs did not expect to alter in a significant way in Year 1.** Moreover, this report is part of a sequence of evaluation documents and should not be viewed in isolation from the rest of the sequence.

Overall, trends in the spending and utilization indicators among the three certified ACOs moved roughly in line with trends in a statistically similar comparison group. The analysis provides some additional detail about Camden residents who were members of United and Horizon health plans, which had executed shared savings arrangements with the Camden ACO. Among Camden's United members, there was an apparent decrease in total inpatient admissions and preventable admissions around the time of the execution of the shared savings arrangement (which occurred before the start of the statewide Demonstration). Among Camden's Horizon members, there was a shallow decline in readmissions, which took place throughout the study period and not coincident with the timing of the shared savings arrangement. These observed trends, however, are statistically "noisy" with no consistent indication of statistical significance.

During its legislative development, the ACO Demonstration had envisioned a broad population health and cost containment approach to reforming healthcare delivery for Medicaid enrollees. However, ongoing qualitative analysis and observation of ACO activities

indicate that **each ACO has initially focused on community-specific activities and targeted subpopulations with the goal of expanding operations more broadly in future years.**

As a result, the next rounds of quantitative analyses for Demonstration Years 2 and 3 will be more refined and ACO-specific than the analysis in this report. In developing the next rounds of quantitative analyses, Rutgers Center for State Health Policy will use information from qualitative interviews and direct consultation with the ACOs to ensure that subsequent evaluation analyses are linked more closely to the timing and targeting of each ACO's care management foci.

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Introduction

In August 2011, Governor Chris Christie signed legislation authorizing the New Jersey Medicaid Accountable Care Organization (ACO) Demonstration Project (NJ P.L. 2011, c.114). The Demonstration was designed in part to generate evidence that will inform subsequent legislative deliberations regarding accountable care reforms in NJ FamilyCare, which is the state's combined Medicaid and Children's Health Insurance Program (CHIP). To support this goal, the program creates broad, flexible guidelines within which not-for-profit coalitions of providers can form ACOs. These ACOs must take responsibility for all NJ FamilyCare enrollees living within a specified geographic area. Area definitions (i.e., large cities or collections of municipalities) are left to each ACO subject to the requirement that at least 5,000 NJ FamilyCare enrollees live in the defined area.

Subject to state approval, ACOs are given the flexibility to develop their own target populations for enhanced care management, quality benchmarks, and shared savings mechanisms. Shared savings arrangements are required for Medicaid fee-for-service (FFS) populations and services, including the Medicaid portion of spending for Medicare-Medicaid Dual Eligibles. Such arrangements between ACOs and managed care organizations (MCOs) are permitted but not required under the Demonstration.

As documented in detail in another report (Thompson and Cantor 2016), the Demonstration has encountered a variety of implementation challenges since the enabling legislation was enacted in 2011. Some of the major challenges included the following:

- Inability of existing data systems to clearly identify primary care providers in ACO service regions affected ACOs' ability to meet certification requirements.
- The original legislation did not include ACO startup funding, which affected ACOs' early financing and care planning strategies.
- The voluntary nature of MCO participation placed the burden on ACOs to actively encourage and negotiate such participation.

One of the original foci of the authorizing legislation was to promote better care management for the fee-for-service Medicaid population who were not enrolled in managed care plans. An important segment of fee-for-service Medicaid included the General Assistance (GA) population who were very low-income patients with multiple high-cost medical and social support needs. But as the Demonstration unfolded, the federal government passed and implemented the Affordable Care Act (ACA). When New Jersey decided to participate in the ACA Medicaid expansion, the GA population was subsumed into the broader newly enrolled eligibility category. As a result of the federal policy change, the ability of ACOs to negotiate contracts with managed care plans has taken on even greater importance than originally intended.

As shown in Table 1, the Demonstration has been implemented over several years. In May of 2014, the New Jersey Department of Human Services promulgated the final rule for implementing the Demonstration (NJDHS, DMAHS 2014) and in July 2015, three of seven applicants obtained state certification to participate in the Demonstration as ACOs. The three successful applicants were the Camden Coalition of Healthcare Providers, the Trenton Health Team, and Healthy Greater Newark.

Table 1: Demonstration Timeline

Date	Action
August 2011	Demonstration signed into law.
May 2013	Proposed Demonstration rules issued.
May 2014	Final Demonstration rules issued.
July 2015	Beginning of Demonstration Year 1 with 3 ACOs certified to participate.
February 2016	First round of claims & encounter data provided to ACOs from the state.
June 2016	End of Demonstration Year 1.
July 2016	Beginning of Demonstration Year 2. $1 million appropriation to each ACO.
June 2017	End of Demonstration Year 2.
July 2017	Beginning of Demonstration Year 3. $1 million appropriation to each ACO.
June 2018	End of Demonstration.

After certification, the three ACOs received various forms of support from the state. This support, however, came in fragmented and often unpredictable ways. Each ACO received monthly Medicaid claim/encounter data feeds (including ACO patients' use of services from non-ACO providers) to assist with patient targeting, risk stratification, and care coordination strategies. But due to the time required to finalize legal agreements and data transmission procedures, the first data transmission did not occur until February of 2016, more than halfway through the Demonstration's first year. After receiving the data, the ACOs briefly received periodic technical assistance with data analytics from the state and outside organizations acting

in collaboration with the state – specifically, Rutgers Center for State Health Policy (CSHP) and the Center for Health Care Strategies.

The original legislation made no provisions for ACO financial support from the state. As a result, ACOs were limited in their ability to hire staff and develop infrastructure needed to ramp up their accountable care activities. Private philanthropy, most notably from The Nicholson Foundation, filled some funding gaps. But such funding varied considerably among ACOs and was constrained by the preferences of the granting organizations. Also the initial uncertainty about whether grants would be awarded and the time-limited nature of grant awards limited plans to hire new staff. Much later in the Demonstration the state government appropriated $1 million for each ACO as part of the budget for State Fiscal Year 2017, coinciding with Year 2 of the Demonstration. An additional appropriation of $1 million per ACO was also made available for State Fiscal Year 2018 (Demonstration Year 3). In both cases, funds were appropriated just before fiscal year budgets were finalized, adding more uncertainty to ACO financial planning.

In February 2017, CSHP released a report providing a qualitative analysis of ACOs' initial operations and care management strategies during Demonstration Year 1 (DeLia, Yedidia, and Lontok 2017). The report documented how ACOs spent much of the first year organizing their provider coalitions and setting up data analytic activities. During this time, the ACOs worked to further develop and refine their approaches to patient targeting and care management. This work involved integrating the Medicaid claims data feeds into workflow processes and developing priorities for targeting quality metrics.

An important development during Year 1 was the very limited engagement with MCOs to advance shared savings or other arrangements under the Demonstration. ACO representatives interviewed for the CSHP report felt that the MCOs were taking a very cautious approach and had doubts about the value of ACO engagement. This is an important development given the heightened need for MCO participation after passage of the ACA. Still, the ACOs had maintained the view that their ability to organize and customize interventions within patient communities can add significant value to MCO activities.

As documented in the CSHP report and summarized in Table 2, the three certified ACOs began the Demonstration at very different levels of organizational maturity, and therefore, focused on different kinds of activities during Year 1. The most advanced was the Camden Coalition of Healthcare Providers, which had a long history of coordinating health and social services in their community. Building on that history, the Camden ACO began the Demonstration with the most clearly developed care coordination strategies and negotiated two shared savings contracts with MCOs in Demonstration Year 1. A key component of their early care management approach was the 7-Day Pledge initiative, which offered enhanced payments to primary care providers who provide follow-up care to patients within 7 days of discharge from the emergency department or inpatient unit. This initiative was designed to

promote longer appointments, improved transitions, and greater access for patients in this critical window of time.

Table 2: Key ACO Activities through Demonstration Year 1

Camden Coalition of Healthcare Providers
Continuation of a 3-year shared savings agreement with United Healthcare (beginning December 2013)
Continuation of 2-year shared savings agreement with Horizon Blue Cross-Blue Shield (beginning January 2015)
Development & implementation of 7-Day Pledge initiative
Development & implementation of Housing First initiative (first clients housed in November/December 2015)
Trenton Health Team
Creation of community-wide health information exchange (HIE)
Spread of HIE adoption among providers in Trenton
Creation of Community Advisory Board
Initial negotiation of a service contract with Amerigroup (which was executed in Year 2)
Healthy Greater Newark
Assembly of provider & social services coalition
Initial development of HIE
Alignment of care coordination strategies with other ongoing activities (e.g., Delivery System Reform Incentive Payment program)

At the start of the Demonstration, the ACO strategies in Trenton and Newark were less developed than the one in Camden. In the first year, the Trenton Health Team made significant progress in their capacity for data analytics and communitywide provider engagement. They also began negotiating a service delivery contract with Amerigroup, which was executed in Year 2.

Healthy Greater Newark made progress in developing their provider/social service coalitions, building the required infrastructure and data analytics, and thinking through the focus of their care management strategies. In Year 1, however, they were not successful in engaging with an MCO. Instead, they sought to coordinate ACO functions into pre-existing initiatives within their provider community such as the Delivery System Reform Incentive Payment (DSRIP) Program.

This report compliments the previously published qualitative analysis by providing a first examination of quantitative data during and before Demonstration Year 1. It is important to emphasize that **this report is part of a sequence of evaluation documents and should not be viewed in isolation from the rest of the sequence**. This is especially important in light of the fact that Year 1 was predominantly a transitional year as the ACOs were just beginning to receive data feeds from the state and were contending with an uncertain funding landscape. Thus, **the data tabulations below reflect mostly baseline conditions that the ACOs did not expect to alter in a significant way in Year 1.** This report focuses specifically on broad Medicaid spending and utilization measures that the Demonstration was designed to influence over time, which overlap with, but are not necessarily the same as, the internal quality metric targets under development within each ACO. It documents quarterly trends in total costs of care (TCOC) and healthcare utilization indicators (defined below) during the pre-Demonstration period (2012-Q1 through 2015-Q2) and the first year of the Demonstration (2015-Q3 through 2016-Q2).

Methods

Data and ACO Performance Measures

Although the ACOs are at varying stages of development, they share the common goals of ultimately increasing primary care access, improving care coordination, reducing avoidable hospital use and reliance on the emergency department (ED), and reducing total costs of care (TCOC) (DeLia, Yedidia, and Lontok 2017). The analysis below provides an initial assessment of spending and utilization metrics related to these goals. All metrics are derived from the NJ Medicaid Management Information System (NJMMIS), which includes all adjudicated Medicaid fee-for-service claims and managed care encounter records. (More precisely, the NJMMIS covers all of NJ FamilyCare, which includes Medicaid and the Children's Health Insurance Program. In this report, we refer to all of NJ FamilyCare as "Medicaid".)

The specific indicators examined include broad spending and utilization metrics, namely, TCOC, primary care visits, ED visits, and total inpatient admissions. Primary care visits were defined as outpatient visits outside of the ED for evaluation and management (E&M) procedures defined in HCPCS/CPT codes as office or other outpatient services (99201-99215), office or other outpatient consultations (99241-99245), and preventive medicine services (99381-99397). Total inpatient admissions include maternity stays but not newborns (to avoid double counting). We also examine preventable hospitalizations, measured as Prevention Quality Indicators (PQIs) for adults ages 18 and above and Pediatric Discharge Indicators (PDIs) for children ages 5-17 using Quality Indicator (QI) Software developed by the Agency for Healthcare Research and Quality (http://www.qualityindicators.ahrq.gov/Software/Default.aspx). In addition, we examine indicators of care coordination after hospital discharge.

These include 7-day and 14-day post discharge follow-up care (based on E&M codes above) and 30-day readmission. Positive performance is measured as increases in primary care and post-discharge follow-up visits and decreases in the other metrics.

Analysis and Interpretation

Due to the extended implementation timeline and the evolving nature of ACO operations, the early stages of the Demonstration do not lend themselves to a clear pre/post study design. Moreover, **since the ACOs spent much of Year 1 developing plans and seeking resources to cover operational costs, the analysis below may be viewed largely as a report on baseline conditions faced by each ACO community, overall and relative to other parts of the state.** Specifically, the analyses examines trends in the spending and utilization indicators measured quarterly from 2012 through the first half of 2016. This period covers three and a half years before the official start of the Demonstration (2012-Q1 through 2015-Q2) and one full year after (2015-Q3 through 2016-Q2).

The Demonstration was implemented during a time of broader change in New Jersey's Medicaid program. Most notably, the state's Medicaid Comprehensive Waiver Demonstration began on October 1, 2012, and with the recent renewal, will run through June 2022. Along with many other provisions, the Waiver expanded the use of managed care for Long-term Services and Supports and behavioral health services. It also established New Jersey's hospital-based Delivery System Reform Incentive Payment (DSRIP) Program, which creates a pay-for-performance and pay-for-reporting system to achieve specific health improvement goals for the state's low income population.

