Improving Care for Multi-Visit Patients (MVP)

Category of submission (select as many as apply):

Reducing Disparities

Resident/Fellow Project

IOM Domains that this project addresses (select as many as apply)

Safety

Patient Centered

Effective

Equitable

Please share how you defined your project. Consider addressing the questions below. (Max 500 Words)
What was the identified Quality Gap? - What was the improvement target? - What was the timeline of the project? - Who were the stakeholders? - What was the stakeholders' input? - What was the method for collecting stakeholder input? - What was the potential for significant impact to the institution? - What was the potential for significant impact to society?

Multi-visit patients (MVP) within our health system is defined as patients that experience 10 or more emergency department (ED) visits within the past rolling 12 months. Patients who visit the ED with high frequency use a disproportionate amount of healthcare resources and impact readmissions, ED throughput, and length of stay. Common characteristics of patients with frequent utilization include high chronic disease burden, psychiatric disorders and substance abuse. MVPs are some of the most vulnerable patients served. At UF Health, we created a multidisciplinary task force to focus on improving and streamlining care for some of our most complex patients with the goals of reducing inappropriate and/or preventable ED utilization. By creating interdisciplinary, individualized care coordination plans in the electronic health record, care is standardized across providers leading to a decrease in utilization. Once the care plan is created, patients are connected with hospital and community resources that address their clinical, behavioral, and social needs.

Please describe how you measured the problem. Consider addressing the questions below. (Max 500 Words)
What data sources were used? - Was a numeric baseline OUTCOME measure obtained? - What defined the sample size? - What counterbalance measures were identified? - What numeric baseline COUNTERBALANCES were obtained? - Was the outcome measure clinically relevant? - Was the outcome measure a nationally recognized measure?

The MVP population is identified in real time using data metrics and dashboards. Using information gathered by a multidisciplinary team that includes social work, case management, home care along with various clinical leaders, the MVP group creates care coordination notes,

best practice advisories (BPAs) and referrals to other providers. The group tracks the progress of reviewed patients and analyzes the 6-month post-intervention data.

As a baseline for each patient reviewed in the multidisciplinary group, there is a pre and post-intervention analysis for ED utilization. Outcomes are also measured via a composite of all patients during each calendar year with an overall assessment of percent increase or reduction in ED visits and 30-day readmissions for the cohort reviewed during that time period as well as overall patients reviewed since the creation of the multidisciplinary committee. Counterbalance measures included utilization analysis for our underserved clinics as well as patients established with our primary care clinics within the health system. We have found that both ED visits and 30-day readmissions were decreased by greater than our 5-10% reduction goal. This was deemed clinically relevant for both our nationally recognized 30-day readmission core measure compliance and overall ED utilization by this cohort.

Please describe how you analyzed the problem. Consider addressing the questions below. (Max 500 Words)
What was one factor contributing to the gap? - Were multiple factors contributing to the gap? - Was a structured root cause analysis undertaken? - What was the appropriate QI method or tool used for root cause analysis? - Was a root cause analysis performed prior to identifying potential solutions? - What was the rationale for selecting intervention(s)? - Did the project use a QI method or tool for selecting intervention(s)?

From 2019 to 2020, a total of 87 patients were identified as MVPs and were followed by our multidisciplinary team. In 2019, our cohort included 48 patients who had a pre-intervention total of 940 ED visits and 253 hospital admissions during a 12-month period. Post-intervention, this cohort had a total of 548 ED visits and 162 hospital admissions, which is a 41.7% and 35.97% reduction in ED visits and admissions respectively. In 2020, the MVP cohort included 39 patients who had 797 and 232 pre-intervention ED visits and admissions respectively, and 226 and 83 post-intervention ED visits and admissions, resulting in a 28.36% and 35.78% reduction.

Please describe how you improved the problem. Consider addressing the questions below. (Max 500 Words)
What was the implementation of intervention(s) (date/time of go live)? - Was the target measure re-measured afterwards with comparison graph? - Was a structured plan for managing change used? - Was the project counterbalance re-measured with a comparison graph? - Was the counterbalance adversely affected? - Is the improvement in target outcome measure shown? - Was a statistical significance demonstrated in the outcome measure?

The implementation date of this intervention was 2016 and the goal for the pilot was a 5% post-intervention reduction in ED visits which has been achieved each year since the pilot. Our results show that an individualized care plan by a multidisciplinary team for MVPs resulted in a reduction in ED stays and hospital admissions in a 12-month period. The analysis for this project is ongoing with a goal to demonstrate that this quality improvement effort can be maintained and is sustainable. The counterbalance was not remeasured.

Please describe the control phase of your project. Consider addressing the questions below. What were the lessons learned from the project? - Was there communication to stakeholders of the summary of the project, and lessons learned? - Was a process owner identified? - Did the process owner acknowledge ownership of ongoing monitoring? - What control measures were identified? - What was the reaction plan for deficiencies identified in the control measure? - Was there at least one year of sustained monitoring demonstrated? - Was the project successfully diffused in scholarly form (i.e. poster, manuscript, etc)?

MVPs may benefit from focused multidisciplinary interventions including individualized care plans. Targeted approaches to meeting this population's medical and psychosocial needs may reduce avoidable ED visits and hospitalizations while improving healthcare for this vulnerable population. The lessons learned were initially about the process to review patients and the creation of interactive dashboards. There was communication to all stakeholders for the project along with the CQO. This project was presented at IHI National Forum in 2019 as well as internally at Quality and Patient Safety Week.