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## Interprofessional Collaboration During Discharge Planning for a Large Midwestern Hospital

Sarah Shepler  
*Grand Valley State University*

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Interprofessional Collaboration During Discharge Planning for a Large Midwestern Hospital

Sarah Shepler

Kirkhof College of Nursing

Grand Valley State University

Advisor: Dr. Sandra Spoelstra

Advisory Team: Dr. Sylvia Simons, Dr. Mary Dougherty

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## Abstract

**Introduction:** Interprofessional collaboration (IPC) improves the quality of healthcare delivery. IPC enhances communication during discharge planning, through use of structured daily rounds to reduce readmissions, length of stay (LOS), cost, and mortality. A \$240 billion reduction in cost could be achieved with IPC. The Joint Commission, Institute of Medicine, and World Health Organization emphasize use of IPC to reduce errors, improve patient outcomes, and refine transitions of care for patients.

**Objectives:** The goal of this project was to determine how IPC within structured daily rounds during discharge planning impacts patient LOS and staff satisfaction.

**Methods:** This quality improvement project was conducted at a large Midwestern hospital on two medical-surgical units. Implementation of structured daily rounds using a toolkit were evaluated. Data were collected via observations of discharge planning, daily rounds, and surveys; while LOS data was provided by the site.

**Results:** LOS was positively impacted by structured daily rounds. Unit A LOS was reduced by 0.09 days while unit B reduced by 0.14 days following implementation. Staff satisfaction and understanding of IPC during rounds improved by 11.3% (62.2% to 73.5%) following implementation.

**Conclusions:** LOS was positively impacted by structured daily rounds. LOS was successfully reduced following implementation. Staff understanding of IPC during daily rounds with the use of a toolkit had a small improvement. The toolkit, along with key stakeholder involvement, were beneficial to enhancing staff satisfaction through improved communication and education.

**Implications:** Practice improvements included structured daily rounds that would include IPC to ensure effective discharge planning and patient needs were met. Utilizing a toolkit enhanced daily rounds and improved uptake for practice change by developing necessary tools for education, audits, and expectations to warrant success and sustainability of structured daily rounds. Patient LOS is expected to further decline after continued use of the toolkit enhances daily rounds and the change in practice becomes the new culture for discharge planning.

**Keywords:** discharge planning, structured interprofessional daily rounds, length of stay, interprofessional collaboration

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## Interprofessional Collaboration during Discharge Planning for a Large Midwestern Hospital

### **Introduction**

Interprofessional collaboration (IPC) is a collaborative approach to delivery of health services to patients by healthcare clinicians from multiple disciplines (Parker, Jacobson, McGuire, Zorzi, & Oandasan, 2012). Components of IPC are effective communication, cooperation, coordination, respect, leadership, and shared responsibility (Menefee, 2014). The Institute of Medicine (IOM), World Health Organization (WHO), and the Joint Commission promote utilization of IPC within healthcare to improve patient outcomes (Andermo, Sundberg, Forsberg, & Falkenberg, 2015; The Joint Commission, 2013; Lancaster, Kolakowsky-Hayner, Kovacich, & Greer-Williams, 2015).

Collaboration among healthcare disciplines reduces hospital readmissions, length of stay (LOS), cost, and mortality (Jeffs, Dhalla, Cardoso, & Bell, 2014; Menefee, 2014; Reeves, Pelone, Harrison, Goldman, & Zwarenstein, 2017). Improving collaboration, communication, and workflow during discharge planning refines care delivery and enhances patient and staff satisfaction (Clay-Williams et al., 2018). One way to enhance IPC is through daily rounds. Structured daily rounds that includes all disciplines relevant to a patient's care improves teamwork, hospital performance, patient LOS, and readmission rates (Clay-Williams et al., 2018). Therefore, the purpose of this project was to implement structured daily rounds on two medical-surgical units focused on discharge planning to reduce patient LOS while impacting staff satisfaction.

