2020-2021 Annual Organizational Treatment Cascade Quality Improvement Report

Daniel Belanger[1], Nicole Fera[1], Haseya Kee[1], Christopher Wells[1], Nova West[1], Anita Zhu[1]

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[1] New York State Department of Health AIDS Institute, Albany, New York, USA

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Introduction

Each year, the New York State Department of Health AIDS Institute's Quality of Care Program invites all New York State-based organizations providing HIV ambulatory care to participate in a retrospective organizational treatment cascade review, a self-assessment of the quality of HIV care provided. The review includes care provided for all people receiving HIV ambulatory care at the organization, in addition to the care status and viral load suppression rate of all people who receive any other type of care at the organization. The intent of reviewing the care status of the latter group of patients is to identify opportunities for organizations to link out of care patients to care.

Organizations with one or more HIV ambulatory care clinics in New York State collect, analyze, and submit data on the quality of care provided in addition to quality improvement goals and action steps for improving outcomes based on the analysis of the data that they submit.

Since the reviews are submitted annually, the organizations can see, each year, the degree to which they were successful in achieving their quality goals. The organizational treatment cascade review offers a unique opportunity to examine quality improvement activities aimed at improving care and to see which activities have been most successful in measurably improving care for each key quality indicator.

These key indicators include:

- linkage to care
- antiretroviral prescription
- viral load testing
- viral load suppression
- HIV medication resistance testing

Patient categories include newly diagnosed patients and other new to care patients (represented primarily by patients transferring care from other healthcare organizations). Other patient categories include patients established in care and patients who are known to be HIV positive but are not receiving HIV care at the organization. Performance is reviewed using the indicators that are applicable to each patient group.

The Quality of Care Program Data Analyst aggregates data that are presented back to providers in multi-year reports that can be used to understand the relationship between quality improvement activities and changes in data outcomes. Individual and statewide data results are compared along with quality goals and activities to understand which organizations have been most successful in improving care by specific indicators and patient groups.

Quality of Care Program Coaches follow up with organizations both individually and in peer learning groups. Peer learning groups include the Community Health Center Quality Learning Network and New York Links Regional Groups. The Community Health Center Quality Learning Network focuses on improving HIV clinical care at community health centers across New York State. The New York Links Regional Learning Groups focuses on facilitating peer learning between clinical and supportive service providers to achieve regional HIV improvement goals.

The 2020 and 2021 cascade reviews were compared to identify organizations with the most significant improvement rates by indicator for specific patient groups. The aim of this project is to help providers,

consumers, quality coaches, and grant contract managers to identify successful quality improvement activities with the goal of spreading these activities to additional organizations providing HIV care.

Methods

Data presented here are from the 2020 and 2021 Annual Retrospective Quality of Care Organizational HIV Treatment Cascade Reviews. Ninety-one organizations submitted review data for care provided in 2020. Ninety-three organizations submitted review data for care provided in 2021. Within the ninety-one organizations who submitted review data in 2020, 153 clinics and approximately 104,000 patients were included in the review. Within the ninety-three organizations who participated in 2021, 270 clinics and approximately 107,000 patients were included in the review. Some patients may have been reported more than one time in the review due to data collection issues. A deduplication process of comparing patient identification information occurred at the local clinic level to address the issue. However, some duplication across organizations still exists, particularly where patients are enrolled in active care at one organization and seen for other services at one or more other organizations.

Health and Hospitals, the public hospital system of New York City, which includes seventeen hospital and diagnostic treatment centers, was excluded from this report because a different reporting method was used. The method used at Health and Hospitals did not include reporting of quality improvement activities specific to individual centers of care at the clinic level.

In 2020, seventy-four organizations participated. In 2021, 76 organizations participated. Excluding New York City Health and Hospitals, seventy-two organizations participated in the retrospective cascade review in both 2020 and 2021 with one organization participating only in the 2020 review and three organizations only participating in the 2021 review. Organizations submitted patient level data including patient characteristics such as date of birth, race, gender, and housing status and outcomes related to ARV prescription, viral load testing, suppression, linkage, and resistance testing. Additionally, organizations chose one or more indicators (antiretroviral therapy rates, viral load suppression rates, etc.) to focus on for the next year[1]. To define applicable indicators, patients were categorized into eight different caseload categories based on HIV diagnosis date and enrollment status at the end of the review year.

The seventy-two organizations that were involved in the retrospective review of care in 2020 submitted quality improvement goals based on their analysis of the data. As part of the review of care provided in 2020, a total of 131 quality improvement activities were implemented. Some organizations developed multiple activities that focused on more than one indicator.

All rates for indicators chosen for improvement focus were compiled for 2020 and 2021. The percentage point change in rate from 2020 to 2021 was then calculated.

Top performers for each indicator for 2021 were identified. Top performers were considered organizations who demonstrated a rate at or above the 75th percentile rate for all organizations who submitted a quality improvement activity for both 2020 and 2021. Top performers for change in rate for

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[1] See Appendix A for detailed descriptions of patient indicators.

each indicator were also identified. Top performers for change were considered organizations who demonstrated a rate at or above the 75th percentile rate for change for all organizations who submitted a quality improvement activity for both years.

