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Core Item: Hospital Admissions and Readmissions

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Executive Summary

Horizon Family Medical Group switched to the new EMR vendor EclinicalWorks in 2012 with the goal to improve overall patient care and adapt its focus from reactive to preventative medicine. Initially, The Board of Directors' annual goals were to reduce unnecessary hospital admissions, prevent hospital readmissions, and to increase the overall value of patient care. These goals were easily attainable with the new EMR; however, proper IT staffing was required to utilize the new tools. One of the challenges facing HFMG was adapting the mindset of patients to keep them from constantly visiting the ER for non-urgent issues. The organization also faced the challenge of patient readmissions within 30 to 60 days. Poor communication between the hospitals and providers only compounded the issue. HFMG also realized a discrepancy between the medications

lists available compared to the medications prescribed. After extensive research, management identified a Boston study, the Red Program, which comprised of RNs supporting physicians to manage a specific population of patients who needed further monitoring. Initially HFMG brought together a team of three RNs along with the IT Team to create its RN Concierge/Patient Population Advocate Team. With the help of EclinicalWorks to fill the gaps of communication, automate outreach capabilities, interface with third party software, and pull data from different payers, this team identified how to reduce the number of unnecessary hospital visits and 30 day hospital readmissions.

Background

Established in 1999, Horizon Family Medical Group began with four locations and ten Providers. Its CEO, James Olver, held a vision for HFMG to help the community achieve healthier outcomes and educate patients on self-management so they may learn to live a happier, healthier life. Since then, HFMG has grown to over 100 Physicians and 40 locations, including 17 different specialties. With multiple locations across the Hudson Valley, it was a challenge to share data between multiple sites utilizing paper charts. In 2008, HFMG implemented the EMR vendor Prognosis, becoming one of the first few organizations to adopt an EMR within the community. Prognosis helped its physicians share data seamlessly across multiple locations to help achieve better overall care for patients. HFMG now had the ability to track patient outcomes by running reports, to improve efficiency in regards to patient outreach initiatives, and improve collaboration between Providers. In 2011, as it became increasingly necessary to track outcomes, there arose the need for a higher sophistication in reporting. In order to take the next step, HFMG started researching a new EMR that could provide tools that would continually grow with Horizon in the future. HFMG signed with EclinicalWorks to help improve overall care and provide the tools needed to take the next steps in overall efficiency. In 2015, HFMG was recognized by NCQA for its consistency in practicing management quality, continual patient satisfaction, working towards reduction in cost and yearly improvements in patient outcomes. HFMG was awarded PCMH Level 3 across all of their 15 Primary Care sites.

Local Problem

Prior to implementing EclinicalWorks, analysis of patient tracking and general analytics was a manual task. With the previous EMR the work flow was antiquated, requiring staff to scan in the patient's chart and manually create an Excel document to review data. Limitation on sharing data with outside facilities posed a challenge for medication reconciliation. As a result, ease of use was poor, making it hard to use at hospitals and forcing staff to scan additional paper documents into the patient charts. For patients who were high risk and frequent visitors to the ER, HFMG's goal was to have the ability to track those patients and communicate back to their PCP on their status. In turn, the patients would get the needed help and hopefully prevent hospitalization. HFMG also needed a solution to prevent unnecessary hospital admissions in order to reduce the per capita cost of medicine. Working with insurance carriers, they were able to run reports that formulated specific actionable data to help reduce admission costs. With EclinicalWorks, we had the tools available to template and report the work captured by the RN team. Direct automated discharge summaries were implemented to help with the communication gap between the hospitals, nursing homes, and other groups. RNs and other HFMG staff were now able to use mobile versions of the

EMR at the hospitals and update medication reconciliation lists in real time. With reporting, they were also able to narrow down which Providers had the highest admission rates and formulate plans to help reduce unnecessary costs linked to admissions. These developments changed the scope of how the organization extends the point of care outside of the practice walls.

