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Transitions of Care: Implementing Early Follow-up Appointment To Help Decrease Readmission Rate

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Abstract

Problem – The rate of readmission in the country is at a severe level. According to CMS, in 2017 the average national readmission rate was 18.4%(CMS, 2018). Hospitals are penalized for unnecessary readmissions (HRRP, 2018). In addition to the financial burden of readmissions, quality of life is decreased with readmission.

Context – Early or timely outpatient follow-up after hospitalization has been projected as a means of decreasing readmission rates.

Interventions – Integrating follow-up appointment to the current care transition - HUB process as a means in reducing readmission rates.

Measures & Results – Identified high-risk patients that need timely follow-up appointment before hospital discharge. Through chart audits and call logs (from HUB Staff), 75% identified high-risk patients would have a scheduled follow-up appointment before hospital discharge.

Conclusions – Probable conclusions that can happen from this change in process project may be that there are external issues that prevent this change from happening. Discharged patients from hospitals that have higher early follow-up rates have a lower risk of 30-day readmission.

Introduction

Centers for Medicare & Medicaid Services (CMS) define Care Transitions when patients move from one health care provider or setting to another. Approximately one in five Medicare patients discharged from an acute hospital (roughly 2.6 million) is readmitted within 30 days. CMS estimated the readmission cost of more than $26 billion annually (CMS, 2018). Preventable hospital readmissions are significant patient safety and quality concern. An unnecessary readmissions primary cause is due to poor communication and coordination of care during transitions. The Medicare Payment Advisory Commission (MedPAC) has estimated that 12% of readmissions are potentially avoidable. Nearly 20% of all Medicare patients have

readmission within 30 days and preventing even 10% of these readmissions could save Medicare $1 billion (Jencks, Williams, & Coleman, 2009). The Affordable Care Act (2010) established the Hospital Readmission Reduction Program (HRRP) in 2012 to lower payments to hospitals with too many readmissions (CMS, 2018).

The evolving evidence of care transition highlights the significance of numerous actions in decreasing hospital readmissions. The most efficient of these are well-coordinated hospital discharge planning, primary care input into discharge planning, medication review or medication reconciliation, and timely primary care physician follow-up. Studies have shown that early post-discharge follow-up with a primary care physician and or follow-up within seven days associated with lower 30-day readmission rates (Baker, Oliver-McNeil, Deng, & Hummel, 2015).

This change in process project formed after considering trends in patients not making it for their follow-up appointments after hospital discharge. Safe patient care transitions from the hospital to other settings are essential to providing high-quality patient care and reducing avoidable readmissions. This project aims to help minimize the 30-day hospital-wide readmission rate by the end of 2018. The first stage of the project will be a microsystem assessment, chart audits, followed by a series of staff meetings, and in-service training. The second stage will be the implementation process, which is the integration of scheduling patients' follow-up appointment before discharge from the two acute hospitals. HUB staff will be provided with a call log for identified high-risk patients. The project will pilot scheduling appointment for high-risk patients identified through their LACE score (see Figure 1). The third stage will be the post-implementation evaluation on how many appointments were scheduled for a specified period and eventually a reduction in readmission rate.

Readmission led to higher costs for healthcare and associated with poorer outcomes for patients. CMS estimated that readmissions within 30 days of discharge cost more than $15 - $20 billion annually (CMS, 2018). According to the data collected in this writer's microsystem, the hospital-wide 30-day readmission rate is trending from 13.5% in 2010 to 14.0% in 2014, which is better than the 18.4% national rate. This data based on Medicare claims on patients readmitted within 30 days after being discharged from an earlier hospital stay (CMS, 2018).

The purpose of this change in process project is to decrease the hospital-wide 30-day readmission rate by 5%. Though it is not possible to assess the readmission rate during the length of this project, an evaluation will be conducted following the project implementation to determine process effectiveness. To update the staff on the progress of the project, we will continue to address it on the weekly huddle and monthly staff meeting.

Safe and effective care transitions from the hospital to other settings are essential to providing high-quality patient care and reducing avoidable admissions. The PICO question that shaped this research is as follows, " Will scheduling a follow-up appointment before a patient's hospital discharge help reduce readmission rates?" The said PICO statement was helpful in finding the literature needed to support the change in process project. Using USF library – fusion, google scholar, CMS website, AHRQ, and other government websites the writer was able to collect data for the project. The writer did find five articles from 2010 to 2017 that will be beneficial for the care transitions change in process project. Moreover, the writer discovered that post-discharge follow-up appointment is associated with lower readmission rates.