Quality improvement goals for organizations who were categorized as top performers (those who demonstrated a rate at or above the 75th percentile for the respective indicator) were compiled. Quality improvement activity descriptions were reviewed, key words and main ideas were determined. The main ideas and key words were then categorized into themes, which included adherence support, care coordination, case conferencing, data monitoring and problem identification, enrollment and retention, staff training, supportive services/case management, utilization of peer services/consumer involvement and miscellaneous/other. Figure 1 below includes examples of activity themes.

Figure 1: Examples of themes and subthemes for the quality improvement activity descriptions
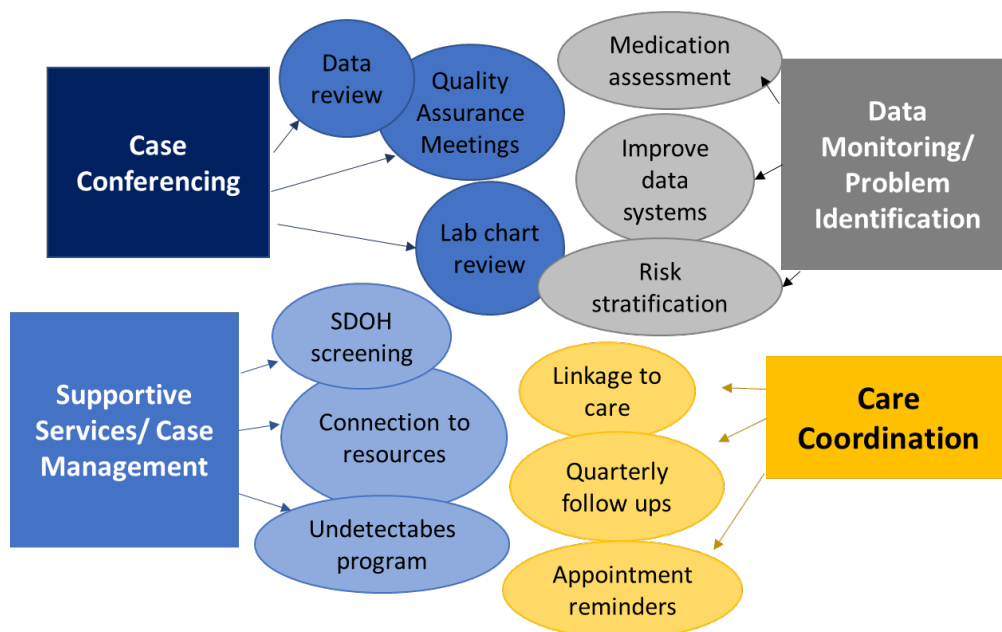
While some of the organizations that showed a high level of improvement, engaged in unique quality improvement activities, they did not provide much detail about these activities. Interviews were between 30 minutes to one hour and consisted of asking the organizations questions to provide detailed information about the quality improvement activity they described.

Results

Retrospective HIV Treatment Cascade Indicator Outcomes

First, New York Statewide data results were aggregated. The 25th percentile, 50th percentile and 75th percentile rates were calculated for each indicator as well as the mean. The highest change from 2020 to 2021 in percentage points by indicator was found in viral load suppression among newly diagnosed patients (1.7%).

Additionally, the following indicators showed high average percentage point change from 2020 to 2021:

- 3-day linkage of internally diagnosed patients (1.6%)
- Antiretroviral therapy among open patients (1.5%)
- Viral load testing among open patients (1.5%)

Viral load suppression among new to care patients and viral load testing among newly diagnosed patients showed an average decrease in percentage points from 2020 to 2021.

The most significant change in rate at the 75th percentile was found in the following three indicators:

- 3-day linkage to care of internally diagnosed patients
- Resistance testing among active newly diagnosed patients
- Viral load suppression among newly diagnosed patients

3-day linkage to care of internally diagnosed patients had an average increase of 17.2%. Resistance testing among active newly diagnosed patients had an average increase of 14.7%. Viral load suppression among newly diagnosed patients had an average increase of 19.1%. All indicators at the 75th percentile showed improvement between 2020 and 2021. Table 1 provides the mean results and 75th percentiles for both 2020 and 2021 and the change in percentage points from 2020 to 2021 for New York State.

Table 1: New York State treatment cascade organization-level benchmark scores by indicator for 2020, 2021 and change in percentage points from 2020 to 2021.

