NEW YORK STATE | Department of Health | Medicaid Redesign Team

Medicaid Accelerated eXchange (MAX) Series

Final Report

Improving Care for High Utilizers
October 2017 – June 2018

New York State Department of Health

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Foreword – New York State Department of Health

The fourth year of the Delivery System Reform Incentive Payment (DSRIP) Program is an important and unique period in which we continue to focus on our goals of better health, better care, and lower costs for New York State's Medicaid enrollees, but where we must also begin to think about the future. While success involves improving metrics and launching projects, it also requires changing the culture of healthcare and how the health system is viewed to allow for the creation of a DSRIP legacy that will propel us well into the future.

In line with these efforts, the New York State Department of Health (NYS DOH) offered Performing Provider Systems (PPS) the opportunity to participate in the Medicaid Accelerated eXchange (MAX) Series. The MAX Series puts front-line care and social service providers in the lead to redesign the way care is delivered within their communities for New York State's most vulnerable populations. This past MAX Series was dedicated to improving care for High Utilizer patients, the small proportion of patients who account for a disproportionate amount of hospital utilization and cost. The focus on High Utilizers brings a tremendous opportunity to move the dial on DSRIP measures and to provide better care for those who need it most. By enabling and scaling practice, policy, and culture change at the local level, PPS have been able to generate notable results through the MAX Series, including:

1. A measureable decrease in hospital utilization and 30-day readmission rates;
2. The development of meaningful collaborations among partners, both inside and outside of participating hospital sites;
3. The capacity to build and sustain process improvement; and,
4. A significant momentum to drive culture change and create positive outcomes for the patient population through innovation and new perspectives.

This report highlights the work of 17 multidisciplinary Action Teams, representing 19 hospitals, who participated in the sixth and seventh cycles of the MAX Series from October 2017 to May 2018. The sixth and seventh cycles of the MAX Series focused on improving care for inpatient and Emergency Department (ED) High Utilizers. Additionally, one Action Team focused on High Utilizer patients with Sickle Cell Disease (SCD). Collectively, the 17 Action Teams were comprised of nearly 200 individuals representing different areas of expertise within the healthcare setting (e.g., clinicians, social workers, community providers, project managers, and outpatient care managers). These individuals dedicated their time over an intensive, eight-month period to identify their highest-need patients, develop innovative solutions, and to rapidly implement, test, and measure these improvements.

It is my hope that the examples of resourceful, rapid-cycle continuous improvement (RCCI) programs found in this report and the lessons learned from the front lines of DSRIP inspire you to accelerate change, continue to improve care for our highest-need populations, and allow this movement to thrive.

To the 17 Action Teams who participated in the MAX Series this year: thank you for your dedication to this important work. Your commitment has had a profound impact on changing the trajectory of human lives.

Sincerely,

Peggy Chan
DSRIP Program Director

Introduction

Background

Since being introduced in October 2015, the NYS DOH has offered the Medicaid Accelerated eXchange (MAX) Series seven times, engaging 79 Action Teams, comprised of more than 900 professionals throughout the state. The key objective of the MAX Series is to support Performing Provider Systems (PPS) in their efforts to redesign the way healthcare is delivered to a specific patient population by "doing something different" to produce an impactful change in patients' lives and yield measurable process improvement results. By engaging multidisciplinary stakeholders from across the care continuum, localized processes are developed that alter the "we have always done it this way" approach. The goal of the MAX Series is to reduce hospital utilization by 10% over a six-month period.

In the fall of 2017, 17 Action Teams representing 19 hospital sites from across New York State participated in the sixth and seventh cycles of the MAX Series, focused on improving care for High Utilizer patient populations. High Utilizer patients represent the small percentage of patients who account for a disproportionate share of hospital use and cost. These 17 Action Teams focused on improvements for patient cohorts within the Emergency Department (ED) or inpatient settings, as well as a special population cohort focused on patients with Sickle Cell Disease (SCD). To kick off the Series, each Action Team established its own High Utilizer definition. Most ED-focused teams employed a definition of 10 or more ED presentations within a rolling 12-month period. Most inpatient-focused teams used a definition of four or more admissions within a rolling 12-month period. Lastly, the Action Team focusing on SCD defined its High Utilizer population as patients with four or more ED presentations or inpatient admissions within a rolling 12-month period. Additionally, each Action Team excluded planned obstetrical admissions, planned oncology admissions, and pediatric admissions from its High Utilizer definition.

Process Improvement and Results

With support from their PPS, Action Teams were able to develop and test meaningful changes to their processes and generate measurable improvements in the way they provided care to High Utilizer patients. Given the multidisciplinary composition of the Action Teams, teams were able to better understand and meet the needs of their High Utilizer populations. The Action Teams also rapidly implemented new tools, including identification and notification protocols, and kept up a steady pace of continuous improvements by working through concrete Action Plans to develop new care processes and pathways.

MAX Series Action Teams accomplished all of this work by participating fully in the structure provided by the MAX Series: formation of interdisciplinary Action Teams; full-day, structured, and facilitated Workshops with corresponding Action Periods; data reporting and analysis; and defined approaches for continuous, sustainable improvements.

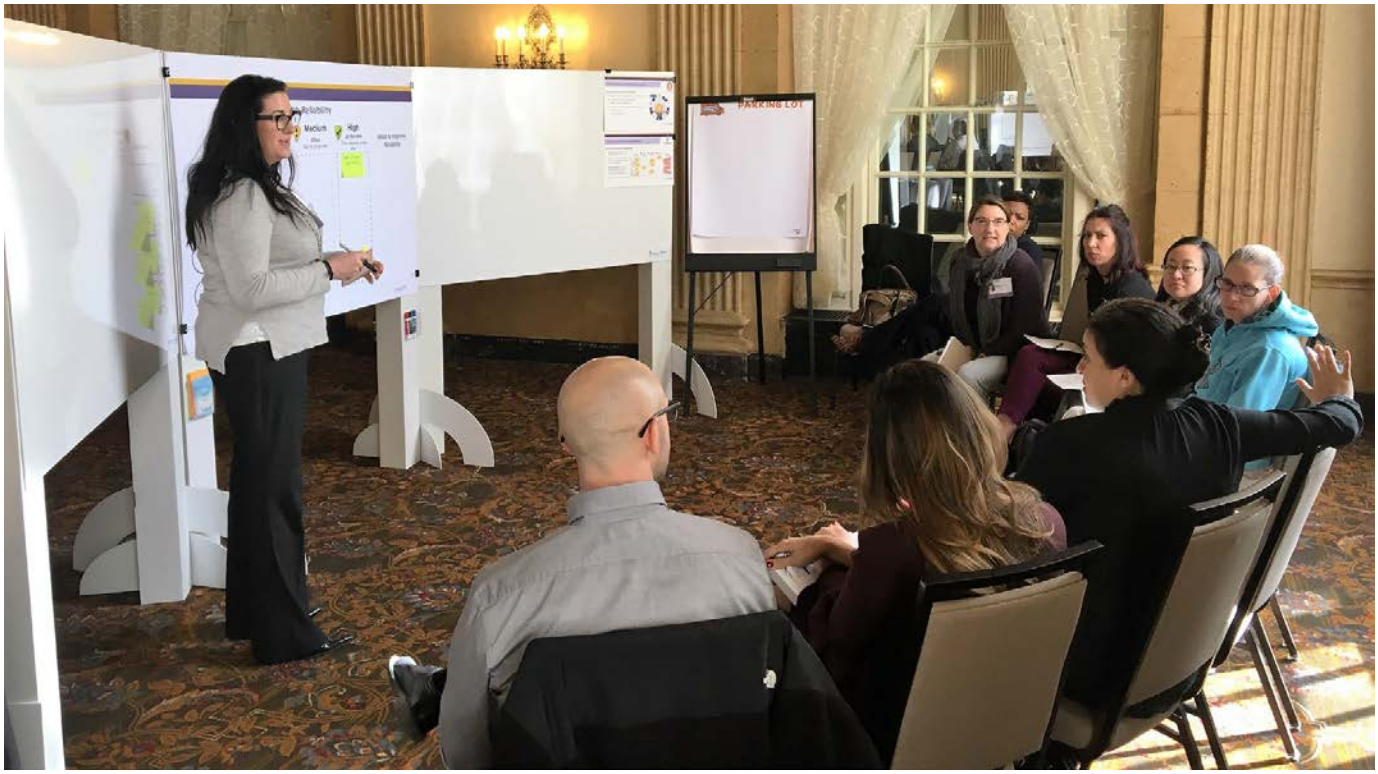
Prior to their involvement in the MAX Series, participating Action Teams had little to no infrastructure or methodology to specifically manage care for High Utilizer patients. The significant changes to care processes that the 17 Action Teams were able to implement in just six months are a remarkable achievement and highlight how the structured MAX Series approach is able to work well for teams in various settings across the state.

Introduction *(continued)*

In 2016, the NYS DOH launched the MAX Training Program (MTP) as an effort to scale process improvement work across New York State. The MTP trains participants in the MAX Series approach and structure and prepares them to lead their own, independent RCCI workshops upon completion of the training program. The objective of the MTP is to increase the capacity of individuals throughout the state capable of facilitating RCCI workshops and continuing the momentum of the MAX Series. The independent workshops that are set up by MTP participants have been named the Medicaid Accelerated eXchange New York (MAXny) Series. The MAXny Series will continue to operate at the local level and across PPS.

Report Purpose

This report outlines the RCCI methodology and program structure utilized by the MAX Series and illustrates the key process steps developed by Action Teams to improve care for High Utilizers. The report also provides details of the MAX Training Program and how it is set up to scale and sustain process improvement initiatives throughout the state. Leading practice case studies and solutions implemented by Action Teams have also been included in this report, as well as preliminary outcomes measuring the achievements of the 17 Action Teams.



Medicaid Accelerated eXchange (MAX) Series – Methodology Overview

The MAX Series consists of three phases designed around a rapid-cycle continuous improvement (RCCI) methodology: Assessment and Preparation (Phase I), Workshops and Action Periods (Phase II), and Measurement and Reporting (Phase III). The following sections outline each of the three phases.

Phase I – Assessment and Preparation

To prepare for the MAX Series, sites are identified and recruited for participation. For the sixth and seventh cycles of the MAX Series, 17 Action Teams from 12 PPS were identified and recruited for participation. A full listing of Action Teams is provided in Appendix C. While most Action Teams worked with a single hospital site, two Action Teams worked with two hospital sites, bringing the total number of participating sites to 19. This cycle of the MAX Series covered three different topic areas:

- Seven Action Teams, representing eight hospital sites, focused on improving care for High Utilizers within the Emergency Department;
- Nine Action Teams, representing nine hospital sites, focused on improving care for High Utilizers within the inpatient setting; and,
- One Action Team, representing two hospital sites, focused on improving care for a special cohort of Sickle Cell Disease (SCD) High Utilizer patients.

During this phase, site visits are conducted to understand local challenges and current-state processes. Data from a 24-month prior period is collected to help Action Teams understand their historical volume of High Utilizer patients and establish criteria for defining their High Utilizer population. Recruited sites select an Executive Sponsor to lead the development of the Action Team and champion process improvement approaches. The true key to success of the MAX Series lies in putting together a balanced Action Team with the right people, comprised of the following roles:

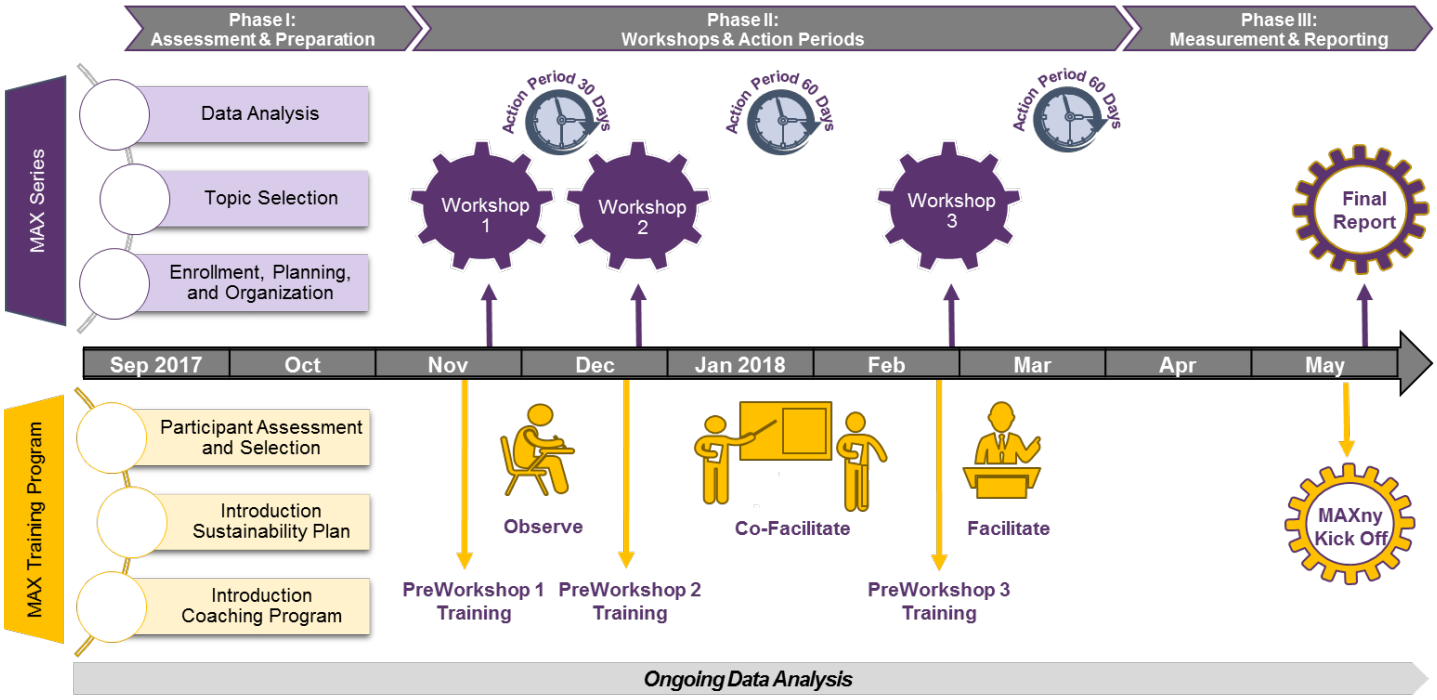
Executive Sponsor – Crucial to the success and sustainability of the Action Teams' efforts, the Executive Sponsor champions and sponsors the program in the participating hospital. The Executive Sponsor has the vision of what an improvement process should look like and can remove barriers that may prevent the team from being successful. It is the Executive Sponsor's responsibility to not only ensure that the MAX Series aligns with the hospital's priorities and goals, but also that the hospital is ready, willing, and able to drive and sustain change. A dedicated Executive Sponsor will keep the Action Team motivated and committed to driving results throughout the program.

Action Team members – The heart of the Action Team is a multidisciplinary group of eight to ten individuals who represent different areas of expertise (clinical, administrative, and information technology) and who work collaboratively to address the needs of the High Utilizer patient population. The Action Team consists of representation from across the care continuum, including a diverse set of stakeholders most appropriate to address the medical, social, and behavioral needs of High Utilizer patients. As a result, the Action Team should include individuals who can directly enact or facilitate change within and across their respective organizations. Action Teams are often comprised of the following roles or departments:

- Administrative Champion (Chief, Senior Vice President, or Vice President);
- Clinical Champion (Medical Director, ED physician, Nursing Director, e.g.,);
- Director and/or staff from case management, social work, care transitions, and/or Health Homes;
- Practice manager or care manager from a primary care clinic/setting, and/or behavioral health clinic;
- Information Technology (IT), including data analyst;
- Community-based organizations;
- Skilled-nursing facilities; and,
- Palliative care services.

Subject Matter Professional (SMP) – The SMP serves as an advisor to Action Teams, helping to tailor program content to the identified topic, share leading practices and industry resources, assist with monitoring progress and outcomes, and provide ongoing program support. Typically, the SMP is an expert with hands-on experience with the patient cohorts being addressed in the Series. For this MAX Series, an SMP with a specific focus on High Utilizer patients supported the MAX Action Teams in their process improvement journey.

Medicaid Accelerated eXchange (MAX) Series – Methodology Overview *(continued)*



Phase II – Workshops and Action Periods

During Phase II, Action Teams are challenged to drive change and accelerate results throughout three Workshops and Action Periods – made up of Plan-Do-Study-Act (PDSA) cycles. During this phase, Action Teams generate and prioritize improvement ideas, develop concrete Action Plans, and implement, test, measure, and adjust localized processes for whole-person care delivery for the target population.

Workshops – The MAX Series consists of three intensive, in-person, daylong Workshops, designed to bring the Action Teams together to rapidly generate process improvement ideas and plans to achieve results. Workshops are fast-paced and planned to the minute, alternating between conference-style plenary and breakout settings. In the plenary sessions, RCCI theories, such as business process design, LEAN, PDSA, the theory of constraints, and change management are presented and tailored to the MAX topic. Immediately following a plenary session, Action Teams move to individual breakout groups and are led by a trained group facilitator through activities aimed at generating improvement ideas to address gaps and challenges in their current state environment. Governing the Workshops are "ground rules" outlined at the beginning of each session, encouraging Action Team members to actively participate and "do something different." The ground rules culminate in the overarching theme for the MAX Series – you must make a change!

By the end of the Workshop, each Action Team generates three concrete and measurable Action Plans to be implemented within a 30- or 60-day Action Period immediately following the Workshop. The three Action Plans developed by Action Teams build from the four key process steps within the MAX Series' High Utilizer Care Pathway. The pathway is described in greater detail in the High Utilizer Care Pathway section of this report. At the end of each Workshop, the facilitator generates a summary report for the Action Team, capturing key takeaways, the three Action Plans, Action Team commitments, and an outline for ongoing accountability.

Action Periods – While the intensive Workshops are designed to build consensus and momentum amongst the Action Team towards solutions, the Action Periods are where policy truly turns into practice. Each of the three Workshops is followed by an Action Period, structured as a PDSA cycle. During this time, Action Plans generated during the Workshops are implemented

Medicaid Accelerated eXchange (MAX) Series – Methodology Overview *(continued)*

by the Action Team and progress is monitored and measured. Changes to local processes are tested and adjusted over compressed time periods. The first Action Period covering 30 days is focused on achieving quick wins, while the second and third Action Periods are each 60 days and are typically focused on detailed, process redesign for reliable and sustainable process improvement.

Action Teams are supported through weekly coaching calls with an external MAX project support team. The MAX project support team provides technical assistance and facilitates shared learning through topic-specific webinars, site visits, and meetings with the SMP when necessary.

Phase III – Measurement and Reporting

Data measurement and analysis are the foundation of the MAX Series. Action Teams, using their own definitions, begin the program by measuring their historical performance with High Utilizer patients in the 24 months prior to the MAX Series start date. As a requirement for enrollment in the MAX Series, Action Teams must commit to measuring and consistently reporting on specified metrics that track their performance in the program. To be able to fulfill this requirement, ongoing involvement of IT and data analysts in the Action Team is critical.

During the Measurement and Reporting phase, Action Teams are expected to document programmatic achievements in a succinct report and continuously collect and analyze High Utilizer performance metrics to track progress and guide process improvement decisions and Action Plans. The measures used in the MAX Series fall into three categories:

- **Structural** – A structural measure tracks the achievement of specific milestones and can be scored with a binary "yes" or "no," e.g., whether an Action Team has started doing bedside huddles or whether its organization has installed an electronic health record (EHR) flag to help identify High Utilizer patients when they check into the hospital;
- **Process** – A process measure examines approach and method, such as the weekly number of High Utilizers who present in the ED or the number of High Utilizers for which a bedside huddle was performed; and,
- **Outcome** – An outcome measure ultimately demonstrates the impact of the Action Teams' efforts on patients' health. In the MAX Series, outcomes are collected through analysis of ED and inpatient data, as well as from patient success stories.

Achievements from the 17 participating Action Teams are outlined within the High Utilizer Care Pathway and Outcomes and Sustainability sections of this report.