To account for these and other contemporaneous trends in the spending and utilization indicators, the analysis includes a comparison group consisting of patients living outside of the 3 ACO service areas. To enable comparability of groups, we use propensity weights constructed with the following 3-step process. First, we estimate a logit model to generate propensity scores (i.e., predicted probabilities of being in the intervention group) based on observable covariates including patient age, sex, Medicaid eligibility category, risk score, and days of Medicaid enrollment in the quarter. Risk scores are calculated using the Chronic Illness and Disability Payment System (CDPS) (Kronick et al. 2000). Scores are calculated prospectively using demographics and enrollee diagnosis history from the prior year. Since the number of prior-year enrollment days varies by enrollee and influences the extent to which diagnostic history is available, prior-year enrollment days are also included in the propensity score equation. Second, we weight the observations in the comparison group by $p_i/(1-p_i)$ where p_i, where p_i is the propensity score for individual i. Third, we rescale the weights (including a weight of 1 for individuals in the intervention group) within the intervention and comparison groups so that the reweighted proportions are similar to those observed between the two

groups. In a formal evaluation context, this weighting scheme would allow us to interpret differences in group means as the average treatment effect on the treated (Nichols 2008).

Using this method, we report spending and utilization indicators five groups: 1) the comparison, 2) all three ACOs combined, 3) the Camden ACO, 4) the Trenton ACO, and 5) the Newark ACO. Broad high-level trend analysis is presented in the main text. More detailed tabulations are provided as reference material in the Appendix.

As noted in earlier reporting (DeLia, Yedidia, and Lontok 2017), the Camden ACO had established MCO gainsharing contracts with United Healthcare and Horizon Healthcare in Year 1 or before. Therefore, the report also examines trends in performance metrics for subsets of Camden ACO patients covered by these two health plans. In these two cases, the comparison groups are restricted to individuals covered by United or Horizon, respectively.

Findings

Overall

Table 3 shows per quarter averages in the total number of Medicaid enrollees and inpatient admissions across the study groups over time – i.e., State Fiscal Years. These numbers form the denominators for the analyses below. The rising trends in enrollees directly reflect the ACA Medicaid expansion, which occurred in the middle of State Fiscal Year 2013. Trends in admissions are affected by a combination of rising enrollment, care management approaches, and epidemiologic trends.

Table 3: Average Numbers of Medicaid Enrollees and Inpatient Admissions per Quarter[a]

Group	Enrollees (in thousands)				Admissions (in hundreds)			
	2013	**2014**	**2015**	**2016**	**2013**	**2014**	**2015**	**2016**
All of NJ	1,401	1,526	1,841	1,884	268.6	229.3	264.2	277.5
Comparison	1,285	1,404	1,698	1,739	239.8	205.3	237.4	250.0
Camden	41.9	44.1	51.2	53.3	9.4	7.5	8.6	9.2
United	8.1	8.1	9.5	9.9	1.5	0.6	0.8	1.0
Horizon	25.5	26.3	31.2	34.2	6.4	5.6	6.6	6.9
Trenton	36.8	39.4	45.4	45.8	9.2	8.6	9.3	9.4
Newark	37.4	39.1	45.8	46.2	10.2	7.9	8.8	9.2

[a] Years indicate State Fiscal Years (July-June).

Figure 1 shows trends in TCOC for the five study groups. Throughout the study period, TCOC was higher in the propensity-weighted comparison group, though it moved closer to the ACO groups before Demonstration Year 1 (beginning in 2015-Q3). Ideally, the comparison group would be more similar to the ACO groups before the Demonstration period. The

difference shown may be due to differences in prices paid to providers, utilization differences, or other unmeasured confounders. Nevertheless, by the beginning of 2015, the trends in TCOC for all groups move in parallel, which will make it easier to identify ACO impacts in future Demonstration years.

Figure 1: Total Costs of Care per Medicaid Enrollee per Quarter

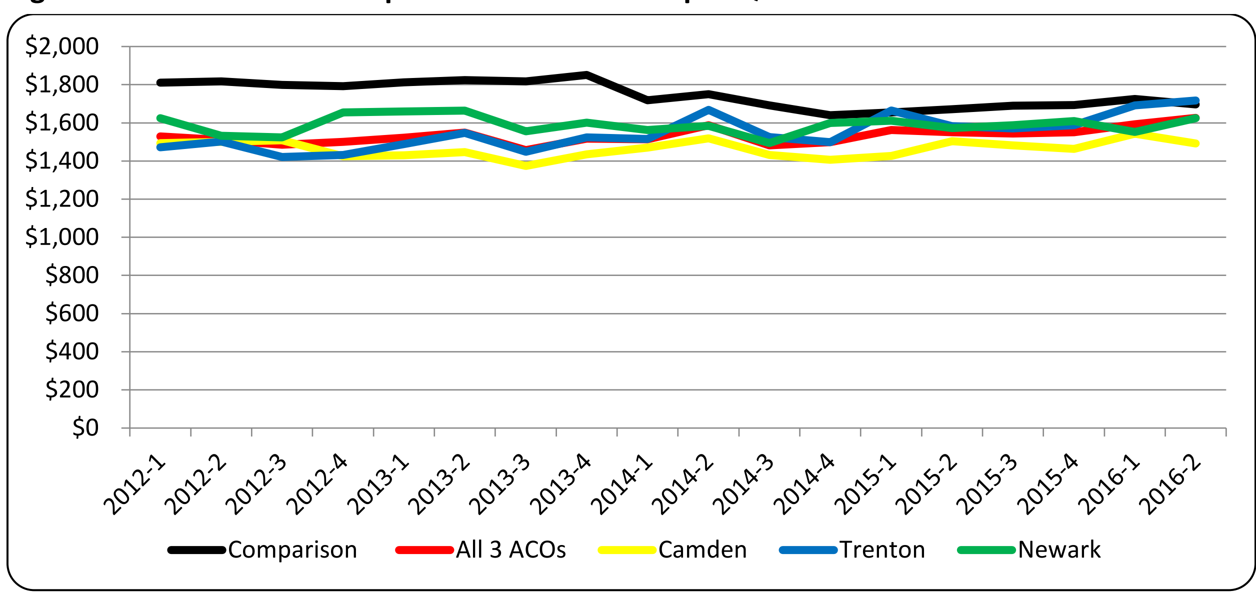


Figure 2 shows trends in ED visits per 100 Medicaid enrollees. Here, the comparison group shows consistently lower values than all the ACO groups. Trenton had consistently higher values. As noted above, unmeasured factors (e.g., differences in local ED capacity) could account for differences across groups. Across all groups, but more pronounced in the ACO regions, there is an uptick in ED visit rates in 2014, which coincides with the ACA Medicaid expansion. This pattern is consistent with other studies showing an increase in ED use when individuals are newly covered by Medicaid (Taubman et al. 2014).

Figure 2: Emergency Department Visits per 100 Medicaid Enrollees per Quarter

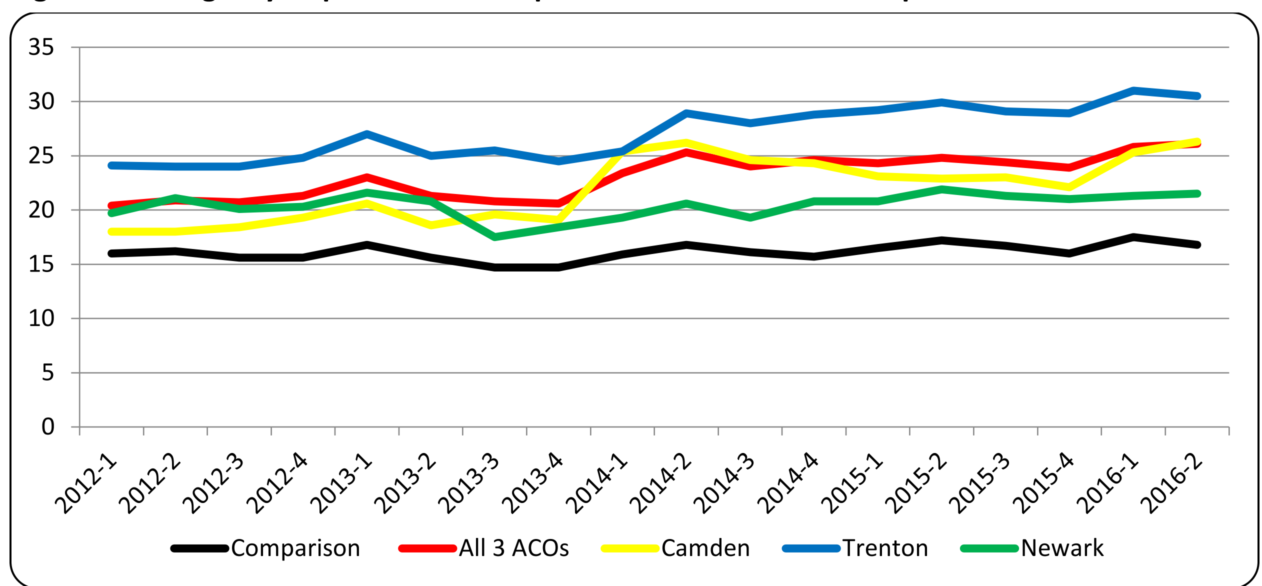


Figure 3 shows trends in total inpatient admissions per 1,000 Medicaid enrollees. The trend in Camden overlaps tightly with the comparison group, both of which had lower inpatient utilization than Trenton and Newark.

Figure 3: Total Inpatient Admissions per 1,000 Medicaid Enrollees per Quarter

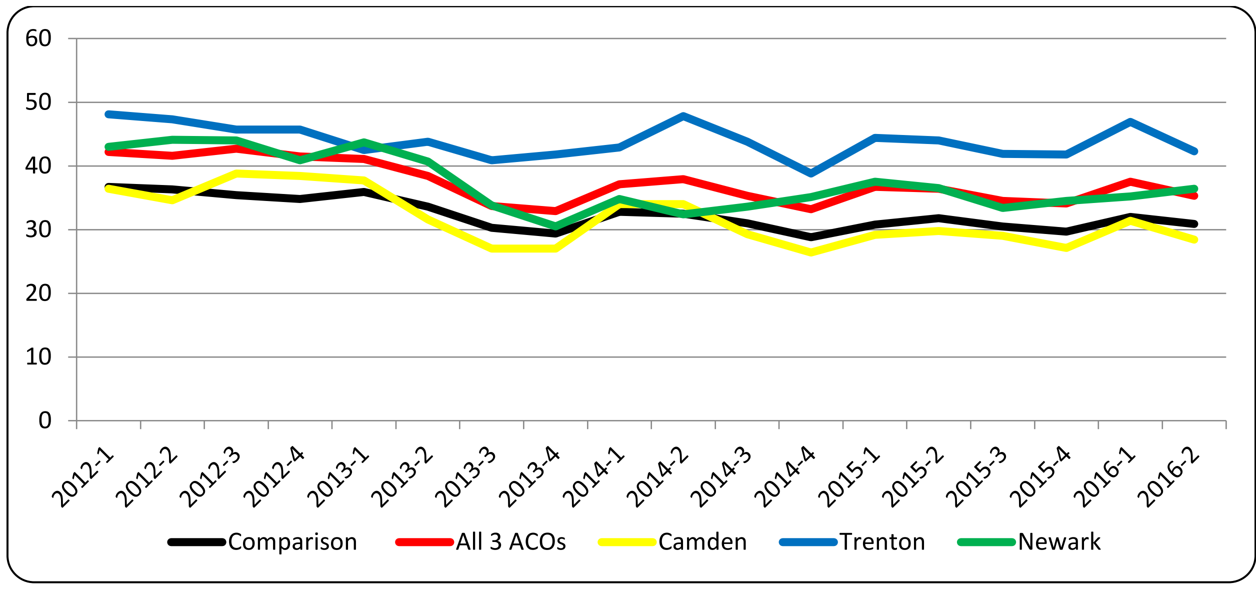


Figure 4 shows trends in preventable admissions per 1,000 enrollees. Throughout the study period, preventable admissions were higher in the ACO regions. In several groups there was a general reduction in preventable admissions in 2013, which coincides with the initial rollout of the DSRIP program, which focused on this measure.

Figure 4: Preventable Inpatient Admissions per 1,000 Medicaid Enrollees per Quarter

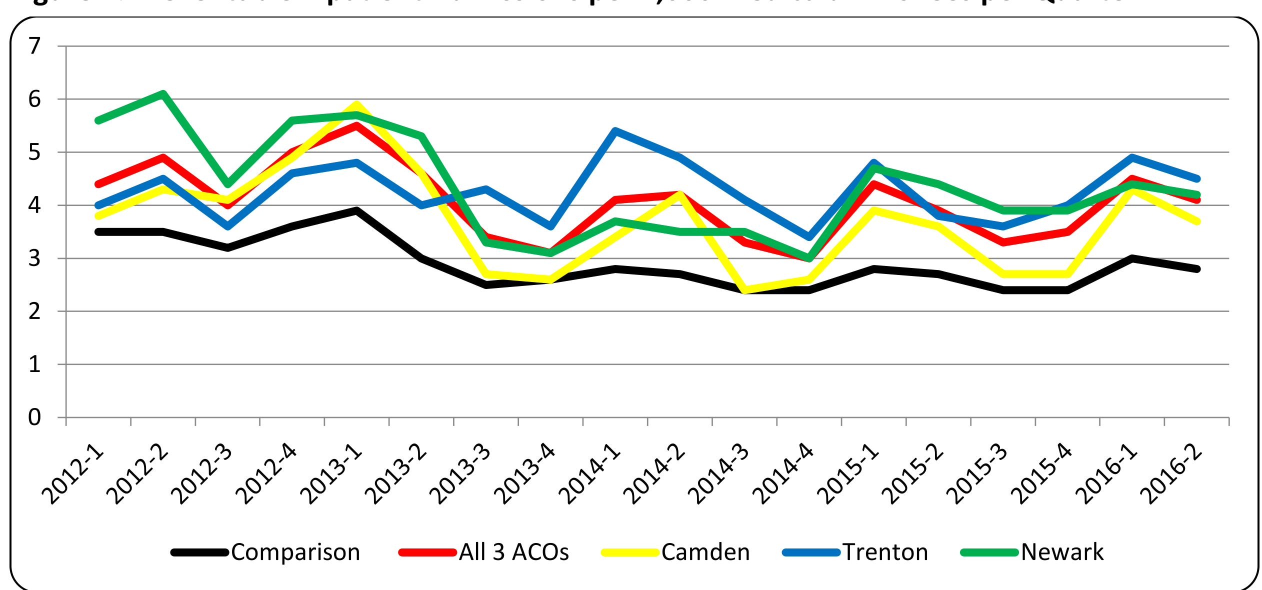


Figure 5 shows trends in percentage of admitted patients who received a primary care follow-up visit within 7 days of discharge. These percentages were similar with a flat trend for all of the study groups except Camden. Camden began the study period with higher rates, which then fell to levels similar to the other groups.

