CARE COMPASS NETWORK

Strengthening Mental Health and Substance Use Infrastructure Across Systems

4aiii

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CARE COMPASS NETWORK
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Introduction

Care Compass Network is a Performing Provider System formed for the purpose of administering the Delivery System Reform Incentive Payment (DSRIP) program in a nine-county area of New York, including Broome, Chemung, Chenango, Cortland, Delaware, Schuyler, Steuben, Tioga, and Tompkins. CCN is a 501(c)(6) organization with five area health systems as corporate members. In addition, CCN has approximately 175 total partners, which include providers of medical care, mental health care, substance use disorder services, as well as a wide range of community-based organizations, whose services support underserved populations in the areas of food/nutrition, transportation, substance use, mental health, material support, health literacy, care navigation and coordination, housing, parenting and young children, etc. Through the course of the DSRIP program, CCN implemented twelve different projects with the objective of transforming the health care system into a value-driven network capable of providing high quality care and services to Medicaid members. System transformation, from the perspective of CCN and its partners, encompasses a wide range of changes, including the following:

- Greater collaboration and coordination between clinical and social care service providers
- Shift of services from inpatient and institutional settings to community and home
- A focus on addressing determinants of health, both social and clinical in nature
- Integration of services across domains, including mental/behavioral, physical, and social
- Promotion of self-management skills for both physical and mental needs
- Partner readiness for value-based contracts and development of key competencies

Now, at the conclusion of the DSRIP program, CCN is in a position to consider the lasting impacts that eleven DSRIP projects have had on Medicaid members, community members, and the health care eco-system at large. CCN's Population Health department, with input from many sources, has produced eleven project evaluation reports and score cards in order to best compare across projects, despite the differences in project objectives and reach. The findings of these report will inform CCN's next phase, including the use of CCN funding after September 2020, when the final phase of CCN partner contracts concludes.

Each project report reflects the findings from a mixed-methods evaluation. Qualitative information gathered from CCN staff, partners, Medicaid members, and community members contribute to the findings. In addition, the reports consider quantitative findings. Included in the report are findings on the scale and reach that CCN was able to achieve – the number of organizations engaged in the project and the number of Medicaid members engaged. CCN also considered the statistical relationship between project activities or services delivered to patient/clients and key patient outcomes from the DSRIP program including preventable emergency department visits, inpatient hospitalizations, and primary care engagement. Further, CCN considered the impact of the projects on several different quality indicators associated with project-specific DSRIP performance measures. All results are explained in detail throughout.

Data Sources

Information supporting this project evaluation comes from four primary sources. Each source of information contributes to the project scorecards, which allows for comparison across disparate projects.

To gather input from organizations intimately knowledgeable about the projects and their impact, we partnered with Research & Marketing Strategies to conduct structured in-depth interviews with partners who participated in the projects. In total, 21 in-depth interviews were completed. CCN Project Managers identified candidates from partner agencies for interviews based on their involvement in project implementation and their role in the project. Candidates were invited to participate and their organizations

were reimbursed a nominal payment to reflect the level of effort involved. Key themes assessed include patient outcomes, cost of care, lasting partnerships with other organizations, workforce development, and system transformation. Many interview questions were open-ended and allowed the respondent to comment freely, positively or negatively, about the effectiveness of the project. The questionnaire also used scale-based questions, which can easily be compared across respondents and projects.

CCN also gathered input on the same themes from partners at large through open dialogue at the four May 2020 Regional Performing Unit meetings (all held remotely via video conference call). In addition, a follow up survey using SurveyMonkey collected broader partner feedback on workforce development and system transformation using scale-based questions.

To gather information from Medicaid and community members, CCN leveraged the on-going, periodic electronic survey administered by RMS of a panel of Medicaid Members (self-identified) and community members. A brief survey tool was developed to gather high-level input on the activities that CCN and the DSRIP program at large promoted. Overall, the response rate was 14% (consistent with industry standards); 46 Medicaid members and 72 community members responded.

To gather input on the total CCN achievements for each project, we incorporated material from structured reports written by CCN Project Managers who are responsible for managing the project implementation, maintenance, milestone reporting to NY Department of Health, and payment to partners. Project Managers summarized project progress, noting major accomplishments, barriers, and options for sustainability.

Finally, to understand the impact of each project from a statistical perspective, CCN conducted a quantitative analysis to establish, at a person level, the link between project activities and patient outcomes, such as primary care engagement, emergency department visits, and inpatient discharges. Additionally, CCN considered project specific quality indicators and their link to the project activities. In each case, a cross-sectional analysis using data from July 2016 to June 2019 and the population of Medicaid members who were DSRIP attributed to CCN during Measurement Year 5 (July 2018 to June 2019). The data sources for these analyses included CCN project data, submitted to CCN by partners contracted for each project, and Medicaid Confidential Data pulled from the Salient Interactive Miner, a proprietary data mining tool made available to Performing Provider Systems like CCN for use under the DSRIP program.

Project Summary

Project 4aiii, Strengthen Mental Health and Substance Use Infrastructure across Systems, was designed to support the active collaboration among leaders, professionals and community members working in Mental Emotional and Behavioral (MEB) health promotion, MEB disorders and chronic disease prevention, and substance use treatment and recovery. To foster greater alignment and purpose, CCN's project teams and BH Quality subcommittees from across the 9-county region combined projects 3ai and 4aiii's goals and deliverables to work in tandem. Collaborating with participating partner agencies to create and adopt the 4aiii toolkit policies and procedures, PHQ workflow transformations, PC/BH integration educational platforms to generate conversations on shared barriers, challenges and goals, importance of care coordination/navigation, promote warm handoffs, normalizing and standardizing the region's use and understanding of depression (PHQ-2/PHQ-9) screenings. These combined efforts created a common shared language and expectations across the region and normalized the perception and conversation of depression, substance use, anxiety and suicides.

Evaluation Results

Table 1: Project Impact Scorecard		
Evaluation Elements	**Possible Points**	**Points Received**
View from the Front Line: Partners		
In Depth Interviews with Partners	25	24.14
RPU Meeting input and Survey	10	7.65
Member Voice: CCN's Medicaid and Community Member Panels		
Panel Survey conducted by RMS	N/A	N/A
Community Accomplishments: CCN Project Managers		
Structured report by PMO, Follow up Interview	25	25
Performance Metric Impact: Population Health		
Project Impact on Performance Metric Results	15	3.75
Causal Effect	6	4
Cost Effectiveness Analysis	4	2.67
Overall (On 85)	85	67.21
Overall (On 100) – *Prorated for comparison to other projects*	**100**	**79.07**

The Appendix includes the detailed scoring criteria used in all project evaluations.

Best Practices

1. The adoption screening for both depression and substance use on the same day was a huge success for our region. This highlighted the importance of co-occurring disorders and helped to standardize workflows and follow up care for the front-line workers. Many staff were trained in SBIRT which is a billable service in outpatient setting and ED.

2. The greatest transformation is the acknowledgement that we all need each other to be able to support the clients/ patients in their journey to health and wellness. Hospitals cannot operate in silos and neither can primarily care. Community and social care integration help to strengthen partnerships and programs to support positive client and patient outcomes. Our Regional Behavioral Health Quality Subcommittee team collectively hosted

3. Minimizing Stigma across all settings: The 3ai/4aiii project team identified Mental Health First Aid Training which is an evidence based public education program supported in the NYS Prevention Agenda Action Plan to help staff, healthcare and community partners to better understand and recognize the signs and symptoms of the most common mental health issues such as depression, substance use, anxiety and more complex conditions. Since DSRIP Year 2, we have provided this free training to our partners, communities and law enforcement.

4. Community Engagement and support: Participating and being involved at the local level has been 4aiii's concentration. Listening and advocating for our frontline staff, families and communities supported our work.4aiii project has funded the trainings of Youth Mental Health First Aid Training to all Broome County DSS workers, Project SUCCESS, PreVenture, SAFETALK, Dialectical Behavioral Therapy program, Buprenorphine Waiver Trainings for providers, Arnot Health Buprenorphine ED pilot, Antidrinking Youth poster contest, Narcan Training etc.

Key quotes

Project Manager Bouakham Rosetti stated, “Conversations are taking place across the community and clinics. The conversation has completely migrated from “I’m not comfortable asking those 2 PHQ-2or PHQ-9questions” to “What resources or services are available for our clients and patients”. This is a positive cultural shift from when we first started 3ai and 4aiii DSRIP projects over 4 years ago. Community integration, practice transformation and training at the ground level is extremely powerful as we attempt to change mindset and culture. We supported our partners with workflow development, implementation and free trainings such as SBIRT, Motivational Interviewing, Mental Health First Aid, Change Management, Important of Screening for Depression and Suicide Identification & Management …”

One of our partners shared, “For our patients with chronic comorbidities, they have so much at stake and they have many healthcare issues, but to be able to address the mental health issues will eliminate some of those healthcare cost issues or reduce them because sometimes it's their anxiety or depression that is making them feel like they are short breath.”

Table 2: Key Metrics

CCN engaged 26 unique organizations, 22748 unique members, provided 43833 total services, and distributed $780K DSRIP dollars for this project.