MAX Training Program

The NYS DOH launched the MAX Training Program (MTP) in an effort to scale process improvement work across the state. Through the MTP, senior-level clinicians and administrators are trained in the MAX Series' rapid-cycle continuous improvement methods. Participants are identified and nominated by PPS leadership as individuals with the skills and determination to drive local and sustainable change across their networks. The MTP complements and directly aligns with the three phases of the MAX Series. The MTP primary program objectives are to:

- Teach participants facilitation skills and the MAX Series' RCCI methodology; and,
- Support participants in developing their own, independent MAX New York, or MAXny Series, after they complete their training program.

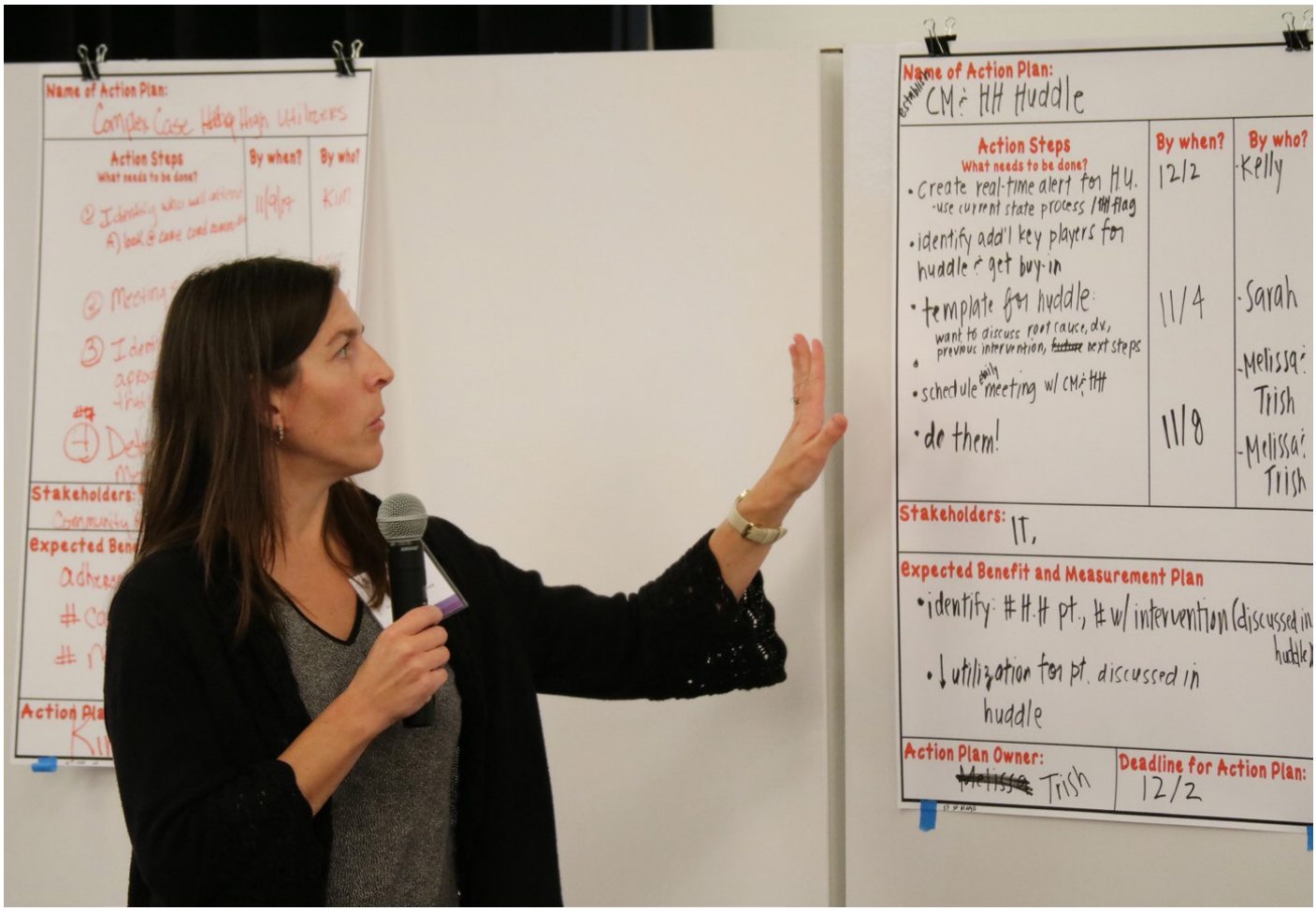
Over the course of the MTP, each participant is trained in the MAX Series' RCCI methodology, through a "See one, Do one, Lead one" approach by:

- Attending PreWorkshop trainings focused on facilitation skills and techniques, High Utilizer-related content, and Workshop-specific MAX modules; and,
- Being paired directly with a MAX Action Team for the duration of the program. MTP participants observe, co-facilitate, and then independently facilitate Workshops and weekly status calls with their paired Action Team across the three Action Periods.

With each Action Period, MTP participants assume a greater role in facilitating and guiding their paired Action Teams, all in preparation for leading their own PPS support RCCI Workshop series (MAXny Series) once the training program is completed.

Medicaid Accelerated eXchange (MAX) Series – Methodology Overview *(continued)*

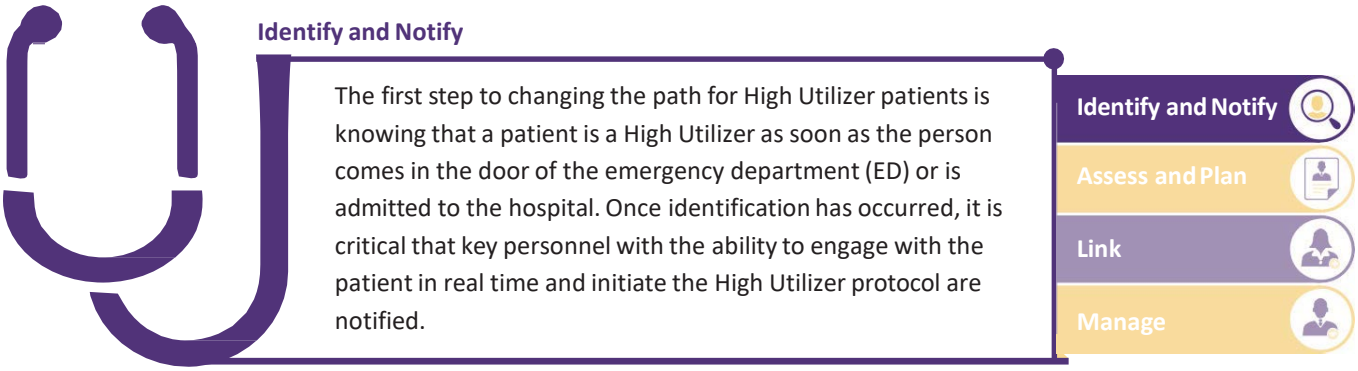
In parallel to Action Team-specific activities, MTP participants are enrolled in a coaching program to support their personal skills' development. The coaching program primarily takes place during the Assessment and Preparation phase (Phase I) and is focused on enhancing facilitation skills and techniques. In Phase III, MTP participants are supported by their coaches to put together a Sustainability Plan for how they are going to manage their own MAXny Series, what problems they will be trying to solve, and what patient population they will be targeting. The Sustainability Plan must also identify the site of the MAXny Series, Action Team members, Workshop dates, and the leadership team. By combining the tools, skills, and experience needed to continue transformation efforts independently, the MTP is maximizing the scalability and sustainability of the MAX Series. At present, the program has trained 77 new facilitators, or MAXny Series Leads.



High Utilizer Care Pathway

The MAX Series' High Utilizer Care Pathway consists of four key process steps: 1) Identify and Notify, 2) Assess and Plan, 3)Link, and 4) Manage. While the High Utilizer Care Pathway is a standardized model, each participating site in the MAX Series worked to identify implementation approaches best suited for their local situation.

The following section describes each of the four MAX Series High Utilizer Care Pathway steps, outlines key insights and lessons learned, and details one case study from a participating Action Team. Given the wealth of case studies collected over the course of the MAX Series, an additional 13 case studies can be found in Appendix A.



Lessons Learned

- **Set your High Utilizer definition** – The High Utilizer patient is identified based on (ED or IP) utilization criteria. When starting with a High Utilizer Care Pathway, it is necessary to scale your definition to keep the focus and volume for whom you will "do something different" manageable to start. A good rule of thumb is to set your definition so that no more than 10% of your patient population are considered High Utilizers.
- **Identify in real time when a patient presents** – In order to be able to "do something different", it is crucial to identify a High Utilizer patient as soon as the individual comes into your care. Identification systems may come in several forms, from manually updated lists to automated, electronic health record (EHR) alerts.
- **Make the High Utilizer alert hard to ignore** –As an example, a pop-up alert can be programmed that must be addressed prior to advancing in the clinical workflow.
- **Do not make any exceptions** – The best way to incorporate new steps into your process will be to do them the same way every time, with no exceptions. Every High Utilizer that is flagged by your alert system is part of the target population for which the High Utilizer protocol applies. Consistency will drive success.
- **Notify key personnel immediately** – Determine who is responsible for first responding to the alert and engaging with the High Utilizer face-to-face while the patient is in the hospital.

High Utilizer Care Pathway *(continued)*

Case Study – Identify and Notify

NYU Langone Medical Center
Objective: To identify High Utilizer patients in real time and mobilize the Community Health Worker team to begin patient assessments and care planning.

Summary:

- The Action Team developed a High Utilizer indicator within the ED's patient dashboard which included a display column with the number of visits the patient had in the previous 12 months, to alert the team when a High Utilizer presented.
- During staffed business hours, a Community Health Worker managing the ED dashboard is mobilized to the patient's location to conduct a comprehensive assessment and begin developing a care plan.
- The High Utilizer indicator is also sent to the inpatient unit, creating awareness among staff on inpatient units that a High Utilizer, with frequent ED presentations or inpatient admissions, is at the hospital.
- The automated flagging system within the ED that sends alerts to the inpatient unit helps departments within the hospital coordinate better to "do something different" in managing the hospital's High Utilizer patients.

Outcome: Since October 2017, the Action Team has been able to consistently identify High Utilizer presentations to the ED in real time.

High Utilizer Care Pathway *(continued)*

Assess and Plan

A common denominator among successful High Utilizer programs is that they are built on the premise that high utilization is a symptom of unmet, unidentified, or inadequately addressed needs. As such, Action Teams learn how to identify the "driver of utilization," also known as the root cause, that the patient frequently returns to the acute care setting. The "driver of utilization" is typically not the primary diagnosis or chief complaint. Rather, it is the human, individual reason that this person, with his/her complexities and social needs, comes to the hospital so frequently. Once the "driver of utilization" is identified, it is important for key personnel to develop a plan to address it.

Lessons Learned

- **Assess your patient's "driver of utilization" (DOU)** – This is best done face-to-face at the bedside. The DOU assessment is different from clinical and social needs assessments and requires a conversation with the patient to understand his/her needs.
- **Develop a targeted plan of care** that involves the providers/agencies most appropriately suited to address the unmet need(s) and DOU. For example: invite community-based service providers to meet with patients at the bedside and involve them in the care planning process.
- **Hold 2- to 3-minute interdisciplinary daily huddles** for each High Utilizer patient to share and mobilize meaningful information in a succinct, timely manner.
- **Make the care plan understandable** – Develop and share a care plan that is easily understood by the patient, caretakers, and community-based service providers. Also, document the care plan in a location that is easily accessible for all members of the care team.

High Utilizer Care Pathway *(continued)*

Case Study – Assess and Plan

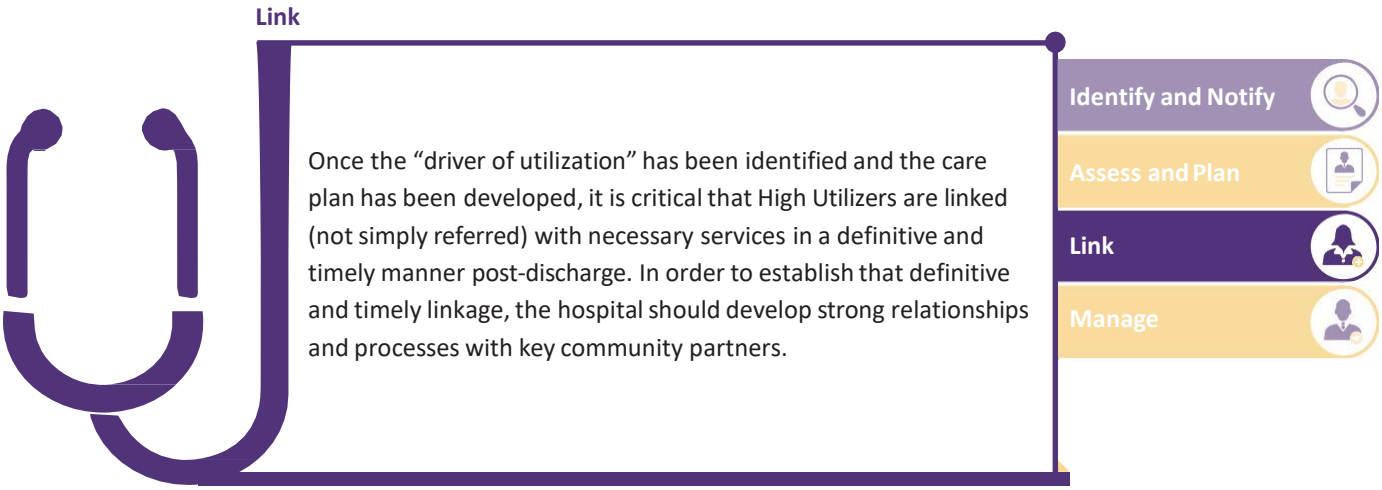
St. Mary's Healthcare
Objective: Increase collaboration and patient engagement through care coordination and bedside huddles involving community-based organizations (CBOs) and collaborative partners.

Summary:

- On a daily basis, engaged CBOs receive a daily distribution list of High Utilizers in St. Mary's inpatient unit.
- CBOs with shared High Utilizer patients are encouraged to come to the hospital to meet their patients at the bedside for a huddle.
- CBOs also have the opportunity to participate in daily rounds and collaborative care planning discussions with members of the care team, including the attending physician, nurse, social worker, and/or case manager. This helps foster warm hand-offs and a seamless, provider-to-provider relationship.
- By participating in daily rounds and care planning huddles, CBOs, collaborative partners, and the hospital-based care team are able to share critical information in real time across the care continuum and develop a comprehensive plan for ongoing care beyond the hospital.

Outcome: As a result of bedside huddles, High Utilizer patients are developing trusted relationships with both internal and external providers. Additionally, members of the care team from across the care continuum are able to collaborate on the patients' needs, ensuring a whole-person approach for each High Utilizer patient.

High Utilizer Care Pathway *(continued)*



Lessons Learned

- **Identify community-based partners delivering services in your community –** Develop a linkage directory for the top 5-10 “drivers of utilization” with which your High Utilizer population commonly present. The directory should include the organization, services offered, and key points of contact. Where possible, quantify how many linkages per week might be generated for each partner to help them prepare.
- **Embed your partners into the High Utilizer process** by, for example, co-locating the partner on-site, allowing the partner to do the eligibility screening for the High Utilizer patients to use its services, and/or including the partner in the huddles or within the Action Team itself.
- **Establish feedback loops** with your partner organizations to increase collaboration. Consider quarterly meetings with your partners to evaluate the partnership and work through potential barriers to improvements.

High Utilizer Care Pathway *(continued)*

Case Study – Link

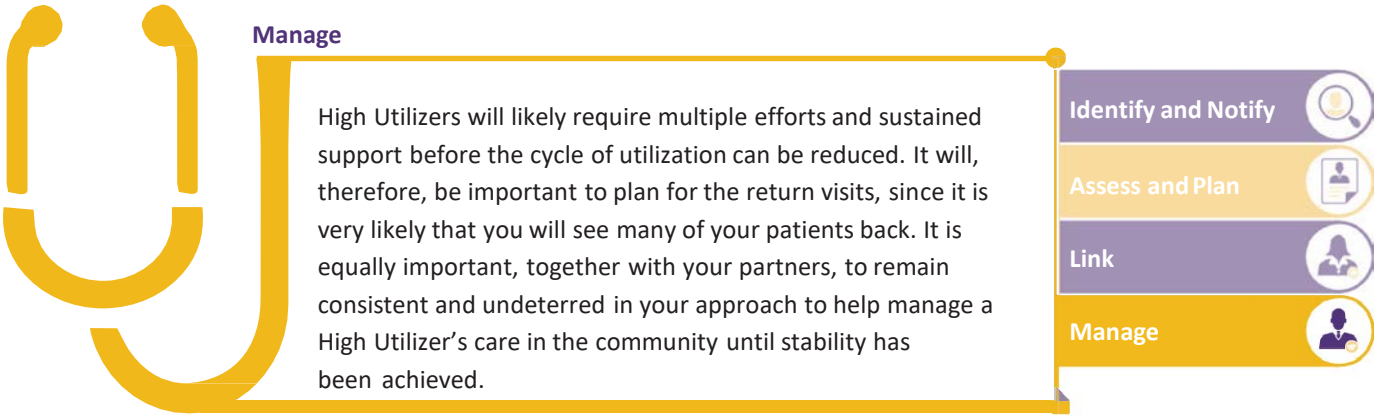
Elmhurst Hospital
Objective: Create a pathway to connect High Utilizer patients with a substance use disorder (SUD) to resources and support services within the community.

Summary:

- Through "drivers of utilization" interviews with High Utilizer patients, the Action Team identified that a common need among their High Utilizer population was linkage to services and supports to assist with overcoming SUD.
- The Action Team developed a formal process for engaging SUD patients, known as the Recovery Engagement Program (REP), where a psychiatrist and a substance use counselor engage d with SUD High Utilizers at the bedside on all Med/Surg floors.
- Patients who expressed an interest in accepting rehabilitation services were linked by substance use counselors to next-day appointments with the on-site, outpatient rehabilitation clinic.
- After speaking with many patients experiencing SUD, the Action Team identified a lack of Alcoholic Anonymous (AA) resources in the area. The Action Team reached out to AA and worked to institute a twice-weekly, Spanish-speaking, AA support group at the hospital to serve the community.
- Building on the successful relationship with AA, the Action Team and AA created a partnership where consenting patients would be introduced to an AA peer at the bedside for peer support services in the community post-discharge.

Outcome: Elmhurst has developed a robust service for High Utilizer patients, including the development of a strong partnership with AA and other key, community partners most appropriate for assisting patients with SUD services.

High Utilizer Care Pathway *(continued)*



Lessons Learned

- **Establish regular, multidisciplinary case conferences** to actively co-manage High Utilizer patients with your partners. Case conferences should be held either weekly or biweekly and involve as many key partners as possible. The agenda should include a list of patients, with each patient allocated 5-10 minutes for care plan discussion among the team members.
- **Develop summary care plans** – Document summary care plans in an easily accessible location, such as the High Utilizer alert, to inform care providers of the patient's care plan to increase continuity during future visits.
- **Engage High Utilizers in post-discharge touchpoints** – Utilize care transition services post-discharge to provide flexible, iterative, high-frequency contact in a variety of settings, including by telephone or in-person. Contacts should be at least weekly in the short term (30 days post-discharge) and less frequent over the long term (beyond 30 days) until stability has been achieved.

High Utilizer Care Pathway *(continued)*

Case Study – Manage

Niagara Falls Memorial Medical Center
Objective: Integrate dedicated care managers into the ED setting to manage care for High Utilizer patients.

Summary:

- The Action Team recognized the need for on-site care managers who could dedicate the necessary time to address unmet social needs in the quick-paced ED environment – an opportunity ED staff was not equipped to address, but a need that was critical for High Utilizers before returning to the community.
- To address this need, the Action Team created two new positions for High Utilizer care management in the ED setting.
- These two positions were designed to be filled specifically by individuals with social work backgrounds, offering a unique approach to building trusting relationships with High Utilizers as they visited the ED. Their social work background also strengthens the ability to effectively identify the social needs beyond acute and chronic medical needs, establish definitive and real-time connections to the necessary providers, and complete ongoing follow-up calls for long-term management.
- Patients are provided with an "on-call" phone number to their ED care manager for ongoing care needs or to contact when they feel a need to come to the ED.
- The Action Team also recognized the additional need for in-person, community-level engagement and support for High Utilizers. The team created a "Hotspotter Advocate" to focus on visiting patients at home or in other locations preferable to the patient. The Hotspotter Advocate assists with services including identifying housing, overcoming transportation barriers, and escorting patients to follow-up appointments.