Figure 5: Percentage of Admitted Patients Who Received a Follow-Up Visit within 7 Days of Discharge

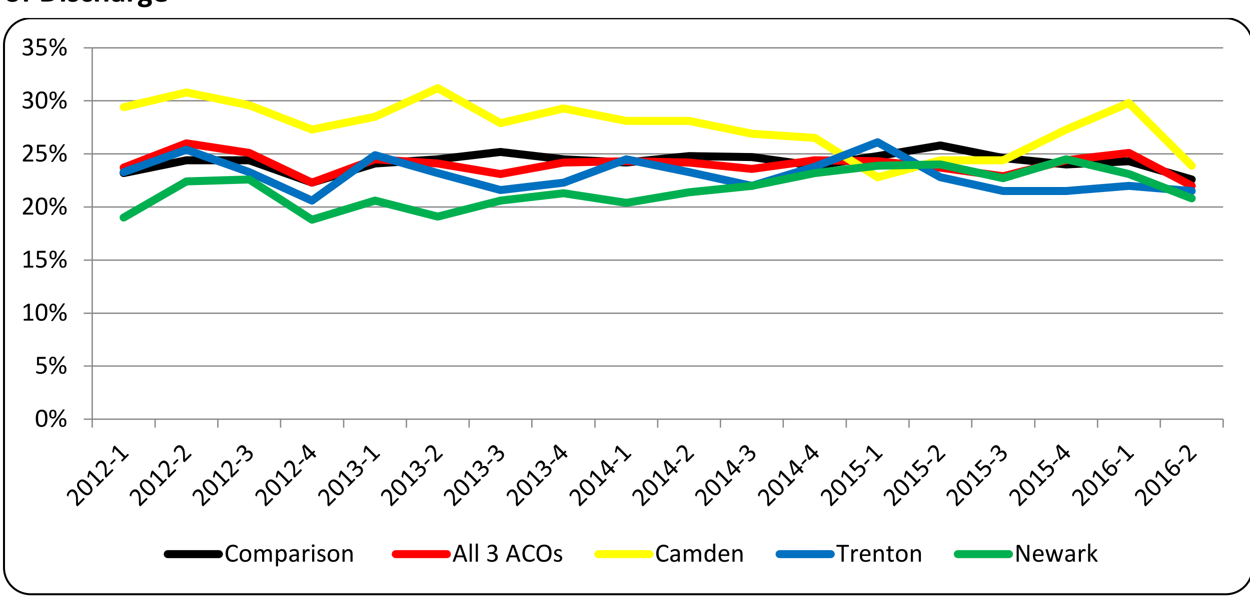


Figure 6 trends in percentage of admitted patients who received a primary care follow-up visit within 14 days of discharge. Although the percentages are higher, they exhibit patterns similar to those for the 7-day follow-up measure.

Figure 6: Percentage of Admitted Patients Who Received a Follow-Up Visit within 14 Days of Discharge

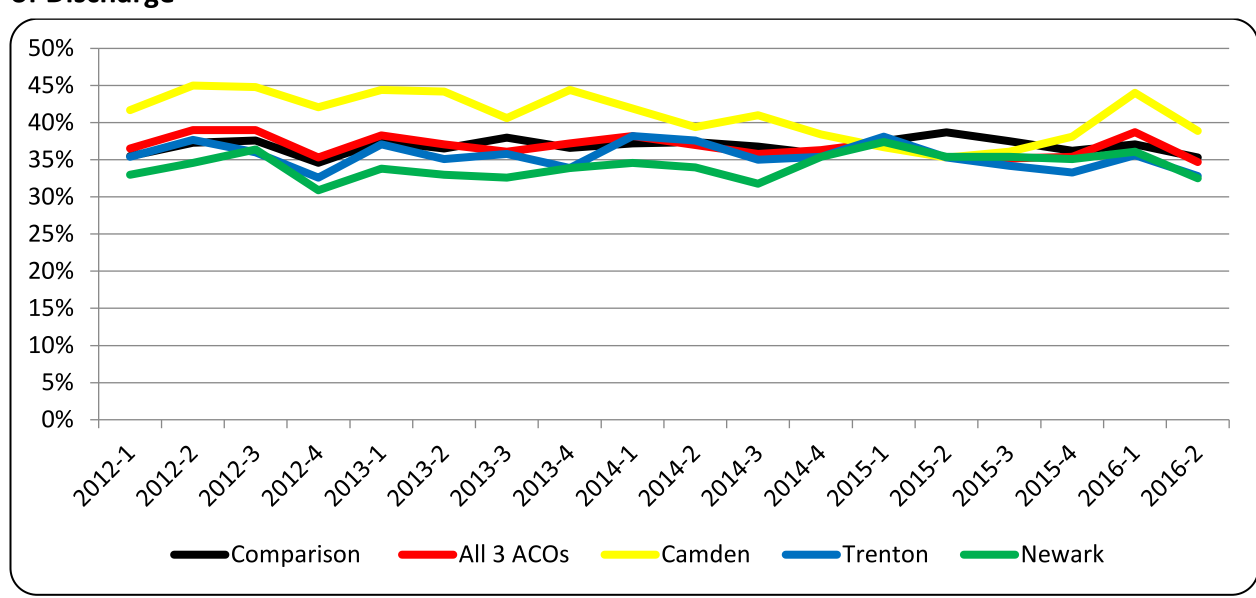
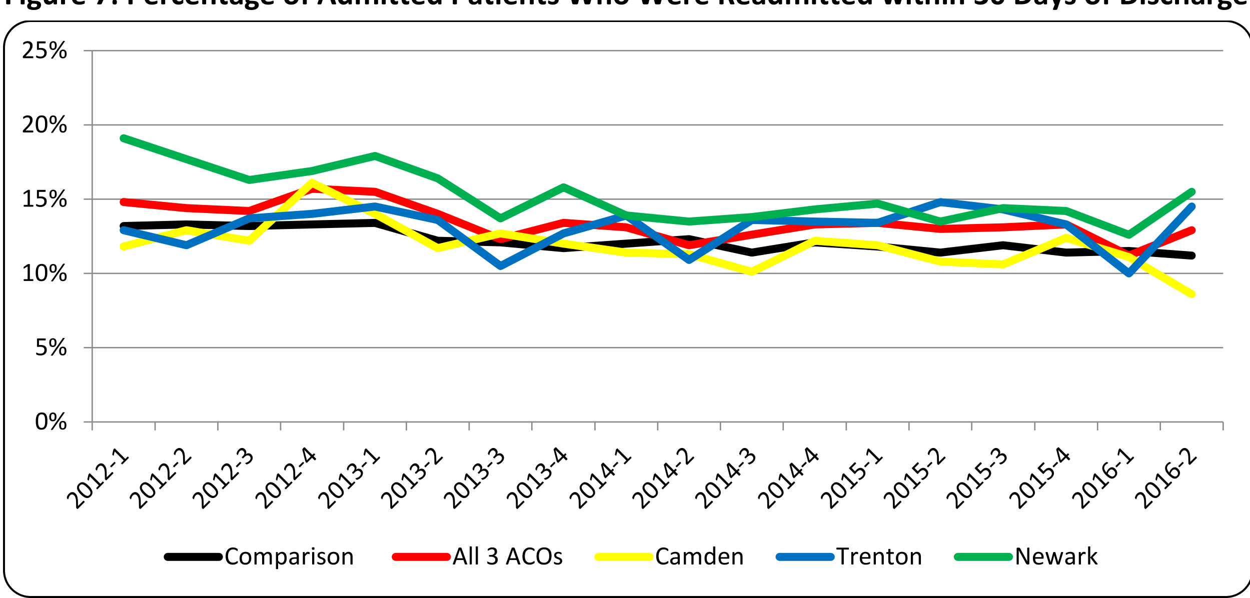


Figure 7 shows 30-day readmission rates. Most groups moved together with no apparent trend. One exception is Newark, which began at a higher rate, which eventually moved in line with the other groups.

Figure 7: Percentage of Admitted Patients Who Were Readmitted within 30 Days of Discharge



Managed Care Arrangements in Camden

The figures below provide highlights from the information pertaining to the Camden ACO's arrangements with United and Horizon. They focus specifically on TCOC as well as areas where there are notable differences between the Camden ACO and the comparison group (within the same health plan) in terms of levels or trends in a particular indicator. Among Medicaid enrollees covered by United, TCOC were similar within and outside of the ACO throughout the study period (Figure 8). Although ED visits began the period lower in Camden, they converged in the later part of the study period (Figure 9). There were notable reductions in total inpatient admissions and preventable admissions in 2013, which is near the time when Camden first began its shared savings contract with United.

Figure 8: Total Costs of Care among Medicaid Enrollees Covered by United

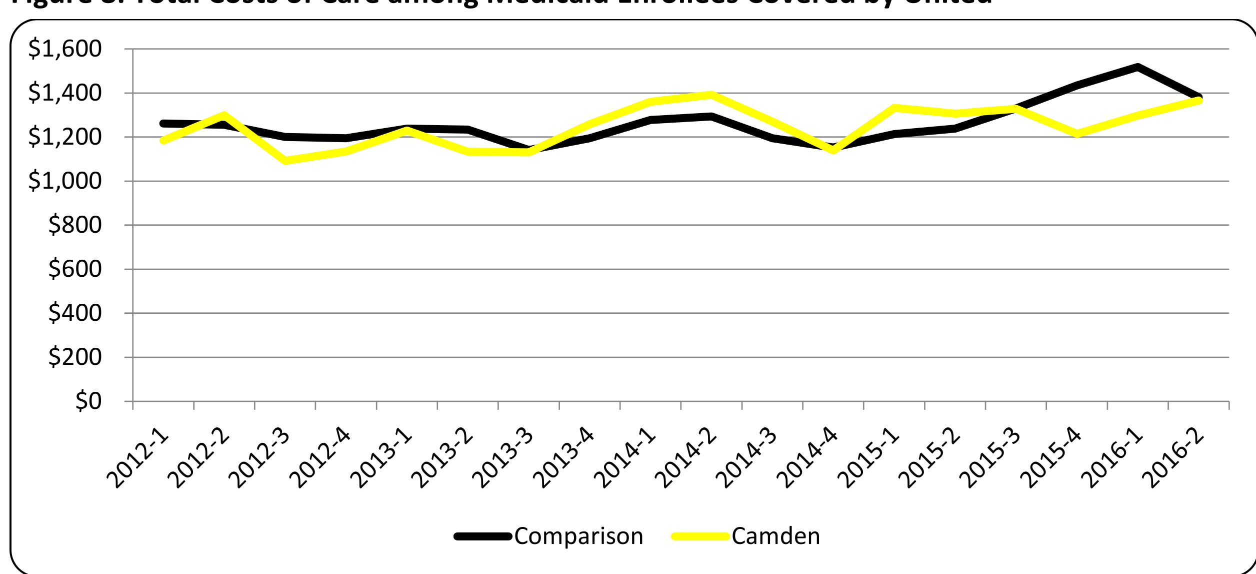


Figure 9: Emergency Department Visits per 100 Medicaid Enrollees Covered by United