Table 2a: Partner Engagement by Organization Type					
Organization Type	**DY2**	**DY3**	**DY4**	**DY5**	**Grand Total**
Hospital System	2	4	3	3	5
Non-Hospital System	2	14	20	20	21
Grand Total	**4**	**18**	**23**	**23**	**26**

Table 2b: Volume of Services by Organization Type					
	DY2	**DY3**	**DY4**	**DY5**	**Grand Total**
Hospital System					
B - Substance Abuse Screen		171	117	70	358
D - Depression Screen	176	2,262	5,089	7,388	14,915
E - SBIRT		891	4		895
Non-Hospital System					
A - BH Works Tablet Screen		1	81	102	184
B - Substance Abuse Screen		1,371	4,831	5,163	11,365
C - Anxiety Screen		127	307	264	698
D - Depression Screen	34	2,288	5,182	6,367	13,871
F- Suicide Screen		61	98	76	235
G - Trauma Screen		30	70	98	198
I - Cognitive Screen		137	506	471	1,114
Grand Total	**210**	**7,339**	**16,285**	**19,999**	**43,833**

Table 2c: Expenditure by Project Activity					
Project > Payment Item	**DY2**	**DY3**	**DY4**	**DY5**	**Grand Total**
4aiii Strengthening MH Infrastructure					
Behavioral Health Screen		$95,760	$220,960	$234,280	$551,000
BH Screenings	$2,340				$2,340
Collaboration Payment		$0	$1,031	$0	$1,031
Disruptive Payment		$15,454			$15,454
Prepayment		$15,456			$15,456
Retro Disruptive Payment		$915			$915
Sign-On Bonus		$66,860	$1,486	$0	$68,346
Substance Use Screen		$17,580	$42,360	$65,730	$125,670
Grand Total	**$2,340**	**$212,025**	**$265,837**	**$300,010**	**$780,212**

Quantitative Findings

Section 1: Cross Section and Trend Analysis

This section presents a quantitative regression analysis to establish a statistical relationship between the project activities and proxy measures for the DSRIP performance metrics. Performance metrics featured prominently in the DSRIP program, driving a significant portion of funding. The underlying question assessed in this section is: did the project make an impact on CCN's performance metric results? This is an important question as CCN considers areas of future investment and the overall return of participating in the DSRIP project.

For 4aiii, we considered the impact of the 4aiii services on the likelihood that individuals incurred at least one potentially preventable ED services (total and among those with a behavioral health diagnosis), inpatient hospital care, and ambulatory or preventive care visit. These measures are proxies for key DSRIP performance metrics, including Potentially Preventable ED Visits (total), Potentially Preventable ED Visits among members with previous Behavior Health diagnoses, Preventive or Ambulatory Care visits, and Prevention Quality Indicator (Composite), which captures potentially avoidable hospital care. These metrics were chosen for analysis based on a CCN Project Team analysis in 2016, which identified a probable impact of the project activities on the performance metrics.

The table below describes each Performance Metric and proxy measure as well as the study hypotheses. The objective of the 4aiii project was to establish or expand 4aiii services that, when deployed, have the effect of meeting patients where are, de-escalating the 4aiii to divert individuals from hospital-based emergency care when appropriate. The table below describes each Performance Metric and proxy measure as well as the study hypotheses. We hypothesize that individuals who received 4aiii services under the project were less likely to require emergency room care and hospitalization, all else being equal. We expect to see a declining utilization of these services when 4aiii services are deployed. In addition, 4aiii services, including follow up from peers or case managers, may be successful in connecting patients to other needed care, including primary care. Thus, we hypothesize that primary care utilization will increase following a 4aiii service.

Table 3: Performance Metrics and Proxy Measures

Metric Name / Proxy	Proxy Metric Description	Study Hypothesis
Potentially Preventable ED Visits, per 100 Members **Proxy measure: Having one or more Potentially Preventable ED visits**	The number of potentially preventable ED visits (based on CPT codes reported on claims) among Medicaid Members, as defined by the NYU metric definition.[1]	4aiii services provided to individuals can help address underlying needs and direct individuals to services, thereby alleviating urgent needs which drive them to seek care in the ED. We hypothesize a decline in the likelihood that an individual has any ED visits after receiving 4aiii services.

[1] Billings, J., Parikh, N., & Mijanovich, T. (2000). Emergency department use in New York City: a substitute for primary care? *Issue brief (Commonwealth Fund)*, (433), 1–5.

Potentially Preventable ED Visits – Behavioral Health, per 100 Members **Proxy measure: Having one or more Potentially Preventable ED visits, among members with a Behavioral Health diagnosis**	The number of potentially preventable ED visits (based on CPT codes reported on claims) among Medicaid Members, as defined by the NYU metric definition. The analysis population is limited to members with a behavioral health diagnosis.	Same as above.
Prevention Quality Indicator – Overall Composite (#90) **Proxy measure: Having one or more inpatient hospitalizations**	The number of inpatient discharges, defined by revenue codes reported on claims.	4aiii services provided to individuals can help address underlying needs and direct individuals to services, thereby alleviating urgent needs. We hypothesize that individuals will be less likely to require inpatient care following a 4aiii.
Adult Access to Preventive and Ambulatory Care **Proxy measure: Having one or more primary care visits**	The percentage of members with one or more ambulatory and preventive care visits (defined by E&M Codes reported on the claim).	4aiii services provided to individuals can help address underlying needs and direct individuals to services, including primary care. We hypothesize that individuals will be more likely to use primary care services following 4aiii services.
Indicator variable for 1+ Antidepressant Medication Management **Proxy Measure: Pharmacy Fills for Antidepressants**	Number of people who remained on antidepressant medication during the entire 12-week acute treatment phase	4aiii services provided to individuals can help address underlying needs and direct individuals to services, including behavioral health consultants. We hypothesize that individuals will be more likely to use adhere to their antidepressants and manage their medications following 4aiii services.

To test these hypotheses, we pooled data from a few sources: 1) project data submitted by partners over the course of the project, 2) Medicaid claims data received by DOH and maintained by CCN, and 3) data pulled from Salient Interactive Miner data system, which reflects Medicaid claims and administrative information. Our quantitative analysis is limited to volume of claims by Medicaid members who were attributed to CCN in Measurement Year 5 and who elected to enable downstream data sharing through the NY DOH opt out process. Among total Medicaid members who received CCN Attributed services of 86849, 6548 (7.5%) Medicaid members received 4aiii services between July 2016 and June 2019. Out of these 6548

members who received 4aiii services, 4166 (63.6%) had 4aiii services that were followed by at least one PPV, 948 (14.4%) had one or more hospitalizations, and 6212 (94.8%) had one primary care encounter. Table 4 below describes the study population.

The analysis excludes a number of Medicaid members who received 4aiii services under the project due to unavailable outcomes data. Out of the total 20906 total members engaged, 14358 were not attributed to CCN in the final measurement year (MY5). Because this population is not attributed to CCN, CCN cannot access PHI level data on ED visits, hospitalizations, or primary care visits. Attribution changes month to month based on a number of factors including Medicaid program enrollment and patterns in utilization. Once a member becomes unattributed, access to detailed information ceases. For this reason, we focused on the population attributed to CCN in the final measurement year. In addition, it should be noted that data on medical encounters with a primary diagnosis related to substance use disorders are excluded from the data available to CCN due to privacy reasons.

Table 4: Analysis Sample Size and Service Volume for Selected Health Care Services

	No 4aiii Services	Received 4aiii Services
Medicaid Members Total CCN Attributed	80,340	6,548
Medicaid Members with 1+ PPV	37,161 (46%)	4,166 (63.6%)
Medicaid Members with 1+ PPV (Behavioral Health)*	5829 (40.7%)	1638 (11.4%)
Medicaid Members with 1+ Inpatient Admission	7,586 (9.4%)	948 (14.4%)
Medicaid Members with 1+ Primary Care	76,772 (95.5%)	6212 (94.8%)
Antidepressant Medication Management	75259(80.9%)	6446 (6.9%)

Source: CCN Team analysis using CCN project data, Salient Interactive Miner, and Medicaid Claims data from the MY5 Attributed population, July 2016 to June 2019. *PPVs (Behavioral Health) refers to PPVs among members with one or more behavioral health diagnosis. Total members with one or more behavioral health diagnosis are not shown on the table.

In the following sections, we consider the statistical relationship between 4aiii services and important health outcomes that the project is designed in impact: Potentially Preventable ED Visits, hospitalizations, and care engagement (primary care and other measures). For 4aiii services to have a probable causal impact on PPVs and hospitalizations, we would expect to see a negative association: PPVs and hospitalizations should be less frequent following 4aiii services as patient needs. Similarly, if 4aiii services improve care engagement, we would expect a positive association with primary care utilization and other forms of care engagement. To test these associations, we consider utilization before and after the provision of 4aiii services. A cross sectional analysis allows us to control for person-level characteristics that may also impact utilization. The cross-sectional analysis tests for an overall association between project engagement and our health outcomes.