Outcome: The Action Team has been able to better engage and build trusting relationships with High Utilizers in the ED, both on-site and post-discharge. ED physicians have also engaged the ED care managers in care planning while High Utilizer patients are in the hospital.

Outcomes and Sustainability

Qualitative Outcomes

In total, 17 Action Teams participated in the sixth and seventh cycles of the MAX Series, comprising nearly 200 clinicians and administrators from across the care continuum. Throughout the Workshops, 153 Action Plans were created by the Action Teams to focus on improving care for High Utilizers.

Through hard work and commitment, all of the 17 Action Teams addressed the following:

- Created a specific High Utilizer definition, allowing them to target and track their High Utilizer population;
- Developed a system (manual and/or electronic) to identify High Utilizer patients as they present to the hospital;
- Designed a system to notify the Care Team when a High Utilizer patient is admitted to the inpatient unit or presents to the ED;
- Implemented an approach to assess High Utilizer patients' "drivers of utilization" or root cause(s) for repeated hospital use;
- Developed a High Utilizer Care Pathway that integrates processes to identify and notify, assess and plan, link, and manage High Utilizer patients throughout the care continuum, including connecting with key social services and supports;
- Implemented interdisciplinary case conferences to discuss and assess High Utilizer patients' care needs;
- Developed processes for longitudinal care planning, including the creation of ED care plans and other resources to "plan for the return;" and,
- Created a plan to convene their next cycle of RCCI Workshops for ongoing program sustainability.

Quantitative Outcomes: Metric definitions

90-Day Pre- vs. Post-Hospital Utilization: the percentage change in utilization of the acute care setting (either IP or ED, depending on the topic) of a High Utilizer patient in the 90-day period after the patient's "index " event compared to the 90-day period before the patient's "index" event.

30-Day Readmission Rates: the percentage of inpatient High Utilizer discharges followed by a subsequent inpatient admission within 30-days; same-hospital, all-cause.

30-Day ED Revisit Rates: the percentage of hospital's High Utilizer ED discharges followed by a subsequent ED visit within 30-days; same-hospital, all-cause.

SCD 30-Day Revisit/Readmission Rates: the Sickle Cell Disease-focused teams use a combined measure of 30-day ED revisit and readmission rates by adding the ED and IP visits/admissions together.

Calculated Linear Trend in 30-Day Revisit or Readmission: the calculated linear trend in 30-day ED revisit or inpatient readmission rates in the measurement period was obtained by using a linear regression model that was applied to the monthly calculated revisit or readmission rates for these measures.

Control Group: group of High Utilizer patients in the year prior to the MAX program. Comparisons of the readmission and revisit rates of High Utilizer patients during the MAX program to the High Utilizer patients in the control group provide an additional dimension of insight into the program's impact.

Results for the quantitative outcomes presented in this report were all self-reported by the hospital sites and were obtained from hospital clinical data sources.

Hospital sites and Action Teams set their own High Utilizer patient criteria. In the data collected during the MAX measurement period, all High Utilizer patients were included, whether they were "served" by the MAX Series or not.

Outcomes and Sustainability *(continued)*

Summary of MAX III Quantitative Outcomes

A total of 17 Action Teams representing 19 hospital sites participated in MAX III and focused on three High Utilizer patient cohorts:

- Emergency Department (ED): 7 Action Teams, 8 hospital sites;
- Inpatient (IP): 9 Action Teams, 9 hospital sites; and,
- Sickle Cell Disease (SCD): 1 Action Team, 2 hospital sites.

Of the teams focusing on ED utilizers, one Action Team (two hospital sites) was not able to transmit data in the correct format to calculate results. In the remaining six Action Teams (six hospital sites) focusing on ED High Utilizers, ED utilization was reduced by an average of 66% in the 90 days post "index" event when compared to historical control groups. Additionally, teams focusing on ED High Utilizers showed an average reduction of 3% in the 30-day revisit rates during the measurement period.

Among the nine Action Teams (nine sites) focusing on IP High Utilizers, inpatient utilization was reduced by an average of 7% in the 90 days post "index" event when compared to historical control groups. 30-Day readmission rates for IP High Utilizers decreased by 4% on average during the measurement period.

Lastly, the Action Team focusing on SCD High Utilizers was able to reduce hospital utilization by an average of 69% in the 90 days post "index" event when compared to a historical control group, although small patient sizes reduced statistical significance of this result. The average 30-day readmission rate increased by 13% for the SCD High Utilizer cohort during the measurement period.

All participating hospital sites adhered to the approach of making process changes, testing them out, measuring the impact and refocusing their action plans for the next improvement cycle. Across the 17 hospital sites (16 Action Teams) for which sufficient data was collected to calculate results, eight sites exceeded their MAX Series goal of reducing 90-day post-"index" event utilization by 10% or more when compared to historical controls.

Table 1: Outcomes by topic in the MAX III Series

	90 Day Pre vs. Post Hospital Utilization			30 Day ED Revisit Rates or 30 Day Readmissions Rates		
Topic	**# of High Utilizers in MAX group (Nov '17 - Mar '18)**	**% difference of MAX pre- vs. post index event utilization change relative to control group** (MAX HU group– control group/control group)	**Observed range across hospital sites***	**# of High Utilizers in MAX group (Oct '17 - Apr '18)**	**Calculated linear trend in 30-day revisit or readmission between Oct '17 and Apr '18**	**Hospital site range of calculated linear trend**
ED High Utilizers -6 Action Teams -6 sites	1,285	66% reduction in utilization relative to control group	262% decrease to 40% increase	1,581	3% decrease in revisit rates	27% decrease to 14% increase
Inpatient High Utilizers -9 Action Teams -9 sites	1,187	7% reduction in utilization relative to control group	24% decrease to 11% increase	1,653	4% decrease in readmission rates	24% decrease to 23% increase
SCD High Utilizers -1 Action Teams -2 sites	46	69% reduction in utilization relative to control group	266% decrease to 129% increase	61	13% increase in revisit/readmission rates	4% increase to 22% increase

Source: Data collected from MAX III Series Action Teams for the measurement period of October 2017 – April 2018.
Please note that collection periods may vary slightly between Action Teams as well as per indicator.
**Note: A decrease in utilization is the desirable outcome.*

Outcomes and Sustainability *(continued)*

Table 2: 90-Day Pre- vs. Post-Hospital Utilization Results

Topic	PPS Hospital	Action Team HU definition	Volume of HUs in measurement period	Average control group 90 day pre vs. post utilization reduction*	Average MAX group 90 day pre vs. post utilization reduction*	Average relative % change of MAX HU group over control group
ED-focused Measurement period: Nov '17 – Mar '18	NYU – NYU Langone Hospital – Brooklyn	7+ ED visits in 12 months	309	11%	40%	-262%
	MHVC – Vassar Brothers Medical Center	15+ ED visits in 12 months	85	12%	31%	-155%
	NQP – Long Island Jewish Medical Center	8+ ED visits in 12 months	336	20%	33%	-67%
	MHVC – Nyack Hospital	10+ ED visits in 12 months	84	21%	19%	11%
	OCH – Bellevue Hospital	10 – 20 ED visits in 12 months	314	21%	13%	39%
	MCC – Niagara Falls Memorial Medical Center	10+ ED visits in 12 months	157	31%	19%	40%
	Excluded sites: CCN - UHS Wilson Medical Center and UHS Binghamton General Hospital					
	TOTAL or AVERAGE		**1,285**	**19%**	**26%**	**-66%**
IP-focused Measurement period: Nov '17 – Mar '18	BPHC – Montefiore Medical Center	6+ IP admissions in 12 months	93	50%	62%	-24%
	NQP – St. John's Episcopal Hospital	4+ IP admissions in 12 months	59	58%	67%	-17%
	CCN – Cayuga Medical Center	4+ IP admissions in 12 months	141	59%	65%	-11%
	OCH – Elmhurst Hospital	5+ IP admissions in 12 months	147	46%	50%	-10%
	AFBH – St. Mary's Healthcare	4+ IP admissions in 12 months	132	64%	67%	-5%
	CNYCC – St. Joseph's Hospital Health Center	6+ IP admissions in 12 months	106	59%	61%	-4%
	WMC – Mid-Hudson Regional Hospital	4+ IP admissions in 12 months	85	60%	62%	-4%
	LCHP – Bassett Medical Center	4+ IP admissions in 12 months	265	68%	65%	5%
	OCH – Queens Hospital	4+ IP admissions in 12 months	159	63%	56%	11%
	TOTAL or AVERAGE		**1,187**	**59%**	**62%**	**-7%**
SCD-focused Measurement period: Nov '17 – Jan '18	FLPPS – URMC Highland Hospital	SCD, 4+ ED or 4+ IP admissions in 12 months	16	9%	34%	-266%
	FLPPS – URMC Strong Memorial Hospital	SCD, 4+ ED or 4+ IP admissions in 12 months	30	-1%	-3%	129%
	TOTAL or AVERAGE		**46**	**4%**	**16%**	**-69%**

Source: Data collected from MAX III Series Action Teams for the measurement period of November 2017 – March 2018 for ED and IP teams and from November 2017 to January 2018 for the SCD teams.

** The control group data represents data collected for High Utilizers exactly one year before the measurement period e.g., from November 2016 to March 2017 for the ED-focused group.*

Outcomes and Sustainability *(continued)*

Table 3: 30-Day ED Revisit Rate and 30-Day Readmission Rate Results

Topic	PPS Hospital	Action Team HU definition	Volume of HUs in measurement period	Calculated linear trend in 30 day revisit or readmission between Oct '17 and Apr '18*
ED-focused Measurement period: Oct '17 and Apr '18	MHVC – Nyack Hospital	10+ ED visits in 12 months	86	-27%
	MHVC – Vassar Brothers Medical Center	15+ ED visits in 12 months	96	-11%
	OCH – Bellevue Hospital	10 – 20 ED visits in 12 months	448	-1%
	NYU – NYU Langone Hospital – Brooklyn	7+ ED visits in 12 months	428	2%
	NQP – Long Island Jewish Medical Center	8+ ED visits in 12 months	361	4%
	MCC – Niagara Falls Memorial Medical Center	10+ ED visits in 12 months	162	14%
	Excluded sites: CCN - UHS Wilson Medical Center and UHS Binghamton General Hospital			
	TOTAL or AVERAGE		**1,581**	**-3%**
IP-focused Measurement period: Oct '17 and Apr '18	CCN – Cayuga Medical Center	4+ IP admissions in 12 months	236	-24%
	CNYCC – St. Joseph's Hospital Health Center	6+ IP admissions in 12 months	130	-24%
	OCH – Queens Hospital	4+ IP admissions in 12 months	248	-23%
	OCH – Elmhurst Hospital	5+ IP admissions in 12 months	172	-15%
	BPHC – Montefiore Medical Center	6+ IP admissions in 12 months	114	-9%
	WMC – Mid-Hudson Regional Hospital	4+ IP admissions in 12 months	145	8%
	LCHP – Bassett Medical Center	4+ IP admissions in 12 months	360	11%
	NQP – St. John's Episcopal Hospital	4+ IP admissions in 12 months	71	14%
	AFBH – St. Mary's Healthcare	4+ IP admissions in 12 months	177	23%
	TOTAL or AVERAGE		**1,653**	**-4%**
SCD-focused Measurement period: Oct '17 and Jan '18	FLPPS – URMC Highland Hospital	SCD, 4+ ED or 4+ IP admissions in 12 months	26	4%
	FLPPS – URMC Strong Memorial Hospital	SCD, 4+ ED or 4+ IP admissions in 12 months	35	22%
	TOTAL or AVERAGE		**61**	**13%**

Source: Data collected from MAX III Series Action Teams for the measurement period of October 2017 – April 2018 for ED and IP teams and from October 2017 to January 2018 for the SCD teams.

** Relative reduction in representation (ED) or readmission (IP) rate is calculated using a linear regression model to show the average relative percentage change during the measurement period. Green denotes the desired outcome of decreased utilization and red denotes increased utilization.*

**Note: A decrease in utilization is the desirable outcome.*

Outcomes and Sustainability *(continued)*

MAX III Workshop Evaluations

Action Team and MTP participants were asked to evaluate each of the three Workshop and training sessions. The evaluations targeted the overall value of the program, the performance of Workshop presenters and facilitators, and the Action Teams' perceived ability to improve patient outcomes, drive system integration, and sustain process improvements.

Table 4: MAX Series Workshop Attendee Evaluation Responses

	Workshop Session	Average overall value of the program	Average overall presenter rating	Average confidence in making a change	Average program recommendation
MAX Training Program	PreWorkshop 1	4.45/5.0			100%
	PreWorkshop 2	4.45/5.0			100%
	PreWorkshop 3	4.35/5.0			100%
MAX Series 1 (Downstate)	Workshop 1	4.58/5.0	4.65/5.0	4.27/5.0	100%
	Workshop 2	4.54/5.0	4.55/5.0	4.28/5.0	100%
	Workshop 3	4.63/5.0	4.79/5.0	4.48/5.0	98%
MAX Series 2 (Upstate)	Workshop 1	4.68/5.0	4.81/5.0	4.15/5.0	100%
	Workshop 2	4.18/5.0	4.29/5.0	4.15/5.0	100%
	Workshop 3	4.64/5.0	4.65/5.0	4.40/5.0	100%

Sustainability and Continuous Improvement

One of the key objectives of the MAX Series is to provide Action Teams with the tools and techniques to continue their process improvement efforts in a sustainable manner beyond the last day of the MAX Series curriculum. To support this objective, all of the 17 participating Action Teams committed to scheduling and planning Continuous Improvement working sessions on a quarterly basis. At these working sessions, Action Team members reconvene to report on results, evaluate steps taken and generate new ideas for how to make the next improvements to the care pathways targeting High Utilizer patients. The recurrence of these working sessions is expected to lay the groundwork for ongoing improvements in High Utilizer care delivery at the participating hospital sites.

In addition to the Action Teams' own commitments to continuous improvement efforts, the 77 participants that successfully completed the MAX Training Program are currently launching independent MAXny Series throughout the state. With the support of their PPS leadership, these individuals are helping to lead a movement of continuing rapid-cycle continuous improvements that is set to extend beyond the timeframe of the DSRIP program.

Conclusion

In the fall of 2017, 17 Action Teams representing 19 hospital sites from across New York State participated in the sixth and seventh cycles of the MAX Series, focused on improving care for High Utilizer patient populations in both the emergency department (ED) and inpatient (IP) settings. In parallel to the Action Teams, 77 healthcare professionals from across the state completed a MAX Training Program over the course of the Series.

The results to date for the Action Teams are encouraging. First and foremost, all of the 17 participating Action Teams were able to successfully "do something different" and make meaningful changes to their High Utilizer care pathways. As part of the rapid-cycle continuous improvement process, Action Team members learned how to keep the focus of process improvement on incremental changes within their sphere of influence. As a result, almost half of the participating hospital sites were able to measure meaningful reductions to 30-day readmission and revisit rates in their tracked High Utilizer populations and over half of the sites were able to show measured reductions to 90-day hospital utilization post-"index" event for High Utilizers when compared to historical control groups. The results are slightly more favorable in the teams focusing on inpatient High Utilizer populations. A potential reason could be the ability for care professionals to spend more time and foster more engagement with patients during their inpatient stay than their ED visit.

Most of the Action Teams were able to achieve results without increasing workforce or budgets or substantially altering their existing infrastructure. By focusing on "doing something different" rather than adding resources, these teams demonstrate that improving care for High Utilizers can be achieved within existing means.

A number of key lessons learned were documented throughout the MAX Series that are applicable to High Utilizer process improvements in any hospital setting:

1. **Identify and notify:** Make it easy for care teams to know in real-time when a High Utilizer patient is in the hospital, and what to do. Make the alerts hard to ignore and do not make exceptions.
2. **Assess and plan:** Assess the drivers of utilization, take the time for interdisciplinary huddles and make sure the ensuing the care plan easy to understand and easy to find for all involved.
3. **Link:** Think about how to embed your community partners into the hospital care process and set up quarterly feedback loops with your partners to specifically discuss process and communication improvement opportunities.
4. **Manage:** Engage High Utilizers in post-discharge touchpoints and make sure to plan for the return – behavioral and social change will likely not occur in one visit.

And most importantly…once you've made a change...celebrate!

While the formal measurement period for the Action Teams ended on the last day of the MAX Series in June 2018, the process of change is set to continue far beyond the DSRIP program as teams carry on with their continuous improvement cycles on a quarterly basis. In addition, the 77 MTP participants have started to launch MAXny Series at their own hospital locations, thereby increasing the reach and impact of the Series on current and future High Utilizer populations.

New Action Teams that are just starting on their rapid-cycle continuous improvement journey are encouraged to build out programs using the MAX Series' approach and to reach out and learn from the network of existing MAX Series Action Teams and MTP participants documented in Appendix C.

Appendix

A: Action Team Case Studies

- **Identify and Notify**

  St. John's Episcopal Hospital

- **Plan and Assess**

  United Health Services (UHS): Binghamton General Hospital & Wilson Medical Center

  University of Rochester Medical Center (URMC): Strong Memorial & Highland Hospitals

- **Link**

  Bellevue Hospital

  Cayuga Medical Center

  Mid-Hudson Regional Hospital

  Montefiore Medical Center

- **Manage**

  Bassett Medical Center

  Long Island Jewish Medical Center

  Nyack Hospital

  Queens Hospital

  St. Joseph's Hospital Health Center

  Vassar Brothers Medical Center

Four additional Action Team case studies are located in the High Utilizer Care Pathway section of this report.

B: Action Team One-Pager Reports

- Bassett Medical Center, LCHP
- Bellevue Hospital, OCH
- Cayuga Medical Center, CCN
- Elmhurst Hospital, OCH
- Long Island Jewish Medical Center, NQP
- Mid-Hudson Regional Hospital, WMC
- Montefiore Medical Center, BPHC
- Niagara Falls Memorial Medical Center, MCC
- Nyack Hospital, MHVC
- NYU Langone Medical Center, NYU Langone Brooklyn
- Queens Hospital, OCH
- St. John's Episcopal Hospital, NQP
- St. Joseph's Hospital Health Center, CNYCC
- St. Mary's Healthcare-Amsterdam, AFBH
- Highland Hospital, FLPPS
- UHS Binghamton General & Wilson Medical, CCN
- Vassar Brothers Medical Center, MHVC

C: Action Team Contact Directory

Appendix A: Action Team Case Studies

Identify and Notify:
St. John's Episcopal Hospital
Objective: To implement an automated flagging system within the hospital's electronic medical record (EMR) system that identifies High Utilizers on admission and notifies key members of the care team.
Summary:

- The Action Team developed a banner flag in the EMR (Meditech), which appears on a High Utilizer patient's chart upon admission if the patient meets the Action Team's High Utilizer definition. This is refreshed daily to ensure any new High Utilizer patients are captured in the system.
- The inpatient unit dashboard is updated with a flagging icon to notify members of the care team that a High Utilizer patient has been admitted and the patient's location within the hospital.
- The system sends an email notification to the case managers and care team to notify them that a High Utilizer has been admitted. Once the team is notified of an admission, team members are able to collaborate on assessing the patient and creating a care plan.
- For active care planning across the care team and for continuity in subsequent visits, the patient's "drivers of utilization" are listed in a text field to allow the Action Team to view the medical, behavioral, and social needs identified through the comprehensive assessment.

Outcome: The Action Team is able to identify High Utilizer patients upon admission and notify care team members for immediate mobilization and care planning to address the patients' needs.

Assess and Plan:
United Health Services (UHS): Binghamton General Hospital and Wilson Medical Center
Objective: Provide a crisis hotline staffed by Registered Nurses (RNs) for High Utilizer patients to contact when they are experiencing distress or anxiety, as an alternative to presenting to the ED.

Summary:

- The UHS Binghamton General Hospital and Wilson Medical Center implemented a Nurse Direct crisis hotline, providing a direct crisis line for their High Utilizer population during times of emotional distress, as a plan to decrease avoidable visits.
- When a High Utilizer contacts the Nurse Direct crisis hotline, a color coding system alerts the receiving RN that the incoming patient call is from a High Utilizer.
- By calling Nurse Direct, patients are able to speak with a registered nurse between the hours of 8:00 AM and 8:00 PM, seven days a week.