### **Assessment of the Organization**

Implementation of practice change can be challenging. An organizational assessment prior to implementing a change can support uptake and sustainability of the improvement. The

Burke-Litwin (1992) Model of Organizational Performance and Change guided analysis of factors that contributed to utilization of IPC and identified gaps within current practice.

### **Framework for Assessment**

The Burke and Litwin (1992) Model of Organizational Performance and Change framework guided the assessment (see Appendix A). The model examines how climate and culture within a site impact change. Climate is defined as the view of the work environment and cohesiveness of co-workers among employees. Culture refers to the values and typical actions within a social structure. Climate is the perception of an employee, while culture is the belief and meaning of the work performed.

The Burke-Litwin (1992) model contains 12-factors to assess concerns related to site performance. Constructs that support the 12-factors are transformation and transactional variables. Prior to implementing a change, it is important to examine factors that explain the behavior of an organization, the interactions among the factors, and how the factors will affect the change. Transactional factors include everyday interactions that create a climate of perception within the workplace. Transactions among peers includes management practices, systems, work unit climate, structure, task and individual skills, motivation, individual needs and values, and individual and organizational performance. The purpose of transactional factors are the exchanges among peers, for instance the return of a favor for a co-worker. Transformational factors are fundamental and contribute to how individuals find meaning in their work. Transformational factors include the external environment, organizational culture, individual and organizational performance, mission and strategy, and leadership.

### **Unit Assessment using Burke-Litwin Framework**

Facilitators and barriers to IPC were identified after assessment of the transformational and transactional factors on the medical-surgical units. Facilitators identified included: the mission and strategy, leadership, structure, management practices, task requirements, individual skills, work unit climate, individual needs and values, motivation, and performance at the individual and organizational level. While potential barriers to practice change were the organizations culture and systems within the two units.

The culture of the organization supported collaboration among disciplines; however, little support and structure were provided to guide the use of IPC. Daily rounds were utilized to enhance communication among multiple team members to ensure needs of the patient were met. Though, participation in daily rounds varied by unit. Some units participated in rounds, while others did not. Daily rounds included different disciplines and structures. Disciplines attending included nurses (RNs), RN manager, care manager (CM), pharmacist, physical therapy (PT) and the admitting provider. The structure of rounds consisted of a review of the daily needs of patients on some units, while others focused on discharge planning. The different structures for daily rounds made it difficult for staff to understand the purpose of rounds. The need for enhanced structure and understanding of daily rounds was evident to improve patient outcomes. The CM department had begun rolling out structured daily rounds that emphasized discharge planning. This project provided evidence-based tools to develop guidelines and structure for daily rounds.

The units selected for the project were evaluated based on LOS prior to implementation. From October 2018 to December 2018 the LOS for unit A was 4.96 and unit B was 4.94 (see Appendix B and C). The National Milliman LOS benchmark for Unit A was 5.02 and 4.78 for

unit B. The hospital average LOS was 5.35. Unit A was below the National Milliman benchmark and hospital average; however, unit B was above the benchmark and below the hospital average. Unit A had a rise in LOS for January 2019, 7.4, putting the unit above the benchmark and hospital average. The need for IPC to reduce LOS during discharge planning was evident.

Observation of collaboration on the two units further informed the project. There were differences observed per unit. Unit A had daily interdisciplinary rounds Monday thru Friday. Disciplines involved were the RNs, RN manager, CM, pharmacist or pharmacy student, and the primary admitting provider. There was a lack of involvement by other disciplines, the patient was not included, and rounds were conducted in a conference room. Rounds lasted 25 to 45 minutes and included review of approximately 15 patients. However, key factors were not addressed due to the fast pace. A pharmacist or pharmacy student was present but offered little insight into medication issues. The rounds did not include all patients on the unit. When a new physician was present, rounds updated the physician on the patient history rather than collaborating and focusing on the needs of the patient.

Unit B participated in daily interdisciplinary rounds Monday thru Friday. However, the disciplines involved varied per day. Each day the CM and charge nurse (CN) were present for rounds. Wednesday was the only day the RN was present. Rounds consisted of the CM and CN discussing patient needs for the day, discharge planning was not discussed during each session. Wednesday rounds consisted of patient need updates for the clinical nurse specialist. Rounds took place in the break room, and lasted an hour. Rounds did not include key disciplines involved in patient care.