For the cross-sectional analysis, we used logistic regression models to statistically relate the performance metric proxy variables to the project activities – 4aiii services. In this analysis, the data from July 2016 through June 2019 were pooled for cross-sectional analysis. We tested whether Medicaid members who received 4aiii services were less likely to also have one or more Potentially Preventable ED visits than their counterparts who didn't receive 4aiii services (two models: all members, BH diagnosed population), less

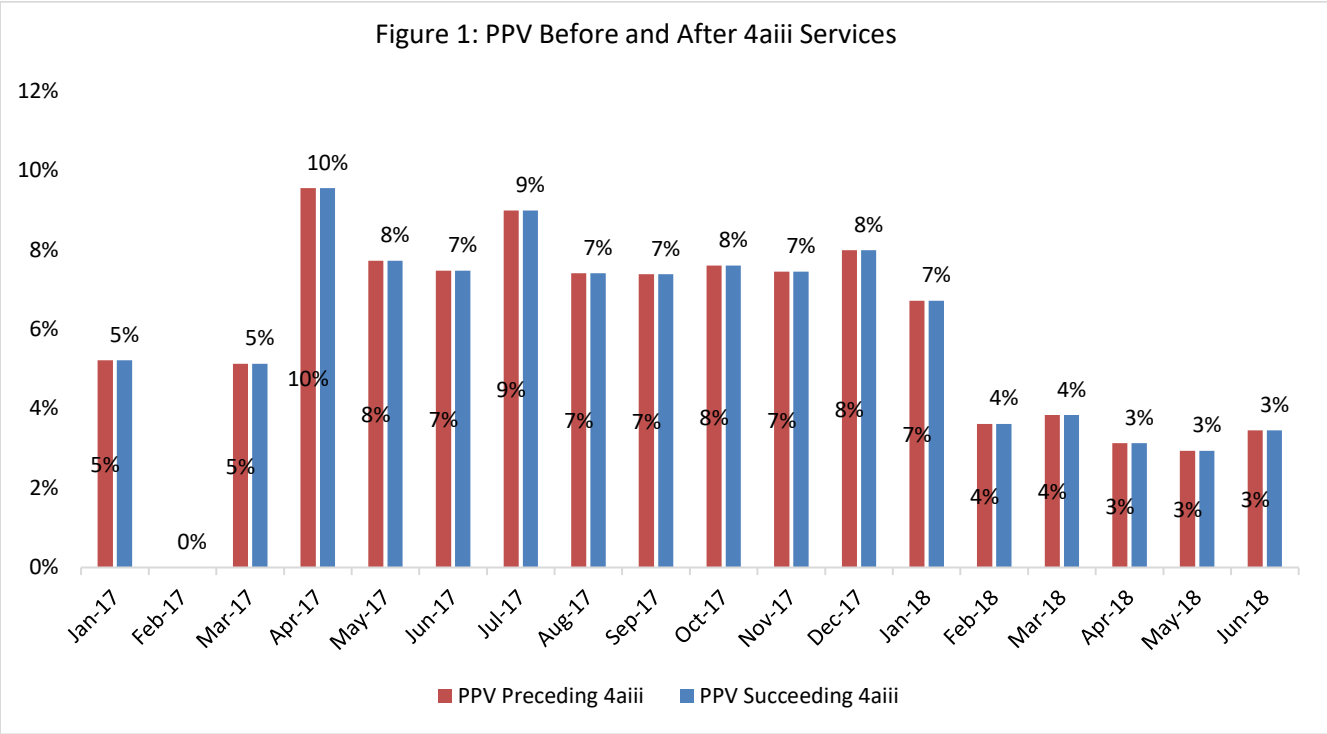
likely to have any type of hospital admission, and/or more likely to have at least one primary care visit. The logistic model yields an Odds Ratio, which is a measure of association between an "exposure" and an "outcome". In this analysis, we consider receiving a 4aiii service under the DSRIP project to be the "exposure", while having a Potentially Preventable ED visits, hospital admission, and/or a primary care visit serves as the "outcome".[2] In this example, the Odds Ratio represents the odds that a Medicaid member will experience a PPV given the member also received a 4aiii service, compared to the odds of experiencing a PPV in the absence of any 4aiii services.

Potentially Preventable ED Visits

Pre/Post Analysis among Attributed Members who Received 4aiii Services

In Figure 1, we present monthly proportions of 4aiii services (provided to attributed Medicaid members) with a PPV in the year before and after the service. In total, there were 13587 who had 4aiii services between January 2017 and June 2018. Cumulatively, 1192 (8.8%) 4aii services that were preceded by PPV, in the year before 4aiii services were offered and 784 (5.8%) 4aiii services that were succeeded by PPV in the year following 4aiii services; PPVs had to occur within 365 days before and after 4aiii services respectively. The proportion varies significantly month to month, ranging from 3% to 10%. The overall trend is downward, indicating that over time, PPVs were less likely to occur after having received a 4aiii service. The rate differentials in most months and differing trend lines suggest that 4aiii services can impact potentially unnecessary or avoidable use of the Emergency Room. While these differences are not regression adjusted to control for factors which may affect the PPV rate other than the project services, the rates and trends are statistically different at the 1% level. At this level of significance, we can reject the implicit null hypothesis that the two rates and their trends are the same with 99% confidence.

[2] Szumilas M. (2010). Explaining odds ratios. Journal of the Canadian Academy of Child and Adolescent, 19(3), 227–229.



Note: Figure 1 depicts the percentages of CCN Attributed 4aiii services that were preceded and succeeded by at least one or more PPVs within a year of the 4aiii service, by month of the 4aiii service.

Cross Sectional Analysis

A cross-sectional analysis was conducted to statistically test whether attributed Medicaid members who received 4aiii services were less likely to have a PPV (and similarly, hospitalization or primary care visit (discussed below)) than other attributed members. The comparison is made to the larger attributed population and is not limited to a subgroup. Statistically significance is noted with * (10% significance (modest)), ** (5% (medium)), or *** (1% significance (high)). The cross-sectional results indicate that PPVs are more common among those engaged in the project, which is not the desirable effect. However, this test may be too high of a bar – it does not take the timing of PPVs and 4aiii services into account. This test does not narrow in on the chance of PPV after having received 4aiii services, but looks at all times. Moreover, PPVs may be more common among anyone with a hospital admission than the general population.

With the comparison of PPVs preceding and succeeding 4aiii services and the cross-sectional results in mind, we conclude that there is good evidence that the 4aiii services have had a positive impact on health outcomes. While these services do not appear to have reduced the overall chance of PPV on net compared to the general population, among those engaged the likelihood of PPV following receipt of 4aiii services is lower than before receiving those services.

The following table presents the results from the statistical regression analysis. Each row represents a regression model, with the performance metric proxy as the dependent (outcome) variable and an indicator variable for having received a 4aiii service as the independent (exposure) variable. Regression modeling yields the Odds Ratio, as explained above. An Odds Ratio greater than one indicates that having received at least one 4aiii is positively associated with the outcome variable. In the case of primary care visits, a positive association is desirable. In the cases of PPVs and hospital admission, a negative association is desirable.

Those who received a 4aiii service were 1.26 and 1.64 times more likely than those who did not to have at least one PPV and PPV (among the set with a behavioral health diagnosis), respectively

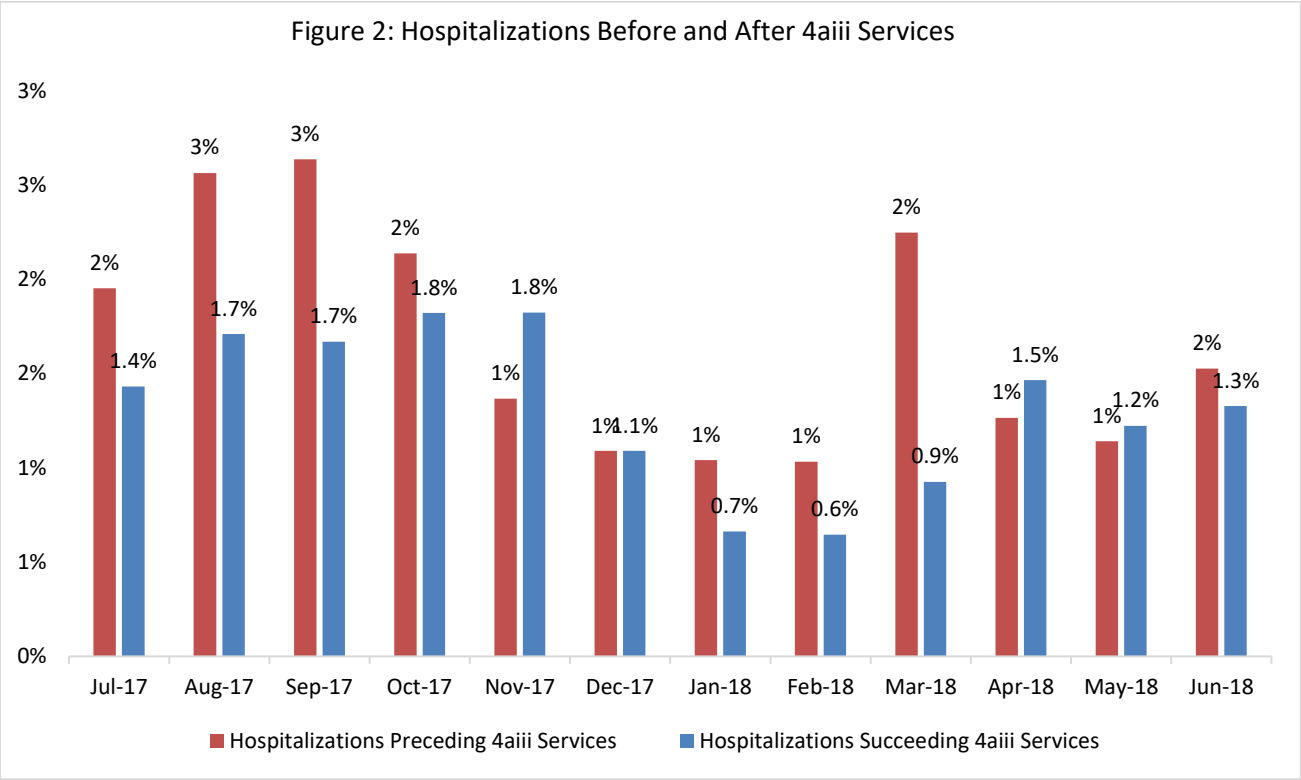
Table 5a: Cross Sectional Analysis - Potentially Preventable ED Visits

HEDIS Measures	Odds Ratio	Interpretation	Score (15)
Indicator variable for 1+ Potentially Preventable ED visits	1.26***	Completing a Behavioral health screen to increase awareness and minimize stigma is associated with a 26% greater likelihood of Potentially Preventable ED visits.	**0**
Indicator variable for 1+ Potentially Preventable ED Visits – Behavioral Health	1.64***	Completing a Behavioral health screen to increase awareness and minimize stigma is associated with a 64% greater likelihood of Potentially Preventable ED visits with Behavioral Health diagnosis.	**0**

Source: CCN Team analysis using CCN project data, Salient Interactive Miner, and Medicaid Claims data from the MY5 Attributed population, July 2016 to June 2019. PPVs (Behavioral Health) refers to PPVs among members with one or more behavioral health diagnosis. Refer to the appendix for detailed scoring criteria.