- Nurse Direct staff have access to the patient's case management file and are able to see the previously identified "drivers of utilization" to assist with resource connections and longitudinal care planning.
- The nurses can also provide physician referrals and referrals to alternative community services.

Outcome: The Action Team has been able to engage patients with non-emergent needs through the Nurse Direct crisis line, leveraging necessary supports to address immediate needs outside of the ED, while also connecting the patient to support services in the community. The Action Team was also successful in spreading awareness about this service by distributing magnets containing the Nurse Direct contact information and adding the number to all discharge paperwork.

Assess and Plan:
University of Rochester Medical Center (URMC): Highland Hospital and Strong Memorial Hospital
Objective: Develop a set of protocols for all Sickle Cell Disease (SCD) High Utilizer patients presenting within the URMC's Highland Hospital and Strong Memorial Hospital.

Summary:
- The Action Team identified the need to create consistent and standardized care protocols for managing High Utilizer patients with SCD. As part of this process, the team identified key physician champions at two hospitals to lead the development and implementation of protocols across both hospital ED and inpatient settings.
- Working together, these physician champions determined a set of protocols that allow for efficient, consistent, and effective treatment and management decisions for all presenting SCD High Utilizer patients. This is particularly important for SCD patients, as often their chief complaint of pain requires immediate treatment. With SCD-focused champion physicians leading this initiative, providers have a standardized and approved plan of care to best serve these patients.
- A care manager and practitioner at the Complex Care Center (CCC), a URMC-affiliated clinic for complex medical conditions including SCD, participate in daily, multidisciplinary meetings with the hospitalist, bedside care team, and inpatient social worker to develop individualized pain protocols and comprehensive plans of care.
- The Action Team also developed protocols for linking patients to the CCC, including 24-hour appointment scheduling by inpatient and/or ED care teams for timely follow-up care.
- With this initiative, providers have increased their awareness of the unique SCD High Utilizer characteristics and needs, including unmet social factors as "drivers of utilization."

Outcome: The URMC Highland Hospital and Strong Memorial Hospital ED and inpatient care teams have increased their awareness of both the unique medical and social needs of SCD High Utilizers, resulting in improved processes that allow for timely and effective decisions in a collaborative manner.

Link:
Bellevue Hospital
Objective: Establish a Transitions of Care team with dedicated resources to engage High Utilizer patients and to connect them with necessary support services within the community.

Summary:
- The Bellevue Action Team deployed a Transitions of Care team of five dedicated individuals in January 2018 to engage High Utilizer patients who presented to the ED.
- Upon a High Utilizer presentation to the ED, the Transitions of Care team is notified to perform a "drivers of utilization" interview to better understand the root cause of repeated hospital utilization.
- The Transitions of Care team uses the outcomes of the "driver of utilization" assessments to create specific ED care plans that outline the next steps and key information to inform other care team members of the patients' needs for longitudinal care planning, including, for example, a referral to a Health Home or home care agency.
- The Transitions of Care team also provides direct and timely linkages to community-based organizations and support services within the community that are best suited to provide ongoing services beyond the hospital.
- Post-discharge, the Transitions of Care team conducts 30-day follow-up calls with High Utilizer patients to support their care back in the community and reduce avoidable presentations to the ED.

Outcome: The Transitions of Care team engages approximately 10 High Utilizer patients a week at Bellevue Hospital and actively links them to support services, with the goal of stabilizing their care in the community.

Link:
Cayuga Medical Center
Objective: To expand cross-collaboration for High Utilizer patients with care management organizations and community-based support services, by assigning a Cayuga Area Preferred/Plan (CAP) Care Coordination nurse to every admitted High Utilizer.

Summary:
- When High Utilizers are admitted, the inpatient social work team emails an alert to the CAP nurse team. A CAP Care Coordination nurse is then assigned to every High Utilizer and meets the patient at the bedside to develop a person-to-person relationship and conduct a needs assessment.
- Based on the results of the completed "drivers of utilization" assessment, a CAP Care Coordination nurse will assist the patient with medication reconciliation and education, healthcare literacy coaching, access to follow-up care, coordination of transportation, and appointment scheduling.
- The CAP nurses also review the patients' care plans with them and offer follow-up by telephone and/or via home visits at a location preferable to the patient.
- The CAP nurse maintains open lines of communication with the care team, which includes viewing the High Utilizer's care plan and documenting progress and updates in the patient's EMR.

o CAP nurses also participate in weekly case conferences to further share knowledge and improve cross-collaboration for High Utilizer patients.

Outcome: The Action Team has consistently linked High Utilizer patients to CAP Care Coordination nurses since mid-March 2018, and patients and staff have both realized improvements to care, with a slower cycle of hospital utilization due to this newly implemented process.

Link:
Mid-Hudson Regional Hospital
Objective: Collaborate with People Inc., a local Peoplefit organization that provides recovery-oriented services for patients living with mental health issues or trauma, to develop timely linkages to support services for High Utilizer patients within the community.

Summary:
o The Mid-Hudson Regional Hospital Action Team identified from "driver of utilization" interviews that many High Utilizer patients were presenting with behavioral health needs and lacked ongoing support services.

o Through a community inventory, the Action Team identified People Inc. as a qualified partner to engage in providing support services for High Utilizer patients, including linkages to ongoing services and supports within the community.

o To foster this collaboration, Mid-Hudson Regional Hospital and People Inc. established a dedicated point-of-contact at each organization to foster closed-loop communication for care coordination between the two organizations.

o A social worker from Mid-Hudson Regional Hospital contacts a social worker at People Inc. when a High Utilizer has been admitted with identified behavioral health needs. The People Inc. social worker comes to the hospital for a bedside huddle with the patient and members of the care team to help develop a longitudinal plan of care for the patient.

o As part of the care plan, High Utilizer patients are offered peer support through People Inc. prior to discharge. For those patients who consent, the peer support provides linkages to community-based services and supports and engages with the High Utilizer patient for at least 30-45 days to act as a guide in the community.

Outcome: Since developing this relationship in December 2017, the Action Team consistently links High Utilizers to People Inc. for support services, including connecting patients to peers with lived experience to assist with ongoing linkages and care management.

Link:
Montefiore Medical Center
Objective: Connect High Utilizer patients with behavioral health needs to enhanced services and supports within the community.

Summary:
o The ED identified that High Utilizer patients with behavioral health comorbidities were experiencing delays in being connected to resources outside the hospital.

- To overcome this barrier, the Action Team developed a process to connect High Utilizer patients with identified behavioral health needs to services and supports in the community.
- As part of the process, following the "driver of utilization" interview, all High Utilizer patients are asked to consent for a behavioral health consult. If the patient agrees, a consult is completed and the results are sent to the behavioral health team to review.
- After the results are reviewed, the behavioral health team meets with the patient at the bedside to offer a variety of services, with varying levels of intensity. These include activities such as scheduling outpatient therapy appointments and linking to ongoing case management services.
- High Utilizer patients are included in the development of their care pathway and identify the level of support and/or services that they deem necessary for their ongoing needs. The behavioral health team links the patient to the selected service for ongoing touchpoints, increasing the support the patient receives beyond the hospital.

Outcome: The Action Team was able to successfully implement a comprehensive behavioral health care pathway to navigate patients to appropriate services and supports within the community.

Manage:
Bassett Medical Center
Objective: Improve High Utilizer patients' quality of life by mobilizing a team of clinical and non-clinical personnel to meet patients in the community post discharge for increased care coordination.

Summary:
- The Action Team leveraged Catskill Area Hospice and Palliative Care's (CAHPC) Care Coordination DSRIP project for their Comprehensive Mobile Team Action Plan. CAHPC is a key external partner, having played a role in the MAX Series as part of the extended Action Team.
- The patients who are eligible for the Comprehensive Mobile Team's services are identified by the Action Team or Care Management team, and the patient's primary care physician (PCP) then places an order for a referral to CAHPC.
- A CAHPC Care Coordinator Nurse conducts an initial assessment in the patient's home or preferred location within 24-48 hours of discharge from the hospital, or after receiving the referral.
- Following the initial visit, the CAHPC Care Coordination Nurse arranges ongoing touchpoints with the patient, which include services such as: discussion of life goals, development and review of plans of care, patient engagement and self-management support, follow-up home visits, iPOS survey completion, advance care planning – Medical Orders for Life-Sustaining Treatment (MOLST) completion, and appropriate linkages to additional resources.
- In addition to the CAHPC Care Coordinator Nurse, the attending PCP and CAHPC Clinical Social Worker are also part of the Comprehensive Mobile Team.

Outcome: The Action Team identified the key resources and agencies most appropriate for addressing the needs of their High Utilizer population and has engaged these agencies as part of their mobile care team to support patients and provide ongoing services in the community.

Manage:
Long Island Jewish Medical Center

Objective: Establish a coordinated approach to cross-continuum collaboration for High Utilizer patients with repeated ED presentations from Creedmore group homes, a local psychiatric-support facility located near the hospital.

Summary:

- By analyzing their High Utilizer admissions data, the Action Team identified that a large portion of High Utilizer patients was coming from Creedmoor group homes. The Action Team contacted Creedmoor to understand the protocols for sending patients to the ED.
- The Action Team collaborated with Creedmoor to establish a weekly case conference call between the ED and the Creedmoor team, with the goal of this weekly call being a discussion of improved transfer processes and care plans for the High Utilizer patients with repeated ED presentations.
- To foster longitudinal care planning, the Action Team also developed an alert system that notifies Creedmoor when a High Utilizer patient is being discharged from the ED. This has allowed the group home to be informed of patient flow and proactively make appropriate arrangements for patient follow-up post discharge.

Outcome: Since January 2018, the Action Team has held weekly case conferences with staff from Creedmore, establishing a bi-directional feedback loop for more appropriate transfers of patients to the hospital, resulting in a decrease in hospital admissions.

Manage:
Nyack Hospital

Objective: Engage High Utilizer patients in the community through the use of the Nyack Community Paramedicine Program.

Summary:

- Following a "driver of utilization" assessment, a social worker identifies High Utilizer patient needs, including whether the patient can benefit from enrollment into the Community Paramedicine Program.
- The Action Team and Community Paramedicine Program team have a morning huddle to develop a strategy to engage patients in the community.
- Monday through Friday, the Community Paramedicine Program team conducts visits in the patients' homes or preferred location, reviewing the patients' care plans and identifying any additional needs.
- The Community Paramedicine Program team takes a strategic approach to engaging patients by calling ahead of time, wearing casual clothing, and bringing along a community partner with whom the patient is familiar.
- Based on the outcome of the visit, the Community Paramedicine Program team documents any additional needs within the patient's EMR and orders a social work consult and/or links the patient to any additional service needs.

Outcome: The Community Paramedicine Team has consistently been able to meet and engage High Utilizer patients outside of the hospital to ensure stabilization in the community.

Manage:
Queens Hospital
Objective: Engage "At Home," a home care and Health Home agency, to provide support services for High Utilizer patients beyond the hospital.

Summary:
- The Action Team engaged At Home early in the creation of their High Utilizer Care Pathway to provide home care and Health Home case management services to High Utilizer patients.
- To foster this collaboration, At Home receives the daily High Utilizer list of patients in the hospital, participates in daily huddles alongside the care team, and is an active participant in twice-weekly High Utilizer care team meetings.
- All High Utilizer patients are screened for eligibility for At Home services.
- Prior to discharge, the patient is engaged by At Home staff at the bedside.
- Post-discharge, At Home frequently contacts consenting High Utilizer patients as they attend their services and links High Utilizers to additional services and supports based on their care needs.
- The At Home staff also assists the care team with the development of High Utilizer ED care plans to inform and advise the care team on subsequent admissions.

Manage:
St. Joseph's Hospital Health Center
Objective: To create a trusting, helpful, and friendly relationship for High Utilizer patients inside and beyond the hospital setting.

Summary:
- The Action Team incorporated existing behavioral health peers in the hospital to develop relationships with High Utilizer patients with behavioral health needs.
- As part of their process, the Action Team identified a staff member who would be suitable for this role, defined the responsibilities and activities of the position, and developed a strong linkage between the Case Management Department and the peer support service.
- Prior to discharge, consenting High Utilizers meet with their peer support at the bedside to begin developing a collaborative and trusting relationship.

- On a weekly or more frequent basis, the peer support engages the paired High Utilizer patient to review progress and discuss any ongoing care needs. Based on these conversations, the peer informs the hospital's Case Management Department of additional needs to create those definitive linkages to any identified services or supports.
- In addition to assisting High Utilizers and communicating with the Case Management Department, the peers follow up with PCPs for ongoing longitudinal care planning, incorporating the PCP's care plan into ongoing peer-patient touchpoints.

Outcome: The Action Team has been able to assign a peer to 17 High Utilizer patients and track results of active engagement and care management. The peers were extremely excited to work alongside the High Utilizer population and consistently reported how impactful this partnership has been for patients.

Manage:
Vassar Brothers Medical Center
Objective: To implement opiate protocols within the ED to reduce the number of opiate prescriptions provided to patients.

Summary:
- Based on a review of hospital records, the Action Team identified that a large portion of the High Utilizer population was exhibiting medication-seeking behavior. The Action Team sought to establish opiate-prescribing protocols for the ED.
- To develop this protocol, the Action Team collaborated with Ellenville Regional Hospital, which previously participated in the MAX Series and successfully implemented opiate protocols.
- Ellenville Regional Hospital assisted the Vassar Brothers ED to develop protocols, specific to its hospital, which were presented to hospital administrators and physician champions for review and approval. The protocols were approved and implemented by the Action Team.
- As part of the protocols, patients exhibiting medication-seeking behavior received a care plan that recommended the ED Providers treat the patients' symptoms with methods that did not involve intravenous (IV) therapy, at the doctor's discretion.
- The care plan is filed in an easily accessible location within the patient's EMR for reference on subsequent presentations to the ED.
- Providers are also encouraged to check iSTOP, a prescription drug monitoring program, for every High Utilizer patient before administering or prescribing opiates.

Outcome: A protocol has been implemented to limit prescription opiates for patients exhibiting medication-seeking behavior, at the doctor's discretion. Vassar Brothers Medical Center is partnering with other hospitals in their region to implement similar protocols for a collaborative approach to prescribing opioids.

Appendix B: Action Team Case Studies

Bassett Medical Center, LCHP

Patient Population Definition: 4+ inpatient (IP) admissions in 12 months

Our Actions

High Utilizer Care Pathway

Identify (Identify)
Identify High Utilizers during daily morning huddle (Monday – Friday) through chart reviews performed by case management.
Notify Action Team and inpatient/outpatient care managers via email.

Assess/Plan
Assess the "drivers of utilization" (DOU) and conduct palliative care (PC) assessment at the bedside.
Complete High Utilizer care plan based on DOU and PC assessments and discuss during multidisciplinary rounds.

Link
Link patients to receiving providers/organizations based on patients' specific needs.
Conduct warm hand-off to community and outpatient partners; problem-solve for patients during weekly case conferences.

Manage
Ensure timely follow-up via home visits to evaluate patients in their environment and determine additional care needs.

Patient Success Story

In early 2018, the Action Team engaged a patient with multiple Emergency Department (ED) presentations and five IP admissions in the prior 12 months. The patient has a history of chronic obstructive pulmonary disease (COPD) and another chronic condition.

Driver of Utilization:
The patient frequently presents to the hospital with anxiety. The team identified that the patient has low health literacy, low socio-economic status, and has very limited (and at times no) support at home.

How we addressed DOUs:
- During a weekly case conference, the Action Team discovered that the patient was not regularly consulting with his primary care physician (PCP) and was, instead, going straight to the ED to be admitted.
- The Action Team worked with the patient and developed a care plan to meet his needs and address his healthcare goals.
- An assigned case manager linked the patient to his PCP and made appointments for him to be seen every two weeks.
- The PCP supported the patient's care plan and worked with him to address his anxiety and home support needs.

Impact to date:
The patient has not returned to the hospital since his care plan was established in March of 2018 and now calls his assigned care manager for support prior to dialing 911.

Lesson Learned

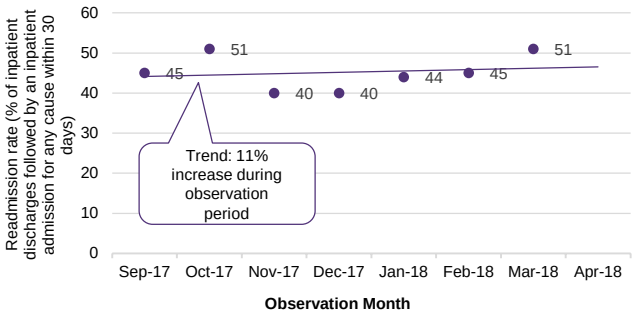
Our Action Team learned the importance of having buy-in and engagement from all individuals and organizations across the care-continuum, as many involved in the care of High Utilizers are not part of the core Action Team. We also identified that a network-wide understanding of the term "High Utilizer" and awareness of the process improvement work being done are key to driving change.

Our Proudest Accomplishment

Taking a whole-person perspective has allowed our team to collaborate and serve patients differently, oftentimes providing access to additional services that are new to High Utilizer patients. We are excited to launch our comprehensive mobile team, which will allow us to better serve High Utilizers in their home environment and identify additional barriers to care. Further, patients and workforce alike have noted a positive impact in their lives due to the new initiatives being implemented across the organization, and we are committed to driving this change through a larger, network-wide High Utilizer approach.

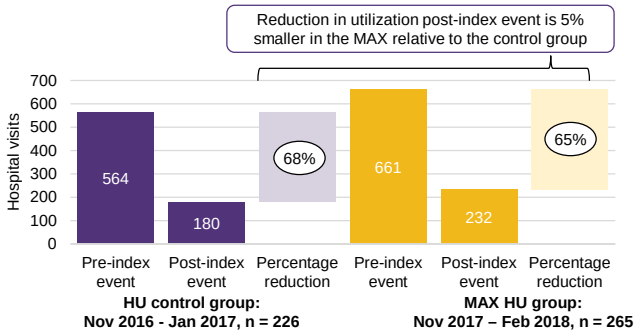
Our Impact

LCHP – Bassett Medical Center
30-day all-cause readmission rates for HU patients, n = 360



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, LCHP – Bassett Medical Center observed a 11% increase (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 360 High Utilizer patients in their MAX group.

LCHP – Bassett Medical Center
90-day pre- vs. post- index event hospital utilization of HU control group against MAX HU group



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 5% smaller reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).

Bellevue Hospital, OCH

Patient Population Definition: 10-20 Emergency Department (ED) presentations in 12 months

Our Actions

High Utilizer Care Pathway

Identify High Utilizers through an automated flagging system in the electronic medical record (EMR).

Notify the Action Team and Transitions of Care (ToC) Team when a High Utilizer presents in the Emergency Department (ED).

Assess the "drivers of utilization" (DOU) through an assessment conducted by the Action Team.

Develop ED care plans to identify and plan next steps for each High Utilizer, such as a referral to a Health Home or home care.

Link High Utilizers to the appropriate services best suited to address their DOU(s).

Involve OneCity Health PPS to identify potential community agencies to collaborate with as a long-term strategy, e.g., Department of Housing Services shelter, or At Home.

Support High Utilizers and the ToC team by ensuring delivery of patient-centered interventions.

Perform patient outreach by ToC team within 30-days post discharge.

Problem solve via weekly case conferences with the ToC team.

Patient Success Story

A middle-aged patient was last seen in the ED in early 2018, with 14 ED presentations in the prior 12 months. The patient has a history of asthma, lung disease, hypertension, diabetes, and peripheral vascular disease.

Driver of Utilization:

The ToC Team identified that the patient lacked sufficient home supports. The ToC Team also identified that the patient is undocumented, unable to work, and unable to obtain insurance, which restricts her from receiving home care services. Due to the patient's inability to work, she is dependent on her main caregiver for financial support; however, the patient voiced that the caregiver does not provide medical or emotional support to assist with her ongoing care needs.