The assessment found a lack of standardization for daily rounds. No policies existed to provide structure for conducting daily rounds nor emphasized discharge planning. Daily rounds

did not include all disciplines and lacked patient involvement. The RNs on the units were uncertain of their role in daily rounds and assistance with discharge planning. Thus, structured daily rounds during discharge planning were needed to improve patient outcomes.

### **Ethics and Protection of Human Subjects**

The university and site Institutional Review Boards (IRBs) determined the project was quality improvement (see Appendix D and E).

### **Stakeholders**

Individuals invested and interested in a project from the micro to the macro level are considered key stakeholders (Moran, Burdon, & Conrad, 2017). Prior to beginning this project, a stakeholder letter of support was obtained (see Appendix F). Key stakeholders involved with IPC during daily rounds included patients, healthcare providers (physicians, nurse practitioners, and physician assistants), RNs, the RN manager, CM, and administration. Providers played a critical role in determination of disciplines needed to be involved in care. RNs workflow, assessment, and practice would be impacted with changes in IPC involvement. CM played a key role in ensuring daily rounds focused on discharge planning and meeting the needs of the patients. The RN manager assisted in implementation of the practice improvement. Administration played an important role as the process of care and daily rounds would impact the entire organization. Other disciplines that would prove to be stakeholders to enhance communication during daily rounds, included pharmacists and therapists (occupational and physical [PT]).

### **SWOT**

Strengths, weaknesses, opportunities, and threats (SWOT) analyses were conducted to identify opportunities for improvement and to assess IPC during daily rounds focused on discharge planning (see Appendix G). A SWOT analysis identifies strengths to support a project,

determines how to address weaknesses, areas of opportunities, and threats to a project (Zaccagnini & White, 2017). Internal and external attributes were identified. Internal analysis included evaluation of successes and failures, while external evaluates environmental influences that pose potential opportunities and obstacles (Moran, Burson, & Conrad, 2017). Performing a SWOT analysis is essential to determine factors that can facilitate success of a project.

**Strengths.** The units had many strengths. There was a passion to improve collaboration, and support of a large hospital with resources. Staff on the units participated or were aware of interprofessional rounds. Staff on unit A were adapt and participated in daily interprofessional rounds. The culture on the units supported quality improvement and encouraged change to improve patient outcomes.

**Weaknesses.** One weakness was that the RNs on unit A had less than two years of experience as a nurse, and lacked confidence with initiation of discussion related to patient care needs with providers. Additionally, interprofessional rounds took place in a conference room rather than at the bedside, which prohibited input from patients and family members. The staff on unit B were unfamiliar with how to conduct daily rounds.

**Opportunities.** No policy or standard workflow existed for how to conduct daily rounds. Nor was IPC a focus during daily rounds. In addition, daily rounds did not purposefully discuss discharge planning to reduce LOS. These deficits, in addition to stakeholders desire to reduce the LOS, provided an opportunity for improvement.

**Threats.** A potential threat the units face is that IPC was not a priority due to other issues, such as increased fall rates. An additional threat was resistance to practice change among the various disciplines. With the new electronic health record (EHR), staff felt burned out having gone through extensive training and education and were incapable of adopting a new process.

**Summary.** The SWOT analysis identified strengths, weaknesses, opportunities, and threats on the units. The implementation of structured daily rounds focused on discharge planning was needed and was supported by the SWOT analysis.

### **Clinical Practice Question**

The discharge planning discussion during daily rounds needed to be improved so that LOS could be reduced. Guidance to clinicians during daily rounds with standardization across the organization could decrease patient LOS, improve patient outcomes, and lead to cost reductions. The clinical question that remained was: “Will optimized interprofessional rounds impact discharge planning to reduce LOS and improve staff satisfaction?”