Studies have shown evidence that hospitals engage in several activities to lower readmissions. Best practices in care transitions such as comprehensive discharge planning, complete and timely communication information, medication reconciliation, patient/caregiver

training using the teach-back method, open communication between providers, and early follow-up visit with an outpatient provider after discharge. According to a study conducted by Misky, Wald, and Coleman (2010), lack of timely outpatient follow-up was associated with increased hospital readmission for the same condition and a trend toward a longer index hospital length of stay (Misky et al., 2010). Another study piloted in Southeast Michigan – "See you in 7 Collaborative" showed a significantly lower 30-day readmission and Medicare payments in Heart Failure (HF) patients. The findings showed an overall reduction of $4.5 million total Medicare payments for acute HF care and post-discharge outpatient care decreased in 10 collaborating hospitals and $5.8 million cuts in 82 non-participating hospitals (Baker, Oliver-McNeil, Deng, and Hummel, 2015).

Baker, Oliver-McNeil, Deng, and Hummel (2015) evaluated and inter-hospital collaborative approach to improve 7-day post-discharge follow-up (7dFU) rates and reduce 30-day readmissions in heart failure (HF) patients. The "see you in 7" collaborative participation was associated with significantly lower 30-day readmission and Medicare payments in HF patients. In 10 collaborating hospitals (CH) readmission rates decreased by 2.6% and a 0.6% decrease with non-participating hospitals (NPH) in Southeast Michigan (Baker et al., 2015). Another study conducted by Baky, Moran, Warwick, George, Williams, McWilliams, and Marine (2017), to 578 cardiac patients. The study findings were that patients who received an appointment before hospital discharge had much lower odds (OR = 0.383, 95% CI: 0.197 – 0.743) of being readmitted within 30 days. The study also found that scheduling follow-up appointments before discharge were the intervention that had the most substantial effect on preventing readmissions (Baky et al., 2017).

Besides, this project is necessary as high rates of readmission results in penalties to hospitals. The Readmission Reduction Program (HRRP) of the Center for Medicare & Medicaid Services penalizes the hospitals in which there are high rates of re-hospitalizations of patients within 30 days of discharge (CMS, 2018). These hospitals will receive reduced payments for "excess readmissions" (CMS, 2018). By decreasing the readmission rate by integrating follow-up appointment scheduling into the current HUB process, this project has the potential to make significant contributions to nursing. Based on evidence gathered in this study, this change in the care transition process can improve other programs. This process would provide significantly to patients who have been discharged from the hospitals, causing reduced readmissions and improved safety and quality of life.

This change in process project took place at a care transition program by a not-for-profit medical foundation in Contra Costa County operating two tertiary hospitals. The care transition program aims to reduce readmission rates further and improve the quality of patient care. The microsystem is composed of registered nurses, physicians, social worker, care transition associates, and administrative assistants. This care transition program or HUB process coordinates inpatient discharge process by arranging Skilled Nursing Facility (SNF)/Long Term Acute Care (LTAC) placement, Durable Medical Equipment (DME) ordering, arranging transportation, and Home Health services referral. This care transition program is based on Coleman's care transition model of the four pillars of medication self-management, maintaining personal health record, timely primary care/specialty care follow-up, and knowledge of "red-flags" for their condition (Coleman, 2007). This care transition program (HUB process) has already demonstrated success in reduction of readmission rates since its launching last February 2017. Chart audits indicate that 5% of the care transition patients in 2017 were readmitted within

30days as compared to the national readmission rate of 15.2% (CMS, 2018). The aim statement for this change in process project is to improve patient safety by further reducing readmission rates through integrating follow-up appointment scheduling with the current HUB process before hospital discharge in 75% of the care transition patients by July 31, 2018. The purpose of this change in process project is to implement a move to reduce readmission in this care transition program's patients to increase safety and improve quality of life.

Methods

An assessment of the microsystem was done to determine the necessity for this change in process project. Measurable data obtained through an audit of patient's charts from April of 2017 to March of 2018. The care transition program or HUB process handled an average of 260 discharges per week between 2017 and 2018. Chart audits of discharge patients through the HUB process indicated that 13.5% readmission rate for last year. Data from 2018 suggested that the readmission rate was 12.9% (see Appendix A). The outcomes from the chart audit presented to the HUB staff during the weekly meeting. The teams were oblivious that the readmission rate in 2017 and 2018 was 13.5% and 12.9%, which did not show much difference from the earlier stated data. The reported readmission data during the assessment phase urged the HUB staff to integrate some measures to help decrease the readmission rate.

According to Jeffrey P. Harrison, SWOT analysis is an examination of an organization's internal strengths and weaknesses, its opportunities for growth and improvement, and the threats the external environment presents to its survival (Harrison, 2010). Identified strengths of the microsystem include the shared vision and goals for patient and provider, the use of single EHR for all departments, standardized care transition/HUB process, and the availability of the resources to patients. When the HUB staffs were presented with the data, they recognized the

need for change. Weaknesses include staffing shortage, staff knowledge deficit on the HUB process, and poor transition tools or gaps in implementation. Opportunities involve EHR accessibility, stakeholders' full support on the existing HUB process, and the development of current staff through training. Identified threats include high staff turnover, the dissatisfaction of the HUB staff, gaps in communication between inpatient and outpatient staff, and changes in patients financial resources/insurance (see Appendix B).