How we addressed DOUs:

- The ToC Team was connected with the patient during her last ED visit and conducted a home visit to establish an ongoing relationship with the patient.
- Following that initial visit, the ToC Team linked the patient with her previous primary care provider (PCP) and a Health Home. The ToC Team assisted the patient with scheduling appointments, conducted reminder calls, accompanied the patient to the appointments, and provided the patient with a Metro card for transportation.
- The patient also expressed she had insufficient access to food. In response, the ToC Team connected the patient to a daily meal delivery program.
- Due to the patient's financial limitations, she was previously unable to comply with her medication regimen. The ToC Team assisted with waiving ongoing pharmacy co- pays, provided the patient with a pill box, and provided medication education to the patient.

Impact to date:

As of April 2018, the patient had not presented to the Emergency Department since developing the new plan of care in February 2018 and had attended all Primary Care appointments.

Lesson Learned

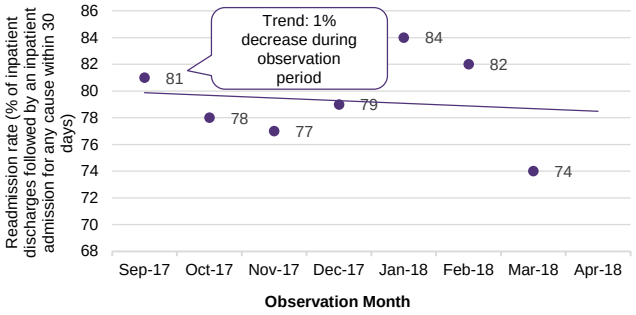
Creating an interdisciplinary care management team with the expertise, experience, and passion for this patient population was key to establishing a strong connection and trust with patients at Bellevue Hospital. Our Action Team learned that determining the "drivers of utilization" may take multiple interactions; however, delivering on small, concrete needs can have a big impact on engaging the High Utilizer patients. Ultimately, consistent delivery earned the trust of patients at Bellevue Hospital.

Our Proudest Accomplishment

Our Action Team successfully developed a mechanism to identify and flag High Utilizer patients when they present to the ED, as well as a process for engaging the care team through daily huddles and weekly case conferences, allowing them to manage patients in the community post-discharge. By April 2018, 33% of High Utilizers engaged in care management services did not have an ED visit in the following 30 days, compared with the previous utilization of between two and six visits per month before engagement by the ToC Team. This is based on self-reported Action Team data.

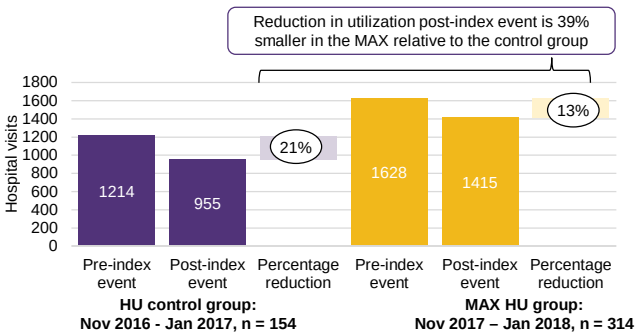
Our Impact

OCH – Bellevue Hospital
30-day all-cause ED revisit rates for HU patients, n = 448



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, OCH – Bellevue Hospital observed a 1% decrease (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 448 High Utilizer patients in their MAX group.

OCH – Bellevue Hospital
90-day pre- vs. post- index event hospital utilization of HU control group against MAX HU group



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 39% smaller reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).

Cayuga Medical Center, CCN

Patient Population Definition: 4+ inpatient (IP) admissions and/or observations in 12 months

Our Actions

High Utilizer Care Pathway

Identify High Utilizers Monday-Friday via daily report configured in electronic medical record (EMR).

Notify Action Team, Clinical Resource Management, Cayuga Area Plan (CAP) Care Coordination, and respiratory therapists of High Utilizers' admissions via email.

Assess the "drivers of utilization" (DOU) at the bedside.

Conduct multidisciplinary rounds and case conferences to develop shared care plan and obtain buy-in from patient and or caregiver(s).

Link patients to an outpatient nurse from CAP for extensive care coordination.

Conduct warm hand-off between community-based organizations (CBO) and skilled nursing facilities (SNF).

Timely follow-up initiated via CAP nurse by telephone and in-person.

Problem solve via weekly case conferences.

Create closed feedback-loops with skilled nursing facilities (SNFs) via round table/circle-back process.

Patient Success Story

In the spring of 2018, the Action Team engaged a middle-aged patient who had six IP admissions and 11 Emergency Department (ED) visits in the prior 12 months. The patient often presents with exacerbated chronic obstructive pulmonary disease (COPD) and is currently prescribed nine medications.

Driver of Utilization:

After speaking with the patient, the Action Team uncovered that the patient was not accessing outpatient care; he had been scheduled for primary care physician (PCP) appointments upon previous discharges, but was not attending the appointments. Additionally, given the patient's medical conditions, he also needed cardiology and pulmonology services. Lastly, the patient also expressed difficulty with managing his multiple medications.

How we addressed DOUs:

- The Action Team connected the patient to CAP Care Coordination; a CAP nurse met the patient in the hospital and discussed his care plan. Further, they obtained his consent for home visits, outpatient care management, and healthcare literacy coaching.
- After discharge, the CAP nurse visited the patient in his home and found 78 medications that were unused, expired, empty, and/or no longer prescribed. The unnecessary medications were removed from the patient's home and replaced with the patient's nine current medications.
- The patient was educated on medication adherence and provided with an updated, easy-to-read medication list to post on his refrigerator.

Impact to date:

The patient has demonstrated an understanding of his diagnosis and has been engaging with outpatient pulmonology and cardiology. He attends weekly meetings in the CAP nurse's office and calls the nurse directly for assistance, as needed.

Lesson Learned

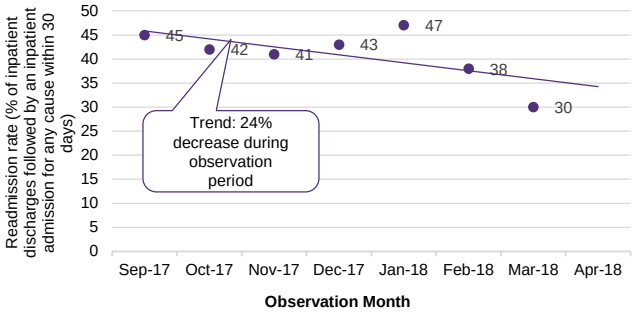
Our Action Team learned the value of having a diverse and engaged group participate in the development and continuous improvement of the High Utilizer Care Pathway. Representation across various inpatient units, outpatient providers, and CBOs promoted patient-centric thinking during collaborative sessions and allowed the team to pinpoint barriers to change. Our team also learned that strong leadership support was key to overcoming any identified obstacles and promoting High Utilizer engagement efforts across the organization.

Our Proudest Accomplishment

Our team strengthened relationships and improved communication with SNFs, CBOs, and outpatient care management nurses at CAP. We created new workflows that are now fully integrated into inpatient social work and case management processes. Additionally, routine SNF round-table discussions and case conferences provide a safe space for us to collectively problem-solve on High Utilizer patient needs. Taking a whole-person perspective during the readmission assessment has allowed our team to communicate, collaborate, and serve patients differently, and in many cases, get patients access to additional services sooner.

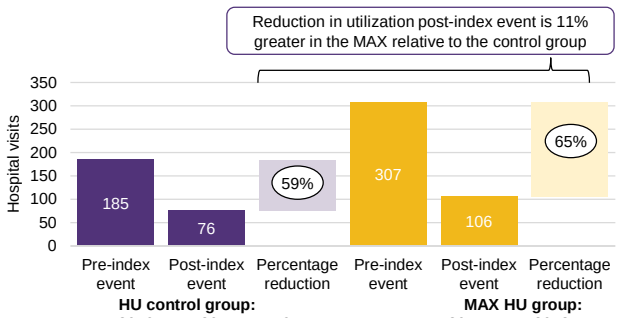
Our Impact

CCN – Cayuga Medical Center
30-day all-cause readmission rates for HU patients, n = 236



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, CCN – Cayuga Medical Center observed a 24% decrease (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 236 High Utilizer patients in their MAX group.

CCN – Cayuga Medical Center
90-day pre- vs. post- index event hospital utilization of HU control group against MAX HU group



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 11% greater reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).

Elmhurst Hospital, OCH

Patient Population Definition: 5+ inpatient (IP) admissions in 12 months

Our Actions

High Utilizer Care Pathway

Identify High Utilizers via a daily list located on the Shared Drive and email to all team members.

Track identified High Utilizers in a daily worklist, including each patient's location within the hospital.

Assess the "drivers of utilization" (DOU) and share among care team for all High Utilizer patients.

Conduct multidisciplinary rounds with treatment providers to develop long-term care plans.

Link substance use disorder (SUD) High Utilizers with SUD "to –go" bags (toiletries, contact card, etc.) and provide follow-up appointments with on-site Chemical Dependency Clinic.

Conduct bedside SUD assessment with a warm hand-off to Alcoholics Anonymous (AA)-peers at bedside for consenting SUD High Utilizer patients

Timely follow-up by telephone provided by the Bridge Team post discharge

Problem solve via weekly case conferences with At Home staff.

Create "Hospital Intervention Note" to alert and educate ED providers on the DOUs and plans of care to prevent future avoidable admissions.

Patient Success Story

A geriatric patient with five IP admissions in the last 12 months was last seen in the hospital in February 2018, presenting with behavioral health needs. The patient recently had a stroke, is bed bound, has dementia, and cannot read or write. She resides with her son, who is her main caregiver, but who provides limited support for her ongoing care needs.

Driver of Utilization:

After a family meeting with the patient and her son, it became clear that the son's inability to adequately care for his mother's needs was the primary driver of the patient's repeated hospital utilization.

How we addressed DOUs:

- A patient-family session was held with the patient, family, and a social worker, where the seriousness of the patient's needs was discussed. This transparent discussion created awareness and understanding from the son regarding the type of support his mother requires.
- During the patient's most recent admission, both parties consented to in-home physical therapy (PT) to increase the patient's mobility (during previous hospital stays, the patient's son had declined caregiver assistance in the home).
- After the initial PT visit, the Action Team received consent for At Home homecare services to initiate in-home caregiver support services.

Impact to date:

As of April 2018, the patient has not returned to the hospital since her last admission in February 2018 and At Home has successfully visited the patient multiple times. Further, the patient is discussed during case conferences to check on her progress and make necessary service connections to address her care needs.

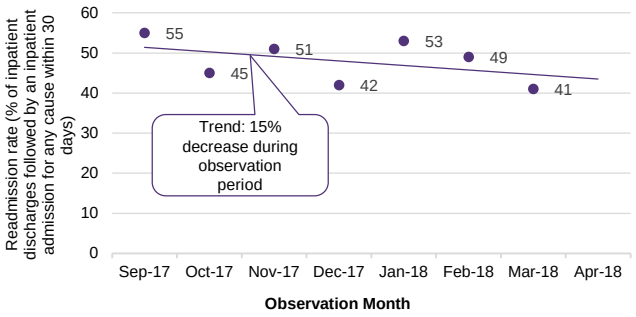
Lesson Learned

Our Action Team learned that small process changes, in collaboration with internal and external partners, can yield big results. The Bridge Team (intensive case management), Med/Surg, Behavioral Health Social Workers, and At Home staff are integrated into the High Utilizer Care Pathway at multiple points to create continuity beyond the hospital walls. Examples of impactful process changes our team implemented to work as a unified team include: conducting biweekly case conferences with the Bridge team, integrating Med/Surg Social Workers and At Home, collecting bedside assessments using motivational interviewing techniques by the Social Work staff, and the Behavioral Health team providing qualifying patients with long- lasting injectable medications to support ongoing medication adherence.

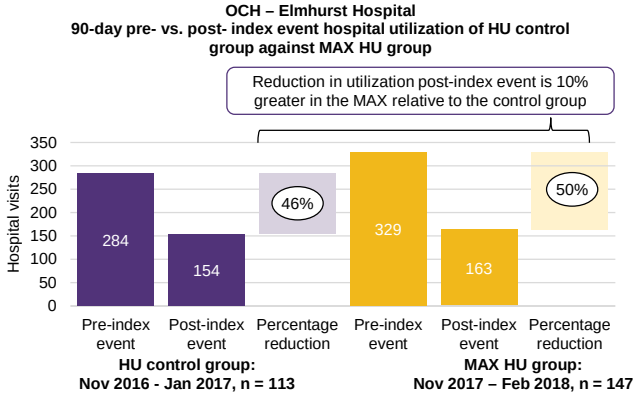
Our Proudest Accomplishment

After completing the first action period, our Action Team reviewed the collected DOUs and discovered that alcohol and SUD were the top drivers for our High Utilizer patients. The care team implemented a robust Care Pathway of solutions to engage SUD High Utilizers, including: the creation of the Recovery Engagement Program (REP) where a Psychiatrist and a SUD counselor engage with patients at the bedside on Med/Surg floors, the development of interpersonal relationships, offering patients access to treatment options, and providing "to-go" bags (toiletries, contact card, etc.). Follow-up appointments with an on-site Chemical Dependency Clinic are also offered. The REP team has also partnered with AA to conduct a warm hand-off to AA-peers at the bedside. After speaking with the patients, it was discovered that no Spanish speaking AA meeting was held in the area; now, in partnership with AA, a twice-weekly Spanish speaking AA group occurs at Elmhurst Hospital.

Our Impact



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, OCH – Elmhurst Hospital observed a 15% decrease (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 172 High Utilizer patients in their MAX group.



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 10% greater reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).

Long Island Jewish Medical Center, NQP

Patient Population Definition: 8+ Emergency Department (ED) presentations in 12 months

Our Actions

High Utilizer Care Pathway

Identify High Utilizers within the Emergency Department (ED) via a static report that is refreshed monthly.

Notify the Action Team via email when a High Utilizer registers in the ED.

Assess the "drivers of utilization" (DOU) for High Utilizer-patients.

Conduct a bedside huddle to develop a plan of care.

Link qualifying High Utilizer-patients to a Health Home Outreach associate for enrollment and engagement in a Health Home.

Link patients at high risk for substance use to a Screening, Brief Intervention, Referral and Treatment (SBIRT) health coach

Problem solve via weekly case conferences with Creedmoor Psychiatric Center.

Create ED care plans for High Utilizer patients during bi-weekly complex care meetings.

Patient Success Story

A young patient had over 70 presentations to the ED over a 12-month time period from 2016 to 2017. The patient lived in a group home and was frequently calling the emergency medical service (EMS) for various illnesses and other requests for support.

Driver of Utilization:

The Action Team identified that the patient lacked social supports, was well known to staff and felt a sense of comfort and familiarity when she was in the ED. The familiarity and security of her ED visits were a primary "driver of utilization."

How we addressed DOUs:

- The Action Team discussed the patient during a weekly complex care meeting and determined that she was receiving desired social supports from her frequent visits to the ED.
- The Action Team met with the group home and established a plan for regular case conference meetings between the ED staff and the group home staff in order to collaborate on the best care and interventions for the patient. The ED developed care planning protocols for a fast evaluation and rapid discharge, aimed at safely reducing her ED presentations.
- The group home engaged the patient in day programs and worked with the Action Team on a plan to keep the patient occupied and interacting with others, so she would not feel the need to go to the ED for social interaction.
- The Action Team updated the patient's care plan to include the direct contact information of staff from the group home, so that information could readily be shared between the hospital and the group home.
- The group home also agreed to send a staff member with the patient when requesting a transfer to the ED.

Impact to date:

Since implementing a new plan of care for the patient, her utilization has reduced to seven ED presentations between November 2017 and April 2018. The patient is now engaged in social supports through her group home. The Action Team and group home have also established bidirectional lines of communication to more appropriately transfer the patient to the hospital, when necessary.

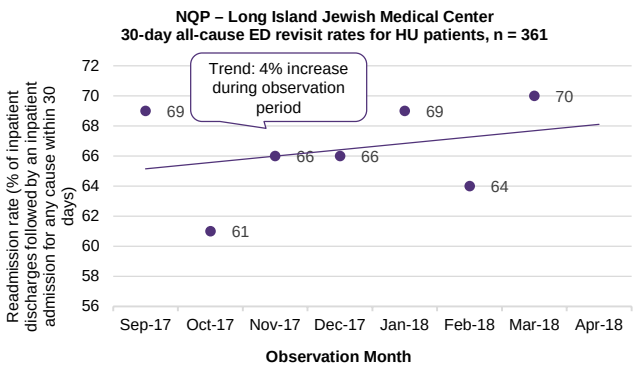
Lesson Learned

Our Action Team learned two important lessons from the MAX Series: the value of collaboration and the importance of identifying and creatively repurposing resources. The latter supports the alignment of process improvement goals within the hospital, which helps our team increase capacity and avoid the duplication of existing processes.

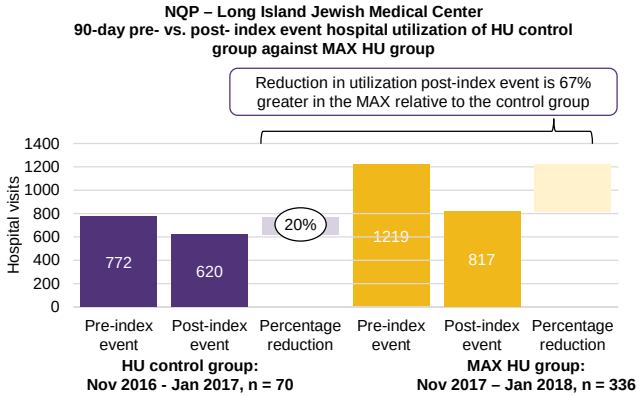
Our Proudest Accomplishment

Using a cohesive and team-based approach, our Action Team created a sustainable process for patients being transferred from Creedmoor (a community-based psychiatric provider) to the ED. Through the MAX Series, our team engaged with Creedmoor to develop a multifaceted relationship, which includes weekly meetings and improved communication for shared High Utilizer-patients. This has improved the way both of our organizations provide care for this vulnerable population, with the goal of improving our patient's lives.

Our Impact



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, NQP – Long Island Jewish Medical Center observed a 4% increase (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 361 High Utilizer patients in their MAX group.



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 67% greater reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).

Mid-Hudson Regional Hospital, WMC

Patient Population Definition: 4+ inpatient (IP) admissions in 12 months

Our Actions

High Utilizer Care Pathway

Identify High Utilizers via a static report that is refreshed daily.

Notify the Action Team of High Utilizer admissions via a daily email from the Information Technology (IT) team.

Assess the "drivers of utilization" (DOU) using a psycho-social assessment.

Document outcomes in the electronic medical record (EMR).

Link High Utilizers with behavioral health needs to peer services for 45-day, post-discharge follow-up.

Conduct warm hand-offs between transitional social workers and peer supports.

Conduct timely follow-up via telephone calls and home visits, and initiate appointment reminders from peers or social workers.

Problem solve via weekly case conferences with community-based organizations (CBO).

Create ED care alerts to inform the care team on return visits to the Emergency Department (ED).

Patient Success Story

A middle-age patient with multiple, chronic conditions presented to the hospital over four times since March 2017. The patient routinely presented with respiratory issues, major depressive disorder, and bipolar disorder.

Driver of Utilization:

The Action Team identified that the patient lacked social support, suffered from isolation, and had challenges with transportation, maintaining her apartment, and meeting her basic needs. The patient also struggled with keeping her doctors' appointments and refilling her medications.

How we addressed DOUs:

- Upon discharge, the patient was linked to a peer from a Partial Hospitalization Program where she engaged with People Inc. a non-profit that provides recovery-oriented services for patients living with mental health issues or trauma.
- The peer assisted with cleaning the patient's apartment and creating a Wellness & Recovery Action Plan to help reduce future avoidable hospitalizations.
- The peer support also helped the patient access and navigate the public transportation system, so the patient is now able to shop for basic needs, attend appointments, and engage in the community.
- The patient regularly consents to the peer visiting her home to check on her progress.
- The peer also provided education on the patient's medication regimen and supports the patient in any medication refill requests.
- With the peer helping the patient in her home, she has connected with an Employment Counselor for help with employment services; the patient is a licensed hairdresser who expressed a desire to volunteer with the Partnership in Poughkeepsie to offer free haircuts to the homeless.