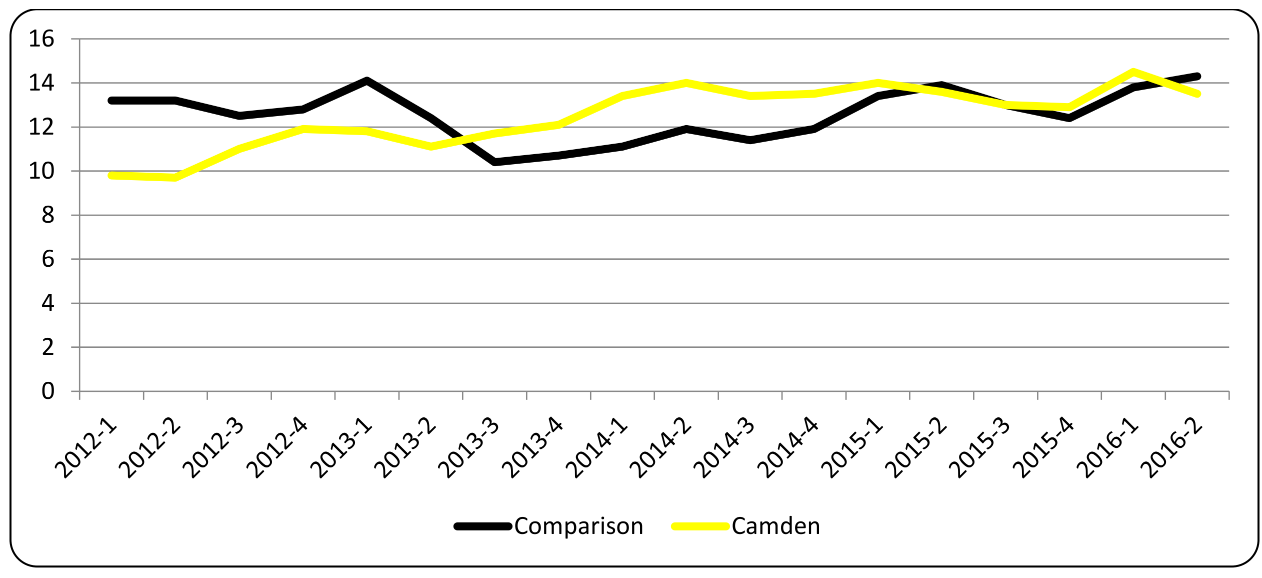


Figure 10: Total Inpatient Admissions per 1,000 Medicaid Enrollees Covered by United

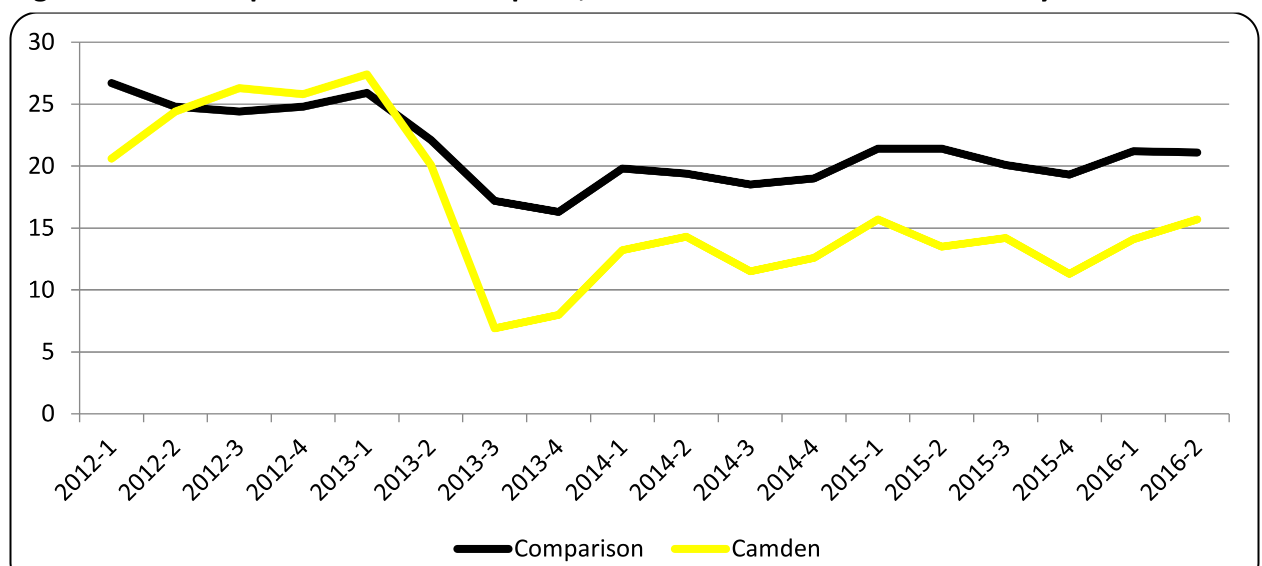
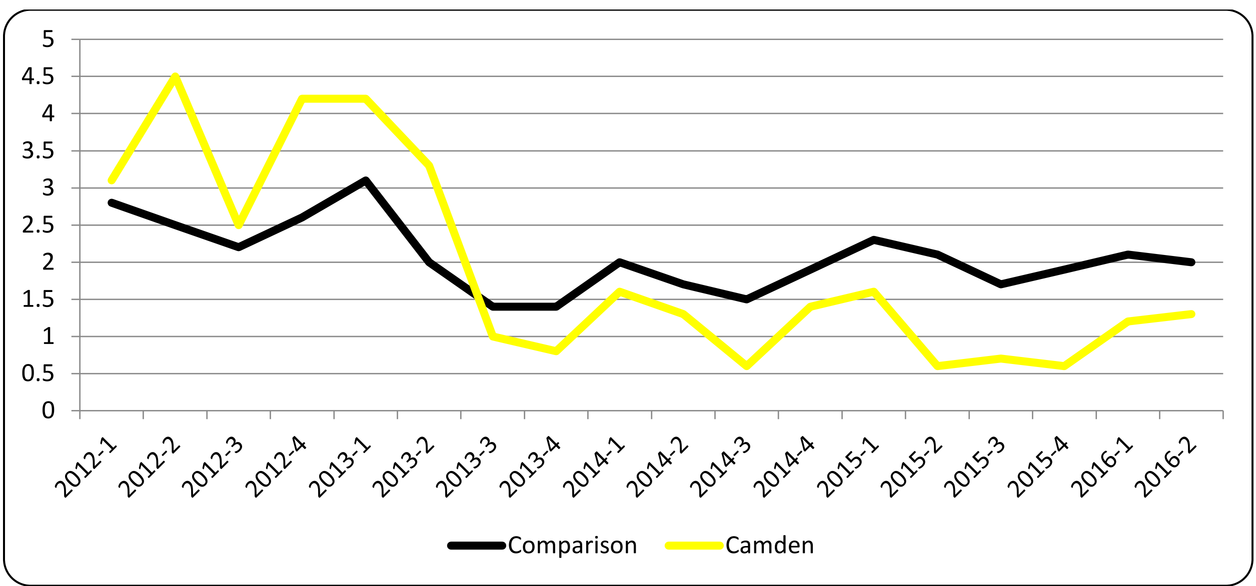


Figure 11: Preventable Inpatient Admissions per 1,000 Medicaid Enrollees Covered by United



Among Medicaid enrollees covered by Horizon TCOC were similar within and outside of the ACO throughout the study period (Figure 12). ED visits and preventable hospitalizations were consistently higher in Camden than among other Medicaid Horizon members (Figures 13 & 14). In contrast, 30-day readmissions trended downward in Camden while remaining flat among other Horizon Medicaid members (Figure 15).

Figure 12: Total Costs of Care among Medicaid Enrollees Covered by Horizon

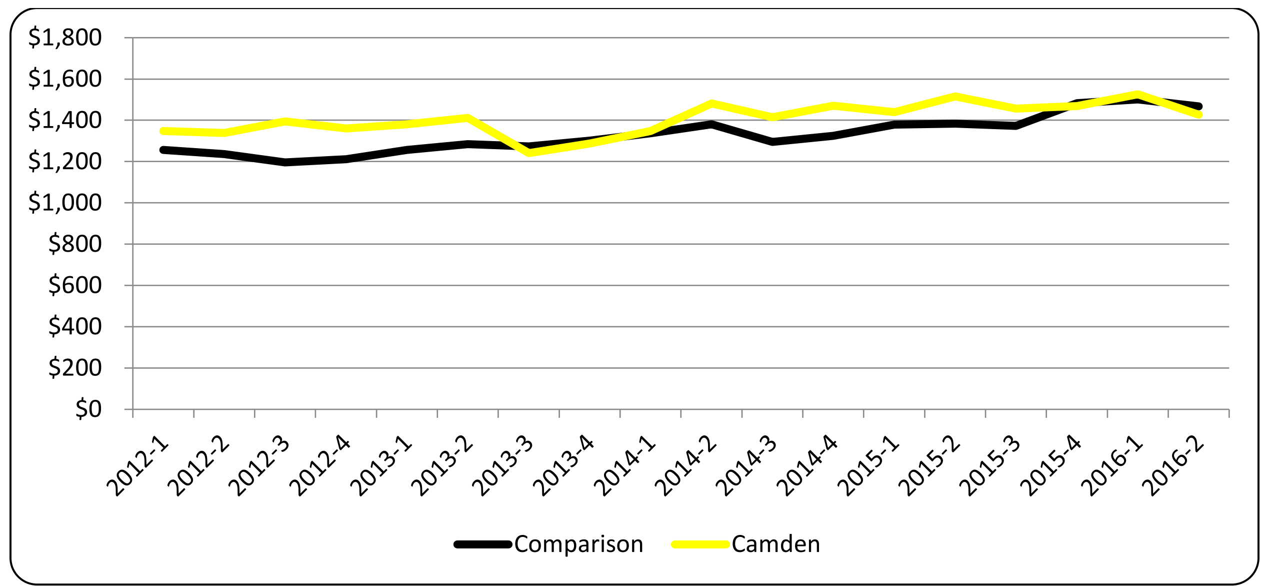


Figure 13: Emergency Department Visits per 100 Medicaid Enrollees Covered by Horizon

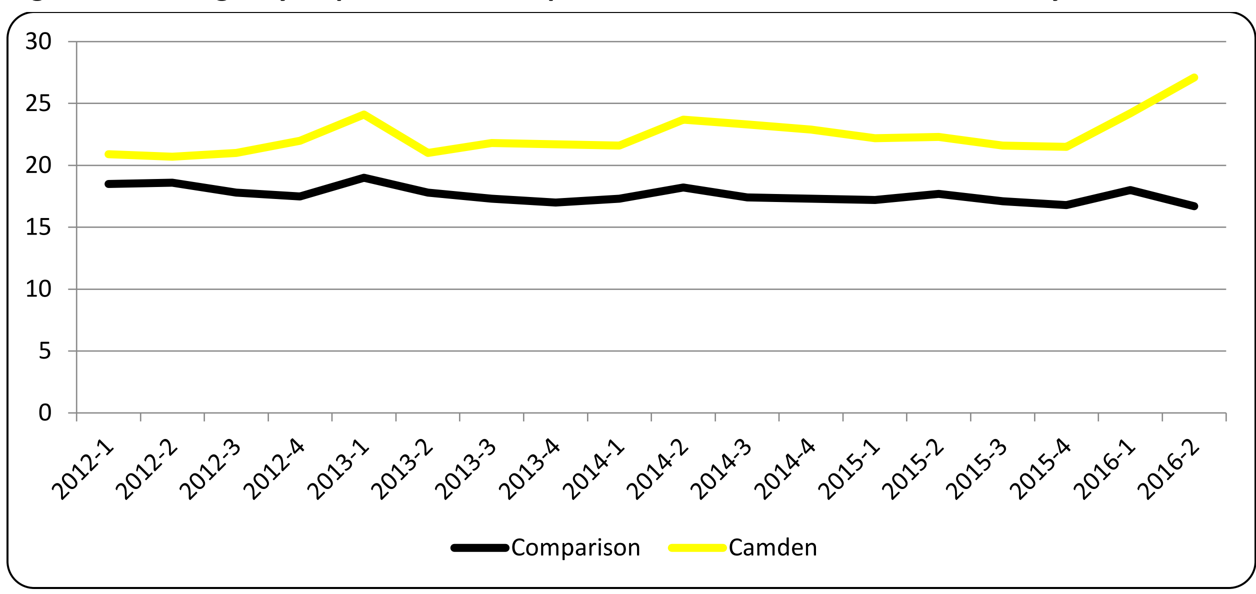


Figure 14: Preventable Inpatient Admissions per 1,000 Medicaid Enrollees Covered by Horizon