Process mapping defined as a method for creating a diagram that uses graphic symbols to show the steps and the flow of the process (Nelson, Batalden, & Godfrey, 2007). A flowchart was utilized to assess the stages of the care transition program/HUB process (see Appendix C). By evaluating the steps of the HUB process, possible delays can be determined. Possible delays can occur when inpatient case manager send in a late referral or referrals received after the patient discharge from the hospital; then the HUB staff will not have enough time to arrange a patient's follow-up appointment. These potential delays indicated the need for a change in process to update the method of delivering adequate care to patients. This change in process project will address the need for patients to have their follow-up appointment arranged before leaving the hospital.

A fishbone diagram is defined as an analysis tool that depicts the possible causes that contribute to a single effect (Nelson et al., 2007, p. 316). A fishbone diagram was utilized to determine the reasons for readmission (see Appendix D). Probable causes include professionals, process, referrals, and patients. Causative causes to the professionals involve the large caseload for HUB staff, staffing shortage, and no available support staff (RNs) on weekends. Contributing factors to the referrals include inappropriate referrals, the inability of inpatient staff in identifying high-risk patients, and lastly new inpatient staff unaware of the HUB process. Causative causes

to the process include referrals are received timely by HUB staff, patient information sent to PCP/specialty provider, and HUB staff to call PCP/specialty provider to arrange the follow-up appointment needed before discharge. Contributing factors to patients comprise of patients with high-acuity, non-compliant with the scheduled follow-up appointment, and discharge patients with no planned appointment. Through the analysis and assessment of the microsystem, it was determined that a change in process is needed in which the follow-up appointment will be arranged before a patient's hospital discharge. The follow-up appointment scheduling will be integrated to the current HUB process. This intervention is based on research by Jackson, Shahsahebi, Wedlake, and DuBard (2015), which states that follow-up within 7 days associated with meaningful reductions in readmission risk for patients with multiple chronic conditions and a greater than 20% baseline risk of readmission and follow-up within 14 days after discharge associated with 1.5%-point reduction in readmissions (Jackson et al., 2015).

Evaluation of the costs further indicates a positive result through the implementation of change in the process. The change in process project will be to implement that the follow-up appointment scheduling arranged before a patient discharge from the hospital. Research has indicated that patients lacking a timely PCP follow-up were ten times more likely to be readmitted (Misky et al., 2010). As the HUB staffs are already processing other patients discharge needs (DME, transportation, Home Health, SNF, etc.), scheduling these follow-up appointments does not increase the work of the staff. The success of the current care transition program means that there is no extra cost associated with this change in process project. According to the State of California Office of Statewide Health Planning & Development (2016), the cost of an emergency room visit is $1,390.25 and a medical/surgical bed is $7,871.25 per night. Per the Hospital Care Data (2018), the average length of inpatient stay is 4.74 days. Using

this data, the estimated cost of hospitalization is $38,699.975 (see Appendix E). Due to the Medicare (HRRP) penalty for readmission, this number demonstrates the savings per patient who is not readmitted due to their services. Reduction of readmissions is essential in lowering hospital costs. This change in process project emphases on arranging a follow-up appointment to identified high-risk patients before hospital discharge. An evaluation of the microsystem has established that this change in process project is needed and will be valuable to the patients of this care transition program.

Utilizing John P. Kotter's Eight Steps of Change, arranging follow-up appointments will be made before hospital discharge in 75% of high-risk patients within August 31, 2018. Kotter's model covered eight steps that must be taken to lead change (Kotter, 2007). The first step in Kotter's theory is having others recognizing the need and establishing a sense of urgency. The readmission data presented to the staff and it made sense of urgency. The data indicated that the readmission rates had increased from 2014. The next step included engaging a team of effective leaders, forming and communicating the vision, and eliminating problems. This change in process project was discussed with the supervisor of the HUB to determine any hurdles or apprehensions. During weekly staff meetings, the concept of the change in process project was shared and supporting research articles were presented to the staff through discussions. In addition to providing information to the HUB staff, the CTAs or Care Transition Associates included in the education and weekly meetings. The CTAs received the referrals from the inpatient case managers and arranged whatever the patient needs for discharge (SNF, DME, Home Health, etc.). The CTAs will be the one who will arrange for the follow-up appointment after the inpatient case managers identified the patients that need the appointment. If there is missing information, the CTA will contact the hospitals concurrently. Previously, the inpatient

case managers were the ones in-charge of arranging for patients needs after hospital discharge, resulting in the delay of care because of the workload. In creating the action plan, the next step is to devise short-term achievable goals, followed by planning for long-term improvement. The last level of Kotter's model is to confirm that the changes made become part of the culture of the microsystem (Kotter, 2007). Arranging follow-up appointments before a patient's hospital discharge will be implemented through Kotter's theory and these eight steps.