New York State Treatment Cascade Rates by Indicator						
Indicator	**Average and 75th Percentile Rates in 2020**		**Average and 75th Percentile Rates in 2021**		**Average and 75th Percentile for Change in Percentage Points from 2020 to 2021**	
	Average	**75th Percentile**	**Average**	**75th Percentile**	**Average**	**75th Percentile**
3-day linkage of internally diagnosed patients	50.4%	80.2%	56.1%	85.1%	1.6%	17.2%
Antiretroviral therapy among newly diagnosed patients	92.2%	100.0%	93.3%	100.0%	0.1%	0.7%
Antiretroviral therapy among open patients	89.7%	98.7%	91.8%	99.3%	1.5%	1.8%
Resistance testing among active newly diagnosed patients	69.9%	100.0%	68.3%	100.0%	0.7%	14.7%
Viral load suppression among new-to-care patients	73.2%	86.4%	69.3%	84.1%	-3.9%	8.9%
Viral load suppression among established active patients	84.6%	91.2%	84.2%	91.7%	0.0%	3.8%
Viral load suppression among newly diagnosed patients	46.7%	63.6%	47.4%	70.0%	1.7%	19.1%
Viral load suppression among open patients	72.7%	86.1%	73.4%	88.3%	0.6%	4.4%
Viral load testing among established active patients	95.7%	98.7%	96.5%	99.9%	0.8%	2.5%
Viral load testing among newly diagnosed patients	90.6%	100.0%	85.2%	100.0%	-3.0%	2.5%
Viral load testing among open patients	83.3%	94.1%	85.5%	97.2%	1.5%	5.1%

Many organizations who participated in the retrospective review for both 2020 and 2021 showed high rates in 2021. Table 2 below contains 2021 viral load suppression rate results for established active patients of organizations with at least 10 eligible patients who had a rate at or above the 75th percentile rate for all organizations that submitted data for both 2020 and 2021. Among these organizations, Richmond University Medical Center showed the most significant percentage point change from 2020 to 2021 with an increase of 18.8. New York University Langone – Family Health Center also showed a significant percentage point change with an increase of 11.2.

Table 2: Organizations with at least 10 eligible patients that had top-quartile viral load suppression rates among the established active patient group in 2021.

Highest Performers With At Least 10 Eligible Patients in 2021: Viral Load Suppression Among Established Active			
Organization Name	**2021 Score**	**2021 N Value**	**Percentage Point Change from 2020 to 2021**
Arnot Health	97.4%	196	0.0
Stony Brook Medicine	96.2%	824	0.6
NuHealth	95.7%	561	0.4
Erie County Medical Center	95.4%	624	5.3
Albany Medical Center	93.8%	1280	0.0
Apicha Community Health Center	92.6%	821	7.9
Betances Health Center	92.6%	543	-0.8
NYU Langone Health - FHC	92.2%	514	11.2
Sun River Health - Hudson Valley and Long Island	91.8%	1088	-0.3
University of Rochester Medical Center	91.7%	1058	3.1
Richmond University Medical Center	91.7%	60	18.8
Northwell Health - Lenox Hill	91.7%	431	4.4

Table 3 below shows organizations that had a rate at or above the 75th percentile for all organizations who submitted data for 2020 and 2021 by indicator. Some indicators do not have three organizations listed because not all organizations had at least 10 eligible patients. New York Presbyterian – East showed the highest 2021 score for viral load suppression among new-to-care patients, with a rate of 86.2%, which is 2.1 percentage points higher than the 75th percentile for all of New York State for this patient group. Community Healthcare Network showed a rate of 72.0% for viral load suppression among newly diagnosed, which was 2.0 percentage points above the 75th percentile for all of New York State. Samaritan Health Systems showed a rate of 93.9% for viral load suppression among open patients, which is 5.0 percentage points above the 75th percentile for all of New York State. Results for remaining indicators are provided below.

Table 3: Organizations with 10 or more eligible patients for respective indicator that had top-quartile rates among the other patient groups in 2021.

Indicator	Organization Name	2021 Score	2021 N Value	Percentage Point Change from 2020 to 2021
Highest Performers With At Least 10 Eligible Patients in 2021: Other Indicators				
Antiretroviral therapy among newly diagnosed patients	Ryan Network	100.0%	11	6.7
Viral load suppression among new-to-care patients	New York-Presbyterian - East	86.2%	196	8.1
Viral load suppression among newly diagnosed patients	Community Healthcare Network	72.0%	25	32.5
	Northwell Health - CART	70.5%	44	-2.3
	St. John's Riverside Hospital	70.0%	10	3.3
Viral load testing among established active patients	Richmond University Medical Center	100.0%	60	0.0
Viral load testing among open patients	United Health Services	97.8%	356	5.8
Viral load suppression among open patients	Samaritan Health Systems	93.9%	115	1.9
	Community Health Project, Inc.	90.6%	3739	1.6
	Trillium Health	89.1%	740	2.5
Resistance testing among newly diagnosed patients	NuHealth	100.0%	22	9.5

In Table 4, the change in percentage points from 2020 to 2021 among established active patients varied. Among organizations with 10 or more eligible patients, East Harlem Council for Human Services, Inc. showed a 13.6 percentage point increase from 2020 to 2021 in the viral load testing among this patient group. Richmond University showed an 18.8 percentage point increase from 2020 to 2021 in viral load suppression among this patient group.