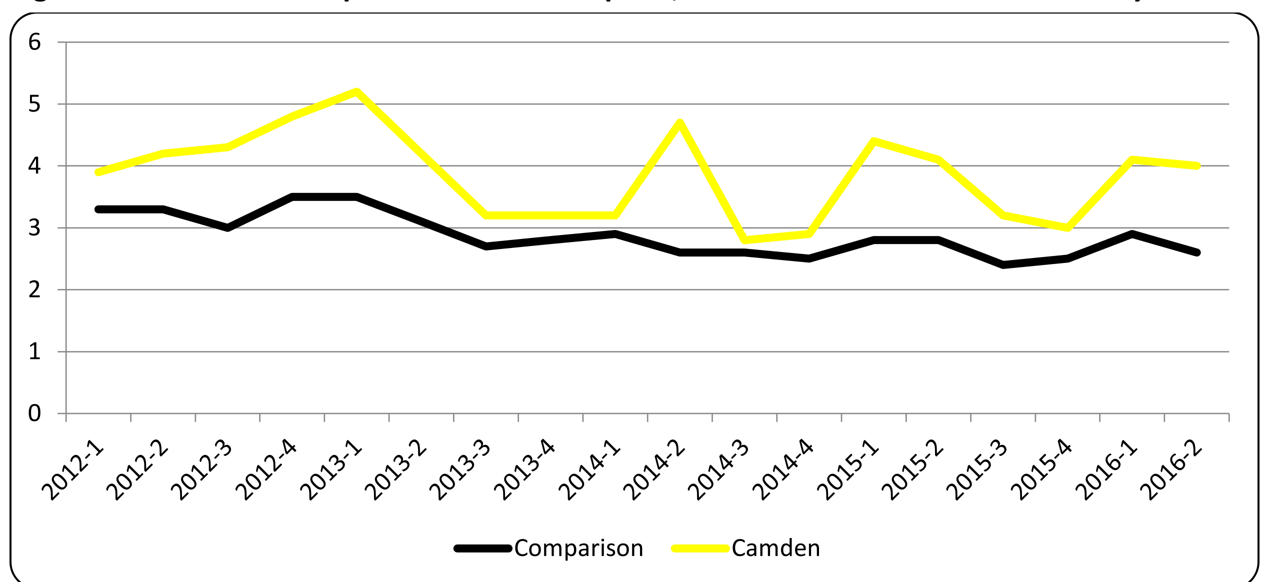
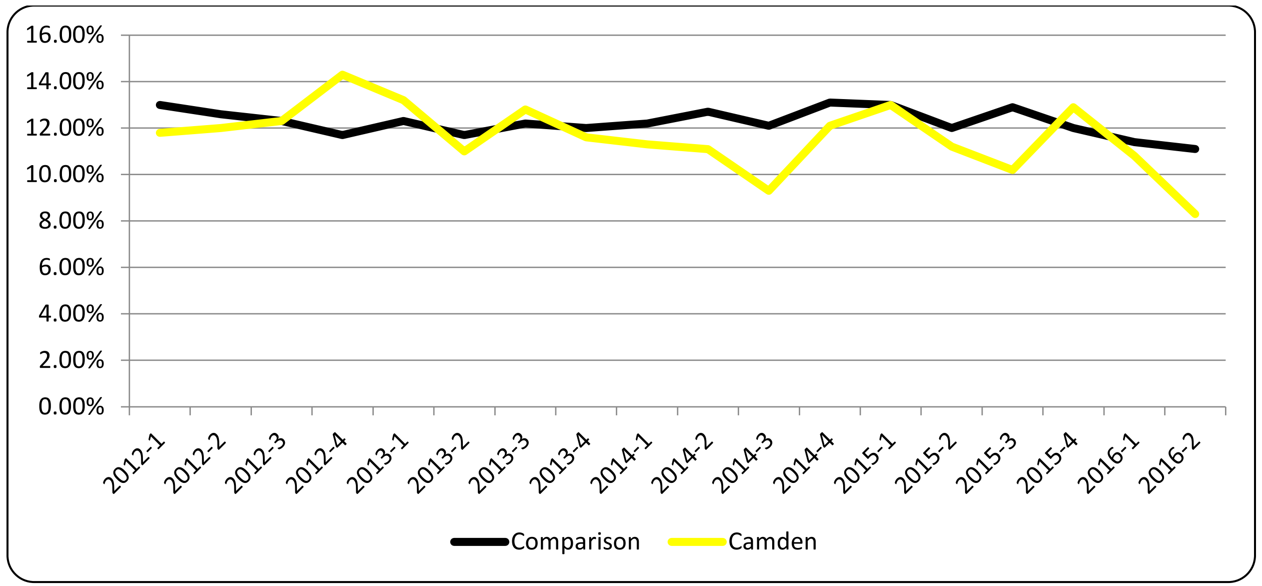


Figure 15: Percentage of Admitted Horizon Enrollees Who Were Readmitted within 30 Days of Discharge



Discussion

The analysis above provides a first examination of quantitative data on spending and utilization indicators for the three certified ACOs in the Medicaid ACO Demonstration Project. Trends in these indicators for the ACOs were compared to corresponding trends for a comparison group that was weighted by demographic and health risk characteristics to look statistically similar to

the Medicaid enrollees living in the ACO communities. Trends among ACOs were roughly similar to the comparison group in the aggregate data for the first year of the Demonstration and the years leading up to it. This similarity is not surprising in light of the long ramp-up period, discussed above, that the ACOs needed to fully initiate their operations. Thus, the analysis in this report should be viewed as an assessment of baseline conditions for the ACO communities as they began their operations.

Although baseline *trends* were broadly similar across the study groups examined, the ACO communities exhibited some differences in the overall *levels* of some indicators, most notably TCOC and ED visit rates, throughout the entire observation period (2012-Q1 through 2016-Q2). Ideally, the comparison group would be statistically as close as possible to the ACO groups in the pre-Demonstration period to clearly identify the effects of the Demonstration as ACOs advance their activities. Although the comparison group was constructed to reflect similar demographic and health risk characteristics, baseline differences in levels of the indicators may remain due to a variety of unmeasured factors such as available supply of services in local areas and socioeconomic differences (e.g., homelessness) among Medicaid beneficiaries across New Jersey. Moreover, the TCOC measure used in this report is derived from all spending including areas of care that might be expensive and beyond ACOs' capacity to influence (e.g., long term care, spending outliers). As shown in work related to the Demonstration, carving out expensive uncontrollable components of spending can have substantial influence over measured performance (DeLia 2017).

The analysis provides some additional detail about Camden residents who were members of United and Horizon health plans, which had executed shared savings arrangements with the Camden ACO. Among Camden's United members, there was an apparent decrease in total inpatient admissions and preventable admissions around the time of the execution of the shared savings arrangement (which occurred before the start of the statewide Demonstration). Among Camden's Horizon members, there was a shallow decline in readmissions, which took place throughout the study period and not coincident with the timing of the shared savings arrangement. These observed trends, however, are statistically "noisy" with no consistent indication of statistical significance.

It is important to point out that the data and methods used in this report differ from those used in executing the shared savings arrangements negotiated by the Camden ACO and with the two plans. In this report, analysis is based on statewide Medicaid data used to identify all plan members having residence in Camden at the time data were transmitted from the Department of Medical Assistance and Health Services to Rutgers CSHP. The spending measures in this report are based on total costs of care with no exclusions. Calculations for the negotiated shared savings arrangements are based on analytic files derived from health plans' patient encounter records. These files are customized to cover specific subpopulations and components of spending that are covered by the agreements. Also, methodologies used to

determine savings (e.g., risk adjustment, performance benchmarks) also differ from what is used in this report. Therefore, performance by the Camden ACO in the shared savings arrangements may differ from the total cost of care analysis in this report.

During its legislative development, the ACO Demonstration had envisioned a broad population health and cost containment approach to reforming healthcare delivery for Medicaid enrollees. Thus, the baseline analysis in this report focuses on population-based spending and utilization indicators at the aggregate community level for each ACO. However, ongoing qualitative analysis and observation of ACO activities indicate that **each ACO has initially focused on community-specific activities and targeted subpopulations with the goal of expanding operations more broadly in future years.**

As a result, the next rounds of quantitative analyses for Demonstration Years 2 and 3 will be more refined and ACO-specific than the analysis in this report. For example, although the analysis of 7-day post-discharge follow-up visits was motivated partly by Camden's 7-Day Pledge initiative, Camden has not implemented this initiative citywide. Instead, it has focused on a subset of Camden residents working with specific primary care physicians. Similarly, the Newark ACO is developing its own approach to 7-day post-discharge follow-up visits, while the Trenton ACO has recently developed care management strategies focusing on diabetes. In developing the next rounds of quantitative analyses, Rutgers CSHP will use information from qualitative interviews and direct consultation with the ACOs to ensure that subsequent evaluation analyses are linked more closely to the timing and targeting of each ACO's care management foci.

The Medicaid ACOs spent Demonstration Year 1 solidifying their coalitions, developing their data analytic capacities, and formulating care management plans. Thus, it is not surprising that prior patterns in the observed performance metrics in this report remained stable during the first year. The Camden ACO was more developed at the beginning of the Demonstration, and therefore, made more progress in Year 1. But they too have continued to develop and refine their strategies. Currently, Rutgers CSHP is analyzing qualitative information about ACO operations and assembling quantitative performance data for Year 2. Results from both of these activities will appear in subsequent reports.

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Appendix: Data Tables

All ACOs Combined (Tables A1–A7)

Table A1: Total Costs of Care per Medicaid Enrollee per Quarter, ACO Regions versus Comparison Group, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	$1,810	$1,529	0.00
2012	2	$1,818	$1,511	0.71
2012	3	$1,799	$1,486	0.64
2012	4	$1,792	$1,500	0.88
2013	1	$1,813	$1,522	0.88
2013	2	$1,824	$1,549	0.93
2013	3	$1,817	$1,457	0.25
2013	4	$1,851	$1,517	0.44
2014	1	$1,719	$1,514	0.26
2014	2	$1,750	$1,587	0.08
2014	3	$1,692	$1,482	0.28
2014	4	$1,640	$1,498	0.03
2015	1	$1,654	$1,562	0.00
2015	2	$1,672	$1,551	0.01
2015	3	$1,689	$1,544	0.04
2015	4	$1,694	$1,550	0.04
2016	1	$1,725	$1,593	0.02
2016	2	$1,696	$1,626	0.00

Source: NJ Medicaid Management Information System
Total costs of care (TCOC) are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table A2: Emergency Department Visits per 100 Enrollees per Quarter, ACO Regions versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	16.0	20.4	0.00
2012	2	16.2	20.9	0.40
2012	3	15.6	20.7	0.02
2012	4	15.6	21.3	0.00
2013	1	16.8	23.0	0.00
2013	2	15.6	21.3	0.00
2013	3	14.7	20.8	0.00
2013	4	14.7	20.6	0.00
2014	1	15.9	23.4	0.00
2014	2	16.8	25.3	0.00
2014	3	16.1	24.0	0.00
2014	4	15.7	24.6	0.00
2015	1	16.5	24.3	0.00
2015	2	17.2	24.8	0.00
2015	3	16.7	24.4	0.00
2015	4	16.0	23.9	0.00
2016	1	17.5	25.8	0.00
2016	2	16.8	26.1	0.00

Source: NJ Medicaid Management Information System
ED visits are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table A3: Total Inpatient Admissions per 1,000 Enrollees per Quarter, ACO Regions versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	36.7	42.2	0.00
2012	2	36.3	41.6	0.86
2012	3	35.4	42.7	0.23
2012	4	34.8	41.5	0.40
2013	1	35.9	41.1	0.85
2013	2	33.6	38.4	0.62
2013	3	30.3	33.7	0.12
2013	4	29.4	32.9	0.15
2014	1	32.8	37.1	0.39
2014	2	32.5	37.9	0.92
2014	3	31.0	35.3	0.37
2014	4	28.8	33.2	0.39
2015	1	30.8	36.7	0.77
2015	2	31.8	36.4	0.50
2015	3	30.5	34.5	0.25
2015	4	29.7	34.1	0.38
2016	1	32.0	37.5	1.00
2016	2	30.9	35.3	0.38

Source: NJ Medicaid Management Information System
Admissions are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table A4: Preventable Inpatient Admissions per 1,000 Enrollees per Quarter, ACO Regions versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	3.5	4.4	0.00
2012	2	3.5	4.9	0.15
2012	3	3.2	4.0	0.81
2012	4	3.6	5.0	0.16
2013	1	3.9	5.5	0.09
2013	2	3.0	4.6	0.05
2013	3	2.5	3.4	0.83
2013	4	2.6	3.1	0.18
2014	1	2.8	4.1	0.25
2014	2	2.7	4.2	0.12
2014	3	2.4	3.3	1.00
2014	4	2.4	3.0	0.27
2015	1	2.8	4.4	0.05
2015	2	2.7	3.9	0.48
2015	3	2.4	3.3	0.94
2015	4	2.4	3.5	0.57
2016	1	3.0	4.5	0.11
2016	2	2.8	4.1	0.32

Source: NJ Medicaid Management Information System
Admissions are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table A5: Percentage of Admitted Patients Who Received a Primary Care Follow-Visit within 7 Days of Discharge, ACO Regions versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	23.2%	23.7%	0.56
2012	2	24.4%	26.0%	0.34
2012	3	24.4%	25.1%	0.85
2012	4	22.3%	22.3%	0.72
2013	1	24.1%	24.5%	0.93
2013	2	24.5%	24.1%	0.47
2013	3	25.2%	23.1%	0.04
2013	4	24.5%	24.2%	0.51
2014	1	24.2%	24.3%	0.78
2014	2	24.8%	24.2%	0.41
2014	3	24.7%	23.6%	0.20
2014	4	23.9%	24.4%	0.95
2015	1	24.8%	24.3%	0.42
2015	2	25.8%	23.7%	0.03
2015	3	24.6%	22.9%	0.06
2015	4	24.0%	24.4%	0.90
2016	1	24.3%	25.1%	0.79
2016	2	22.6%	22.0%	0.43

Source: NJ Medicaid Management Information System

Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.

Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:

Office or other outpatient services: 99201-99215

Office or other outpatient consultations: 99241-99245

Preventive medicine services: 99381-99397

Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.

Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.