Hospitalizations

In Figure 2, we present a similar graph, now considering inpatient admissions which occur within a year of a 4aiii service. In total, there were 12,483 members who had 4aii services between July 2017 and June 2018. Cumulatively, there were 200 (1.5%) 4aiii services preceded by PPV in the year before 4aiii services and 180 (1.3%) 4aiii services succeeded by PPV in the year after 4aiii services. Month to month, the proportion of 4aiii services followed by PPV varies between 0.6% and 2%. Over time, the rate of hospitalizations after having received 4aiii services is lower than prior to the services. The rate differentials in most months suggest that 4aiii services can impact the need for inpatient care. While these differences are not regression adjusted to control for factors which may affect the admission rate other than the project services, the rates are statistically different at the 5% level. At this level of significance, we can reject the implicit null hypothesis that the two rates and their trends are the same with 95% confidence.



Note: Figure 2 depicts the percentages of CCN Attributed 4aiii services preceding and succeeding one or more hospitalizations within a year of the 4aiii, by month of 4aiii.

In the context of the positive association in the cross-sectional analysis in the below section, members who received 4aiii services may be more likely than others to experience hospitalizations at any time. Those who received a 4aiii service were1.59 times more likely than those who did not to have at least inpatient admission. However, the cross-sectional analysis does not account for the timing of 4aiii services relative to the hospitalizations. This graph above indicates that hospitalizations are relatively unlikely to occur after the 4aiii services. Taken together, the evidence suggests that 4aiii services may reduce the need for inpatient care among Medicaid members.

Table 5b: Cross Sectional Analysis – Inpatient Admissions

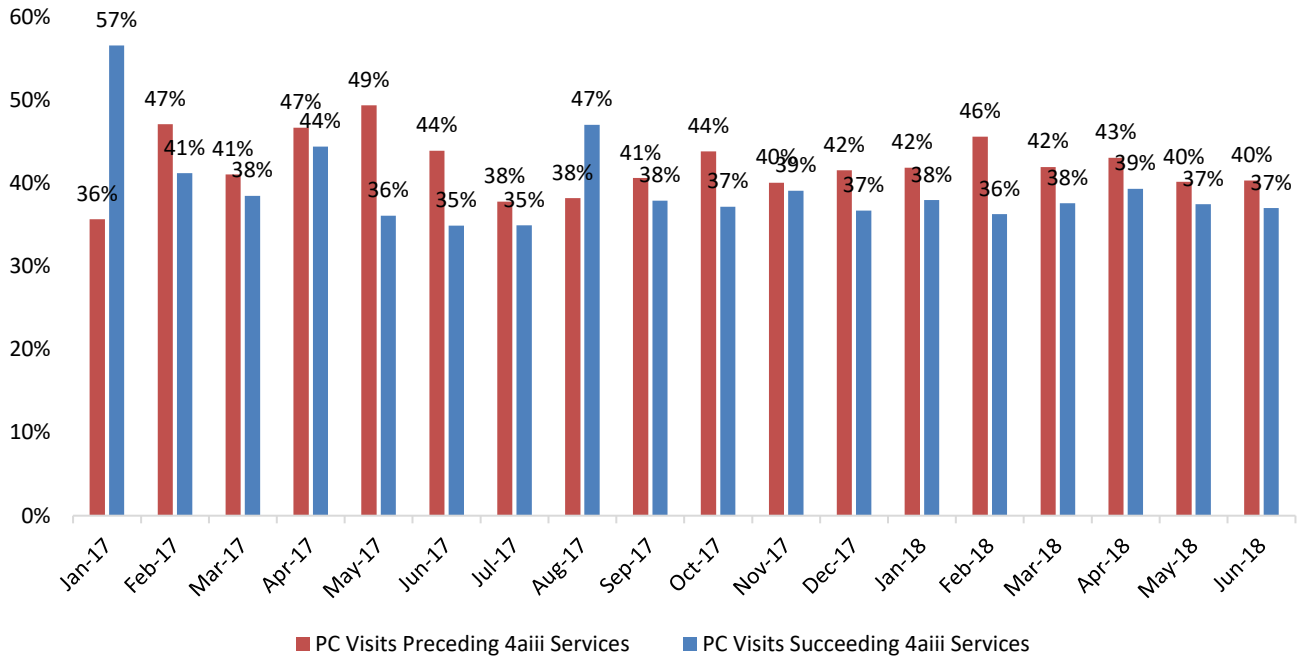
HEDIS Measures	Odds Ratio	Interpretation	Score (15)
Indicator variable for 1+ Inpatient Discharges	1.59***	Completing a Behavioral health screen to increase awareness and minimize stigma is associated with a 59% greater likelihood of Inpatient Discharges.	**0**

Source: CCN Team analysis using CCN project data, Salient Interactive Miner, and Medicaid Claims data from the MY5 Attributed population, July 2016 to June 2019.

Primary Care Visits

Finally, in Figure 3, we present the trend in the proportion of members who received 4aiii services and had a primary care visit in the year before and after their 4aiii service. In total, there were 13587 who received 4aiii services between January 2017 and June 2018. Overall, there were 5658(42%) 4aiii services that were preceded by PC visits in the year before 4aiii services were offered and 5154 (38%) 4aiii services that were succeeded by at least one primary encounter in the year following the 4aiii service. We see a stable (somewhat increasing) trend until the late period of DSRIP, where subsequent primary care visits are at an average of 38%. However, in most months, PC Visits before project engagement was higher than PC Visits after project engagement. The rate differentials before and after project engagement is significant at 1% level. This implies that we are 99% confident that PC visits before project engagement was higher than after project engagement.

Figure 3: PC Visits Before and After 4aiii Services



Note: Figure 3 depicts the percentages of CCN Attributed 4aiii services that preceded and succeeded one or more primary care encounter within a year of the 4aiii, by month of the 4aiii service.

The above graph demonstrates a positive trend in the early DSRIP period, suggesting that 4aiii services may be effective in connecting members to medical care services. Moreover, given that the decline in primary care follow up occurs at the same time as the declines in PPVs and hospitalizations, it appears that Medicaid members who received 4aiii services are not using primary care as a substitute care setting to the emergency room.

The following table presents the results from the statistical regression analysis for other forms of care engagement other than primary care. An Odds Ratio[3] greater than one indicates that having received at least one 4aiii is positively associated with the outcome variable. Those who received a 4aiii service were 1.99

3 Refer to the appendix for details on regression analysis, model used and interpreting odds ratio

times more likely than those who did not receive 4aiii services to have at least one antipsychotic medication fill. This result is statistically significant at 1% level implying that 4aiii services increased Antidepressant Medication Adherence among CCN attributed Medicaid Members who received BH screens under this project as compared to the general attributed population.

Table 5c: Cross Sectional Analysis – Care Engagement			
HEDIS Measures	**Odds Ratio**	**Interpretation**	**Score (15)**
Indicator variable for 1+ Antidepressant Medication Management	1.99***	Completing a Behavioral health screen to increase awareness and minimize stigma is associated with a 99% greater likelihood of antidepressant Rx fills among Medicaid Members.	**15**
Source: CCN Team analysis using CCN project data, Salient Interactive Miner, and Medicaid Claims data from the MY5 Attributed population, July 2016 to June 2019. Refer to the appendix for detailed scoring criteria.			

Based on this cross-sectional analysis, it appears that 4aiii may be effective in promoting greater antipsychotic medication adherence, but not sufficient to reduce potentially avoidable utilization of emergency rooms, overall need for hospital care or increase primary care engagement. The trend analysis suggests the desired impact for periods of time but not necessarily across the board. The score card below assigns causal effect and cross-sectional analysis points based on the results**.**

Table 6: Cross Section and Causal Effect Score Card		
	Cross Section (15)	**Causal Effect (6)**
Potentially Preventable ED Visits	0	2
Inpatient Hospitalizations	0	2
Care Engagement	3.75	0
Total Points Assigned to Score Card	**3.75**	**4**

Section 2: Cost-Effectiveness Analysis

Cost effectiveness is a measure of the value of an initiative, project, or program stated in terms of its anticipated benefits. For the DSRIP projects in general, CCN sought to improve patient outcomes among those engaged in the project. Patient outcomes are measured in terms of the reduction in unnecessary use of the emergency room, a reduction in hospitalizations, and increases in primary care engagement. Therefore, cost effectiveness of the projects is defined in these terms.