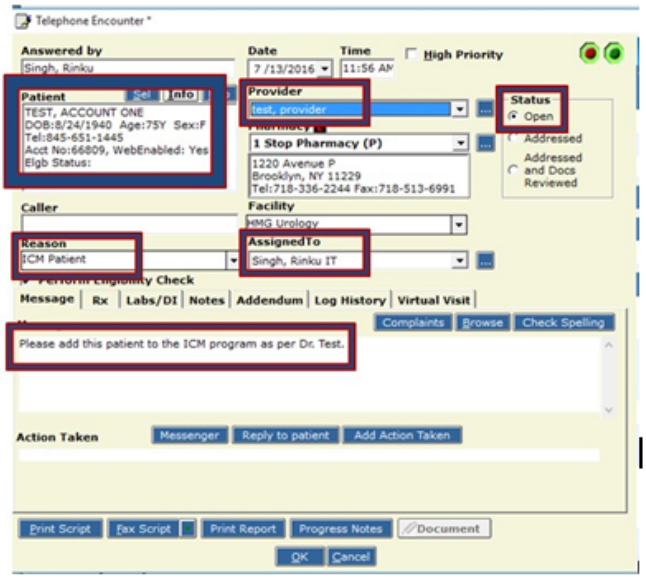
Design and Implementation

Incorporating all the desired goals to capture patients admitted to the hospitals, avoiding readmissions, following high risk patients, and being able to track a patients progress has made communication a key component. The RNs are required to communicate with the patients and relay progress back to the physicians. Tracking thousands of patients was a daunting task as it required the organization to utilize a sophisticated EMR and their internal IT development team to ensure the staff had effective and efficient workflows. The IT Team was able to construct workflows in the EMR and created an internal program that outputs actionable data into dashboards, allowing the RNs to concentrate on patients. The RNs required a patient progress alert to stay organized and ensure all the patients' needs were met within the workflows. In turn, the IT Team built a structured data template which acted as a checklist and certain fields were pulled for reporting purposes. Within the template there were date fields with a mechanism to alert the RNs after 20 days to follow up on patients that had been admitted to the hospital. A program was created that emailed an automated report to the RN team, notifying them of the patients who had hit their 20-day mark. As a result, the RN team would contact patients to determine the status of their health to finalize templates. Once finalized, providers would be able to view and if desired pull the template in the progress note during the visit, in the patient's progress in the 30-day post hospital discharge period. This enhanced communication between the physicians and the RNs drastically improved the quality of care. To ensure patient satisfaction, Survey Monkey was setup on the HFMG website and paper surveys were also given to patients at the hospitals. Patient feedback was positive, commenting on how impressive the program was in keeping the primary care provider engaged through their hospital admission process. Transitional Care Management was becoming a large part of the Triple Aim released by CMS, which helps patients achieve positive outcomes with high patient satisfaction, while also controlling costs. In 2013, HFMG developed specific practices that adhered to the model and set goals for constant improvements, while controlling costs. As the program evolved, hospitals and commercial payers found out about the program and expressed a desire to join in keeping patients from unnecessary hospitalization as well as readmissions. To help, HFMG started receiving reports for high risk patients who had multiple admissions over the past year from commercial payers and hospitals. The challenge was to avoid having to manually enter these patient reports into the EMR and to create actionable data from the workflows. The IT team was successful in collecting data from each individual report. They created dashboards to allow the RN team to analyze the date that patients were last admitted, if they had a scheduled appointment, their diagnosis, and their previous visit with their PCP. The goals of these tools were to reduce unnecessary hospitalization, readmissions, as well as to help patients improve their overall outcomes and reduce overall costs.

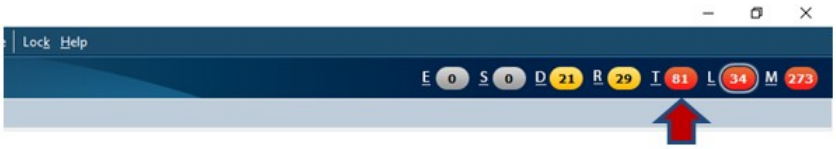
How Health IT Was Utilized

The EMR had a bevy of tools which were utilized to help meet HFMG's goals. With these tools the physicians felt it was their responsibility to engage the patient in their care and have it lead to good