Once the change in process is functional, the role of the CNL is to assess and determine any barriers to change. Any obstacles or issues addressed during the weekly HUB staff meetings. Following the project implementation, the effectiveness of the change in process evaluated. Evaluation achieved through an audit of current care transition patients between June and July 2018. The review will assess if the patients had their follow-up appointments arranged before hospital discharge. The goal is that the HUB staff will arrange a follow-up appointment in 75% of identified high-risk discharge patients.

A long-term aim of this change in process project is to reduce readmission rates to 5% of the care transition program patients. As the services last between six to eight weeks, assessing the readmission rate during the length of this current change in process project is not possible. Through the implementation of this change in process project, the readmission rate is expected to lower down by 5%. Further evaluation is necessary for December 2018 to determine the long-term effectiveness of this change in process project.

This change in process project started in May 2018 and will end in July 2018. The implementation of change in process will occur over the course of twelve weeks. A copy of the Gantt chart describing the timeline can be found in Appendix F. The project started with the microsystem assessment including chart audits for discharged patients between 2017 and 2018.

The HUB staff and inpatient staff were interviewed to identify any concerns and change needed in the microsystem. Frontrunners were enlisted to help with the project implementation. Throughout May and June 2018, training provided to HUB staff and inpatient staff regarding the importance of integrating the follow-up appointment with the current HUB process. The intervention to arrange follow-up appointments with identified high-risk patients before hospital discharge implemented after the second week of June. After the change in process implementation, feedback obtained from the staff to determine any concerns or obstacles to the intervention. The set goal is that 75% of the identified high-risk patients are to have follow-up appointments arranged before discharge by July 31, 2018.

Results

The projected long-term result for this change in process outcome is that there will further decrease in hospital-wide 30-day readmission rate with the care transition discharge patients. This outcome will not be apparent until outside of the timeline of this change in process project, the anticipated result is that 75% of discharged patients will have a follow-up appointment arranged before hospital discharge. The HUB staff immediately bought into the plan as everybody shared the same vision of further reducing readmission rates. As such, this writer believes that the set goal is achievable. The outcomes will be conveyed to the HUB staff and the inpatient staff via charts showing the percentage of patients having their follow-up appointment arranged before hospital discharge. Probable conclusions that can occur from this change in process project may be that there are outside factors that prevent this change from happening. The HUB staff has stated their concerns that there are several external impediments to instigating this change, one of which is timeliness of the follow-up referrals received and or incomplete referrals. The issue on the timing of referrals received will be addressed by the

inpatient CMA/SW and that they will be the one who will follow-up with the inpatient CM or attending physician on additional information needed for incomplete referrals. By doing these tasks at the same time will save the time of going back and forth between the HUB staff and the outside clinic/facility. Additional assessment is needed to determine if the above-mentioned external factors impact the expected results.

By further reducing the readmission rate thru the implementation of having the follow-up appointment arranged before patient's discharge from the hospital, this change in process project have the potential to make substantial contributions to nursing. This care transition program has already demonstrated its success by reducing the readmission rate since its launching last year. Utilizing the data gathered in this project can help improve other care transition programs. A smooth transition from the inpatient to the outpatient world constitutes a favorable model of care. Patient safety programs such as this care transition program, exhibit the first nursing ethical principle of nonmaleficence – "do no harm" or the nurse's duty to protect the patient's safety (King & Gerald, 2016, p. 244). This care transition program aims to improve the health of the patients with quality and compassion through evidence-based, coordinated care across the care continuum (Kaplan & Tolin, 2017).

Discussion

This care transition program has already proven its success in reducing readmissions as evidenced by the current readmission rate of 12.9%. According to CMS, the current national readmission rate is 18.4% (CMS, 2018). This change in process project aimed was to improve the health of the patients with quality and compassion by further reducing the readmission rates through implementing the arrangement of follow-up appointment before a patient discharge from the hospital in 75% of care transition program patients by July 31, 2018. The long-term goal of

this change in process project is to decrease readmission rates, but this goal cannot be measured until December 31, 2018. The long-term aim cannot be measured, as these patients have not finished their care transition program services. Furthermore, most of these patients are still within the 30-day readmission window per Medicare criteria if re-hospitalized within this time frame (CMS, 2018).

Designs utilized to actualize this change in process project were in line with the planned methods. In-service training was provided to the HUB staff and in-patient staff regarding the importance of implementing this change in the process. Due to the education provided, there was an increase buy-in from the team and willingness to participate in the project. Weekly staff meetings and random huddles were held with the staff to examine questions and concerns or barriers to this change in process project. Moreover, CTAs were brief on methods to streamline the process of facilitating the follow-up appointment. In the evaluation stage of the project, HUB staff reported that the process was useful in sending in patient information to the provider and making the necessary follow-up appointment scheduled for the patient.

In the second phase, thirty-five patients were scheduled to have their follow-up appointment before hospital discharge. Throughout the study phase of the PDSA cycle in which results of the intervention are analyzed, the chart audits indicated that 73% of patients had their follow-up appointment arranged before hospital discharge (see Appendix G). The outcome presented did not meet the stated aim of 75% of discharged patients. These outcomes suggest that there are probable enhancements need to be created.