All three organizations with the highest increase in percentage points for the viral load suppression among established active patient indicator were also considered high performers as their 2021 rate was at or above the 75th percentile.

Table 4: Organizations with 10 or more eligible patients for specified indicator that demonstrated the greatest change in rate among the established active patient group from 2020 to 2021.

Top 3 Changes in Rate for Established Active Patients				
Indicator	**Organization Name**	**2021 Score**	**2021 N Value**	**Percentage Point Change from 2020 to 2021**
Viral load testing among established active patients	Hudson Headwaters Health Network	98.3%	119	3.0
	East Harlem Council for Human Services, Inc. (Boriken)	98.2%	113	13.6
	SUNY Upstate Medical University	96.7%	917	4.9
Viral load suppression among established active patients	Apicha Community Health Center	92.6%	821	7.9
	NYU Langone Health - FHC	92.2%	514	11.2
	Richmond University Medical Center	91.7%	60	18.8

Quality Improvement Activity Descriptions

Among the high performing organizations that had a rate at or above the 75th percentile for the respective indicator, many different quality improvement activities were implemented in 2020. Twenty of the 36 quality improvement activities from these high performing organizations included a focus on care coordination, which was the most common focus of quality improvement activities described. Care coordination included patient referrals, linkage to care, coordination with the lab team and other activities. Eighteen out of 36 quality improvement activities focused on supportive services and case management. These activities included social determinants of health screening, shelter partnerships, connection to various resources and others. Other quality improvement categories included data monitoring and problem identification, case conferencing, enrollment and retention and others. Figure 2 below shows all activity themes identified in the quality improvement descriptions and the number of organizations that incorporated the quality improvement activity described.

Figure 2: Number of organizations per quality improvement intervention theme.