Impact to date:

The patient was initially engaged in January 2018 after a week-long stay. Since engaging with her peer support, the patient has had one inpatient admission in March 2018 and has not returned to the hospital as of April 2018. The patient has followed through with all appointments and has a much better understanding of her medications regimen. The patient continues to be in contact with her peer every other day to discuss her progress and assist with her ongoing care needs.

Lesson Learned

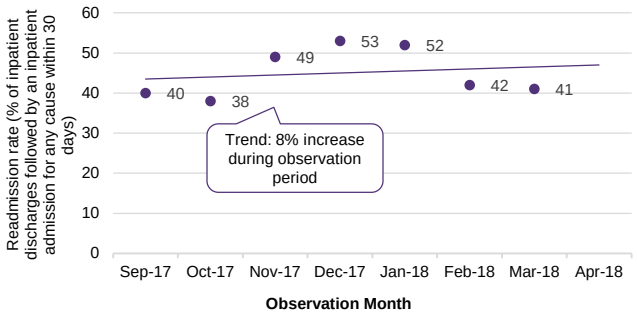
Our Action Team learned that having a multidisciplinary and coordinated approach across Information Technology (IT), case management, social work, the post-discharge team, and medical staff is necessary to ensure a whole-person approach is taken for every High Utilizer patient.

Our Proudest Accomplishment

Our proudest accomplishment during the MAX Series was partnering with People Inc. Through this partnership, People Inc. was able to engage with patients in the hospital prior to discharge and link consenting High Utilizer patients to a peer support at the time of re-entry back to the community. Each peer brings a unique, lived experience, which helps to develop a rapport with patients and to support their individual care goals.

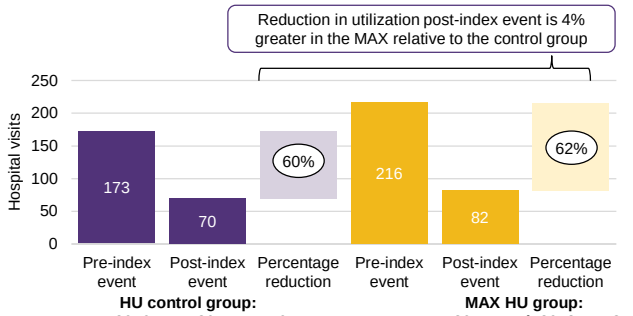
Our Impact

WMC – Mid-Hudson Regional Hospital
30-day all-cause readmission rates for HU patients, n = 145



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, WMC – Mid-Hudson Regional Hospital observed a 8% increase (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 145 High Utilizer patients in their MAX group.

WMC – Mid-Hudson Regional Hospital
90-day pre- vs. post- index event hospital utilization of HU control group against MAX HU group



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 4% greater reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).

Montefiore Medical Center, BPHC

Patient Population Definition: 6+ inpatient (IP) admissions for patients enrolled in Montefiore Care Management at the Moses Campus in 12 months

Our Actions

High Utilizer Care Pathway

Identify the High Utilizers in the hospital via an automated "worklist" in the electronic medical record (EMR)

Notify the Action Team via email and conduct a warm hand-off to the IP care team from the Emergency Department (ED).

Assess the "drivers of utilization" (DOU) and conduct a behavioral health consult and a palliative care screening.

Determine the level of services required by the Behavioral Health Team (e.g., case management, therapy appointments).

Link patients to primary care providers (PCP) and community-based organizations (CBO) for required appointments/services.

Confirm the patient's phone number and connect the patient with the post-discharge team for follow-up.

Conduct timely follow-up via a post-discharge telephone assessment and connect the patient to required services, including case management.

Create ED care plans and problem -solve via internal case conferencing.

Patient Success Story

In March 2018, the Action Team engaged a geriatric patient with nine ED presentations and six IP admissions within the prior 12 months. The patient has a history of multiple co-morbidities, including Congestive Heart Failure (CHF), Atrial Fibrillation, and Atrial Flutter.

Driver of Utilization:

The patient often presents with complaints of chest pain and has noted that she does not understand her medication regimen.

How we addressed DOUs:

- The ED and IP teams met with the patient to develop a longitudinal care plan.
- The patient was connected with case management for health literacy coaching and ongoing appointment adherence.
- A case manager was assigned to assist the patient with medication management, service linkages, and appointment reminders.

Impact to date:

As of April 2018, the patient has not returned to the hospital. She frequently connects with her case manager for ongoing care needs; in one instance of distress, the patient contacted her case manager to assist in securing a primary care appointment to avoid an ED visit.

Lesson Learned

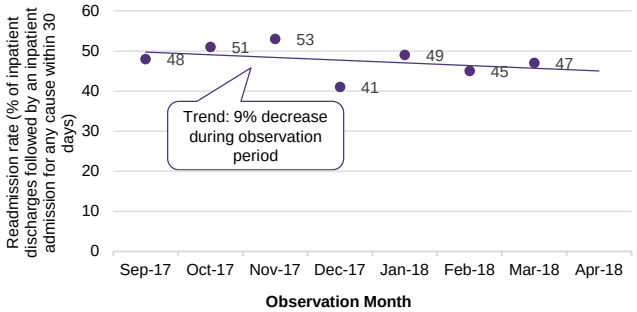
During the MAX Series, our Action Team learned how important rapid-cycles of change are to deploying and testing new initiatives in compressed timelines. In one example, our team developed a DOU questionnaire, trained staff on motivational interviewing, and reviewed the results after four weeks of testing. Following this period, the team adjusted processes to improve reliability, which increased patient touchpoints to identify the most common DOUs among our High Utilizer population. Subsequently, our Action Team identified the need to reinstitute a Sickle Cell Disease unit to address the unmet needs found through analyzes of our common patient DOUs.

Our Proudest Accomplishment

The driving force of change for the Montefiore Action Team was breaking down silos. Our team took a "whole-hospital" approach and enlisted representatives from across the hospital to join our Action Team. This diversity gave the team the ability to interact with the patient at every step of the High Utilizer Care Pathway. Our team integrated a DOU assessment into the patient workflow and care management processes, which included training ED and IP staff to identify the DOUs and convey insights through shared care plans. Our teams now leverage the shared care plan throughout a High Utilizer patient's stay for continuity between various departments, floors, and teams in addressing a High Utilizer's care needs.

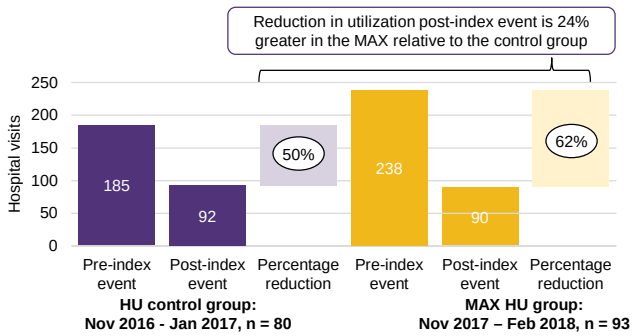
Our Impact

BPHC – Montefiore Medical Center
30-day all-cause readmission rates for HU patients, n = 114



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, BPHC – Montefiore Medical Center observed a 9% decrease (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 114 High Utilizer patients in their MAX group.

BPHC – Montefiore Medical Center
90-day pre- vs. post- index event hospital utilization of HU control group against MAX HU group



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 24% greater reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).

Niagara Falls Memorial Medical Center, MCC

Patient Population Definition: 10+ Emergency Department (ED) presentations in 12 months

Our Actions

High Utilizer Care Pathway

Identify High Utilizers via a monthly static report.

Notify Action Team, ED social workers, Health Home, and NFMMC behavioral health clinic therapists via Rhapsody email alerts.

Assess the "drivers of utilization" (DOU) to leverage in active care planning and ED care plan notation.

Warm hand-offs to on-site Certified Home Health Agency liaison.

Complete closed feedback-loops with receiving providers.

Link patients to non-traditional addiction treatment, behavioral health care, and shelter services.

Timely follow-up initiated via telephone, home visits, and linkages, along with appointment reminder prompts.

Problem-Solve with Managed Care Organizations, Health Home Care Managers, and downstream care management agencies.

Create ED care plans that alert providers in the electronic medical record.

Patient Success Story

A young patient had 140+ ED visits from March 2017 through February 2018, making her among the highest of all ED utilizers at Niagara Falls Memorial Medical Center.

Driver of Utilization:

An ED social worker identified the patient was seeking respite in the hospital to ease the stressors of her home life.

How we addressed DOUs:

- The team worked with the Office for People with Developmental Disorders (OPWDD) to enroll the patient in a two-week respite program.
- Following the completion of the respite program, the patient was transitioned home and engaged through OPWDD for in-home services, including caregiver support services.
- The patient accepted psychiatric visiting nurse services to assist with medication management and reinforcement of coping skills.
- The patient was assigned a community worker through the Medicaid Services Coordination program for assistance with medical treatment engagement.

Impact to date:

The patient has not returned to the ED since accepting support services the second week of March 2018.

Lesson Learned

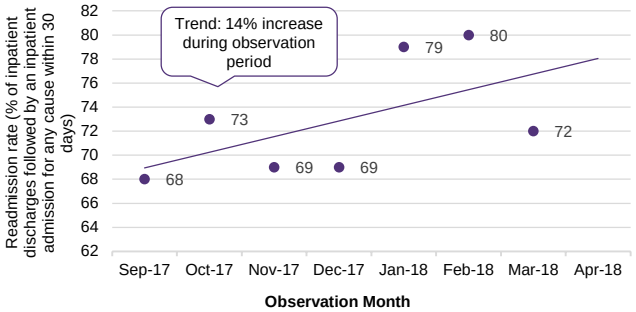
Our Action Team recognized the need to take a varied and comprehensive approach to serve our High Utilizer ("hotspotter") patient population. We learned that intensity of services and short- and long-term care management may vary depending on a patient's DOU. Additionally, we collaboratively learned that a culture shift within the hospital was key to incorporate such unique processes across departments and into the broader community.

Our Proudest Accomplishment

Our Action Team was able to designate social workers and care managers within the Emergency Department to create trusting relationships for patient engagement, which resulted in patients proactively reaching out to our committed and passionate staff. Additionally, we held weekly case conferences with the hospital team and external agencies, allowing us to collaborate and create tailored care plans that meet patients' immediate and long-term needs. This is enabling change in our own and neighboring communities.

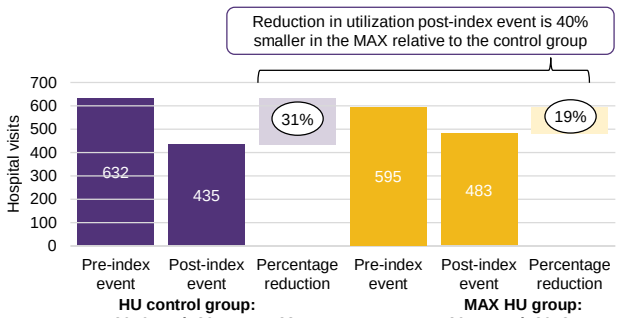
Our Impact

MCC – Niagara Falls Memorial Medical Center
30-day all-cause ED revisit rates for HU patients, n = 162



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, MCC – Niagara Falls Memorial Medical Center observed a 14% increase (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 162 High Utilizer patients in their MAX group.

MCC – Niagara Falls Memorial Medical Center
90-day pre- vs. post- index event hospital utilization of HU control group against MAX HU group



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 40% smaller reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).

Nyack Hospital, MHVC

Patient Population Definition: 10+ Emergency Department (ED) presentations in 12 months

Our Actions

High Utilizer Care Pathway

Identify High Utilizers via "VIP" flag populated within the electronic medical record (EMR).

Notify the Action Team via EMR alert and email care team of a High Utilizer's presentation.

Assess the "drivers of utilization" (DOU) for High Utilizer patients.

Conduct a bedside huddle to develop a comprehensive plan of care.

Link High Utilizer patients to Health Home services, when eligible,

Conduct warm hand-offs between social work and Nyack Community Paramedicine Program (CPP).

Conduct timely follow-up via home visits from the CPP.

Problem-solve via weekly case conferences with Health Home and case management agencies.

Create ED care alerts to inform care team on return visits to the ED.

Patient Success Story

In early March of 2018, the Action Team engaged an older patient who had over 12 ED visits over the prior 12 months. The patient is positive for both HIV and Hepatitis C, experiences seizures and chronic diarrhea, has co-occurring disorders, and struggles to adhere to treatment protocols.

Driver of Utilization:

The patient lives alone and lacks social supports.

How we addressed DOUs:

- The ED social worker linked the patient to Nyack's CPP, where the CPP Coordinator and a mid-level practitioner met at the patient's bedside to develop a plan of care.
- The CPP team explained the services they provide and reminded the patient to call them when feeling concerned or lonely.
- The patient consented to be enrolled within the CPP, which included post-discharge home visits to assist in receiving supportive services in the community.

Impact to date:

The patient returned to the ED in mid-March 2018, where the team activated his new plan of care. Further, upon the patient's return to the hospital, the same care team re-engaged the patient and problem-solved together to determine a different approach for supporting the patient in the community. The Action Team continues to conduct follow-up with the patient, including assessments for additional care needs.

Lesson Learned

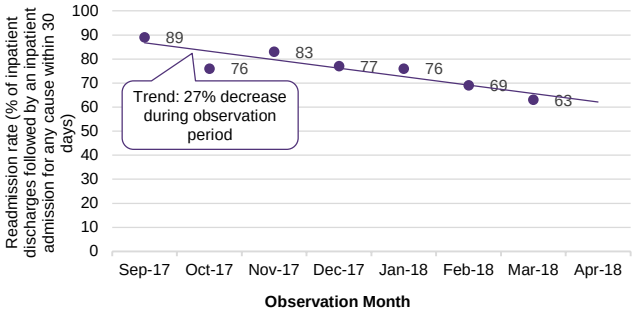
Our Action Team learned that process improvement work can be impactful when starting small and focusing on one accomplishment or initiative at a time, before expanding across the organization. Having a committed team that is able to identify barriers and uncover potential solutions early on, has kept our team passionate and successful as we expand processes across the organization.

Our Proudest Accomplishment

Our Action Team implemented the CPP, which is assisting High Utilizers post-discharge and preventing continued high utilization by supporting high-risk populations in the community. We have also expanded the documentation of social determinants of health, as they are oftentimes a DOU for many of our High Utilizers. The Mobile Health Coordinator documents progress notes from each High Utilizer CPP visit, capturing the output of the assessment to share with all members of the care team.

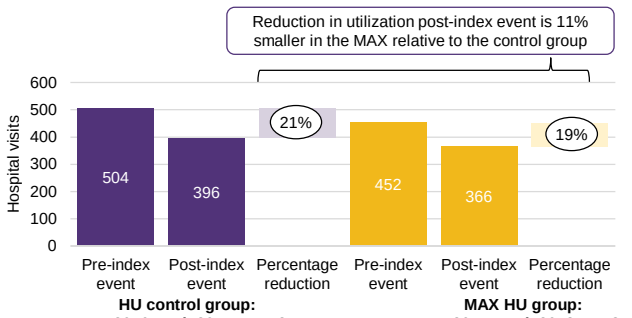
Our Impact

MHVC – Nyack Hospital
30-day all-cause ED revisit rates for HU patients, n = 86



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, MHVC – Nyack Hospital observed a 27% decrease (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 86 High Utilizer patients in their MAX group.

MHVC – Nyack Hospital
90-day pre- vs. post- index event hospital utilization of HU control group against MAX HU group



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 11% smaller reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).

NYU Langone Medical Center, NYU Langone Brooklyn

Patient Population Definition: 7+ Emergency Department (ED) presentations in 12 months

Our Actions

High Utilizer Care Pathway

Identify High Utilizers via an automated flag on the ED dashboard.
Notify Action Team via email when High Utilizers present.

Assess the "drivers of utilization" (DOU) for High Utilizer patients.
Conduct a bedside huddle to develop a High Utilizer care plan with patient and Community Health Worker (CHW).

Link patients to CHW program for 30-day, intensive follow-up and community outreach services.
Conduct warm hand-off to assigned CHW and engaged community-based organizations (CBOs).

Timely follow-up initiated via telephone calls, home visits, and reminder calls for 30-days post-discharge care management from CHW.
Problem-solve via weekly interdisciplinary case conferences.
Create ED care alerts to inform care team when a patient re-presents.

Patient Success Story

A geriatric patient with multiple chronic conditions presented to the ED 18 times in the preceding nine months with multiple medical and behavioral health complaints..

Driver of Utilization:

The Action Team identified the patient lacked stable housing, social supports, had barriers to transportation services, and had a poor health literacy.

How we addressed DOUs:

- A CHW engaged the patient in early December 2017 to assess her "drivers of utilization" and develop a care plan to address the identified needs.
- The CHW conducted a home visit and learned that the living quarters were not maintained (e.g., leaking water, pests). The CHW contacted housing services to clean the apartment and complete identified repair needs.
- The patient was experiencing financial hardship, so the CHW linked the patient to a benefits specialist, who worked with and enrolled the patient in supportive services.
- With the patient's consent, the CHW connected the patient to a senior home one block from her residence. As a result, the patient now interacts with others and attends social activities, such as bingo night.
- The CHW also identified that the patient was not attending her follow-up appointments due to transportation barriers and not understanding how to make appointments. The CHW assisted with making the patient's necessary appointments and worked with the Medicaid cab service to arrange transportation.
- It was also identified that the patient did not fully understand how to manage her medications. A registered nurse conducted a home visit to educate the patient on medication management, and a caregiver was engaged for periodic visits for medication management.

Impact to date:

The patient has not re-presented to the ED since January 2018 and has maintained all follow- up appointments, reporting that she feels supported in her healthcare goals.

Lesson Learned

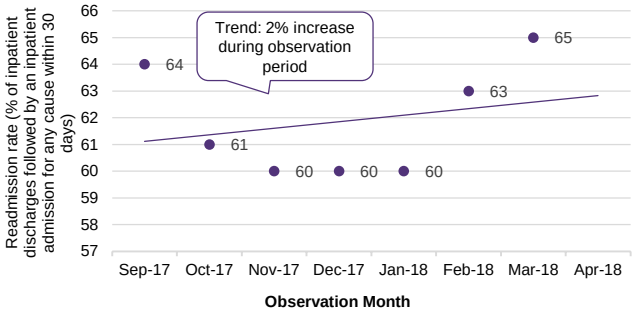
Our Action Team learned that interventions must be applied to all High Utilizer patients on a consistent basis for maximum impact. We also learned that a system-wide patient identification system can assist in scaling High Utilizer work and connect patients to our partner community-based entities for collaborative care planning, ideally, with as much care provided in the patients' preferred location of treatment as possible. Our Action Team has begun several interventions to start this process through the development of care pathway buckets. We are leveraging all of the hospital's MAX Series participants to refine and expand the reach of these interventions.

Our Proudest Accomplishment

The Action Team leveraged an existing CHW program developed in a prior MAX Series to link patients to services within the community and provide follow-up services. During the first Action Period, the team integrated the CHW model into the ED High Utilizer Care Pathway, allowing the team to engage with patients when they present to the ED. Incorporating the CHW model helped the Action Team achieve success by effectively connecting with High Utilizers.

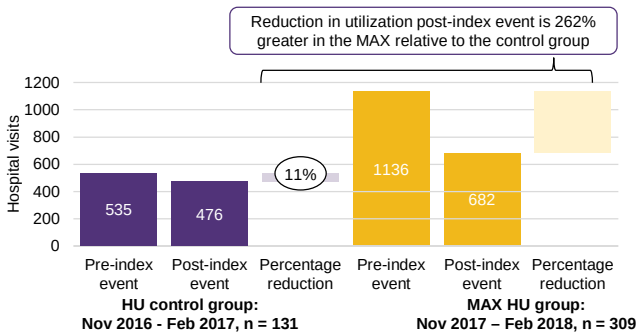
Our Impact

NYU – NYU Langone Hospital – Brooklyn
30-day all-cause ED revisit rates for HU patients, n = 428



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, NYU – NYU Langone Hospital – Brooklyn observed a 2% increase (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 428 High Utilizer patients in their MAX group.

NYU – NYU Langone Hospital – Brooklyn
90-day pre- vs. post- index event hospital utilization of HU control group against MAX HU group



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 262% greater reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).