Several causes were analyzed on why patients' follow-up appointments not arranged before leaving the hospital. This analysis can be found in Appendix H. According to the HUB staff, the most common reason was that patients are discharging on the weekend. Other causes

were that referrals received untimely or were received after a patient's discharged and incomplete referrals. The incomplete referral was one example of the expected reasons for the delay of care. Furthermore, we learned that these identified causes were avoidable.

After analyzing the data for those patients whose follow-up appointment were not arranged before discharge, eight of those patients discharged on a Friday or the weekend. The referrals received over the weekend were not processed because clinics are closed on weekends, and this is one of the threats identified during the SWOT analysis (see Appendix B). Another example of external causes for not having their follow-up appointment arranged was that referrals were received after patients' discharged or were incomplete.

The intervention in this change in process project was determined by an evaluation of the microsystem that includes a discussion with the HUB staff. The staffs believed that the cause of why patients' follow-up appointments were not arranged or scheduled before a patient's hospital discharge was the weekend discharges. Upon evaluation of the change in process, it determined that other external factors affect this practice. The microsystem would benefit from more PDSA cycles (see Appendix H) to tackle more changes needed to address the other causes of patients not having their follow-up appointments arranged before discharged (Nelson et al., 2007, p. 275). The upcoming change in process projects will concentrate on means to increase the timeliness of the referrals especially focused on projected weekend discharges. The Clinical Nurse Leader (CNL) in the microsystem will assist interdisciplinary team collaboration. The CNL will "assume a leadership role, in collaboration with other inter-professional team members, to facilitate transitions across care settings to improve care outcomes" (AACN, 2013, p. 18). The interdisciplinary team will include the HUB staff, inpatient case managers, and other ancillary members from the macrosystem. This process will help facilitate patient's follow-up

appointment before hospital discharge.

The aims of this change in process project were in line with the goals of the microsystem. The HUB staff, inpatient staff, and the stakeholders shared the same goals, which is to decrease readmission rate. Because of this, there was full cooperation between inpatient and HUB staff for the change in process project. The buy-in from the staff expands the viability of the post-discharge follow-up appointment to be arranged before patients' discharge from the hospital. Stabilization of this project will happen through reiteration as the staffs have been establishing this change for the last couple of weeks.

This intervention implemented with the use of Kotter's Eight Steps of Change (see Figure 2). In making the action plan, a step was to create reasonable short-term goals, followed by planning for long-term improvement (Kotter, 2007). While the change in process project's goal was not achieved, the result was close to the short-term goal. The staffs are determined to continue this change in process project with achieving the short-term goals. The HUB staffs were enthralled by the 73% results of discharge patients with a scheduled follow-up appointment. Nearly attaining the short-term goal keep the team motivated and likely more buy-in to the continuing change in the process. The last stage of Kotter's theory is to ensure that the changes made become part of the culture of the microsystem and is justifiable (Kotter, 2007). The goal of this final stage is to ensure the sustained realization of the change in a process through selection of qualified leads, and positive results are sustained through continued advancement of the change (Kotter, 2007). The nurse supervisor in the microsystem has been the advocate for this change in process and the one who warrants its sustainability. It is projected that this change in process will be retained through continued support and advocacy of the change. By maintaining this change in process, it is expected that the long-term goal of patients will have their follow-up

appointment arranged before hospital discharge to reduce the readmission rate to 5% by December 2018 will be attained.

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Appendices

Figure 1

LACE Index Scoring Tool for Risk Assessment of Hospital Readmission

Step 1. Length of Stay

Length of stay (including day of admission and discharge): _____ days

Length of stay (days)	Score (circle as appropriate)
1	1
2	2
3	3
4-6	4
7-13	5
14 or more	7

L

Step 2. Acuity of Admission

Was the patient admitted to hospital via the emergency department?
If yes, enter "3" in Box A, otherwise enter "0" in Box A

A

Step 3. Comorbidities

Condition (definitions and notes on reverse)	Score (circle as appropriate)
Previous myocardial infarction	+1
Cerebrovascular disease	+1
Peripheral vascular disease	+1
Diabetes without complications	+1
Congestive heart failure	+2
Diabetes with end organ damage	+2
Chronic pulmonary disease	+2
Mild liver or renal disease	+2
Any tumor (including lymphoma or leukemia)	+2
Dementia	+3
Connective tissue disease	+3
AIDS	+4
Moderate or severe liver or renal disease	+4
Metastatic solid tumor	+6
TOTAL	

If the TOTAL score is between 0 and 3 enter the score into Box C. If the score is 4 or higher, enter 5 into Box C

C

Step 4. Emergency department visits

How many times has the patient visited an emergency department in the six months prior to admission (not including the emergency department visit immediately preceding the current admission)? _____
Enter this number or 4 (whichever is smaller) in Box E