The cost-effectiveness analysis builds off the pre/post analysis presented above. Total Savings reflects the value of avoided utilization of emergency room care, inpatient hospital care, and primary care due to the project. This measure is an estimate of the value of the project, comparing utilization before and after project engagement.

Total Savings is calculated by comparing utilization before and after project engagement. Total Savings is a one-year estimate of savings accruing to the health care system at large, attributed to the project activities. The estimates presented in Table 7 are on figures from DSRIP Year 4, including pre- and post-utilization

among MY5 attributed Medicaid members engaged in the project between July 2017 and June 2018 and published cost estimates for ED visits, inpatient care, and primary care encounters (which reflect charges).[4,5,6] For 4aiii services, BH and SUD screens are associated with a reduction in the use of hospital Emergency Departments, a reduction in hospital admissions, however a reduction in primary care engagement. For each utilization type, savings is estimated based on the change in utilization and the cost factor. Total Estimated Savings is a summation across the three measures; the reduction in ED, inpatient care and primary care services. Total Estimated Net Savings is calculated by subtracting the variable costs associated with operating the 4aiii project in DSRIP Year 4. Net Estimated Savings per Project $ is a measure of the cost effectiveness or return on investment per dollar spent on the project. As calculated, CCN estimates that for every dollar spent on the 4aiii project in DSRIP Year 4, $ 2.43 in net savings accrued to the health care system at large in the form of avoided use of services.

Table 7: Avoided Utilization and Net Savings Associated with 4aiii Project (July 2017-June 2018)

	Avoided ED Visits	Avoided Hospital Admissions	Increased Primary Care Visits	Total Estimated Savings due to Avoided Utilization	Project Variable Costs	Total Estimated Net Savings	Net Estimated Savings, per Project $
4aiii Services	363	32	(321)	$ 904,083	$ 263,320	$ 640,763	$ 2.43

Source: CCN Team analysis

This cost effectiveness analysis focuses on the fully-implemented value of the project services. We exclude fixed costs from this analysis. While each DSRIP project required infrastructure investment by CCN and its partners, these investments were largely completed by DSRIP Year 4. Excluding fixed costs from the analysis is appropriate in order to make a more direct comparison of service-related variable costs between the project and their health impact. Including fixed costs may unduly weight the analysis against the projects since the fixed cost savings related to ED visits, hospitalizations and primary care utilization are not directly reflected in the service charges. We analyzed each project independently and assume the results are independent. While there was overlap in patient engagement across the projects, it was relatively minor. We do not anticipate that overlap in project engagement causes cross-contamination of results.

Table 8: Cost Effectiveness Score Card Points

	Score Card (4)
Potentially Preventable ED Visits	1.33
Inpatient Hospitalizations	1.33
Primary Care Engagement	0
Total Points Assigned to Score Card	**2.67**

Source: CCN Team analysis

[4] Health Care Cost Institute (2019). The average emergency room visit cost $1389 in 2017. Available from: Average Cost of ER Visit (2017)

[5]2018 Hospital Adjusted Expenses per Inpatient day: Kaiser Family Foundation / State Health Facts Available from: Hospital Adjusted Expenses per Inpatient Day(2018). Data from 1999 - 2018 AHA Annual Survey, Copyright 2019 by Health Forum, LLC, an affiliate of the American Hospital Association. Note: Average length of stay in NY (2016) was 4.6 days. https://www.aha.org/system/files/2018-07/2018-aha-chartbook.pdf

[6]Health Care Cost Institute (2016-2017); Binghamton, NY Average (Office Visit – Primary Doctor – Established Patient – Moderate Complexity. Range is $69-$87. We used $78 as a point estimate. Available from: Average Cost of PC Visit in Binghamton

Qualitative Findings

Project Specific Feedback from Partners

In-depth interviews were conducted with select partners who were involved in project 4aiii.

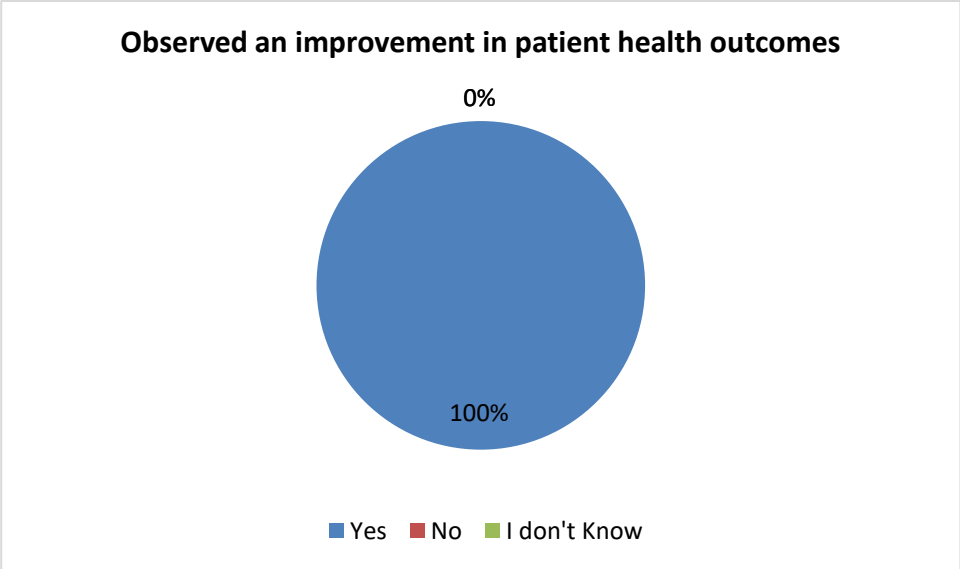
Setup and History**:** Our partners deploy the PHQ9 and substance use questionnaire. Depending upon the score they talk to high-risk patients and connect them with mental health providers.

Patient Outcomes

Table 1: Patient Outcomes

Interview Question	Rating	Feedback	Score
Extent project has made a positive impact on patients/clients	★★★★½	Project overall has made a significant difference for most of our community. There are still some patients that don't want to participate or it's very difficult to get them to participate. The organizations are not provided accurate and up to date phone numbers or emails.	5
Extent project activities make a positive long-term impact on patients/clients	★★★★½		5
Average			5

Figure 1: Observed Improvement in Patient Outcomes



Explanation of Figure 1: Observed an improvement in patient health outcomes: 100% of respondents said yes. As an example, a partner involved with the project pointed out that they are tracking the scores of patients and see an improvement in scores as they follow up with them over a period of time. A big difference has been seen in their respiratory cohort. Those patients suffer from anxiety and depression, and many are smokers or substance use patients.

Cost of Care

Table 2: Cost of Care			
Interview Question	**Rating**	**Feedback**	**Score**
Extent project activities reduction in cost of care long term	★★★★☆	Patients with chronic comorbidities, have so much at stake and many healthcare issues. To be able to address their mental health issues will eliminate or reduce some of those healthcare costs.	5

Lasting Partnerships

Figure 2: Lasting Partnerships

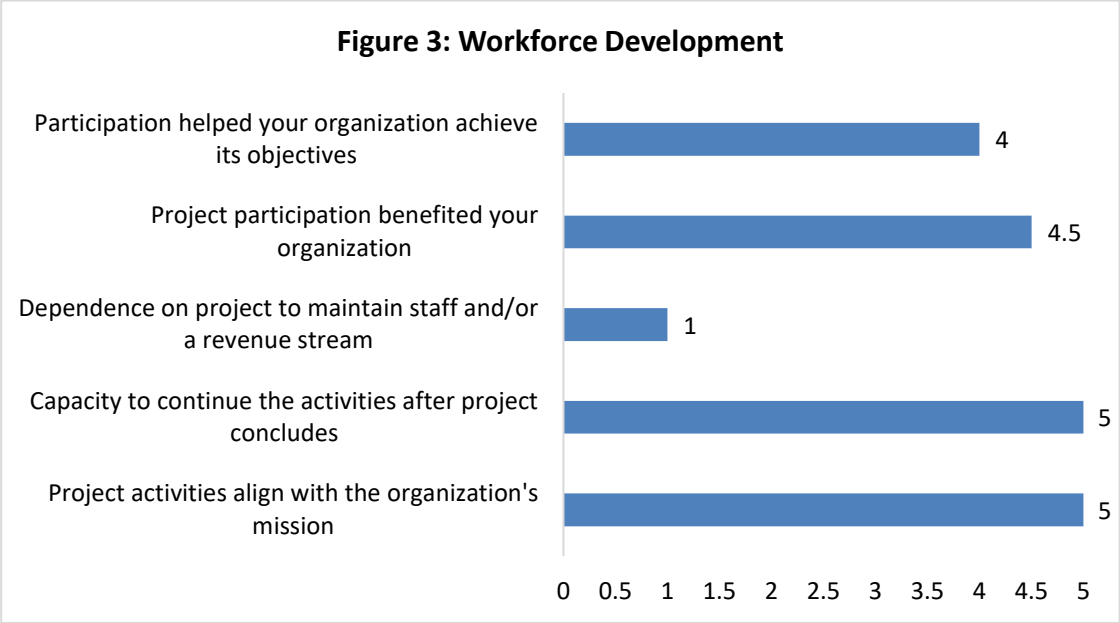
Explanation of Figure 2: 100% of the respondents said that project 4aiii provided them with opportunities to partner with others, these partnerships were successful and they would continue these partnerships after the project concludes. One of the partners stated that in general it has allowed them to have a better understanding of who the mental health providers are in the area, what their expertise is, such that they connect patients to them. To a certain extent, the partners intend to continue their partnerships and keep the same processes embedded in their system.