### **Review of the Literature**

To determine best practice to promote the use of IPC, a literature review was completed. The review answered three questions. How does IPC impact patient outcomes? Are there interventions to enhance IPC in adult patients? Which components of IPC interventions promoted IPC within the acute care setting?

### **Method**

Identification of articles, screening, eligibility, and inclusion for this review are shown in Appendix H. A comprehensive electronic search was conducted in CINAHL, PubMed, and Cochrane databases. The search was limited to reviews in the English language and publications since 2015. Keywords were interdisciplinary collaboration, multidisciplinary team, interdisciplinary team, and adult. Similar search terms were listed using Boolean operators (OR, AND) to broaden the search to include all relevant articles. Interprofessional collaboration OR multidisciplinary team OR interdisciplinary team AND adult were combined.

### **Inclusion and Exclusion Criteria**

**Population.** Samples that featured populations of age 18 years and older and utilized interprofessional collaboration were included. Studies of those younger than 18 years of age, related to pregnancy, oncology, surgical, mental health, and intensive care were excluded.

**Intervention.** Reviews with multifactorial and single interventions that reported intervention components were included. Excluded were reviews that reported study results without stating the components of the intervention.

**Comparison.** Comparison were participants who underwent usual care and did not receive the intervention. Excluded were studies without a comparison.

**Outcome.** Included were patient outcomes that were impacted by IPC. Excluded were studies that did not enhance patient outcomes.

### **Preferred Reporting Items for Systematic Reviews and Meta-Analyses**

The search yielded 373 records, which included nine from CINAHL, 165 from PubMed, and 199 from Cochrane (see Appendix H). Thirteen duplicates were removed, each review was screened using the inclusion and exclusion criteria according to the preferred reporting items for systematic reviews and meta-analyses (PRISMA) criteria (Moher, Liberati, Tetzlaff, Altman, & PRISMA Group, 2009). Review of titles and abstracts resulted in removal of 339 articles and 17 more after in-depth examination of content, as not meeting inclusion criteria. The remaining four were included in this review (see Appendix I). Three articles were randomized controlled trials and a systematic review. Eligible reviews represented interventions that promoted IPC and improved patient outcomes. The settings ranged from inpatient acute hospitalization to home care. All were published in peer-reviewed journals.



## Summary of Results

**Intervention Characteristics.** The four studies selected improved outcomes with the utilization of IPC (see Appendix I). Each had a different intervention. One provided a step-wise approach to IPC that included baseline data assessments, measuring quality benchmarks, multidisciplinary team meetings, and enhanced education for RNs and caregivers (Connolly et al., 2016). Another used rounds, meetings, and checklists to improve IPC (Reeves et al., 2017). While another included transition visits in the home setting to conduct geriatric assessments at day seven and again at three to four weeks post discharge from acute care (Schubert et al., 2016). The final review had pharmacist follow-up every four to six weeks after care in an outpatient clinic to ensure medication compliance (Siaw et al., 2017).

Disciplines varied across studies. One study consisted of a gerontology nurse specialists, geriatrician, pharmacist, general practitioner, and RNs (Connolly et al., 2016). Another included a pharmacist, physician, RNs, and nursing assistants in the LTC setting; medical interns, residents, RNs, nursing supervisors, RT, pharmacists, nutritionists, and social workers within an acute care setting; and a general surgical team of surgeons, anesthesiologist, and RNs (Reeves et al., 2017). While another had an interprofessional team with a geriatrician, pharmacist, psychologist or mental health liaison along with collaboration from the primary care physician (PCP) and patient (Schubert et al., 2016). The final study included pharmacists, educators, and dieticians (Siaw et al., 2017).

**Measures.** Various measures were used. Each evaluated the effect of IPC within different settings. This included improved collaboration among health disciplines (Reeves et al., 2017), decreased acute care usage with lower health care costs (Connolly et al., 2016; Schubert et al., 2016), and improved management of diabetics (Siaw et al., 2017). Measures used to examine

IPC were readmission rates, technical proficiency, team communication, coordination of care, use of healthcare resources, and participant satisfaction (Connolly et al., 2016; Reeves et al., 2017). Use of resources were measured by calculating the ratio of actual usage of resources to the projected use (Schubert et al., 2016). The impact of IPC in patients with diabetes were evaluated with improved hemoglobin A1c (hgbA1c), systolic blood pressure, low-density lipoprotein, and triglycerides (Siaw et al., 2017).