E

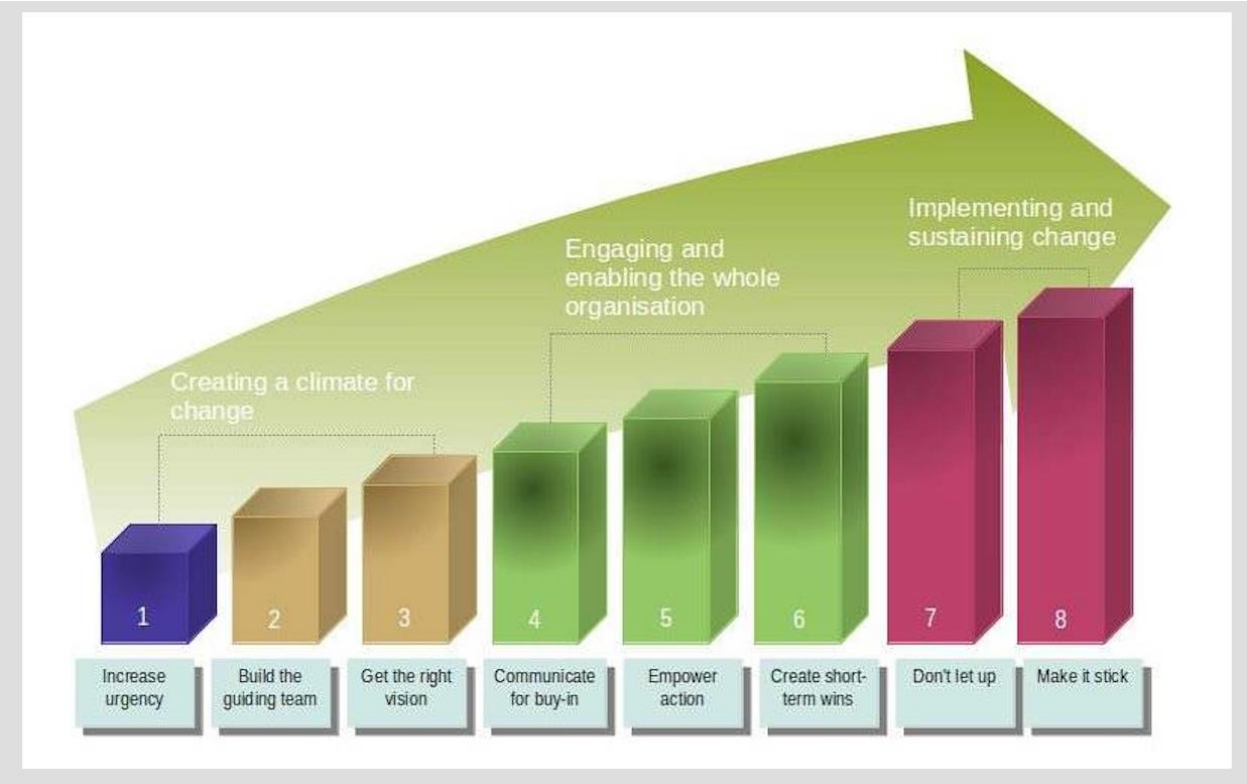
Add numbers in Box L, Box A, Box C, Box E to generate LACE score and enter into box below.