Table 3: Lasting Partnerships			
Interview Question	**Rating**	**Feedback**	**Score**
Extent the project activities have improved coordination of patient care	★★★★½	By connecting patients to mental health services, organizations build relationships with health care providers who have become aware of their programs, in turn they are able to identify patients that have certain needs and redirect them. Education and the awareness have helped reduce stigmas around any behavioral health or mental health issues among their staff.	5

Workforce Development

When asked about how many positions were involved in this project. One partner said everyone in their staff and another said 7 positions. They stated that project activities consume minimal to about half of their time. The graph below highlights the rating that respondents gave on a scale of 1 to 5 with 1 being "Not at all" and 5 being "Completely"

Figure 3: Workforce Development

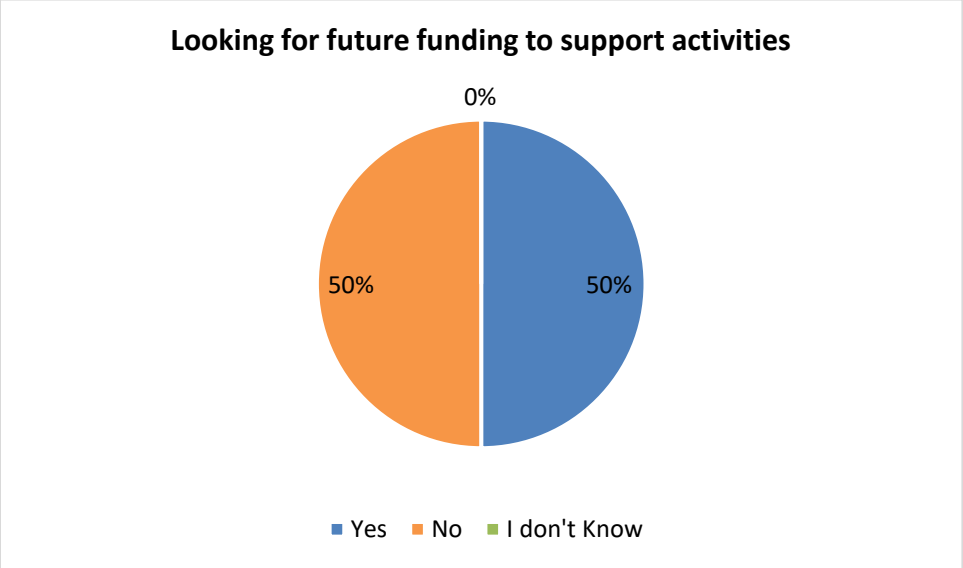


Explanation of Figure 3: When asked about whether the extent to which project activities align with the organizations mission, respondents gave it a rating of 5. 100% of the respondents said that they have the capacity to continue activities after the project concludes and gave it a rating of 5. When asked about the extent to which the organization depends on the project to maintain staff and/or revenue stream, the partners gave it a rating of 1. This is a good indication as partners have the funding and the capacity to continue after DSRIP concludes.

When asked about whether the project benefitted their organization and helped achieve its objectives, respondents gave it a rating of 4.5 and 4 respectively. One of the partners stated that they have been able to develop new capabilities with this project.

Organizations Looking for Future Source of Funding

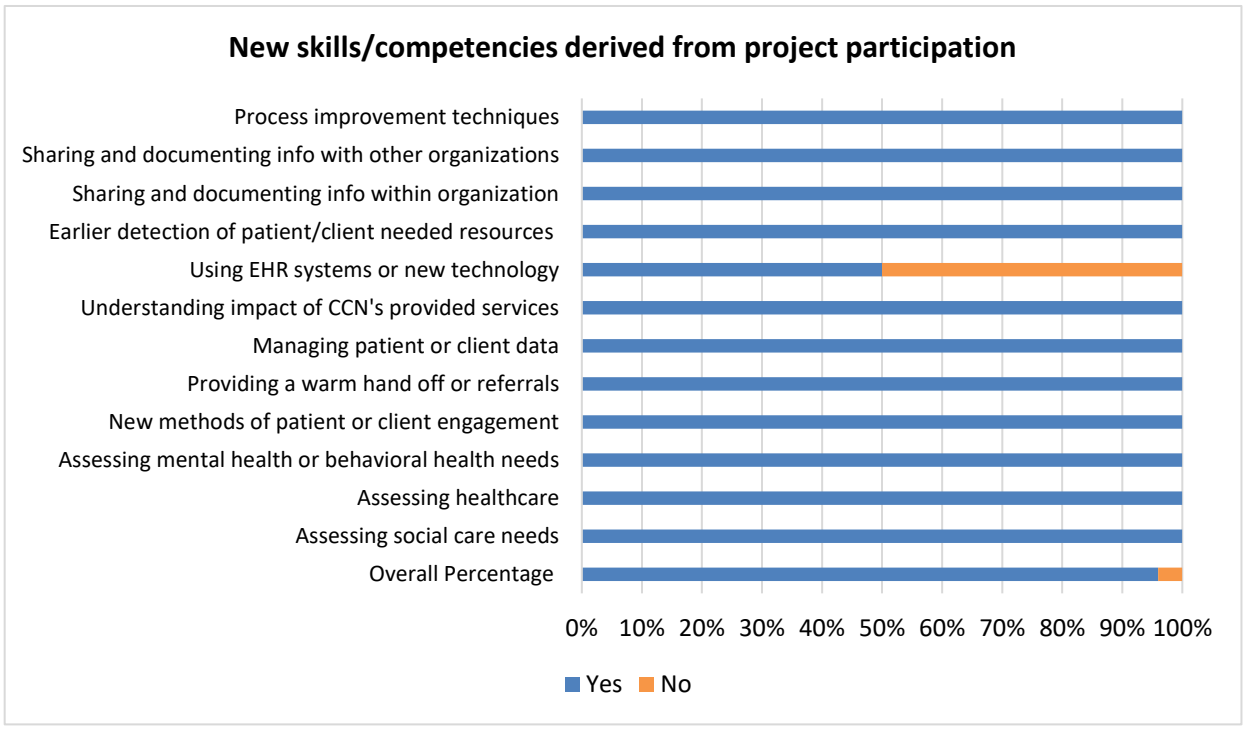
Figure 4: Looking for Future Funding



Explanation of Figure 4: When asked about whether the partners engaged with 4aiiiare looking for future sources of funding, 50% of the respondents said yes and 50% said no. As a follow up question, when asked if their staff will be downsized or redeployed if the project is discontinued, 100% respondents said they don't know.

New Skills/Competencies Derived from Project Participation

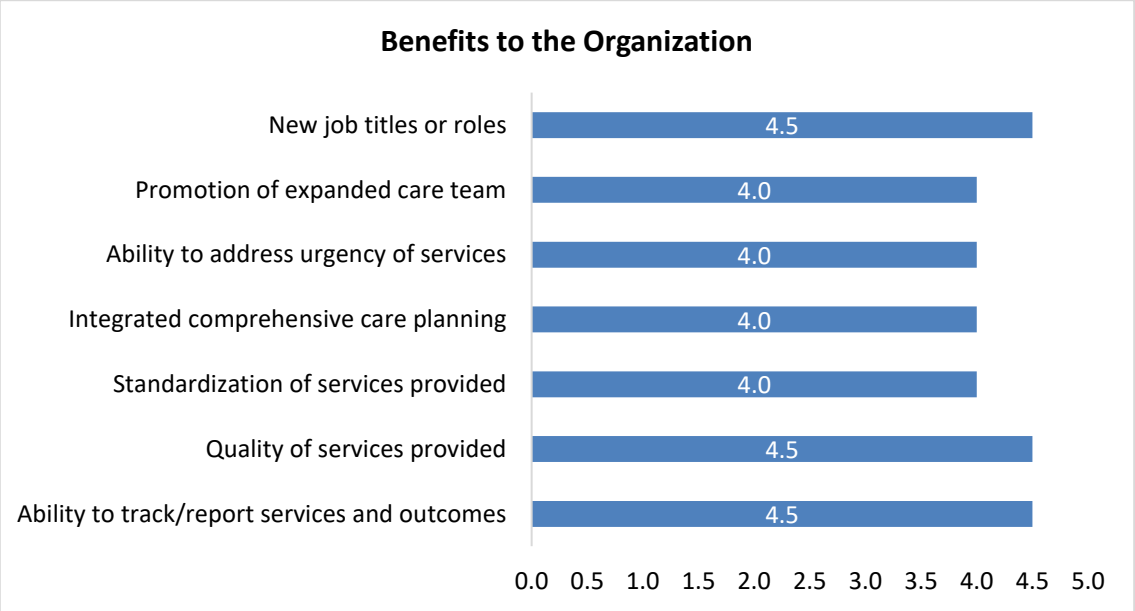
Figure 5: New Skills/Competencies



Explanation of Figure 5: 96% of the respondents said that they developed new competencies and skills as a result of this DSRIP Project. However, 4% said they didn't. In particular, 50% of the respondents said that they didn't develop new technology or use EHR systems. 100% of the respondents said they developed new skills like sharing and documenting information with other organizations and within their organization, managing patient and client data, providing a warm hand off or referrals, new methods of patient or client engagement, assessing mental health or behavioral health needs, development of process improvement techniques, earlier detection of patient/client resources needed, and understanding impact of CCN's services provided. Regarding sharing of information with other organizations to improve care for their patients or clients, the partner clarified they don't do anything electronically, but they are referring patients out. They share information electronically within their organization but not outside.