For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table A6: Percentage of Admitted Patients Who Received a Primary Care Follow-Visit within 14 Days of Discharge, ACO Regions versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	35.5%	36.5%	0.27
2012	2	37.3%	39.0%	0.62
2012	3	37.6%	39.0%	0.81
2012	4	34.6%	35.3%	0.79
2013	1	37.5%	38.3%	0.85
2013	2	36.5%	37.1%	0.75
2013	3	38.0%	36.1%	0.04
2013	4	36.6%	37.2%	0.74
2014	1	37.2%	38.2%	0.99
2014	2	37.4%	37.0%	0.31
2014	3	36.8%	35.8%	0.15
2014	4	35.8%	36.3%	0.73
2015	1	37.5%	37.4%	0.39
2015	2	38.7%	35.3%	0.00
2015	3	37.5%	35.2%	0.01
2015	4	36.2%	35.4%	0.18
2016	1	37.1%	38.7%	0.66
2016	2	35.3%	34.7%	0.27

Source: NJ Medicaid Management Information System

Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.

Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:

Office or other outpatient services: 99201-99215

Office or other outpatient consultations: 99241-99245

Preventive medicine services: 99381-99397

Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.

Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.

For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table A7: Percentage of Admitted Patients Who Were Readmitted within 30 Days of Discharge, ACO Regions versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	13.2%	14.8%	0.01
2012	2	13.3%	14.4%	0.52
2012	3	13.2%	14.2%	0.47
2012	4	13.3%	15.7%	0.41
2013	1	13.4%	15.5%	0.55
2013	2	12.2%	14.0%	0.79
2013	3	12.1%	12.3%	0.14
2013	4	11.7%	13.4%	0.89
2014	1	12.0%	13.1%	0.62
2014	2	12.3%	11.9%	0.03
2014	3	11.4%	12.6%	0.65
2014	4	12.1%	13.3%	0.71
2015	1	11.8%	13.4%	0.96
2015	2	11.4%	13.0%	0.95
2015	3	11.9%	13.1%	0.66
2015	4	11.4%	13.3%	0.75
2016	1	11.5%	11.2%	0.04
2016	2	11.2%	12.9%	0.94

Source: NJ Medicaid Management Information System

Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.

Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:

Office or other outpatient services: 99201-99215

Office or other outpatient consultations: 99241-99245

Preventive medicine services: 99381-99397

Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.

Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.

For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Camden ACO (Tables B1–B7)

Table B1: Total Costs of Care per Medicaid Enrollee per Quarter, Camden ACO Region versus Comparison Group, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	$1,810	$1,493	0.00
2012	2	$1,818	$1,501	1.00
2012	3	$1,799	$1,509	0.81
2012	4	$1,792	$1,424	0.64
2013	1	$1,813	$1,429	0.54
2013	2	$1,824	$1,446	0.58
2013	3	$1,817	$1,374	0.26
2013	4	$1,851	$1,435	0.38
2014	1	$1,719	$1,470	0.53
2014	2	$1,750	$1,519	0.43
2014	3	$1,692	$1,431	0.60
2014	4	$1,640	$1,407	0.43
2015	1	$1,654	$1,426	0.40
2015	2	$1,672	$1,503	0.16
2015	3	$1,689	$1,482	0.30
2015	4	$1,694	$1,464	0.41
2016	1	$1,725	$1,543	0.20
2016	2	$1,696	$1,492	0.29

Source: NJ Medicaid Management Information System
Total costs of care (TCOC) are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B2: Emergency Department Visits per 100 Enrollees per Quarter, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	16.0	18.0	0.00
2012	2	16.2	18.0	0.74
2012	3	15.6	18.4	0.08
2012	4	15.6	19.3	0.00
2013	1	16.8	20.6	0.00
2013	2	15.6	18.6	0.03
2013	3	14.7	19.6	0.00
2013	4	14.7	19.1	0.00
2014	1	15.9	25.4	0.00
2014	2	16.8	26.2	0.00
2014	3	16.1	24.6	0.00
2014	4	15.7	24.3	0.00
2015	1	16.5	23.1	0.00
2015	2	17.2	22.9	0.00
2015	3	16.7	23.0	0.00
2015	4	16.0	22.1	0.00
2016	1	17.5	25.3	0.00
2016	2	16.8	26.3	0.00

Source: NJ Medicaid Management Information System
ED visits are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B3: Total Inpatient Admissions per 1,000 Enrollees per Quarter, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	36.7	36.4	0.86
2012	2	36.3	34.6	0.52
2012	3	35.4	38.8	0.10
2012	4	34.8	38.4	0.09
2013	1	35.9	37.7	0.36
2013	2	33.6	31.6	0.46
2013	3	30.3	27.0	0.19
2013	4	29.4	27.0	0.36
2014	1	32.8	34.0	0.50
2014	2	32.5	34.0	0.43
2014	3	31.0	29.3	0.51
2014	4	28.8	26.4	0.35
2015	1	30.8	29.2	0.57
2015	2	31.8	29.8	0.42
2015	3	30.5	29.0	0.56
2015	4	29.7	27.1	0.28
2016	1	32.0	31.4	0.91
2016	2	30.9	28.4	0.29

Source: NJ Medicaid Management Information System
Admissions are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B4: Preventable Inpatient Admissions per 1,000 Enrollees per Quarter, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	3.5	3.8	0.42
2012	2	3.5	4.3	0.38
2012	3	3.2	4.1	0.29
2012	4	3.6	4.9	0.10
2013	1	3.9	5.9	0.00
2013	2	3.0	4.6	0.03
2013	3	2.5	2.7	0.83
2013	4	2.6	2.6	0.54
2014	1	2.8	3.4	0.62
2014	2	2.7	4.2	0.03
2014	3	2.4	2.4	0.61
2014	4	2.4	2.6	0.80
2015	1	2.8	3.9	0.18
2015	2	2.7	3.6	0.34
2015	3	2.4	2.7	1.00
2015	4	2.4	2.7	0.94
2016	1	3.0	4.3	0.08
2016	2	2.8	3.7	0.29

Source: NJ Medicaid Management Information System
Admissions are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B5: Percentage of Admitted Patients Who Received a Primary Care Follow-Visit within 7 Days of Discharge, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	23.2%	29.4%	0.00
2012	2	24.4%	30.8%	0.97
2012	3	24.4%	29.6%	0.62
2012	4	22.3%	27.3%	0.55
2013	1	24.1%	28.5%	0.36
2013	2	24.5%	31.2%	0.81
2013	3	25.2%	27.9%	0.11
2013	4	24.5%	29.3%	0.52
2014	1	24.2%	28.1%	0.26
2014	2	24.8%	28.1%	0.17
2014	3	24.7%	26.9%	0.06
2014	4	23.9%	26.5%	0.09
2015	1	24.8%	22.8%	0.00
2015	2	25.8%	24.4%	0.00
2015	3	24.6%	24.4%	0.00
2015	4	24.0%	27.3%	0.14
2016	1	24.3%	29.8%	0.73
2016	2	22.6%	23.9%	0.03

Source: NJ Medicaid Management Information System

Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.

Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:

Office or other outpatient services: 99201-99215

Office or other outpatient consultations: 99241-99245

Preventive medicine services: 99381-99397

Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.

Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.

For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B6: Percentage of Admitted Patients Who Received a Primary Care Follow-Visit within 14 Days of Discharge, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	35.5%	41.7%	0.00
2012	2	37.3%	45.0%	0.50
2012	3	37.6%	44.8%	0.66
2012	4	34.6%	42.1%	0.56
2013	1	37.5%	44.4%	0.77
2013	2	36.5%	44.2%	0.51
2013	3	38.0%	40.6%	0.14
2013	4	36.6%	44.4%	0.51
2014	1	37.2%	41.9%	0.53
2014	2	37.4%	39.4%	0.08
2014	3	36.8%	41.0%	0.39
2014	4	35.8%	38.4%	0.13
2015	1	37.5%	36.7%	0.00
2015	2	38.7%	35.3%	0.00
2015	3	37.5%	36.1%	0.00
2015	4	36.2%	38.1%	0.06
2016	1	37.1%	44.0%	0.73
2016	2	35.3%	38.9%	0.30

Source: NJ Medicaid Management Information System

Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.

Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:

Office or other outpatient services: 99201-99215

Office or other outpatient consultations: 99241-99245

Preventive medicine services: 99381-99397

Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.

Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.

For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B7: Percentage of Admitted Patients Who Were Readmitted within 30 Days of Discharge, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	13.2%	11.8%	0.20
2012	2	13.3%	12.9%	0.53
2012	3	13.2%	12.2%	0.80
2012	4	13.3%	16.1%	0.01
2013	1	13.4%	14.0%	0.20
2013	2	12.2%	11.7%	0.56
2013	3	12.1%	12.7%	0.22
2013	4	11.7%	12.0%	0.31
2014	1	12.0%	11.4%	0.59
2014	2	12.3%	11.3%	0.80
2014	3	11.4%	10.1%	0.96
2014	4	12.1%	12.2%	0.34
2015	1	11.8%	11.9%	0.33
2015	2	11.4%	10.8%	0.59
2015	3	11.9%	10.6%	0.98
2015	4	11.4%	12.4%	0.13
2016	1	11.5%	11.1%	0.49
2016	2	11.2%	8.6%	0.48

Source: NJ Medicaid Management Information System

Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.

Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:

Office or other outpatient services: 99201-99215

Office or other outpatient consultations: 99241-99245

Preventive medicine services: 99381-99397

Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.

Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.

For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Camden ACO – United Healthcare Enrollees (Tables B8–B14)

Table B8: Total Costs of Care per Medicaid United Healthcare Enrollees per Quarter, Camden ACO Region versus Comparison Group, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	$1,261	$1,185	0.55
2012	2	$1,255	$1,299	0.50
2012	3	$1,201	$1,092	0.85
2012	4	$1,194	$1,135	0.92
2013	1	$1,238	$1,230	0.71
2013	2	$1,234	$1,133	0.89
2013	3	$1,141	$1,131	0.71
2013	4	$1,195	$1,259	0.44
2014	1	$1,278	$1,360	0.38
2014	2	$1,294	$1,392	0.33
2014	3	$1,195	$1,270	0.39
2014	4	$1,153	$1,139	0.72
2015	1	$1,214	$1,333	0.26
2015	2	$1,238	$1,307	0.39
2015	3	$1,330	$1,328	0.67
2015	4	$1,435	$1,215	0.40
2016	1	$1,518	$1,298	0.40
2016	2	$1,380	$1,366	0.72

Source: NJ Medicaid Management Information System
Total costs of care (TCOC) are enrollment adjusted according to methods described in the text.
Comparison group consists of United Health Care members who live outside of ACO regions.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B9: Emergency Department Visits per 100 United Healthcare Enrollees per Quarter, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	13.2	9.8	0.00
2012	2	13.2	9.7	0.92
2012	3	12.5	11.0	0.02
2012	4	12.8	11.9	0.00
2013	1	14.1	11.8	0.19
2013	2	12.4	11.1	0.01
2013	3	10.4	11.7	0.00
2013	4	10.7	12.1	0.00
2014	1	11.1	13.4	0.00
2014	2	11.9	14.0	0.00
2014	3	11.4	13.4	0.00
2014	4	11.9	13.5	0.00
2015	1	13.4	14.0	0.00
2015	2	13.9	13.6	0.00
2015	3	13.0	13.0	0.00
2015	4	12.4	12.9	0.00
2016	1	13.8	14.5	0.00
2016	2	14.3	13.5	0.00

Source: NJ Medicaid Management Information System
ED visits are enrollment adjusted according to methods described in the text.
Comparison group consists of United Health Care members who live outside of ACO regions.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B10: Total Inpatient Admissions per 1,000 United Healthcare Enrollees per Quarter, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	26.7	20.6	0.01
2012	2	24.8	24.4	0.06
2012	3	24.4	26.3	0.01
2012	4	24.8	25.8	0.02
2013	1	25.9	27.4	0.01
2013	2	22.1	20.1	0.19
2013	3	17.2	6.9	0.18
2013	4	16.3	8.0	0.48
2014	1	19.8	13.2	0.87
2014	2	19.4	14.3	0.73
2014	3	18.5	11.5	0.76
2014	4	19.0	12.6	0.94
2015	1	21.4	15.7	0.89
2015	2	21.4	13.5	0.54
2015	3	20.1	14.2	0.94
2015	4	19.3	11.3	0.52
2016	1	21.2	14.1	0.73
2016	2	21.1	15.7	0.82

Source: NJ Medicaid Management Information System
Admissions are enrollment adjusted according to methods described in the text.
Comparison group consists of United Health Care members who live outside of ACO regions.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B11: Preventable Inpatient Admissions per 1,000 United Healthcare Enrollees per Quarter, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	2.8	3.1	0.63
2012	2	2.5	4.5	0.06
2012	3	2.2	2.5	0.96
2012	4	2.6	4.2	0.17
2013	1	3.1	4.2	0.41
2013	2	2.0	3.3	0.25
2013	3	1.4	1.0	0.42
2013	4	1.4	0.8	0.32
2014	1	2.0	1.6	0.48
2014	2	1.7	1.3	0.43
2014	3	1.5	0.6	0.15
2014	4	1.9	1.4	0.35
2015	1	2.3	1.6	0.24
2015	2	2.1	0.6	0.04
2015	3	1.7	0.7	0.14
2015	4	1.9	0.6	0.06
2016	1	2.1	1.2	0.18
2016	2	2.0	1.3	0.25

Source: NJ Medicaid Management Information System
Admissions are enrollment adjusted according to methods described in the text.
Comparison group consists of United Health Care members who live outside of ACO regions.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B12: Percentage of Admitted United Healthcare Patients Who Received a Primary Care Follow-Visit within 7 Days of Discharge, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	26.2%	30.7%	0.24
2012	2	26.4%	31.0%	0.99
2012	3	25.8%	37.0%	0.21
2012	4	23.3%	29.4%	0.75
2013	1	26.8%	31.1%	0.97
2013	2	25.8%	30.9%	0.92
2013	3	26.5%	25.5%	0.45
2013	4	24.3%	31.9%	0.68
2014	1	24.2%	26.4%	0.72
2014	2	25.1%	20.3%	0.13
2014	3	23.3%	26.2%	0.81
2014	4	21.2%	33.3%	0.23
2015	1	25.1%	23.2%	0.27
2015	2	26.2%	12.9%	0.00
2015	3	24.4%	22.1%	0.23
2015	4	23.0%	22.1%	0.39
2016	1	23.9%	19.5%	0.11
2016	2	23.7%	32.5%	0.50

Source: NJ Medicaid Management Information System

Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.

Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:

Office or other outpatient services: 99201-99215

Office or other outpatient consultations: 99241-99245

Preventive medicine services: 99381-99397

Comparison group consists of United Health Care members who live outside of ACO regions.

Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.

For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B13: Percentage of Admitted United Healthcare Patients Who Received a Primary Care Follow-Visit within 14 Days of Discharge, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	39.0%	40.2%	0.80
2012	2	39.8%	48.1%	0.22
2012	3	39.5%	51.9%	0.07
2012	4	35.8%	42.3%	0.36
2013	1	41.4%	47.3%	0.41
2013	2	39.4%	47.1%	0.28
2013	3	40.1%	37.3%	0.62
2013	4	37.3%	44.7%	0.46
2014	1	38.9%	37.5%	0.72
2014	2	38.4%	31.6%	0.26
2014	3	35.7%	39.3%	0.74
2014	4	33.6%	38.5%	0.60
2015	1	39.1%	40.0%	0.97
2015	2	40.5%	22.6%	0.00
2015	3	38.6%	31.9%	0.22
2015	4	35.8%	29.9%	0.32
2016	1	37.4%	34.7%	0.54
2016	2	37.3%	42.9%	0.53

Source: NJ Medicaid Management Information System
Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.
Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:
Office or other outpatient services: 99201-99215
Office or other outpatient consultations: 99241-99245
Preventive medicine services: 99381-99397
Comparison group consists of United Health Care members who live outside of ACO regions.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B14: Percentage of Admitted United Healthcare Patients Who Were Readmitted within 30 Days of Discharge, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	11.5%	10.2%	0.65
2012	2	10.9%	12.7%	0.42
2012	3	11.0%	6.7%	0.42
2012	4	12.5%	14.7%	0.34
2013	1	12.5%	15.0%	0.30
2013	2	10.5%	11.8%	0.51
2013	3	9.6%	9.8%	0.78
2013	4	9.8%	4.3%	0.41
2014	1	10.8%	9.7%	0.96
2014	2	10.4%	11.4%	0.61
2014	3	9.1%	6.6%	0.78
2014	4	10.3%	11.5%	0.58
2015	1	9.7%	7.4%	0.80
2015	2	9.8%	8.6%	0.98
2015	3	9.7%	8.0%	0.90
2015	4	9.8%	9.1%	0.90
2016	1	10.0%	14.4%	0.15
2016	2	9.3%	7.8%	0.96

Source: NJ Medicaid Management Information System

Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.

Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:

Office or other outpatient services: 99201-99215

Office or other outpatient consultations: 99241-99245

Preventive medicine services: 99381-99397

Comparison group consists of United Health Care members who live outside of ACO regions.

Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.

For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Camden ACO – Horizon Blue Cross Enrollees (Tables B15–B21)

Table B15: Total Costs of Care per Medicaid Horizon Blue Cross Enrollees per Quarter, Camden ACO Region versus Comparison Group, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	$1,256	$1,348	0.06
2012	2	$1,237	$1,338	0.88
2012	3	$1,196	$1,394	0.11
2012	4	$1,212	$1,360	0.40
2013	1	$1,256	$1,381	0.62
2013	2	$1,284	$1,412	0.58
2013	3	$1,273	$1,241	0.07
2013	4	$1,301	$1,288	0.12
2014	1	$1,337	$1,348	0.23
2014	2	$1,380	$1,481	0.89
2014	3	$1,296	$1,415	0.67
2014	4	$1,325	$1,471	0.40
2015	1	$1,379	$1,439	0.62
2015	2	$1,383	$1,515	0.52
2015	3	$1,373	$1,456	0.91
2015	4	$1,483	$1,469	0.09
2016	1	$1,501	$1,526	0.29
2016	2	$1,468	$1,427	0.03

Source: NJ Medicaid Management Information System
Total costs of care (TCOC) are enrollment adjusted according to methods described in the text.
Comparison group consists of Horizon Blue Cross members who live outside of ACO regions.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B16: Emergency Department Visits per 100 Horizon Blue Cross Enrollees per Quarter, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	18.5	20.9	0.00
2012	2	18.6	20.7	0.61
2012	3	17.8	21.0	0.18
2012	4	17.5	22.0	0.00
2013	1	19.0	24.1	0.00
2013	2	17.8	21.0	0.14
2013	3	17.3	21.8	0.00
2013	4	17.0	21.7	0.00
2014	1	17.3	21.6	0.00
2014	2	18.2	23.7	0.00
2014	3	17.4	23.3	0.00
2014	4	17.3	22.9	0.00
2015	1	17.2	22.2	0.00
2015	2	17.7	22.3	0.00
2015	3	17.1	21.6	0.00
2015	4	16.8	21.5	0.00
2016	1	18.0	24.2	0.00
2016	2	16.7	27.1	0.00

Source: NJ Medicaid Management Information System
ED visits are enrollment adjusted according to methods described in the text.
Comparison group consists of Horizon Blue Cross members who live outside of ACO regions.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B17: Total Inpatient Admissions per 1,000 Horizon Blue Cross Enrollees per Quarter, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	30.9	32.8	0.18
2012	2	29.5	33.2	0.40
2012	3	29.5	33.1	0.41
2012	4	29.7	37.6	0.00
2013	1	29.2	35.9	0.02
2013	2	28.7	31.9	0.55
2013	3	28.0	28.5	0.47
2013	4	27.4	28.7	0.76
2014	1	26.6	28.8	0.94
2014	2	26.4	30.2	0.35
2014	3	25.9	29.2	0.48
2014	4	24.7	25.1	0.43
2015	1	26.4	28.1	0.89
2015	2	26.4	29.3	0.61
2015	3	25.8	27.4	0.83
2015	4	25.0	24.0	0.12
2016	1	27.2	30.5	0.48
2016	2	25.2	25.9	0.53

Source: NJ Medicaid Management Information System
Admissions are enrollment adjusted according to methods described in the text.
Comparison group consists of Horizon Blue Cross members who live outside of ACO regions.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B18: Preventable Inpatient Admissions per 1,000 Horizon Blue Cross Enrollees per Quarter, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	3.3	3.9	0.18
2012	2	3.3	4.2	0.72
2012	3	3.0	4.3	0.28
2012	4	3.5	4.8	0.33
2013	1	3.5	5.2	0.08
2013	2	3.1	4.2	0.39
2013	3	2.7	3.2	0.85
2013	4	2.8	3.2	0.74
2014	1	2.9	3.2	0.68
2014	2	2.6	4.7	0.01
2014	3	2.6	2.8	0.56
2014	4	2.5	2.9	0.76
2015	1	2.8	4.4	0.10
2015	2	2.8	4.1	0.26
2015	3	2.4	3.2	0.77
2015	4	2.5	3.0	0.88
2016	1	2.9	4.1	0.28
2016	2	2.6	4.0	0.14

Source: NJ Medicaid Management Information System
Admissions are enrollment adjusted according to methods described in the text.
Comparison group consists of Horizon Blue Cross members who live outside of ACO regions.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B19: Percentage of Admitted Horizon Blue Cross Patients Who Received a Primary Care Follow-Visit within 7 Days of Discharge, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	26.2%	30.4%	0.02
2012	2	27.1%	35.3%	0.12
2012	3	26.8%	30.6%	0.87
2012	4	25.5%	29.7%	0.99
2013	1	25.9%	30.1%	1.00
2013	2	27.2%	32.2%	0.77
2013	3	28.2%	30.6%	0.51
2013	4	28.1%	32.1%	0.93
2014	1	28.2%	31.0%	0.61
2014	2	28.2%	32.1%	0.90
2014	3	28.8%	28.0%	0.06
2014	4	28.1%	26.6%	0.03
2015	1	27.7%	24.9%	0.01
2015	2	27.9%	27.1%	0.05
2015	3	26.7%	26.4%	0.08
2015	4	26.2%	29.4%	0.67
2016	1	26.7%	33.3%	0.31
2016	2	23.0%	22.2%	0.08

Source: NJ Medicaid Management Information System
Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.
Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:
Office or other outpatient services: 99201-99215
Office or other outpatient consultations: 99241-99245
Preventive medicine services: 99381-99397
Comparison group consists of Horizon Blue Cross members who live outside of ACO regions.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B20: Percentage of Admitted Horizon Blue Cross Patients Who Received a Primary Care Follow-Visit within 14 Days of Discharge, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	40.4%	43.4%	0.14
2012	2	41.0%	47.8%	0.18
2012	3	41.1%	45.8%	0.58
2012	4	39.0%	44.2%	0.43
2013	1	39.7%	46.1%	0.23
2013	2	39.4%	44.4%	0.50
2013	3	41.9%	43.8%	0.72
2013	4	40.7%	47.9%	0.17
2014	1	41.6%	45.7%	0.72
2014	2	41.5%	43.2%	0.67
2014	3	42.0%	42.7%	0.42
2014	4	40.8%	39.6%	0.16
2015	1	40.8%	38.8%	0.07
2015	2	41.2%	38.6%	0.04
2015	3	40.2%	38.9%	0.12
2015	4	38.8%	41.1%	0.81
2016	1	40.1%	47.4%	0.11
2016	2	36.2%	37.8%	0.67

Source: NJ Medicaid Management Information System
Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.
Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:
Office or other outpatient services: 99201-99215
Office or other outpatient consultations: 99241-99245
Preventive medicine services: 99381-99397
Comparison group consists of Horizon Blue Cross members who live outside of ACO regions.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table B21: Percentage of Admitted Horizon Blue Cross Patients Who Were Readmitted within 30 Days of Discharge, Camden ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	13.0%	11.8%	0.37
2012	2	12.6%	12.0%	0.74
2012	3	12.3%	12.3%	0.51
2012	4	11.7%	14.3%	0.04
2013	1	12.3%	13.2%	0.26
2013	2	11.7%	11.0%	0.76
2013	3	12.2%	12.8%	0.37
2013	4	12.0%	11.6%	0.70
2014	1	12.2%	11.3%	0.88
2014	2	12.7%	11.1%	0.87
2014	3	12.1%	9.3%	0.44
2014	4	13.1%	12.1%	0.92
2015	1	13.0%	13.0%	0.52
2015	2	12.0%	11.2%	0.78
2015	3	12.9%	10.2%	0.43
2015	4	12.0%	12.9%	0.25
2016	1	11.4%	10.8%	0.72
2016	2	11.1%	8.3%	0.46

Source: NJ Medicaid Management Information System

Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.

Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:

Office or other outpatient services: 99201-99215

Office or other outpatient consultations: 99241-99245

Preventive medicine services: 99381-99397

Comparison group consists of Horizon Blue Cross members who live outside of ACO regions.

Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.