LACE

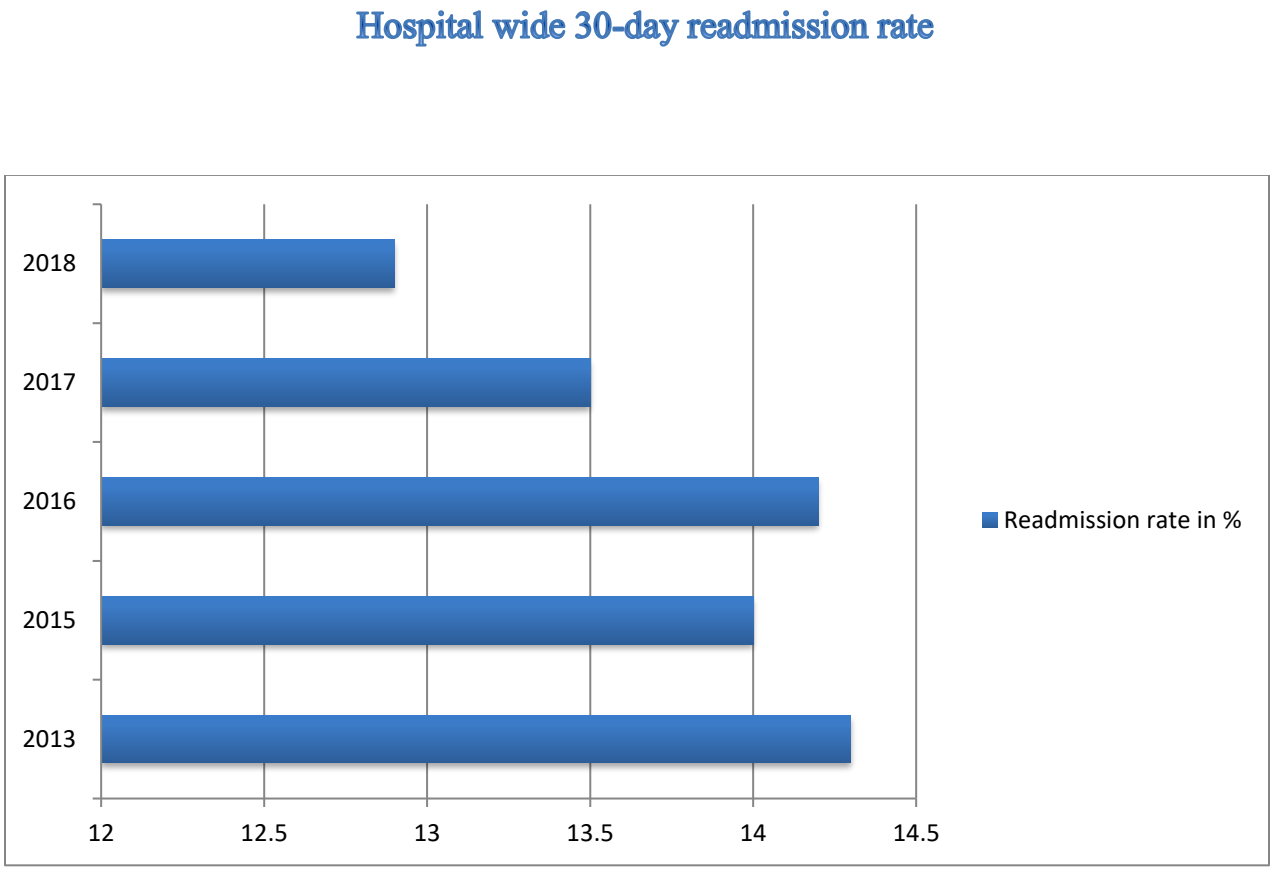
LACE Score Risk of Readmission: ≥ 10 High Risk

Figure 2

Kotter's Eight Steps of Change



Appendix A

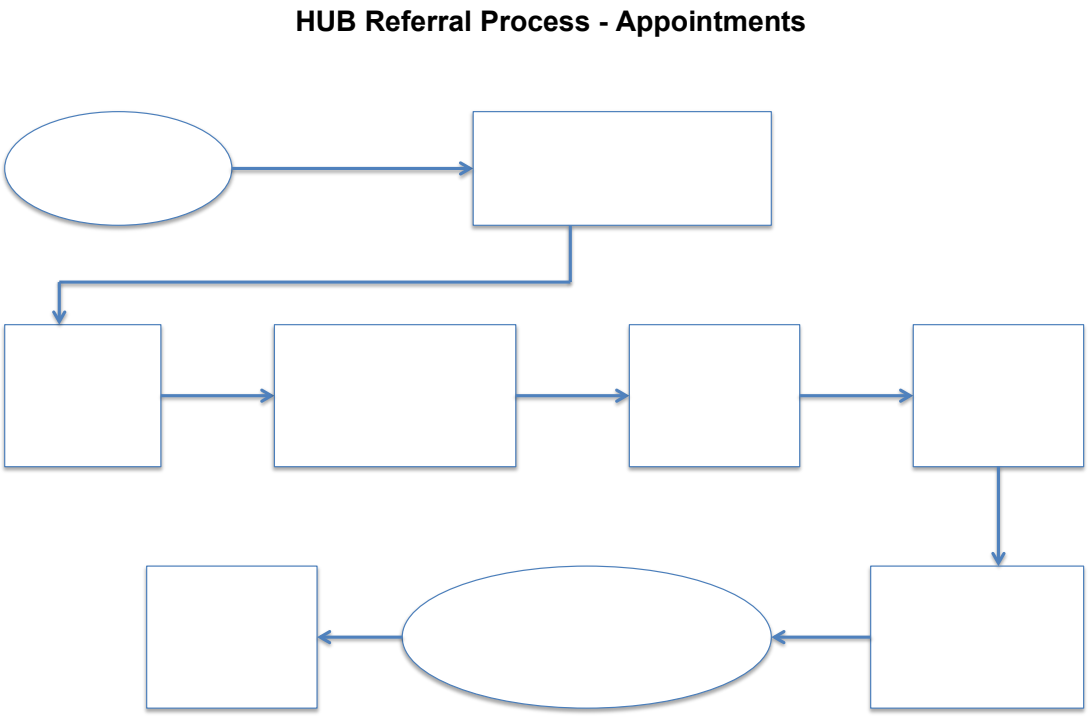

Hospital wide 30-day readmission rate
2018
2017
2016
2015
2013
12
12.5
13
13.5
14
14.5
Readmission rate in %