Extent to Which Participation Benefited Our Partner Organizations

Figure 6: Benefits to the Organization



Explanation of Figure 6: When asked to what extent participation in the project benefitted our partner organizations, the overall ranking ranged between 4 and 5 on a scale of 1 to 5 where 1 being "Not at all" and 5 being "Significant". In terms of ability to track and report on services/outcomes, respondents rated it a 4.5 out of 5. Regarding the quality of services provided, partners ranked it at 4.5. Standardization of services, integrated comprehensive care planning, ability to address urgency of services, promotion of expanded care team, and creating new job titles/roles, respondents rated it as 4 out of 5.

Table 4: Scoring of Workforce Development Questions

Questions	Rating	Score
Project activities align with the organization's mission	★★★★★	5
Capacity to continue the activities after project concludes	★★★★★	5
Project participation benefited your organization	★★★★½	5
Participation helped your organization achieve its objectives	★★★★☆	5
Ability to track/report services and outcomes	★★★★½	5
Quality of services provided	★★★★½	5
Standardization of services provided	★★★★☆	5
Integrated comprehensive care planning	★★★★☆	5
Ability to address urgency of services	★★★★☆	5
Promotion of expanded care team	★★★★☆	5
New job titles or roles	★★★★½	5
Average		5

Finally, to conclude feedback on Workforce Development, we asked a few general questions and received a rating as highlighted in the table below. Rating of 1 is “Minimal” and 5 is “Significant”.

Table 5: Workforce Development

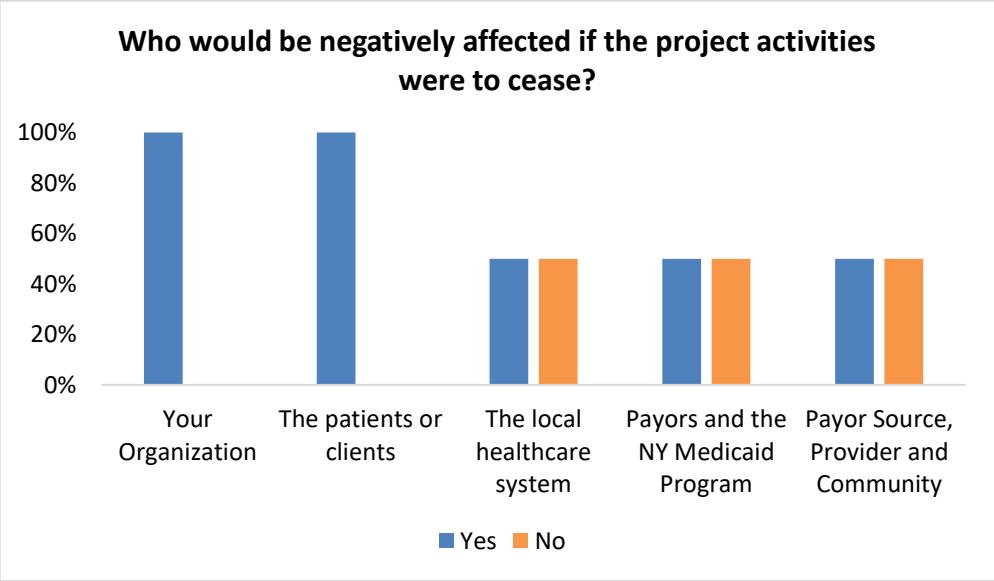
Questions	Rating	Score
a. This DSRIP project has helped your organization prepare in performance-based contracts with payers.	★★★★☆	5
b. This DSRIP project has helped your organization promote or develop our services.	★★★½☆	3.5
c. This DSRIP project provided funding for activities that were otherwise unfunded.	★★★½☆	3.5
d. This DSRIP project provided funding to train and/or expand your personnel in ways you would have not done ourselves.	★★★☆☆	3
e. This DSRIP project supported your organization to undertake activities that we see value in.	★★★★½	5
f. Your organization will continue the activities of this project after the DSRIP project completes.	★★★★½	5
g. This DSRIP project has given your organization a platform to share best practices.	★★★★☆	5
Average		4.28

System Transformation

To assess system transformation, we asked the partners number of questions and got a rating as highlighted in the table below. Rating of 1 is "Not at all" and rating of 5 is "Completely". The respondents could reply "Don't know".

Table 6: System Transformation			
Questions	**Rating**	**Feedback**	**Score**
a. Better integration of services across settings or organizations		It has brought organizations together to figure how to communicate and share information in a timelier manner.	5
b. Ability to share data in real time to improve patient or client care		Organizations are able to connect with mental health providers quickly, however, being in a rural community it's sometimes not that easy to get the referral.	5
c. Promotion of community-based services (over institutional care)		For those who are willing to learn how to self-manage and connect with other services it's been great, however, there are patients who want to go to the ER instead of learning self-management techniques.	5
d. Promotion of team-based care (more coordinated care; cross-organizational teams)		This project has opened channels of communication; however, some entities are still siloed. It has helped with case management.	5
e. More efficient services that reduce waste in the system		It has helped with less no shows for an appointment.	5
f. Implementation of self-management goals		No Feedback	5
g. Shift in staff mindset in addressing patient needs		Organizations try to encourage their staff and train them to work together in identify needs of patients.	5
h. New billable service development		No Feedback	1
Average			4.5

Figure 7: Negative Affects if Project Activities were to Cease



Explanation of Figure 7: When asked who would be negatively affected if the DSRIP project was to cease – 50% of the respondents said the local healthcare system, Payors/ NY Medicaid Program and the Payor source, provider and the community would be impacted. 100% of the respondents said their organization and patients/clients would be impacted.

Project Specific Feedback from Project Managers

Milestones: Success on key milestones of this project have been evaluated by Project Manager at CCN in an in-depth interview:

Milestones: Success on key milestones of this project have been evaluated by Project Manager at CCN in an in-depth interview:

Table 7: Milestone Ratings

Milestone	Rating/5	Success Factors (1.5)	Gaps	Score (10)
Participate in MEB (Mental Emotional and Behavioral) health promotion and MEB disorder prevention partnerships	★★★★★	Highly engaged Project Manager and project teams were instrumental to success. Participation at the community level helped bring together traditionally siloed organizations to collaborate and partner. Quality metrics for discharged patients, communication methods, and data sharing all added to the success of this	Limited bandwidth of behavioral health providers was a limiting factor as were competing priorities among non-behavioral health-based organizations.	10
Expand efforts with DOH and OMH (Office of Mental Health) to implement 'Collaborative Care' in primary care settings throughout NYS.	★★★★★	PCP Clinics implemented OMH collaborative care; education and offered guidance and support. Timely screening of patients that resulted in relevant action, such as changing medication, also a success factor.	Overall shortage of psychiatric care. There is potential to improve BH care coordination in collaboration with tele-psychiatrist. In general, the project required significant time and commitment of participants.	10
Provide cultural and linguistic training on MEB health promotion, prevention and treatment	★★★★★	Success factors include an increased awareness about behavioral health, service expansion, funding/hosting a variety of treatment trainings, and capability to meet community needs promptly.	N/A	10
Share data and information on MEB health promotion and MEB disorder prevention and treatment.	★★★★☆	PMO noted that "sharing data inherently improves outcomes." In addition, reporting templates captured data from partners who would have otherwise been missed. Additional successes include; helping providers obtain suboxone waivers, Narcan Pilot kit expansion, and the use of suicide risk assessment and	Data sharing incompatibilities, paper screenings in social care agencies and limited staff bandwidth to attend trainings were two barriers in the road to success.	10
Average				**10**

Overall DSRIP Gaps in Care going forward

When asked to identify gaps in care that still need to be address moving forward, 4aiii Project Management referenced increased comfort with data sharing as an ongoing need. Project Manager also identified the following gaps in care and opportunities for enhancement going forward: workforce training expansion and development, trauma/ACEs/resilience screening expansion, active collaboration within the schools & early intervention programs, continued BH/PC community integration events that bring partners together to expand capacity and awareness.

Importance in improving SDOH outcomes (1.5)

Project Manager identified this project as "high impact" with regards to improving communication integration, the identification of behavioral health conditions, SDOH and patient outcomes. To expound, project 4aiii has successfully promoted the adoption of evidence-based behavioral health screenings across all settings especially in the community to promote early identification, intervention, and referral based on the person's reported needs. High level, this project has contributed to a cultural shift in how agencies understand and approach behavioral health conditions. Based on the science and prevalence of traumas such as ACEs (Adverse Childhood Experiences) and its impact on the health and well-being of the community, CCN formed the Regional Trauma-Informed Care Network to regionalize our 9 county's efforts. The team consists of dedicated and passionate individuals from colleges, county government, health care, social care/human services, and schools spanning across Care Compass Network's 9-county region in the Southern Tier and beyond. As a regional network, we value and support the implementation and adoption of trauma-informed care principles. We believe that practicing trauma-informed care embraces a holistic person-centered approach that can break the cycle of negative impact caused by trauma.