For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Trenton ACO (Tables C1–C7)

Table C1: Total Costs of Care per Medicaid Enrollee per Quarter, Trenton ACO Region versus Comparison Group, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	$1,810	$1,471	0.00
2012	2	$1,818	$1,502	0.85
2012	3	$1,799	$1,421	0.74
2012	4	$1,792	$1,432	0.86
2013	1	$1,813	$1,488	0.91
2013	2	$1,824	$1,548	0.60
2013	3	$1,817	$1,449	0.80
2013	4	$1,851	$1,524	0.92
2014	1	$1,719	$1,515	0.25
2014	2	$1,750	$1,668	0.03
2014	3	$1,692	$1,526	0.13
2014	4	$1,640	$1,498	0.08
2015	1	$1,654	$1,665	0.00
2015	2	$1,672	$1,583	0.03
2015	3	$1,689	$1,571	0.05
2015	4	$1,694	$1,587	0.04
2016	1	$1,725	$1,692	0.01
2016	2	$1,696	$1,717	0.00

Source: NJ Medicaid Management Information System
Total costs of care (TCOC) are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table C2: Emergency Department Visits per 100 Enrollees per Quarter, Trenton ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	16.0	24.1	0.00
2012	2	16.2	24.0	0.65
2012	3	15.6	24.0	0.56
2012	4	15.6	24.8	0.03
2013	1	16.8	27.0	0.00
2013	2	15.6	25.0	0.01
2013	3	14.7	25.5	0.00
2013	4	14.7	24.5	0.00
2014	1	15.9	25.4	0.01
2014	2	16.8	28.9	0.00
2014	3	16.1	28.0	0.00
2014	4	15.7	28.8	0.00
2015	1	16.5	29.2	0.00
2015	2	17.2	29.9	0.00
2015	3	16.7	29.1	0.00
2015	4	16.0	28.9	0.00
2016	1	17.5	31.0	0.00
2016	2	16.8	30.5	0.00

Source: NJ Medicaid Management Information System
ED visits are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table C3: Total Inpatient Admissions per 1,000 Enrollees per Quarter, Trenton ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	36.7	48.1	0.00
2012	2	36.3	47.3	0.84
2012	3	35.4	45.7	0.63
2012	4	34.8	45.7	0.82
2013	1	35.9	42.5	0.05
2013	2	33.6	43.8	0.61
2013	3	30.3	40.9	0.70
2013	4	29.4	41.8	0.71
2014	1	32.8	42.9	0.58
2014	2	32.5	47.8	0.11
2014	3	31.0	43.8	0.56
2014	4	28.8	38.8	0.52
2015	1	30.8	44.4	0.36
2015	2	31.8	44.0	0.77
2015	3	30.5	41.9	0.97
2015	4	29.7	41.8	0.80
2016	1	32.0	46.9	0.14
2016	2	30.9	42.3	0.98

Source: NJ Medicaid Management Information System
Admissions are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table C4: Preventable Inpatient Admissions per 1,000 Enrollees per Quarter, Trenton ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	3.5	4.0	0.23
2012	2	3.5	4.5	0.42
2012	3	3.2	3.6	0.90
2012	4	3.6	4.6	0.40
2013	1	3.9	4.8	0.54
2013	2	3.0	4.0	0.43
2013	3	2.5	4.3	0.04
2013	4	2.6	3.6	0.44
2014	1	2.8	5.4	0.00
2014	2	2.7	4.9	0.01
2014	3	2.4	4.1	0.04
2014	4	2.4	3.4	0.42
2015	1	2.8	4.8	0.02
2015	2	2.7	3.8	0.37
2015	3	2.4	3.6	0.25
2015	4	2.4	4.0	0.07
2016	1	3.0	4.9	0.02
2016	2	2.8	4.5	0.05

Source: NJ Medicaid Management Information System
Admissions are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table C5: Percentage of Admitted Patients Who Received a Primary Care Follow-Visit within 7 Days of Discharge, Trenton ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	23.2%	23.3%	0.94
2012	2	24.4%	25.4%	0.66
2012	3	24.4%	23.3%	0.56
2012	4	22.3%	20.6%	0.39
2013	1	24.1%	24.9%	0.76
2013	2	24.5%	23.2%	0.49
2013	3	25.2%	21.6%	0.08
2013	4	24.5%	22.3%	0.26
2014	1	24.2%	24.5%	0.89
2014	2	24.8%	23.3%	0.44
2014	3	24.7%	22.0%	0.18
2014	4	23.9%	23.8%	0.92
2015	1	24.8%	26.1%	0.52
2015	2	25.8%	22.8%	0.12
2015	3	24.6%	21.5%	0.11
2015	4	24.0%	21.5%	0.20
2016	1	24.3%	22.0%	0.22
2016	2	22.6%	21.5%	0.59

Source: NJ Medicaid Management Information System

Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.

Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:

Office or other outpatient services: 99201-99215

Office or other outpatient consultations: 99241-99245

Preventive medicine services: 99381-99397

Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.

Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.

For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table C6: Percentage of Admitted Patients Who Received a Primary Care Follow-Visit within 14 Days of Discharge, Trenton ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	35.5%	35.4%	0.96
2012	2	37.3%	37.7%	0.82
2012	3	37.6%	36.0%	0.51
2012	4	34.6%	32.6%	0.40
2013	1	37.5%	37.1%	0.87
2013	2	36.5%	35.1%	0.56
2013	3	38.0%	35.8%	0.36
2013	4	36.6%	33.9%	0.26
2014	1	37.2%	38.2%	0.64
2014	2	37.4%	37.6%	0.91
2014	3	36.8%	35.0%	0.45
2014	4	35.8%	35.4%	0.89
2015	1	37.5%	38.1%	0.77
2015	2	38.7%	35.3%	0.14
2015	3	37.5%	34.2%	0.15
2015	4	36.2%	33.3%	0.20
2016	1	37.1%	35.6%	0.52
2016	2	35.3%	32.8%	0.33

Source: NJ Medicaid Management Information System

Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.

Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:

Office or other outpatient services: 99201-99215

Office or other outpatient consultations: 99241-99245

Preventive medicine services: 99381-99397

Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.

Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.

For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table C7: Percentage of Admitted Patients Who Were Readmitted within 30 Days of Discharge, Trenton ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	13.2%	12.9%	0.76
2012	2	13.3%	11.9%	0.47
2012	3	13.2%	13.7%	0.57
2012	4	13.3%	14.0%	0.52
2013	1	13.4%	14.5%	0.34
2013	2	12.2%	13.6%	0.26
2013	3	12.1%	10.5%	0.44
2013	4	11.7%	12.7%	0.40
2014	1	12.0%	13.9%	0.16
2014	2	12.3%	10.9%	0.53
2014	3	11.4%	13.6%	0.10
2014	4	12.1%	13.5%	0.28
2015	1	11.8%	13.4%	0.21
2015	2	11.4%	14.8%	0.01
2015	3	11.9%	14.3%	0.07
2015	4	11.4%	13.3%	0.14
2016	1	11.5%	10.0%	0.44
2016	2	11.2%	14.5%	0.04

Source: NJ Medicaid Management Information System

Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.

Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:

Office or other outpatient services: 99201-99215

Office or other outpatient consultations: 99241-99245

Preventive medicine services: 99381-99397

Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.

Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.

For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Newark ACO (Tables D1–D7)

Table D1: Total Costs of Care per Medicaid Enrollee per Quarter, Newark ACO Region versus Comparison Group, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	$1,810	$1,624	0.03
2012	2	$1,818	$1,532	0.40
2012	3	$1,799	$1,524	0.46
2012	4	$1,792	$1,654	0.69
2013	1	$1,813	$1,660	0.78
2013	2	$1,824	$1,664	0.83
2013	3	$1,817	$1,556	0.53
2013	4	$1,851	$1,601	0.60
2014	1	$1,719	$1,562	0.80
2014	2	$1,750	$1,584	0.86
2014	3	$1,692	$1,494	0.92
2014	4	$1,640	$1,600	0.20
2015	1	$1,654	$1,611	0.20
2015	2	$1,672	$1,573	0.44
2015	3	$1,689	$1,588	0.45
2015	4	$1,694	$1,610	0.37
2016	1	$1,725	$1,553	0.90
2016	2	$1,696	$1,694	0.11

Source: NJ Medicaid Management Information System
Total costs of care (TCOC) are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table D2: Emergency Department Visits per 100 Enrollees per Quarter, Newark ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	16.0	19.7	0.00
2012	2	16.2	21.1	0.02
2012	3	15.6	20.1	0.09
2012	4	15.6	20.3	0.04
2013	1	16.8	21.6	0.02
2013	2	15.6	20.8	0.00
2013	3	14.7	17.5	0.08
2013	4	14.7	18.4	0.90
2014	1	15.9	19.3	0.55
2014	2	16.8	20.6	0.67
2014	3	16.1	19.3	0.34
2014	4	15.7	20.8	0.01
2015	1	16.5	20.8	0.18
2015	2	17.2	21.9	0.03
2015	3	16.7	21.3	0.05
2015	4	16.0	21.0	0.01
2016	1	17.5	21.3	0.74
2016	2	16.8	21.5	0.04

Source: NJ Medicaid Management Information System
ED visits are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table D3: Total Inpatient Admissions per 1,000 Enrollees per Quarter, Newark ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	36.7	43.0	0.00
2012	2	36.3	44.1	0.57
2012	3	35.4	44.0	0.36
2012	4	34.8	40.9	0.92
2013	1	35.9	43.7	0.54
2013	2	33.6	40.7	0.76
2013	3	30.3	33.8	0.23
2013	4	29.4	30.5	0.03
2014	1	32.8	34.8	0.07
2014	2	32.5	32.4	0.01
2014	3	31.0	33.6	0.10
2014	4	28.8	35.1	1.00
2015	1	30.8	37.5	0.89
2015	2	31.8	36.5	0.45
2015	3	30.5	33.4	0.13
2015	4	29.7	34.5	0.48
2016	1	32.0	35.2	0.18
2016	2	30.9	36.4	0.69

Source: NJ Medicaid Management Information System
Admissions are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table D4: Preventable Inpatient Admissions per 1,000 Enrollees per Quarter, Newark ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	3.5	5.6	0.00
2012	2	3.5	6.1	0.35
2012	3	3.2	4.4	0.15
2012	4	3.6	5.6	0.95
2013	1	3.9	5.7	0.64
2013	2	3.0	5.3	0.62
2013	3	2.5	3.3	0.03
2013	4	2.6	3.1	0.01
2014	1	2.8	3.7	0.06
2014	2	2.7	3.5	0.03
2014	3	2.4	3.5	0.12
2014	4	2.4	3.0	0.01
2015	1	2.8	4.7	0.75
2015	2	2.7	4.4	0.55
2015	3	2.4	3.9	0.31
2015	4	2.4	3.9	0.40
2016	1	3.0	4.4	0.24
2016	2	2.8	4.2	0.23

Source: NJ Medicaid Management Information System
Admissions are enrollment adjusted according to methods described in the text.
Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.
Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.
For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table D5: Percentage of Admitted Patients Who Received a Primary Care Follow-Visit within 7 Days of Discharge, Newark ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	23.2%	19.0%	0.00
2012	2	24.4%	22.4%	0.26
2012	3	24.4%	22.6%	0.21
2012	4	22.3%	18.8%	0.69
2013	1	24.1%	20.6%	0.75
2013	2	24.5%	19.1%	0.51
2013	3	25.2%	20.6%	0.84
2013	4	24.5%	21.3%	0.64
2014	1	24.2%	20.4%	0.84
2014	2	24.8%	21.4%	0.68
2014	3	24.7%	22.0%	0.45
2014	4	23.9%	23.2%	0.09
2015	1	24.8%	23.9%	0.09
2015	2	25.8%	24.0%	0.21
2015	3	24.6%	22.7%	0.23
2015	4	24.0%	24.5%	0.02
2016	1	24.3%	23.1%	0.12
2016	2	22.6%	20.8%	0.27

Source: NJ Medicaid Management Information System

Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.

Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:

Office or other outpatient services: 99201-99215

Office or other outpatient consultations: 99241-99245

Preventive medicine services: 99381-99397

Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.

Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.

For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table D6: Percentage of Admitted Patients who Received a Primary Care Follow-Visit within 14 Days of Discharge, Newark ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	35.5%	33.0%	0.10
2012	2	37.3%	34.6%	0.95
2012	3	37.6%	36.4%	0.57
2012	4	34.6%	30.9%	0.57
2013	1	37.5%	33.8%	0.58
2013	2	36.5%	33.0%	0.65
2013	3	38.0%	32.6%	0.21
2013	4	36.6%	33.9%	0.92
2014	1	37.2%	34.6%	0.98
2014	2	37.4%	34.0%	0.71
2014	3	36.8%	31.8%	0.28
2014	4	35.8%	35.4%	0.35
2015	1	37.5%	37.4%	0.28
2015	2	38.7%	35.4%	0.71
2015	3	37.5%	35.4%	0.87
2015	4	36.2%	35.1%	0.53
2016	1	37.1%	36.1%	0.48
2016	2	35.3%	32.5%	0.90

Source: NJ Medicaid Management Information System

Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.

Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:

Office or other outpatient services: 99201-99215

Office or other outpatient consultations: 99241-99245

Preventive medicine services: 99381-99397

Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.

Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.

For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

Table D7: Percentage of Admitted Patients Who Were Readmitted within 30 Days of Discharge, Newark ACO Region versus Remainder of NJ, 2012-Q1 through 2016-Q2

Year	Quarter	Comparison group	ACO group	p-value
2012	1	13.2%	19.1%	0.00
2012	2	13.3%	17.7%	0.28
2012	3	13.2%	16.3%	0.06
2012	4	13.3%	16.9%	0.11
2013	1	13.4%	17.9%	0.32
2013	2	12.2%	16.4%	0.24
2013	3	12.1%	13.7%	0.01
2013	4	11.7%	15.8%	0.25
2014	1	12.0%	13.9%	0.01
2014	2	12.3%	13.5%	0.00
2014	3	11.4%	13.8%	0.03
2014	4	12.1%	14.3%	0.02
2015	1	11.8%	14.7%	0.04
2015	2	11.4%	13.5%	0.01
2015	3	11.9%	14.4%	0.02
2015	4	11.4%	14.2%	0.04
2016	1	11.5%	12.6%	0.00
2016	2	11.2%	15.5%	0.33

Source: NJ Medicaid Management Information System

Calculations include individuals admitted to an inpatient general care hospital and exclude individuals who died during their initial hospital stay. Additionally, they had to be enrolled for 12 months prior to the admission with gaps of 45 days or less allowed.

Primary care visits are defined using the HCPCS/CPT E/M procedure codes listed below:

Office or other outpatient services: 99201-99215

Office or other outpatient consultations: 99241-99245

Preventive medicine services: 99381-99397

Comparison group is the rest of NJ Medicaid enrollees who do not live in a designated Medicaid ACO region.

Comparisons are made using propensity weights to ensure covariate balance between groups according to methods described in the text.

For 2012-Q1, the p-values indicates statistical difference between the ACO and comparison groups. For later quarters, the p-value indicates whether this difference has changed over time.

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