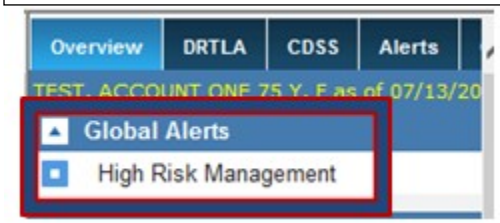
outcomes for the patients. HFMG's offices were instructed to create a follow up telephone encounter for the RNs if a patient showed up who was considered to be high risk. Thereafter the RN team would add the patient to the appropriate bucket after conducting risk stratification and adding an appropriate alert on the patient's chart. The alert would notify the offices when a patient was being followed by the RN Team and disclose the entire medical history. When the workflow was started, the organization faced an abundance of challenges. Unfortunately, each office did not have a quick reference to what was happening with the patients' care with the RN Team. As a result, when a patient called, the clinical staff would have to conduct research and follow-up or keep the patient on hold as the staff would search the individual's record. To work as one seamless care team, IT setup Global Alerts in the system to create a dedicated section for the RNs. This allowed for them to follow patients with automated timely alerts as well as let the offices quickly search through the patient's record. Once the patient was enrolled in one of the many RN programs, for efficiency, the documentation would be entered directly into templates specially built for the hospitalist program. The templates were designed by HFMG's IT team with the capability to work with its interactive dashboard software which works seamlessly with EclinicalWorks, extracting data daily and updating patient information. The dashboards are reviewed daily by the RNs and help to determine which patients require additional attention through the review of the Care Plan templates. The RNs would then use communication methods, such as patient portal messaging, campaigns, or calling the patients, to keep them engaged. HFMG recently hired a pharmacist who works directly with the RN Team to help manage high risk patients with their medication lists. Unfortunately, the pharmacist was encountering patients who are being prescribed medications from multiple providers, who are unaware of what else is being prescribed to the patient from outside facilities, causing negative drug interactions. After extensive reporting and research, the organization determined patients who are on ten or more daily medications have a low rate of compliance. In turn, the pharmacist helps reduce the amount of medications the individual is taking and the RN team does routine follow ups with the patients. As a result, the medication compliancy rates are slowly increasing. The capabilities were made possible by the IT team who created a tool allowing the pharmacist to see what the recommended generic medications could be by querying the information from their EMR. HFMG also gets an electronic summary sent directly to its EMR, helping to ensure all patients in the hospital were checked, allowing the organization to minimize missing any patient's discharges.



- Telephone Encounters created by offices to enroll patients into the ICM program.

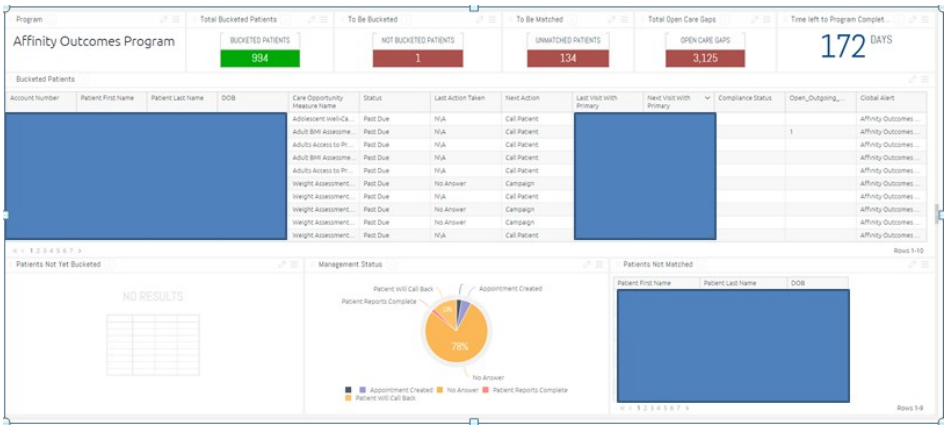


- Once the RN Team member would get the request in their bucket they would then add them in Global Alerts.



- This Alert allows all staff and offices to know what the patient is being outreached for. It allows us to act as one large care team between our 40 offices and support teams.