Queens Hospital, OCH

Patient Population Definition: 5+ inpatient (IP) admissions in 12 months

Our Actions

High Utilizer Care Pathway

Identify

Notify the Action Team via daily email when High Utilizers (HU) are admitted

Identify existing primary care physicians (PCPs) or community-based organizations (CBOs) to engage in care planning and post-discharge linkages

Assess/Plan

Assess the "drivers of utilization" (DOU) for every High Utilizer patient

Conduct daily multidisciplinary bedside huddles to develop care plans and engage caregivers in a "patient-family session"

Link

Link patients to At Home for home care and Health Home linkages during hospital visit

Engage CBO services and conduct warm hand-offs

Schedule follow-up PCP appointments for every High Utilizer

Manage

Problem solve via weekly case conferences with At Home staff

Create ED care plans to consistently communicate key patient information between the care team and various hospital departments

Review complex cases and internal protocols weekly to identify gaps

Patient Success Story

A male patient, well-known to the Emergency Department (ED), had five IP admissions in the 12 months prior to February 2018. The patient has multiple co-morbidities and often experiences difficulty in controlling his symptoms.

Driver of Utilization:
A Care Manager completed a DOU assessment, where the patient revealed that a physically abusive situation was leading to emotional distress.

How we addressed DOUs:

- A nursing assessment identified a need for physical therapy relating to the patient's mobility challenges, and scheduled physical therapy services following his discharge.
- It was discovered that the patient was not attending the follow-up appointments the hospital was making for him. After a conversation with the patient, an error was found with the patient's PCP designation in the hospital's electronic medical record (EMR), associating the patient with the incorrect PCP. With the Finance team's assistance, the patient's file was reconciled and he was connected with the correct PCP for follow-up appointments.
- Two case conferences were held to discuss the patient with CBOs. Based on their feedback, the patient was connected to Adult Protective Services (APS) to assist in resolving his abusive environment and connect him to needed support services.
- During follow-up, a nurse reconciled the patient's medication at his home, identified expired medication, and assisted the patient in obtaining new prescriptions for his care needs.

Impact to date:
Since developing a new plan of care in March 2018, the patient has not been readmitted to the hospital or had an ED visit. Additionally, the patient attended all of his follow-up appointments with his designated PCP.

Lesson Learned

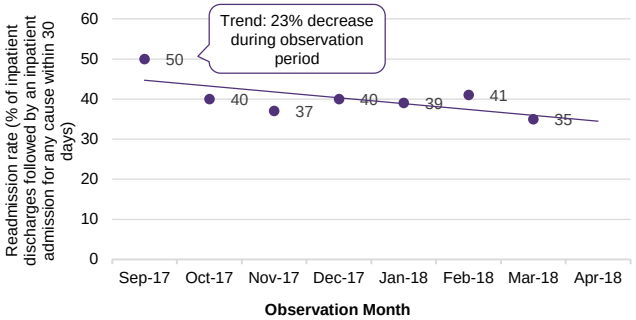
Our Action Team learned that every High Utilizer patient is truly unique, and this individuality must be integrated into the patient's care plan. To develop useful and informed care plans, our Action Team conducted DOU assessments to identify and communicate the whole-person care needs specific to each patient. This information is now incorporated as part of the patient's care plan and has led to increased collaboration and problem solving among interdisciplinary stakeholders both within and beyond the hospital.

Our Proudest Accomplishment

The key to our team's success was leveraging an interdisciplinary team approach to enhance existing patient care initiatives. The team married our multiple perspectives to implement targeted initiatives such as an assessment of the patient's non-medical needs, continually performing an analysis of the readmission patterns for better collaboration among departments, and develop comprehensive care plans that address the unique perspectives and expertise of engaged stakeholders. This approach has created alignment within and beyond the hospital by engaging various departments and external stakeholders.

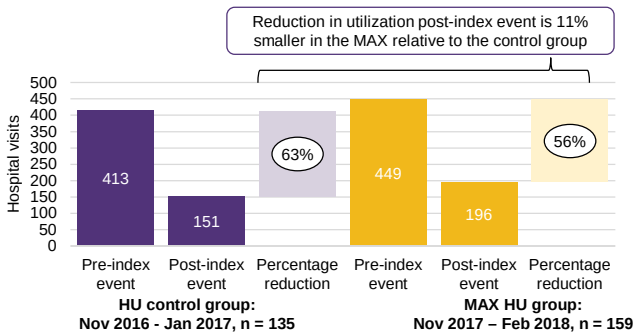
Our Impact

OCH – Queens Hospital
30-day all-cause readmission rates for HU patients, n = 248



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, OCH – Queens Hospital observed a 23% decrease (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 248 High Utilizer patients in their MAX group.

OCH – Queens Hospital
90-day pre- vs. post- index event hospital utilization of HU control group against MAX HU group



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 11% smaller reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).

St. John's Episcopal Hospital, NQP

Patient Population Definition: 4+ inpatient (IP) admissions in 12 months

Our Actions

High Utilizer Care Pathway

Identify High Utilizers through an automated flag in electronic medical record (EMR).

Notify the Action Team and care management of a High Utilizer's admission through a daily email.

Assess the "drivers of utilization" (DOU) and maintain findings within a High Utilizer registry and shared file

Plan next steps for each patient during Bed Board huddles and case conferences using a High Utilizer case worksheet.

Link Chronic Obstructive Pulmonary Disorder (COPD) patients (only) to the Transitions of Care (ToC) team.

Leverage Peer Bridger to link behavioral health High Utilizers to services in the community.

Engage Visiting Nurse Service (VNS), Assertive Community Treatment (ACT), Metropolitan Jewish Health System (MJHS) hospice center, and dialysis centers for service linkages.

Manage & share key patient information (DOUs, contact person, care plan, diagnoses, prior admissions, etc.) in the High Utilizer-registry.

Problem-solve via weekly case conferences to plan next steps.

Patient Success Story

A geriatric patient lives alone with 24-hour Home Health Aide (HHA) support. She had six hospital stays since July 2017 and has multiple chronic conditions, including heart and lung disease, as well as cognitive dysfunction.

Driver of Utilization:

The Action Team identified that the patient was not adhering to prescription medication protocols, resulting in frequent uncontrolled symptoms for her multiple chronic conditions.

How we addressed DOUs:

- A Transitions of Care (ToC) team social worker, the patient, and the patient's daughter-in- law, held a bedside meeting during a recent hospital stay to discuss her frequent readmissions and care needs.
- The patient and her family consented to a home visit by the ToC social worker following discharge. During the home visit, the ToC social worker discovered the patient was not taking needed medications for disease management.
- The ToC social worker arranged for a local pharmacy to deliver needed medications to the patient's home and provided education to the HHA on proper medication administration.
- A COPD teaching guide was also shared with the HHA through a teach-back method, outlining the warning signs of a COPD exacerbation to prevent a crisis situation.
- A family meeting was held to discuss in-home physician services, and the patient and family consented to a "doctors on call" arrangement for in-home physician visits.

Impact to date:

As of May 2018, the patient has only had one admission in March 2018, following the creation of a new plan of care. The patient's family has become more involved in her care and frequently communicates care needs or concerns with the ToC social worker. The ToC social worker continues to support the patient within her home environment to ensure she has the necessary services and supports to meet her care needs.

Lesson Learned

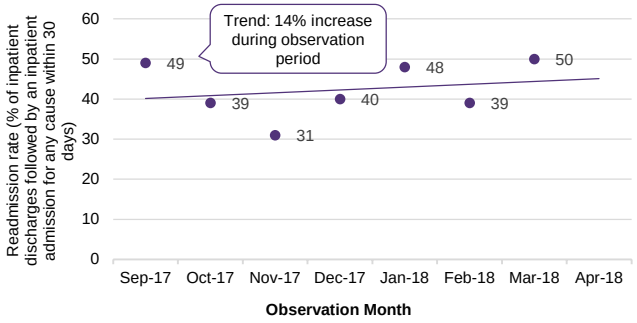
Our Action Team learned the importance of having a person dedicated to our High Utilizer population, particularly linking patients to necessary services within and beyond the hospital. For our Action Team, this was either a Community Health Worker (CHW) or patient navigator responsible for following the High Utilizers from the point of admission, until they were back in the community (including appropriate post- discharge follow-ups in the community).

Our Proudest Accomplishment

Our Action Team established a Peer Bridger program, utilizing one peer recovery coach to "bridge" High Utilizers from the non-geriatric inpatient behavioral health unit successfully back into the community following their hospitalization. At St. John's Episcopal Hospital, the Bridger engages with the patient, family, caregiver and/or aftercare providers during the patient's admission. The Bridger also facilitates appropriate clinical and social service linkages in the outpatient setting and provides support and patient empowerment through a shared-living experience to assist the patient in successfully transitioning ongoing care beyond the hospital.

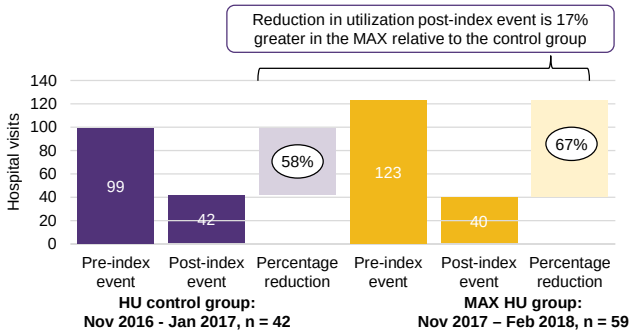
Our Impact

NQP – St. John's Episcopal Hospital
30-day all-cause readmission rates for HU patients, n = 71



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, NQP – St. John's Episcopal Hospital observed a 14% increase (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 71 High Utilizer patients in their MAX group.

NQP – St. John's Episcopal Hospital
90-day pre- vs. post- index event hospital utilization of HU control group against MAX HU group



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 17% greater reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).

St. Joseph's Hospital Health Center, CNYCC

Patient Population Definition: 6+ inpatient (IP) admissions in 12 months

Our Actions

High Utilizer Care Pathway

Identify
- **Identify** High Utilizers based on a static list updated daily
- **Notify** the Action Team of High Utilizer admissions via email

Assess/Plan
- **Assess** the "drivers of utilization" (DOU) for High Utilizers
- **Conduct** multidisciplinary discussions to establish potential linkage opportunities

Link
- **Link** patients to case managers for care coordination
- **Conduct a warm hand-off** to Behavioral Health Peers for follow-up and service linkages beyond the hospital setting

Manage
- **Timely follow-up** through telephone outreach, service linkages, and appointment reminders
- **Problem solve** though multidisciplinary case conference meetings
- **Create** Emergency Department (ED) care plans to plan for High Utilizer patients return

Patient Success Story

A middle-aged female with complex medical issues including chronic obstructive pulmonary disorder (COPD), lung cancer, and depression had 12 IP admissions, three ED visits, and one stay at a short-term rehabilitation center between February 2017 and October 2017.

Driver of Utilization:

The patient had pain control issues, was not taking her medicine consistently, and suffered from anxiety, depression and isolation.

How we addressed DOUs:

- The patient was enrolled in a Health Home and assigned a Registered Nurse (RN) Care Manager.
- The patient was also assigned a Complex Case Manager at St. Joseph's for consistency in care planning during subsequent readmissions to the hospital.
- An RN Care Manager offered and arranged homecare services.
- The patient's medications were arranged to be pre-packaged and delivered by the pharmacy weekly
- The Action Team held cross-continuum case conferences with agencies involved in the patient's care plan.
- The team coordinated a pain management plan with the patient and her primary care physician (PCP) to minimize the use of narcotics as part of her treatment protocol.
- The patient accepted enrollment in a medical day program to alleviate isolation.
- The patient was also linked with Behavioral Health providers, including a psychiatrist and a therapist, for ongoing services.

Impact to date:

Since developing a new plan of care with the patient in October 2017, the patient's utilization has decreased to one inpatient admission and one ED visit as of February 2018.

Lesson Learned

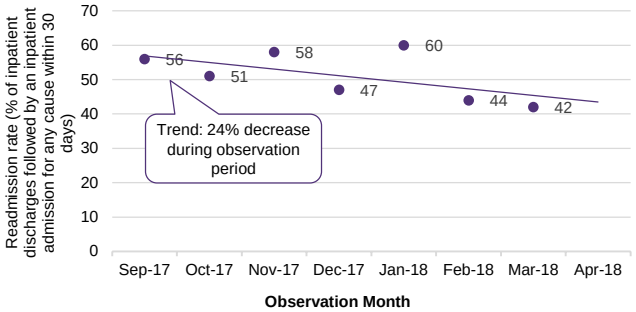
The Action Team learned the value of engaging a diverse and well-rounded group to improve care for their High Utilizer population. By having key players from different departments, the entire hospital system was challenged to work differently and collaboratively through this initiative. The Action Team also noted the importance of including individuals who have the power and ability to make a change.

Our Proudest Accomplishment

During the last few months of the MAX Series, our team consistently worked with a full caseload of 40 High Utilizer patients. As a result of our work, RN Care Managers were able to manage High Utilizers in the community rather than solely engaging them in the hospital setting. This led to a decrease in the percentage of High Utilizers served prior to discharge and a significant reduction in hospital readmissions. Because of this achievement, we have received approval to hire three additional resources to scale and sustain this work moving forward.

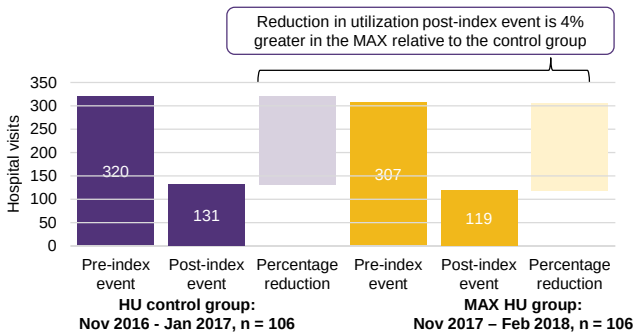
Our Impact

CNYCC – St. Joseph's Hospital Health Center
30-day all-cause readmission rates for HU patients, n = 130



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, CNYCC – St. Joseph's Hospital Health Center observed a 24% decrease (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 130 High Utilizer patients in their MAX group.

CNYCC – St. Joseph's Hospital Health Center
90-day pre- vs. post- index event hospital utilization of HU control group against MAX HU group



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 4% greater reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).

St. Mary's Healthcare-Amsterdam, AFBH

Patient Population Definition: 4+ inpatient (IP) admissions in 12 months (excluding BH/detox units)

Our Actions

High Utilizer Care Pathway

Identify High Utilizers via a dynamic daily report.

Notify clinical and Health Home case managers, nursing units, and community-based organizations (CBO) via email; CBOs notify hospital of shared High Utilizers.

Assess the "drivers of utilization" (DOU) and palliative care needs.

Conduct daily multidisciplinary rounds with emphasis on High Utilizer messaging, awareness, and care/discharge planning

Directly link patients to CBOs via real-time, two-way communication and appointment scheduling.

Conduct warm hand-offs and care planning at the bedside with CBOs.

Problem-Solve for patients pre- and post-discharge by leveraging existing "readmissions "meeting.

Patient Success Story

A patient with multiple co-morbidities, including a history of heart and lung disease and behavioral health conditions, had a history of being admitted every five to seven days.

Driver of Utilization:

The Action Team identified that the patient's developmental disability contributed to him not being able to care for himself.

How we addressed DOUs:

- A case manager conducted a DOU assessment at the bedside.
- The team held a case conference with internal and external stakeholders, including the patient's non-affiliated primary care physician (PCP), to create an updated care plan.
- The team reached out to the patient's Health Home care manager and learned there was a shared concern for the patient's developmental disability needs and thus applied for local ARC services, which provides support for people with intellectual and developmental disabilities.
- The Health Home care manager remained involved and attended all appointments with the patient.
- The team established linkages to home care services and engaged New Dimensions (a primary care practice) for follow-up appointments.

Impact to date:

Since April 2018, the patient's admissions have been dramatically reduced, having only one visit to the Emergency Department (ED) in February. The patient is in frequent contact with his care managers to address ongoing needs.

Lesson Learned

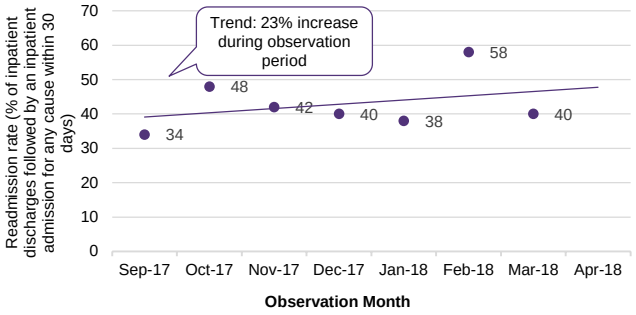
Our Action Team learned that developing and implementing rapid-cycle continuous improvement (RCCI) principles did not require significant additional work or resources; we recognized that we simply needed to modify existing workflows. We also recognized that early, upfront improvements saved us time spent later in the process and prepared us for long-term sustainability.

Our Proudest Accomplishment

An unexpected achievement for our Action Team was the unquestioning willingness of the PPS' collaborating hospital and community partners to participate in the MAX Series. New stakeholders expressed interest and easily engaged with a vision of how they could contribute to our new approach for High Utilizer patients, discussing patients in multidisciplinary rounds and case conferences, as well as communicating back and forth amongst each other.

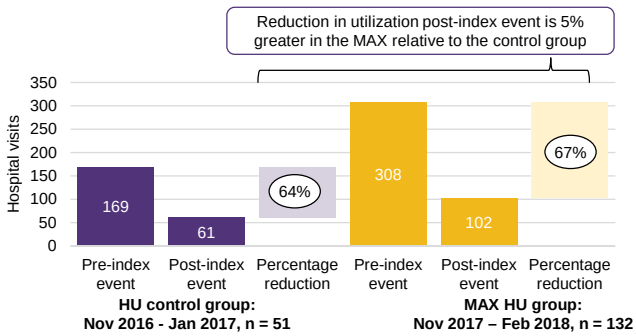
Our Impact

AFBH – St. Mary's Healthcare
30-day all-cause readmission rates for HU patients, n = 177



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, AFBH – St. Mary's Healthcare observed a 23% increase (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 177 High Utilizer patients in their MAX group.

AFBH – St. Mary's Healthcare
90-day pre- vs. post- index event hospital utilization of HU control group against MAX HU group



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 5% greater reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).

Highland Hospital, FLPPS

Patient Population Definition: 4+ inpatient (IP) admissions and/or Emergency Department (ED) presentations in 12 months

Our Actions

High Utilizer Care Pathway

Identify (Identify)
Identify High Utilizers via a bi-weekly static report and automated flag.
Notify Action Team of sickle cell disease (SCD) High Utilizers via email.

Assess/Plan
Assess the "drivers of utilization" (DOU).
Conduct daily multidisciplinary rounds with an emphasis on High Utilizer messaging, awareness, and care planning.

Link
Link patients to a Health Home and other resources to provide more direct and timely engagement.
Collaborate with hospital primary care physicians (PCPs) to improve patient-provider relationships with SCD High Utilizers.

Manage
Problem-Solve via weekly case conferences.
Create ED care plans that auto-alert providers in the electronic medical record (EMR).

Patient Success Story

A young patient with sickle cell disease (SCD) had 23 ED visits from October to December 2017.

Driver of Utilization:
The team identified that the patient lacked a trusting relationship with his primary care physician (PCP), leading to the patient feeling more comfortable receiving care from ED physicians.

How we addressed DOUs:
- A care manager conducted a DOU assessment, which revealed that the patient does not contact his PCP at the first sign of pain or crisis (which is typically 2-3 days before going to ED) to discuss possible outpatient interventions to prevent hospitalization.
- The patient was provided with self-care education reminders, including adhering to his daily hydroxyurea medication regimen.
- The team offered to transfer the patient's care to a different PCP that the patient might feel more comfortable working with, which the patient accepted.
- The team also enrolled the patient in Health Home care management services.

Impact to date:
Since engaging the patient in January 2018, the patient's utilization was reduced to 15 ED visits between January and March 2018.