> We envision a resilient community built upon strong partnerships, trust, and compassion. Our mission is to implement evidenced-based trauma-informed care by supporting the development of resilient and strong partnerships, individuals, families, and communities through advocacy, education, and empowerment.

Our core strategy to bring this to fruition is to create and promote access, availability of training, educational tools, and resources for our community. We will be hosting a regional Partnering for a Resilient Community Learning Symposium in October 2020, releasing a Resilience & TIC tools for Educators and School, supporting TIC/ACEs Pilot in Primary Care Clinic, creating a TIC Implementation for school districts and community organizations toolkit.

Table 8: Qualitative Measures

Measure	Rating	Anecdotal Evidence	Score (6)
Success on early identification, documentation and access to MH/SA services such that it resulted in delay onset of initial mental health and substance use among Medicaid members	★★★★☆	• 70% of patients we screen in a Primary Care setting score between a 0-9 • Identification needs are situational; they need someone to speak to rather than therapy	6
Success on warm-hand offs or referrals to additional mental health and substance use resources/providers for more intensive treatment	★★★★☆	Limited resources were a barrier to warm handoffs	6
Success in removing stigma and social barriers to access care	★★★★★	• There are still social barriers to access care • No discrimination education to partners • Addressing SDOH has helped: transportation, need for insurance, day care for children	6
Increasing communication and collaboration between providers and community-based organizations	★★★★☆	• Increasing communication and collaboration between providers • Provided opportunities and resources in bringing providers and CBOs together	6
Average			6

Regional Performing Unit Feedback

During the month of May we collected survey responses from all participants at RPU Meetings on two topics: Workforce development and System Transformation. The survey was rating based from 1 to 5 with 1 being "Minimal" and 5 being "Significant". We received 38 responses in total. The table below highlights the distribution of responses across the RPU's. Approximately 15.79%% (6 responses out of 38) of the responses was for project 4aiii.

Table 9: RPU Responses			4aiii
South	47.37%	18	1
North	34.21%	13	2
West	10.53%	4	0
East	7.89%	3	3
Total	100.00%	38	6

Table 10: Scoring of Workforce Development Questions

Questions	Rating	Score(5)
Ability to track/report services and outcomes		3
Quality of services provided		5
Standardization of services provided		3
Integrated comprehensive care planning		5
Ability to address urgency of services		3
Promotion of expanded care team		3
New job titles or roles		1
Average		**3.28**

Table 11: Workforce Development

Questions	Rating	Score(5)
a. This DSRIP project has helped your organization prepare in performance-based contracts with payers.		3
b. This DSRIP project has helped your organization promote or develop our services.		5
c. This DSRIP project provided funding for activities that were otherwise unfunded.		5
d. This DSRIP project provided funding to train and/or expand your personnel in ways you would have not done ourselves.		5
e. This DSRIP project supported your organization to undertake activities that we see value in.		5
f. This DSRIP project has given your organization a platform to share best practices.		3
Average		**4.33**

Table 12: System Transformation

To assess system transformation, we asked the partners number of questions and got a rating as highlighted in the table below. Rating of 1 is “Not at all” and rating of 5 is “Completely”. The respondents could reply “Don’t know”.

Questions	Rating	Score (5)
a. Better integration of services across settings or organizations		3
b. Ability to share data in real time to improve patient or client care		3
c. Promotion of community-based services (over institutional care)		5
d. Promotion of team-based care (more coordinated care; cross-organizational teams)		5
e. More efficient services that reduce waste in the system		3
f. Shift in staff mindset in addressing patient needs		5
g. New billable service development		3
Average		**3.85**

Appendix

Scoring Matrix		
Key Elements	**Description**	**Points**
Quantitative Analysis	**Data from Projects and Salient**	**25 points**
1. Regression Analysis	**Statistical Association between Key activities undertaken during specific projects and HEDIS measures**	**15 points**
a) Key HEDIS Measures	Statistical Association between 0 and 50%	8 points
b) Key HEDIS Measures	Statistical Association between 51% and 75%	12 points
c) Key HEDIS Measures	Statistical Association between 76% and 100%	15 points
d) Causal Effect Analysis	Negative association of project activity with ER Visits (2 pts) Negative association of project activity with Hospitalizations (2 pts) Positive association between project activity and Primary Care (2pts)"	**6 Points**
e) Cost Effectiveness Analysis	Costs averted due to reduction in ED visits (1.3 pts) Costs averted due to reduction in Hospitalizations (1.3pts) Costs spent due to increase in PC Visits (1.3pts)	**4 Points**
Qualitative Analysis	**Assessments conducted with various stakeholders involved in Speed and Scale Projects**	**75 Points**
2. Project Specific Feedback from Partners	**Interviews conducted by RMS with select partners for speed and scale projects**	**25 points**
a) Patient Outcomes	Scale of 1 to 5 - 4 and above	**5 points**
	Scale of 1 to 5 - score of 3	3 points
	Scale of 1 to 5 - score of 2 or 1	1 point
b) Cost of Care	Scale of 1 to 5 - 4 and above	**5 points**
	Scale of 1 to 5 - score of 3	3 points
	Scale of 1 to 5 - score of 2 or 1	1 point
c) Lasting Partnerships	Scale of 1 to 5 - 4 and above	**5 points**
	Scale of 1 to 5 - score of 3	3 points
	Scale of 1 to 5 - score of 2 or 1	1 point
d) Workforce Development	Scale of 1 to 5 - 4 and above	**5 points**
	Scale of 1 to 5 - score of 3	3 points
	Scale of 1 to 5 - score of 2 or 1	1 point
e) System Transformation	Scale of 1 to 5 - 4 and above	**5 points**
	Scale of 1 to 5 - score of 3	3 points
	Scale of 1 to 5 - score of 2 or 1	1 point
3. Project Specific Feedback from Project Managers	**Interviews conducted by Population Health Team with project managers for speed and scale projects**	**25 points**
a) Milestones Ratings	Scale of 1 to 5 - 4 and above	**10 points**
	Scale of 1 to 5 - score of 3	7 points
	Scale of 1 to 5 - score of 2 or 1	2 point
b) Successes specific to Milestones	Qualitative statements	**1.5 points**
c) Gaps specific to Milestones	Qualitative statements	**None**

d) Overall DSRIP Gaps in care going forward	Qualitative statements	**None**
e) Importance in improving SDoH outcomes	Qualitative statements	**1.5 points**
f) Qualitative Questions	Scale of 1 to 5 - 4 and above	**6 points**
	Scale of 1 to 5 - score of 3	4 points
	Scale of 1 to 5 - score of 2 or 1	2 point
g) Opportunities for Improvement	Scale of 1 to 5 - 4 and above	**6 points**
	Scale of 1 to 5 - score of 3	4 points
	Scale of 1 to 5 - score of 2 or 1	2 point
4. Member Panel Feedback from Patients	**Survey conducted by RMS with Member Panel regarding Speed and Scale Project**	**15 points**
a) Were asked about their health during visit	> 90% responded yes	**5 points**
	Between 75 to 89%	3 points
	Between 60 to 74%	1 point
b) Positive Experience	> 90% responded yes	**5 points**
	Between 75 to 89%	3 points
	Between 60 to 74%	1 point
c) Patient believes services provided were crucial for their well-being	> 90% responded yes	**5 points**
	Between 75 to 89%	3 points
	Between 60 to 74%	1 point
5. Regional Performing Units Feedback overall DSRIP activities	**Survey conducted by Population Health Team during RPU Meetings in May**	**10 points**
a) Workforce Development	Scale of 1 to 5 - 4 and above	**5 points**
	Scale of 1 to 5 - score of 3	3 points
	Scale of 1 to 5 - score of 2 or 1	1 point
b) System Transformation	Scale of 1 to 5 - 4 and above	**5 points**
	Scale of 1 to 5 - score of 3	3 points
	Scale of 1 to 5 - score of 2 or 1	1 point

Definitions – Statistical Associations

Direct NT: Direct Near Term - Project has a specific component (paid activity specifically) that affects the numerator of the measure in the near term (immediate impact; activity is incentivized).

Direct LT: Direct Long Term - Project has a component which encourages activities which affect the numerator of the measure. Activities may not have an immediate impact, but could encourage different future choices by members.

Mixed Direct: Project has a component which encourages activities which affect the numerator of the measure in general. Activity may not be paid; thus, although the project supports those activities, they are not specifically incentivized.

Quantitative Findings – Model Used

Regression Analysis Basics:

- The regression equation describes the relationship between the dependent variable (y) and the independent variable (x).

$$y=bx+a$$

Example: Anti-Dep Rx Fill = b_1(3ai BH screen) +b_i(Control $vars_i$)+ a

- The intercept, or "a," is the value of y (dependent variable) if the value of x (independent variable) is zero, and is referred to as the 'constant.'
- The regression results report the coefficient b that represents how a unit increase in x affect the likelihood of y, holding all other factors constant
- P value is also reported in the regression results. It shows whether the coefficient has statistically significant impact on the dependent variable or not. If the p value is 0.05, we are 95% confident that the independent variable has some effect on the dependent variable.

Model Used

Logistic regression

- Assumption: dependent variable is dichotomous and binary; in other words, coded as 0 and +1.
- We use the logit model that displays the odds ratio obtained by running the regression.
- The odds ratio is a way of comparing whether the probability of a certain event is the same for two groups.
- An odds ratio of 1 implies that the event is equally likely in both groups. An odds ratio greater than one implies that the event is more likely in the first group. An odds ratio less than one implies that the event is less likely in the first group.