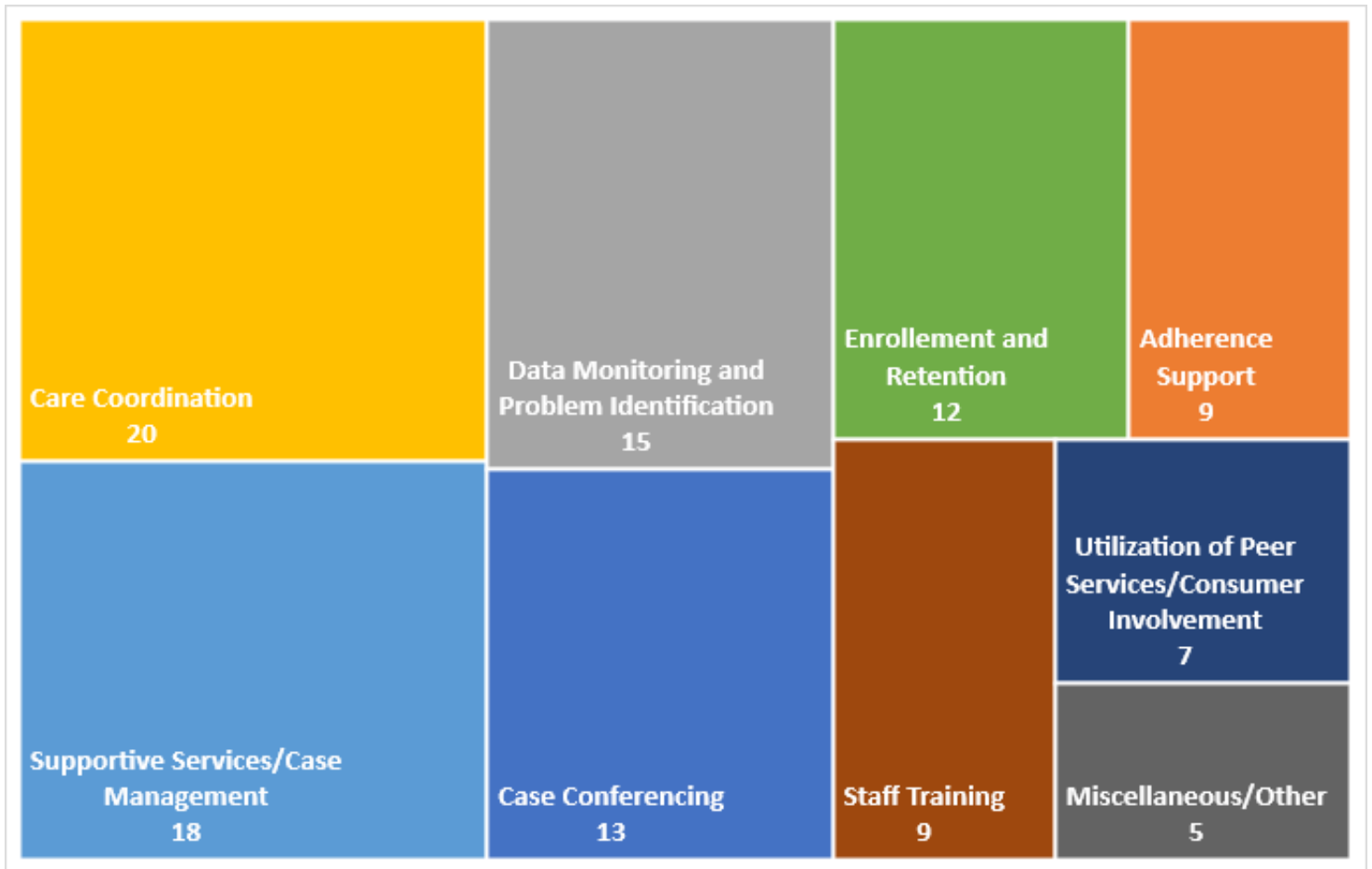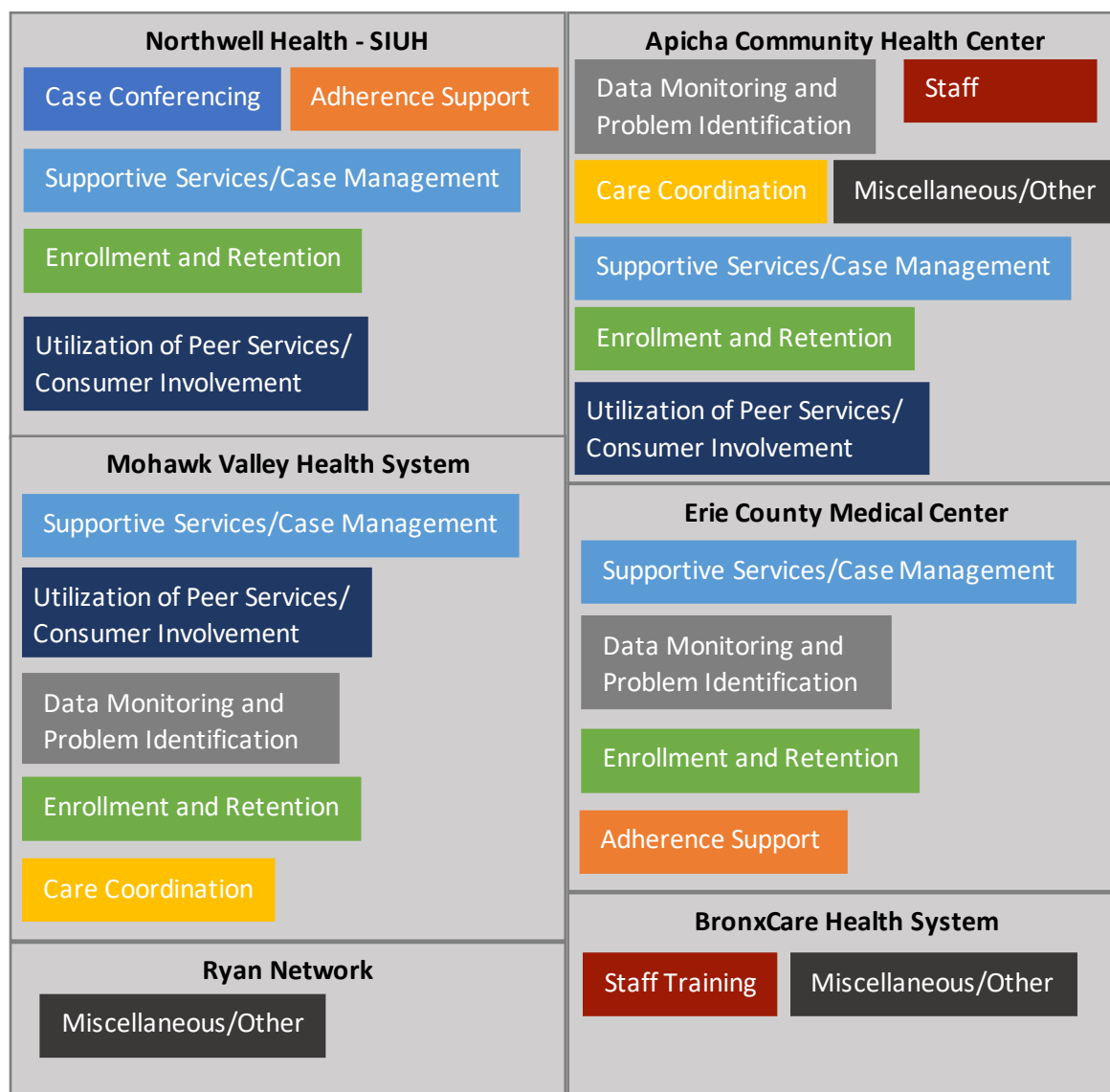| Care Coordination 20 | Data Monitoring and Problem Identification 15 | Enrollement and Retention 12 | Adherence Support 9 |
| Supportive Services/Case Management 18 | Case Conferencing 13 | Staff Training 9 | Utilization of Peer Services/Consumer Involvement 7 / Miscellaneous/Other 5 |

Figure 3 shows the quality improvement activity themes described by the high-performing organizations that provided robust activity descriptions. These sites participated in individual interviews with the Quality of Care team to provide more detail on their activities. Four out of 6 of these organizations described four or more activity themes as outlined in Figure 2.