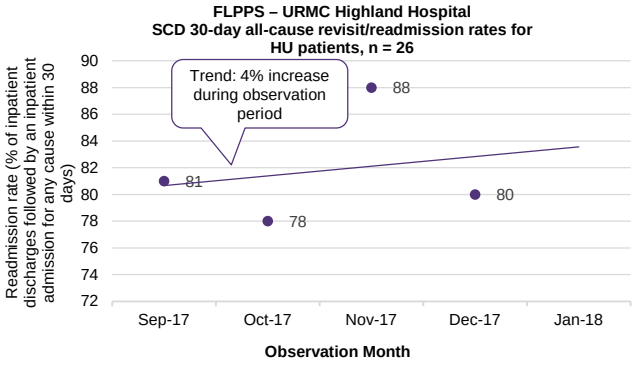
Lesson Learned

Our Action Team recognized the importance of understanding root-cause factors (i.e., the DOUs) driving patients' high hospital utilization, but we found it very difficult to uncover them in the short duration of an ED visit. We continually worked to prioritize comprehensive approaches for assessing SCD High Utilizer patients (to identify the DOUs) and found these insights extremely helpful in meeting patient needs and developing appropriate plans of care.

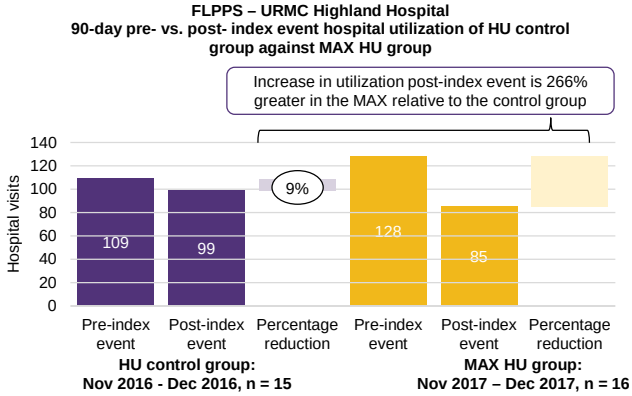
Our Proudest Accomplishment

Our Action Team is excited about the organizational buy-in and SCD-specific processes we have implemented at Highland Hospital, and we are now working to expand these processes to Strong Memorial Hospital. These new workflows direct SCD cohort-patients to a single Highland Hospital unit, where physician champions drive care based on a new standard protocol and an interdisciplinary rounding process, which provides opportunities for ongoing, real-time, and collaborative care planning.

Our Impact



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, FLPPS – URMC Highland Hospital observed a 4% increase (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 26 High Utilizer patients in their MAX group.



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 266% greater reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).

UHS Binghamton General & Wilson Medical, CCN

Patient Population Definition: 10+ Emergency Department (ED) presentations in 12 months

Our Actions

High Utilizer Care Pathway

Identify High Utilizers based on a static list updated every other week.

Notify the Action Team via email when a High Utilizer presents to the ED.

Assess the "drivers of utilization" (DOU) for High Utilizers.

Conduct outreach phone calls to High Utilizers to assess their post-discharge needs.

Link opiate and anxiety-driven High Utilizers to specific pathways in the community.

Conduct warm hand-offs between the patient's case manager and Medicaid Health Home, if eligible.

Timely follow-up initiated through telephone outreach, service linkages, and appointment reminders

Problem-solve through bi-weekly case conferences.

Create ED care plans to use for High Utilizer patients' return to the ed.

Patient Success Story

A patient presented to the ED with an overdose of antidepressants. Prior to this overdose visit, the patient had six ED visits, three inpatient psychiatric visits, and three medical admissions between February 2017 and January 2018.

Driver of Utilization:

Through an assessment with the patient, the Action Team identified that the patient was homeless and often presented to the ED for respite.

How we addressed DOUs:

- A social worker met with the patient to perform a DOU assessment, where it was identified the patient lacked stable housing.
- The social worker also identified that the patient had a Medicaid Health Home Case Manager, but was not actively engaged in ongoing services with this resource.
- The hospital social worker notified the Medicaid Health Home Case Manager that the patient was in the ED. The social worker and Medicaid Health Home Case manager met to discuss the patient's identified needs and worked collaboratively to develop a plan of care.
- Following discharge, the Medicaid Health Home Case Manager connected with the patient to assist him in securing stable housing placement. The Medicaid Health Home Case Manager also arranged for repeat check-ins with the patient at his home following his placement.

Impact to date:

Since engaging the patient's Medicaid Health Home Case Manager the second week of January 2018 and assisting with stable housing placement and follow-up services, the patient has not returned to the ED as of April 2018.

Lesson Learned

The Action Team learned that connectivity to internal and external resources to address the behavioral and psychosocial needs of their High Utilizer patients is crucial to slowing the readmission cycle of High Utilizers. Through preparation, face-to- face engagement, and cross-continuum collaboration and coordination, a powerful impact can be made to improve patients' lives.

Our Proudest Accomplishment

Our team has increased communication and collaboration with community partners to a level we did not anticipate when enrolling in the MAX Series. We have worked with community partners to connect patients to appropriate resources, to case conference for improved care coordination, and to engage in warm hand-offs to Health Home Care Management services.

Vassar Brothers Medical Center, MHVC

Patient Population Definition: 15+ Emergency Department (ED) presentations in 12 months

Our Actions

High Utilizer Care Pathway

Identify High Utilizers via an automated flag in the ED.

Notify the Action Team via an automated alert upon patient presentation to the ED.

Assess the "drivers of utilization" (DOU) by staff in ED (case manager or nurse).

Establish a "Person of Contact" for each patient; case managers coordinate follow-up care with this contact.

Link the patients to community-based organizations (CBO), including Hudson River Health Care, for services.

Conduct telephone follow-up from the hospital to community care managers, primary care physicians (PCPs), and CBOs.

Timely follow-up initiated via telephone for 30 days post-discharge

Problem-solve via bi-weekly case conferences with internal and external stakeholders.

Create ED care plans to brief ED providers on the patients' plan of care.

Patient Success Story

A 30+-year-old patient presented in the ED in March of 2018. This patient has a historical trend of visiting the ED approximately five to eight times per month, complaining of nausea and diarrhea. The patient's history includes multiple, chronic behavioral and medical problems.

Driver of Utilization:

The patient experiences immediate relief of symptoms with intravenous (IV) pain medication for her gastrointestinal (GI) pain.

How we addressed DOUs:

- After the patient was first identified as a High Utilizer and a DOU assessment was conducted, an ED care plan was created for the patient's known cause of utilization: anxiety.
- During each visit, a social worker met with the patient to discuss her concerns and life stressors to understand her whole-person care needs.
- The social worker assisted the patient in obtaining appointments with outpatient providers (including psych, GI, and primary care), and consistently informed these stakeholders of the patient's visits to the ED.
- After continued hospital utilization, the ED team identified the patient was exhibiting consistent behaviors, so the team adjusted her care plan, informing providers to treat symptoms with other methods that do not involve IV treatment (at, of course, the physician's discretion).
- Frequent follow-up calls are made to the patient to reinforce emotional support.

Impact to date:

Upon the patient's realization that she will not be given IV pain medication on presentation and that other methods would now be explored, the patient has not returned to the Vassar Brothers facility since March 2018. The Action Team is communicating with other hospitals in the area to help to ensure a coordinated response to the patient's behaviors.

Lesson Learned

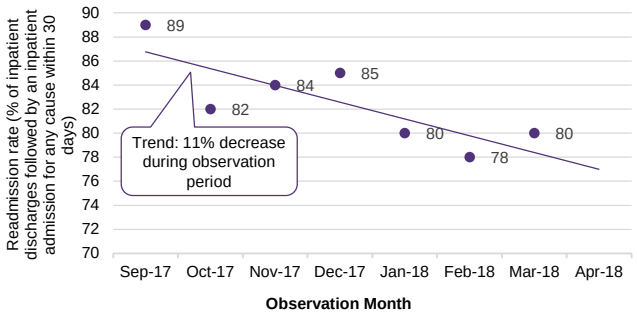
The MAX Series allowed our Action Team to understand the importance of integrating case management within the ED. Case managers are now utilized to identify the DOUs, or root-cause, for repeated hospital use. They connect High Utilizers with CBOs suited to address these needs and provide ongoing engagement and follow-up with the patients. As a result, the ED staff now has a better understanding and awareness of what is necessary to address the non-medical High Utilizer patients' needs for providing whole-person care.

Our Proudest Accomplishment

The most impactful result of the MAX Series was creating a sense of purpose and motivation to break down institutionalized silos and partner across departments and organizations. Our greatest accomplishment was forming a collaboration with a CBO that specializes in long-term care management. The CBO also assists with warm hand-offs and participate in bi- weekly case conferences for better continuity of care. Vassar Brothers Medical Center is now sharing processes and practices developed through the MAX Series with other hospitals within our network to scale and collaboratively problem-solve on addressing the needs of High Utilizers throughout the community.

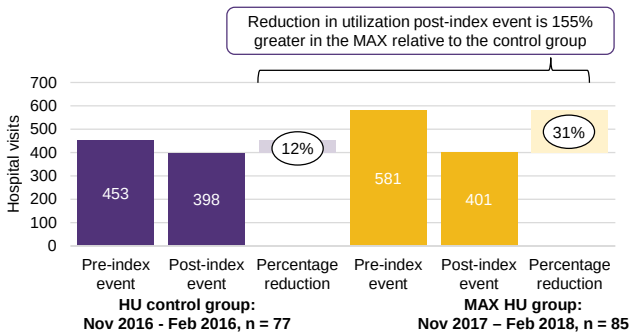
Our Impact

MHVC – Vassar Brothers Medical Center
30-day all-cause ED revisit rates for HU patients, n = 96



- The graph above shows the calculated linear trend in 30-day inpatient readmission rates for the High Utilizers during the measurement period of the MAX program. The trend line was calculated using a linear regression model that was applied to the monthly calculated readmission rates.
- During the measurement period, MHVC – Vassar Brothers Medical Center observed a 11% decrease (slope of the calculated trend line) in the 30-day all-cause readmission rate among the 96 High Utilizer patients in their MAX group.

MHVC – Vassar Brothers Medical Center
90-day pre- vs. post- index event hospital utilization of HU control group against MAX HU group



- The graph above compares the 90-day pre- vs. post-hospital utilization of the High Utilizer patients in the MAX group compared to that of the historical control group of High Utilizer patients in the same period the year prior to the MAX program.
- The High Utilizer patients in the MAX group showed a 155% greater reduction in 90-day pre- vs. post-hospital utilization relative to the High Utilizer patients in the control group (= [control group – MAX group]/control group).


DRIVERS OF UTILIZATION
High volume
easy to impact
Training for providers
Incorporate into
Identify
Increase
Leverage

Appendix C: Action Team Contact Directory

Appendix C: Action Team Contact Directory
Series 1:

Bellevue Hospital *New York City Health and Hospitals Corporation/OneCityHealth*		
Team Member Name	**Title | ActionTeam Role**	**Email Address**
William Hicks	CEO | Executive Sponsor	William.hicks@nychhc.org
Marcy Pressman	Deputy Executive Director | Admin Lead	Marcy.pressman@nychhc.org
Susanne Greenblatt	Associate Executive Director, Case Management Program | Clinical Lead	Susanne.greenblatt@nychhc.org
Elizabeth Alvarado	AED Home Care | Action Team Member	Alvarade1@nychhc.org
David Koterwas	Nurse Practitioner, ED | Action Team Member	David.koterwas@nychhc.org
Elvis Durazzo	DSRIP Program Director | Action Team Member	Elvis.durazzo@nychhc.org
Jessica Hughes	Project Manager for Office of Population Health for OneCity Health | Action Team Member	Jessica.Hughes@nychhc.org
David Martinez	Social Worker Supervisor | Action Team Member	Martidav@nychhc.org
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Madeline Rivera	Care Management Corporate Office | Action Team Member	Riveram36@nychhc.org
Carrie Shumway	Coordinating Manager, Admitting | Action Team Member	Shumwayc@nychhc.org
Susi Vallasso	ED Director/Physician | Action Team Member	Susi.vassallo@nyumc.org

Elmhurst Hospital *New York City Health and Hospitals Corporation/OneCityHealth*		
Team Member Name	**Title | ActionTeam Role**	**Email Address**
Israel Rocha	CEO | Executive Sponsor	Rochai1@nychhc.org
Claire Patterson	Senior Associate Executive Director, DSRIP | Admin Lead	Claire.patterson@nychhc.org
Joann Gull	CNO, Co-Chair, Clinical Excellence Strategic Pillar Team | Clinical Lead	Gullj@nychhc.org
Dr. Janet Carr	Director of Utilization Management and Care Management | Action Team member	Carrjane@nychhc.org
Martin Castaneda	Associative Director, Care Management | Action Team Member	Castanem3@nychhc.org

Appendix C: Action Team Contact Directory *(continued)*

Elmhurst Hospital *New York City Health and Hospitals Corporation/OneCity Health (continued)*		
Team Member Name	**Title | Action Team Role**	**Email Address**
Hope Iliceto	Department Executive Director- Chief Nursing Officer | Action Team Member	Ilicetoh@nychhc.org
Victor Infante	Associative Director, Ambulatory Care | Action Team Member	Infantev1@nychhc.org
Dr. Khaleda Islam	Attending Physician, IP Medicine | Action Team Member	Islamk1@nychhc.org
Karina Loayza	Associative Director, Social Work | Action Team Member	Lipank@nychhc.org
Jodi Lynn Romano	Director of Mental Health Services | Action Team Member	Metzgej@nychhc.org
Dr. Joseph Rabinovich	Attending Physician, ED | Action Team Member	Rabinnovj@nychhc.org

Long Island Jewish Medical Center *Nassau Queens PPS*		
Team Member Name	**Title | Action Team Role**	**Email Address**
Roseanna O'Gara	Associate executive director, quality management | Executive Sponsor	Rogarashub@northwell.edu
Dr. Leah Warner	Attending Physician, Medical Director, Emergency Medicine Integration | Clinical Lead	Lwarner2@northwell.edu
Jessica Goldbeck	Director, Hospital Operations | Admin Lead	Jgoldbeck@northwell.edu
Dr. Christina Gerdes	Medical Director, Crisis Center Zucker Hillside | Action Team Member	Cgerdes1@northwell.edu
Dr. George Alverado	Child Adolescent Psychiatry | Action Team Member	Galvarado2@northwell.edu
Jessy Warner-Cohen	Health Psychologist | Action Team Member	Jwarnercoh@northwell.edu
Dr. Khatija Paperwalla	Behavioral Health Site Director | Action Team Member	KPaperwa@northwell.edu
Kacie Rodriguez	Outreach Associate, Health Home | Action Team Member	Krodrigue8@northwell.edu
Dr. Michael Beck	Attending Physician, Psychiatry | Action Team Member	Mbeck2@northwell.edu
Megan Grella	Project Manager | Action Team Member	Mgrella1@northwell.edu

Appendix C: Action Team Contact Directory *(continued)*

Long Island Jewish Medical Center *Nassau Queens PPS (continued)*		
Team Member Name	**Title | Action Team Role**	**Email Address**
Matt Pinkus	Director Performance Improvement | Action Team Member	Mpinkus@northwell.edu
Dr. Nancy Kwon	Associate Chairperson, Emergency Medicine | Action Team Member	Nkwon@northwell.edu
Dr. Nilofar Sarvaiya	Resident Physician, Psychiatry | Action Team Member	Nsarvaiya@northwell.edu
Dr. Ruchika Harisingani	Director, Division of Hospital Medicine | Action Team Member	Rharisin@northwell.edu
Dr. Sean Lavine	Site Director, Division of Hospital Medicine | Action Team Member	Slavine@northwell.edu

Mid Hudson Regional Hospital *Westchester Medical Center*		
Team Member Name	**Title | Action Team Role**	**Email Address**
Paul Hochenberg	Executive Director, Operations | Executive Sponsor	Paul.hochenberg@wmchealth.org
Dr. Mark Papish	ED Medical Director | Admin & Clinical Lead	Mark.papish@wmchealth.org
Andrew O'Grady	Executive Director, MHA of Dutchess | Action Team Member	aogrady@mhadc.com
Cara Pace	COO, People Inc. | Action Team Member	carap@projectstoempower.org
Chris Boehm	Systems Analyst, IT | Action Team Member	Christopher.boehm@wmchealth.org
Hal Smith	Senior Director, Behavioral Health Development | Action Team Member	hal.smith@wmchealth.org
Jean King	Senior Director, Patient Care Services | Action Team Member	Jean.king@wmchealth.org
Joleen Darby	Dutchess County Site Director | Action Team Member	joleend@projectstoempower.org
Laurie Muscari	Director of Mental Health Services, Putnam Hospital | Action Team Member	Laurie.Muscari@wmchealth.org
Matt Landers	Director of Emergency Services | Action Team Member	Matthew.landers@wmchealth.org

Appendix C: Action Team Contact Directory *(continued)*

Mid Hudson Regional Hospital *Westchester Medical Center (continued)*		
Team Member Name	**Title | Action Team Role**	**Email Address**
Pamela Miller	Case Manager | Action Team Member	Pamela.miller@wmchealth.org
Sharon Miller	Director of Social Work, Behavioral Health | Action Team Member	Sharon.miller3@wmchealth.org
Steve Miccio	CEO, People Inc. | Action Team Member	Stevemiccio@projectstoempower.org
Tom Quinn	Director of Addiction Services | Action Team Member	Thomas.quinn@wmchealth.org

Montefiore Medical Center *Bronx Partners for Healthy Communities*		
Team Member Name	**Title | Action Team Role**	**Email Address**
Janet Kasoff	Senior Director CLI | Executive Sponsor	Jkasoff@montefiore.org
Akwasiba Rafaelin	Program Director | Admin Lead	Arafaeli@montefiore.org
Dr. Vanessa Pratomo	CMO | Clinical Lead	Vpratomo@montefiore.org
A'isha Harper	Assistant Director EDN | Action Team Member	Aiharpe@montefiore.org
Dr. Allison Stark	Vice President & Chief Medical Officer, CMO - Medical Management | Action Team Member	Astark@montefiore.org
Gillian Wendt	Director of Business Intelligence, Data and Analytics | Action Team Member	Gwendt@montefiore.org
Johnine Cummings	Director | Action Team Member	Jcumming@montefiore.org
John Williford	Vice President, CMO Operations, CMO - Network Care Management | Action Team Member	Jwillifo@montefiore.org
Kathleen Byrne	Associate VP | Action Team Member	Kbyrne@montefiore.org
Lisa Calhoun	Assistant Director | Action Team Member	Lcalhoun@montefiore.org
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Appendix C: Action Team Contact Directory *(continued)*

Nyack Hospital *Montefiore Hudson Valley Collaborative*		
Team Member Name	**Title | Action Team Role**	**Email Address**
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NYU Langone Medical Center *NYU Langone Brooklyn Performing Provider System*		
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Appendix C: Action Team Contact Directory *(continued)*

NYU Langone Medical Center *NYU Langone Brooklyn Performing Provider System (continued)*		
Team Member Name	**Title | Action Team Role**	**Email Address**
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Queens Hospital *New York City Health and Hospitals Corporation/OneCityHealth*		
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Appendix C: Action Team Contact Directory *(continued)*

Queens Hospital *New York City Health and Hospitals Corporation/OneCity Health (continued)*		
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St. John's Episcopal Hospital *Nassau Queens PPS*		
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Appendix C: Action Team Contact Directory *(continued)*

Vassar Brothers Medical Center *Montefiore Hudson Valley Collaborative*		
Team Member Name	**Title | Action Team Role**	**Email Address**
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Appendix C: Action Team Contact Directory *(continued)*

Series 2:

Bassett Medical Center *Leatherstocking Collaborative Health Partners*		
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Cayuga Medical Center *Care Compass Network*		
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Appendix C: Action Team Contact Directory *(continued)*

Cayuga Medical Center *Care Compass Network (continued)*		
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Appendix C: Action Team Contact Directory *(continued)*

St. Joseph's Hospital Health Center *Central New York Care Collaborative*		
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St. Mary's Healthcare *Alliance for Better Health*		
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Appendix C: Action Team Contact Directory *(continued)*

St. Mary's Healthcare *Alliance for Better Health* (continued)		
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United Health Services: *Binghamton General Hospital & Wilson Medical Center* *Care Compass Network*		
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Appendix C: Action Team Contact Directory *(continued)*

University of Rochester Medical Center: *Highland Hospital & Strong Memorial Hospital* *Finger Lakes Performing Provider System*		
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DSRIP@health.ny.gov

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