**Efficacy.** One study found that the inclusion of teamwork with interdisciplinary rounds reduced readmissions by 34.7% ( $p=0.005$ ) (Connolly et al., 2016). Another found a decreased LOS of 5.46 days as compared to 6.06 days ( $p=0.006$ ) for the control group after use of interdisciplinary rounds (Reeves et al., 2017). Interprofessional meetings and checklists improved the use of clinical resources, however, no statistics were provided (Reeves et al., 2017). The third study demonstrated 28.5% fewer days spent in the hospital ( $p=0.01$ ), 7.1 fewer ED visits ( $p=0.59$ ), 14.8% fewer 30-day readmissions ( $p=0.19$ ), and 37.9% fewer hospitalizations ( $p=0.14$ ), with the inclusion of in-home follow-up care (Schubert et al., 2016). The final study used pharmacist's follow-up care with a reduction of 0.85 in mean hgbA1c a difference of 0.5% ( $p=0.04$ ) compared to the control group (Siaw et al., 2017).

### **Limitations**

There were multiple limitations associated with the review. The main limitation was the variation among intervention components. Many studies indicated "usual care" but did not provide a detailed explanation as to what that entailed, making it difficult to determine what the comparison was. Additionally, interventions included multiple types of disciplines ranging from three to over five team members, making it hard to determine the impact of smaller compared to

larger teams. Finally, the involvement of each team member was not reported, thus, the purpose of each discipline was not evident.

### **Conclusion**

The results of the review needed to be considered carefully. The articles included multiple disciplines within different healthcare settings. Settings ranged from in-home visits to LTC settings with involvement ranging from PCPs to pharmacists. Each intervention consisted of different modalities ranging from face-to-face interactions at home to telephone conversations. Mode of IPC delivery needs to be further examined, particularly in the acute care setting. The studies evaluated consisted of improvements in reducing LOS and hospitalizations with consistent involvement including physicians, pharmacists, and RNs.

Use of IPC evidence in acute care should be standard of care. Collaboration among all disciplines involved in patient care has the potential to improve patient outcomes while reducing healthcare costs. Additional research is needed to examine barriers to collaboration during daily rounds emphasizing discharge planning in the acute care setting.

### **Evidence to be used for Project**

The evidence indicated a relationship between IPC and a reduction in hospital LOS, readmission rates, or improved patient outcomes. Evidence suggested IPC with at least three disciplines can benefit patients by improving outcomes across multiple types of settings, supporting the approach for this project.

### **Phenomenon Conceptual Model**

Improvement projects include models to guide implementation. The conceptual model used for this project was the Big Five in Teamwork as it defined key concepts involved in team work and guided the structure and process of the project (see Appendix J).

**Phenomenon Model: Big Five in Teamwork**

Teams have the ability to offer adaptability, productivity, and creativity while providing innovative and comprehensive solutions to an organizational problem (Salas, Sims, & Burke, 2005). The inability of a team to work efficiently can be due to a lack of support by leaders or a breakdown in communication among team members (Salas et al., 2005). The phenomenon of interest was IPC. In order for IPC to be successful, teamwork must occur. When teams do not have the guidance of leadership, they are unable to communicate, and IPC will not be attained. The Big Five in Teamwork contains five core concepts: team leadership, mutual performance modeling, backup behavior, adaptability, and team orientation (Salas et al., 2005). For a team to be successful, the core concepts are combined within three coordinating mechanisms shared mental models, achievement of mutual trust, and engagement in closed-loop communication (Salas et al., 2005).

**Team Leadership.** Team leadership is the ability to direct team members, assess performance, motivate members, organize, and establish a positive environment (Salas et al., 2005). When leaders are unable to guide and facilitate coordination, the performance of the team will be ineffective (Salas et al., 2005). IPC must have a leader who understands the individual team member's needs while leading the team towards collaboration during daily rounds with the goal of discharge planning to reduce LOS. Daily rounds are led by a different leader each day on both units. Obtaining one leader who can guide the team to structured daily rounds is necessary for success.