Figure 3: Quality improvement intervention themes by featured organization.

Northwell Health - SIUH	
Case Conferencing	Adherence Support
Supportive Services/Case Management	
Enrollment and Retention	
Utilization of Peer Services/Consumer Involvement	

Mohawk Valley Health System
Supportive Services/Case Management
Utilization of Peer Services/Consumer Involvement
Data Monitoring and Problem Identification
Enrollment and Retention
Care Coordination

Ryan Network
Miscellaneous/Other

Apicha Community Health Center	
Data Monitoring and Problem Identification	Staff
Care Coordination	Miscellaneous/Other
Supportive Services/Case Management	
Enrollment and Retention	
Utilization of Peer Services/Consumer Involvement	

Erie County Medical Center
Supportive Services/Case Management
Data Monitoring and Problem Identification
Enrollment and Retention
Adherence Support

BronxCare Health System	
Staff Training	Miscellaneous/Other

Apicha Community Health Center

Apicha Community Health Center's improvement goal for 2021 was to improve the viral load suppression of established active patients from 85% to 90% by the end of December 31, 2021. Apicha showed high performance in their viral load suppression among established active patients with an increase in percentage points of 7.9 from 2020 to 2021, which is 4.1 percentage points above the 75th percentile change for all New York State and 3.4 percentage points above the 75th percentile change for organizations that submitted retrospective cascade data for both 2020 and 2021.

In their project description, they shared their philosophy of teamwork, emphasizing the importance of all staff members in improving care for their patients. Front desk staff utilized a standardized screening tool for social determinants of health with all patients. They then shared the completed tool with case

managers. This tool asked a set of questions that made it easier for case managers to identify the resources patients needed. Case managers then provided support and linkages to patients. The tool is continuously improved to provide better information regarding patient needs.

Apicha also developed medical teams. The case manager is assigned to a team of medical providers and provides education regarding useful resources for the clinicians to share with their patients. The social determinants tool provides information that case managers share with clinicians to identify resources patients most need. Apicha also described continuous changes they make to improve data monitoring and problem identification, care coordination, enrollment and retention, supportive services/case management, utilization of peer services/consumer involvement, and staff training. They expressed their belief that keeping a mindset of teamwork, and continuous improvement of all clinic operations contributes greatly to their success.

BronxCare Health System

BronxCare Health System's ambitious improvement goal for 2021 was to improve antiretroviral therapy among newly diagnosed patients from 34% to 95% by the end of 2021. BronxCare also aimed to reduce the time from diagnosis to antiretroviral initiation to within four days among newly diagnosed patients in 2021. The program's antiretroviral therapy rates among newly diagnosed patients increased 46.7 percentage points from 2020 to 2021. This rate was 30.9 percentage points above the 75th percentile for change among organizations who participated in the cascade both years. It was also 46.0 percentage points above the 75th percentile for change among all of New York State.

BronxCare's quality improvement plan included routine creation of lists of patients who were diagnosed but not on antiretrovirals and patients who were unsuppressed. These lists were shared with providers and case managers. Patients were then paired with case managers to provide support and determine barriers to adherence to antiretroviral therapy and other possible reasons for elevated viral loads. They conducted consistent follow-up with the patients to ensure that they were attending their appointments and taking their medication. Staff added outreach notes to the lists to record actions taken to contact the patients and to decrease duplication of outreach efforts. Contact methods included phone calls, meeting the patients at their home, reaching out to the patient's emergency contact, and sending letters to the patient's address. BronxCare added that they conduct monthly reviews with all staff in which they compare month-to-month data results.

In their activity description they emphasized the importance of involving all staff members within the clinic, including front desk staff, physicians, nurses, case managers, etc. Similar to Apicha, BronxCare utilized teamwork to develop, implement, and evaluate their quality improvement plan to improve patient outcomes. They also emphasized the importance of planning their quality improvement activity, which included the use of a quality improvement committee consisting of consumers, a case management team, providers, and administrative staff. BronxCare also expressed that involving consumers in all stages of a project was crucial to the success of this plan. After planning their quality improvement activity, BronxCare used a Plan-Do-Study-Act cycle to ensure that their quality improvement plan would improve patient antiretroviral and suppression rates. They first tested the plan with a few small clinics and evaluated how the new process worked. After evaluating the outcome at the pilot sites, they adjusted the plan. They offered extra outreach and follow-up support to the providers

and case managers as needed. They then rolled out the plan in all BronxCare clinics. Clinical providers and case managers utilized viral load suppression data to determine which patients recently had an elevated viral load. They also used these data to identify subpopulations with disparities in viral load suppression outcomes. The subgroups BronxCare identified were younger patients, African American patients, and American Indian/Alaskan Native patients. Lastly, to determine success, BronxCare evaluated viral load suppression results by comparing annual viral load suppression rates.