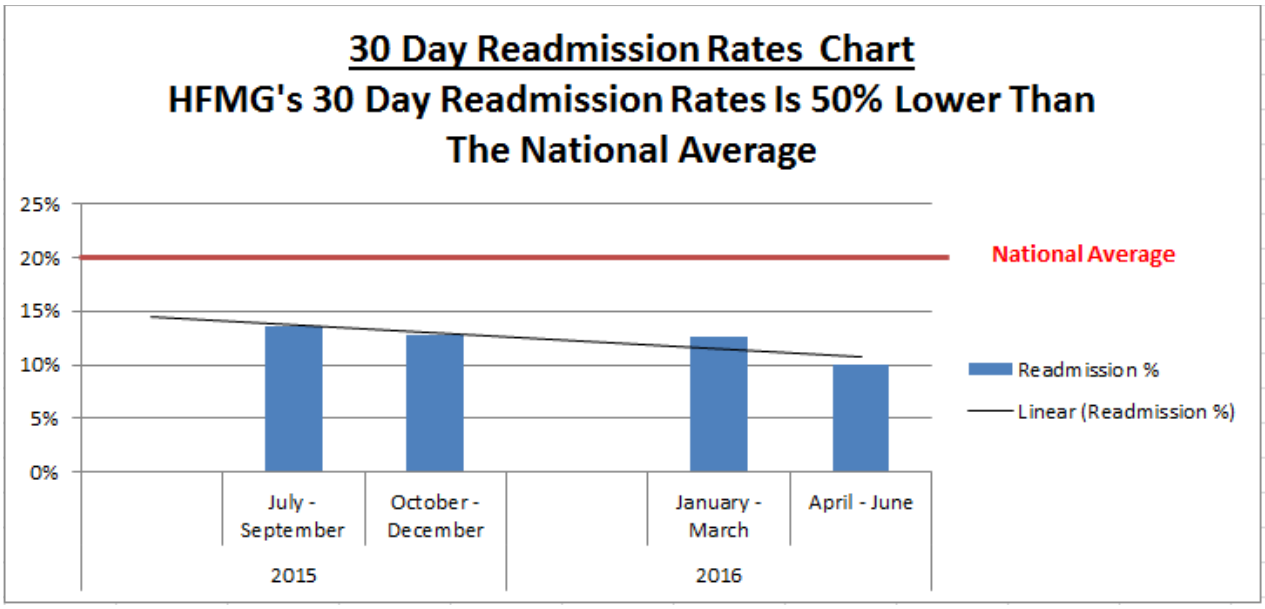
- Once the patient is enrolled in the program, the RN's can start doing outreach and filling out the template. The template allows for our Dashboard software to pull data from the specified fields and update the reports on a daily basis. The Providers also pull these the completed template into their visit with the patient, so they are aware of what was done for the patient.



- An example of the Dashboards created by IT using third party software that integrates directly with the EMR. It pulls data automatically as it is entered or modified and updates the Dashboards, saving IT's time for modifications.

Value Derived

Implementing EclinicalWorks improved workflow efficiencies by providing multiple tools and enhanced reporting capabilities. HFMG wanted to base its goal for templates upon the triple aim. We were interested in becoming an organization with high patient satisfaction that resulted in best overall outcomes, and to accomplish this at the lowest cost without sacrificing quality. There were procedures and workflows set for patient satisfaction and a process in place to achieve best overall outcomes, but controlling cost was not an easy task. With a hospitalists program already in place and capturing all the transition of care cases for discharged patients through direct messaging setup by IT , HFMG was able to save staff time. Originally they use to manually download the information from the Hospital sites, but direct messaging brought value and reduced the cost by saving staff time. HFMG noticed the quality of their program was good but there was room for improvement. As a result, in 2015, HFMG incorporated its Hospital RN team to help with transitioning patients from the hospitals to nursing homes, rehabilitation centers, and their homes. They also inputted medication reconciliation from the hospitals into our EMR real time, which was important to providers. The providers felt they did not have an accurate medication list when it came to what the patient was given at the hospital. They always had to be extra cautious about what medications they prescribed to the patient because they wanted to make sure the patient did not have any negative interaction between the medications they were prescribed. The medication reconciliation became a large part of our RN program and important to preventing duplication of medications as well as controlling costs as far as patients being prescribed generic drugs wherever possible. To improve further, HFMG hired a pharmacist to review patients who were taking ten or more medications and determine if a reduction could be made. IT was able to run this report for all patients in the group to make it an actionable item for the pharmacist. This directly helped to achieve our goal of becoming more cost effective, while ensuring patients were taking the right medications without any negative interactions. The organization started tracking its readmission rates mid-2015 to review the impact of the RN team. The goal with the RN team was to measure outcomes overtime and improve from the beginning. At the start of July 2015, IT ran reports and determined that the readmission rate was 13.60%. The organization wanted to drop to about 10%. After the first few months, IT ran a quarterly report and realized a one percent decrease, demonstrating that they were on track for success. The RNs incorporated an ICM (intensive care management) program with the help of IT, to see if they could further reduce the rate. This program allowed for weekly follow-up for patients who were at high risk of being admitted to the hospital using the Actions section of the EMR. We found the program was working well and patient satisfaction was increasing for our hospitalist program. A year into the program IT ran the report and found the readmission rates had dropped down to 10.05%. That meant Horizon's 30 day readmission rate is 50% less than the national average. That is quite an accomplishment for the Group. Currently the program is working well and we hope to achieve an additional three to four percent drop in our readmission rate.