Appendix B

SWOT Analysis

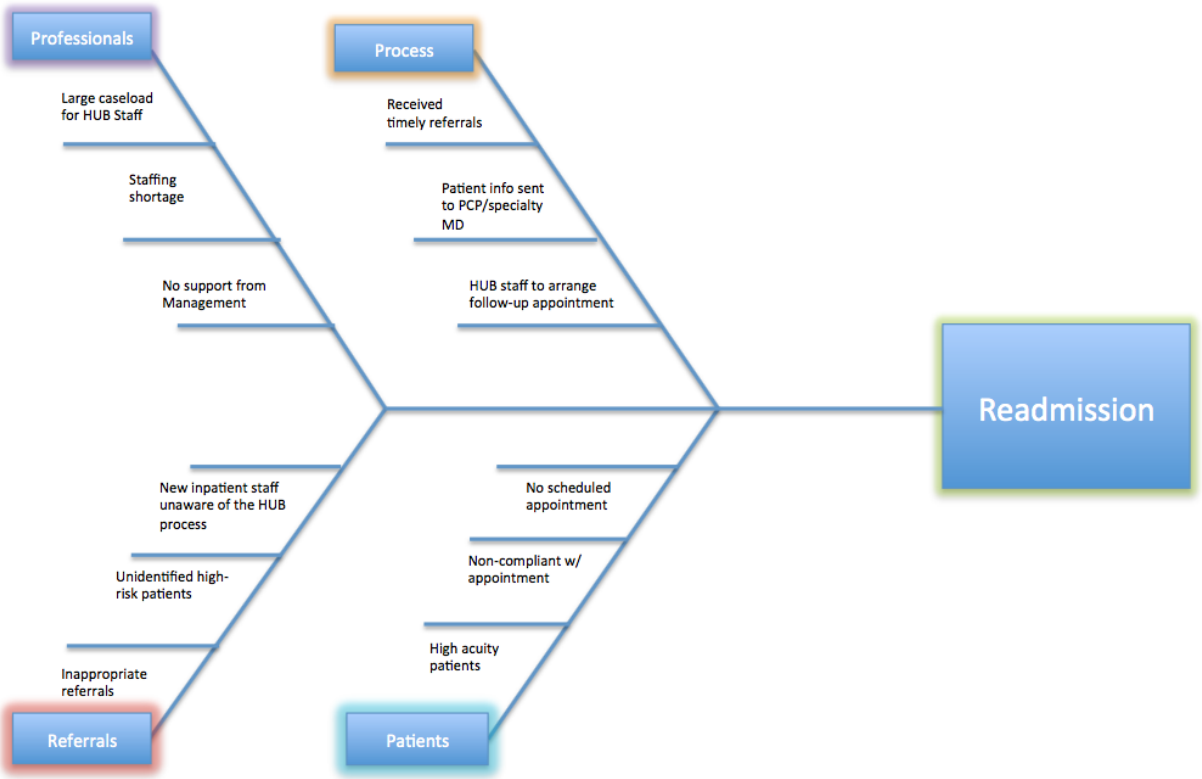
STRENGTHS: • Standardized care transition/HUB process; • Centralized staff to support patient transition; • Shared vision & goals for patient & provider; • Use of single EMR - Epic; Availability of resources to patients in the County	**WEAKNESSES**: • Staff shortage to handle incoming referrals; • Knowledge deficit on the HUB process; • Inadequate care transition tools & gaps in implementation
OPPORTUNITIES: • EHR accessibility; • Stakeholders full support on the existing HUB process; • Development of existing staff through training	**THREATS**: • Dissatisfaction of the care transition team; • Gaps in communication; untimely referrals • Change in financial resources/insurance for patients; • High HUB staff turn-over

Appendix C



Appendix D

Root Cause Analysis - Readmission



Appendix E

Savings on Readmission Cost Per Patient

Hospital Cost	Estimated Cost	Readmission Savings
Emergency Room Visit	$1,390.25	$1,390.25
Med/Surg Unit Stay (ALOS = 4.74 days)	$7,871.25	$37,309.725
Savings Per Patient		$38,699.975

Appendix F

Project Timeline

	May 2018				June 2018				July 2018			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Assessment of the microsystem												
Discussion/brainstorming with supervisor re: change in process project proposal												
Assigning super user staff w/ change in process implementation												
During monthly staff meeting, introduce the change in process project												
Staff training/education on the HUB process change project												
Begin change in process implementation by arranging follow-up appointment												
During monthly meeting – assess & address any concerns/problems from the process change												
Continued HUB staff training & education and implementation of the process change												
Evaluate effectiveness of the change in process by evaluating the percentage of patients w/ scheduled f/u appointment before discharge												

Appendix G

Patients With Arranged Follow-up Appointment Before Hospital Discharge

With Follow-up	**35**	**73%**
Without Follow-up	13	27%

Appendix H

CAUSES OF PATIENTS NOT HAVING THEIR FOLLOW-UP APPOINTMENT ARRANGED BEFORE HOSPITAL DISCHARGE

Causes	Number of Patients
Incomplete referral	2
Discharged on the weekend	8
Referral received after discharge	3

Appendix I

PDSA Cycle