<u>Northwell Health – Staten Island University Hospital</u>

Northwell Health – Staten Island University Hospital's improvement goal for 2021 was to increase the viral load suppression rate among new-to-care patients from 61% to 80% by the end of 2021. Specifically, they planned to increase engagement regarding the Retention Adherence Program which provides focused and intensive case management assistance and peer involvement. Northwell Health – Staten Island University Hospital showed an 18.8 percentage point increase in their viral load suppression rate among new-to-care patients from 2020 to 2021. This is 9.9 percentage points higher than both the 75th percentile for change among organizations who submitted for both years and for all of New York State.

In their activity description, Northwell Health – Staten Island University Hospital described the significance of telehealth services for engaging and communicating with patients during the COVID-19 pandemic. They utilized telehealth services to stay in touch with patients who could not or were not comfortable traveling into the clinic. They continued to use telehealth services after the height of the pandemic to engage patients with case management needs even if they were not seen in person.

Establishing a workflow proved to be helpful in tracking patients that needed more engagement to adhere to medications and stay suppressed. The workflow entailed each patient being assigned to an associate care manager who would engage with the patient weekly either via telehealth services or in-person. The associate care managers also provided pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP) education to their assigned patients. Establishing more collaborations with state agencies around and near the organization further assisted Northwell Health – Staten Island University Hospital in effectively providing case management and care coordination to all patients. Collaborations included solidifying connections with various housing agencies.

Northwell Health – Staten Island University Hospital's data analytic team compiled new-to-care patient data, which was then reviewed by the case managers and clinicians to find and enroll patients in the Retention and Adherence Program. Northwell Health – Staten Island University Hospital started reviewing data more frequently to identify changes in patient appointment scheduling patterns and rates of retention of these appointments in relation to viral load suppression.

Case managers then pre-planned and pre-scheduled any services needed for the patients leading up to their appointments such as transportation and lab tests. They identified data monitoring and problem identification as key to their success in increasing patient retention and adherence.

Ryan Health

Ryan Health's improvement goal for 2021 was to improve antiretroviral therapy among open patients from 85% to 90% by the end of 2021. Ryan Health showed an 11.1 percentage point increase in their antiretroviral therapy rate among open patients, which was 3.6 percentage points higher than the 75th percentile for change for all organizations that participated in both years and 9.3 percentage points higher than the 75th percentile for change for all New York State.

Medical directors at Ryan Health met regularly with all providers to discuss patient outcomes and determine action steps to improve patient adherence to antiretroviral medication as needed.

Ryan Health emphasized that the long-standing relationships case managers had with their patients helped to build trust and rapport, which assisted patients in achieving their adherence goals. Other providers within the clinic, including dentists and eye doctors, assisted in this effort by documenting antiretroviral medication adherence issues so that HIV clinical staff could follow up if needed. Lastly, Ryan Health allowed patients to conduct their labs at locations closer to their homes for convenience.

Discussion

Among the organizations who showed high performance, quality improvement activities were tailored to meet the needs of specific patient populations. Quality improvement activities at each organization had multiple steps, some of which were similar from organization to organization. All organizations described the importance of teamwork in the success of each quality improvement activity. All organizations engaged in a collaborative effort with providers and consumers in developing, implementing, and revising their successful quality improvement activities.

Case managers were also a key part of many of the high performing organizations' quality improvement activities. Case managers contributed to improvement efforts in many ways, including identifying resource needs of patients, creating lists of patients who should be prioritized, connecting with patients in-person and via telehealth to improve patient engagement with care, and managing patient needs while outside of the clinic. Regularly occurring team meetings with all staff or just providers were used in many instances to determine next steps for patient engagement and in helping to address challenges faced by specific patients. Improvement efforts were frequently evaluated by each of these organizations.

There were specific activities that the high performing organizations engaged in to improve patient outcomes that can help to inform the work of other improvement teams. These activities included intensive case management, involvement of all staff members, reoccurring team meetings to discuss patient needs and continuous evaluation of clinic processes. Developing, evaluating, and changing workflows as needed was a helpful process for organizations and may assist other improvement teams in their quality work.

Next, we will share quality improvement plans from the high performing organizations broadly with providers to spread successful practices and improve care across the state through the dissemination of this report. We will also present the results at Quality of Care program peer learning sessions and collaborative meetings. The next retrospective organizational treatment cascade review is currently

underway. Once finalized, a 2021-2022 quality improvement report will be produced to determine any additional quality improvement plans that seemed to work well and led to significant improvement.

Conclusion

Organizational treatment cascade reviews are a viable tool to analyze and improve care.

Including improvement goals and activities as a component of these reviews helps to identify which activities are most successful in achieving improvement. These activities can then be shared with providers across the state.