Lessons Learned

Converting to a new EMR had its challenges. With all the available tools, the goal to reduce costs was a challenging task. With the current hospitalists program, we noticed there was a need to improve communication between the hospital providers and the primary care. Much of the workflows were on paper when the hospital program started, and change is always hard especially when there are limitations to systems at facilities outside of Horizon, which are beyond our control. As we transitioned workflows to the EMR, Horizon realized a higher rate of captured TCMs, which led to improved patient care. The provider communication was increasing and patient outcomes were improving. It was a good start but, after a month, staff noticed the program needed to be amended to get to the next level. Once the RN Team was added, IT had to ensure that the workflows were built to close the communication gap and all TCMs were being captured at affiliated hospitals. Once the local hospitals were set, they would then start moving out of the area and figuring out how to capture other hospitals as well. As the RNs started practicing and reports were entered into the dashboard software by the IT team, the actions were well calculated and we were learning how to engage patients to stay out of the hospitals. Staff realized that with consistent communication and follow up appointments for high risk patients, there was a higher success rate. In turn, as the program progressed we learned how to further enhance patient engagement. A few months into the program we noticed a positive impact; however, there was still room for improvement and in turn the ICM (intensive care management) program was incorporated. IT was able to create an automated tracking program with reporting, so no manual tracking was required. They could concentrate on patient care and let the systems do the back end work for them. This program allowed the RN to do weekly follow-ups with high risk patients who visited the hospitals frequently. As the program matures, staff will improve and amend its workflows to improve in these efforts. HFMG has found that deploying new technologies makes the teams more efficient and raises the communication levels.

Financial Considerations

The initial setup cost of the EMR implementation with hardware, software, and training was in the mid six figure range. It included in house networking equipment, servers to host the EMR, equipment for all our locations, setup fees, and implementation of Eclinicalworks. In early 2013, we started implementing lab and DI interfaces which cost between $5,000 to $12,000. This allowed us to share data electronically, which helped Horizon save in staff time and reduced human errors. It also made the process faster and allowed for the ability to graph test results and trend data, leading to best overall patient care. This resulted in a soft ROI and paid for itself in a few years. We also added direct messaging module that captured hospital data for the RN team, which is a yearly cost of $15,000. This feature required Board approval, as it was a yearly cost for the Group. In the presentation to the Board, the calculation projected an ROI with the amount of time staff saved from manually having to retrieve patient data from the Hospital systems. This also allows us to ensure we capture all the patients discharged, which increases the amount of TCMs we do for the patients. The reimbursement for TCMs pay at a higher rate than a normal visit and that also helps offset the cost of the direct messaging module. There was also an increase in IT staffing, QA staffing, RN staffing, and overall training costs for the group. Dashboard software cost to integrate with the EMR averaged around $20,000, with ongoing support averaging $4,000 yearly. With this software, the RNs are able to filter items in the reports to turn them into an actionable item. The soft ROI on this software is that it saves IT staff time to make changes on reports built into the Dashboard. Some ongoing costs include licensing costs per provider for the EMR, support contracts for hardware for the EMR, monthly offsite backups, security/compliancy services, and yearly increase in storage devices for data storage. Most of the EMR cost was offset by Meaningful Use dollars initially. Recently with increases in efficiencies in our workflows, we are able to accomplish and capture incentive dollars from pay for performance contracting, PCMH, and Meaningful Use for certain new providers. We are currently able to capture incentive dollars in the seven figure range.