Incorporating this quality report into analysis of overall statewide data will further strengthen these prospects. One limitation of the organizational cascade reviews is that many providers do not complete the review in a timely manner. Going forward, Quality of Care program coaching and technical assistance will build capacity of the providers to complete the cascade review in a timely manner, which will make dissemination of successful improvement activities even more useful.

Appendix A

Definition of Key Terms

Key Term	Definition
2020 Measurement Year	1/1/2020 through 12/31/2020
2021 Measurement Year	1/1/2021 through 12/31/2021
"Excused" Patients	Patients not included in the denominator for antiretroviral therapy, viral load testing or viral load suppression indicators because they were known to be incarcerated at the end of the measurement year, deceased by the end of the measurement year, or confirmed to be relocated outside New York State or in-care elsewhere in New York State at the end of the measurement year. All "excused" patients were still reportable for patient-matching purposes, and if newly diagnosed within the organization during the measurement year, these patients were still eligible for the linkage to care indicator.
Active Patients	Patients receiving ongoing HIV-specific care at the reporting organization as of the end of the review period.
Established Active Patients	Active patients who received any HIV care (medical visit or viral load test) at the reporting organization within the two years immediately preceding the measurement year.
Non-Active Patients	Patients who had contact with a healthcare organization during the measurement year but were not seen by the HIV clinical program during that year or who were "excusable" as defined above.
Open Non-Active Patients	Previously diagnosed patients who were neither active in care at the reporting organization nor "excusable" as defined above (i.e., current HIV care status is unknown).
Previously Diagnosed Open Patients	Previously diagnosed open patients were (1) not new to care in the measurement year or returning after an absence of at least two years (no visits or viral loads) and (2) not "excusable" as defined above. Includes both

	"Established Active" and "Open Non-Active" patients.
Newly Diagnosed Patients	Patients first diagnosed with HIV within the measurement year.
Previously Diagnosed Patients	Patients diagnosed with HIV before the measurement year.
Other New-to-Care Patients	Patients who were (1) diagnosed prior to the review period but were new to an organization's HIV program or (2) were seen for HIV care more than two years prior to the review period, not seen (nor viral load reported) in the two years preceding the review period, but then returned in the measurement year; excludes those who were "excusable" as defined above.

Appendix B

Table B1: Top Change in Rate for Each Indicator Targeted in a Quality Improvement Activity[2]				
Indicator	**Organization Name**	**2021 Score**	**2021 N Value**	**Percentage Point Change from 2020 to 2021**
3-day linkage of internally diagnosed patients[3]				
Antiretroviral therapy among newly diagnosed patients	BronxCare Health System	81.5%	27	46.7
Antiretroviral therapy among open patients	Ryan Network	96.0%	991	11.1
Resistance testing among active newly diagnosed patients	NuHealth	100.0%	22	9.5
Viral load suppression among new-to-care patients[3]				
Viral load suppression among established active patients	Richmond University Medical Center	91.7%	60	18.8
Viral load suppression among newly diagnosed patients[3]				
Viral load suppression among open patients	Brownsville Community Development Corporation	78.5%	340	10.2
Viral load testing among established active patients	East Harlem Council for Human Services, Inc.	98.2%	113	13.6
Viral load testing among newly diagnosed patients[3]				
Viral load testing among open patients	Richmond University Medical Center	96.8%	63	15.6

Table B2: Top 3 Changes in Rate for New-to-Care Patients				
Indicator	**Organization Name**	**2021 Score**	**2021 N Value**	**Percentage Point Change from 2020 to 2021**
Viral load suppression among new-to-care patients	Acacia Network	41.2%	34	30.8
	Northwell Health - SIUH	78.8%	33	18.8
	Housing Works	68.6%	328	9.2

[2] Only includes organizations with at least 10 eligible patients in both 2020 and 2021
[3] Not included due to small caseload of eligible patients

	Table B3: Top 3 Change in Rate for Newly Diagnosed Patients[1]			
Indicator	**Organization Name**	**2021 Score**	**2021 N Value**	**Percentage Point Change from 2020 to 2021**
Antiretroviral therapy among newly diagnosed patients	BronxCare Health System	81.5%	27	46.7
	Ryan Network	100.0%	11	6.7
	Betances Health Center	92.3%	13	1.4
Viral load testing among newly diagnosed patients	New York Presbyterian - West	97.4%	39	20.4
	Betances Health Center	53.8%	13	-28.0
Viral load suppression among newly diagnosed patients	Community Healthcare Network	72.0%	25	32.5
	Mount Sinai Health System	62.5%	112	18.9
	Sun River Health - Hudson Valley and LI (AKA HRH Care Community Health in 2018 and 2019)	48.0%	25	17.6
Resistance testing among active newly diagnosed patients	NuHealth	100.0%	22	9.5
3-day linkage of internally diagnosed patients	Mount Sinai Health System	55.7%	79	16.8
	NewYork-Presbyterian - Brooklyn	16.7%	12	16.7
	Montefiore Health System	62.5%	24	9.2