**Mutual Performance Monitoring.** Being able to understand the team environment while applying strategies to enhance the team is mutual performance monitoring (Salas et al., 2005). The team must maintain awareness of the functions and responsibilities of all members

within the team. Providing education of each team member's role during daily rounds allowed members to stay on track and ensured guidelines were followed to enhance discharge planning.

**Backup Behavior.** Backup behavior is the ability to anticipate what team members will need based on the work environment and skill set of the team (Salas et al., 2005). Understanding what information team members require to enhance daily rounds during discharge planning is necessary to confirm that each discipline's needs are met. Initiation of structured daily rounds required a basic understanding of each discipline involved to understand the needs of patients.

**Adaptability.** The ability to adjust workflow based on feedback within a changing environment defines adaptability (Salas et al., 2005). Patient care needs within an acute care setting change rapidly. Being able to adjust discharge planning with IPC based on patient needs, allowed for successful adaptation to structured daily rounds.

**Team Orientation.** Team orientation considers the behaviors and priorities of the team that lead to the team dynamic and goals (Salas et al., 2005). Including team orientation within IPC could facilitate successful performance through improved care coordination, information sharing, strategizing, and goal setting for patient care (Salas et al., 2005). Input from all pertinent team members during daily rounds enhanced discharge planning through IPC.

**Coordinating Mechanisms.** To ensure team success, shared mental models, mutual trust, and closed-loop communication are needed (Salas et al., 2005). Shared mental models are understanding team goals, individual tasks, and how the team will work to achieve the goals (Salas et al., 2005). Mutual trust is achieved through information sharing and a willingness to admit when an error occurs (Salas et al., 2005). Lastly, closed-loop communication is the exchange of information between two individuals with acknowledgement that the message was received (Salas et al., 2005).

For a team to work effectively to complete success at a task, that team must have a clear understanding of their roles in the task, what resources are available, understand team members capabilities, and maintain mutual trust with open communication (Salas et al., 2005). The first step completed to enhance IPC during daily rounds was the development of team leaders that understood the goal and could direct members towards the same outcome. CMs were designated as team leaders. The second step was the development of guidelines through a toolkit to provide direction for IPC during daily rounds to enhance discharge planning.

## **Project Plan**

### **Purpose of Project and Objectives**

This project implemented structured daily rounds during discharge planning on two medical-surgical units. The outcome of this project was to determine if structured daily rounds reduced patient LOS and improved staff satisfaction. The clinical question was: “Will optimized interprofessional rounds impact discharge planning to reduce LOS and improve staff satisfaction?” The objectives were to:

- Evaluate the current practices of discharge planning during daily rounds;
- Evaluate staff knowledge related to the purpose of daily rounds;
- Design a toolkit that included guidelines and audit tools for discharge planning during structured daily rounds;
- Implement structured guidelines to enhance and/or optimize daily rounds; and
- Evaluate impact of improved discharge planning during daily rounds on LOS.

### **Design for the Evidence-based Initiative**

The Kotter's Eight Step Change model (Kotter, 2017) was used to guide the quality improvement implementation of structured daily rounds at a Midwest health system on two medical-surgical units (see Appendix K).

### **Setting and Sample**

This project took place on a 24-bed medical-surgical unit and a 38-bed medical-surgical unit in a Midwestern hospital. Participants were RNs, RN manager, physicians, pharmacist, and CM who were involved in daily IPC rounds on the medical-surgical units. Patients who were admitted to the unit and underwent discharge planning were also included in this project.

### **Model Guiding Implementation: Kotter's Eight Step Change Model**

Kotter's eight step change model guided this project (see Appendix K). Kotter (2017) is a management model created after decades of observations and experiences aimed at successful change. The model contains eight steps occurring within three phases.

**Phase 1: Creating the Climate for Change.** According to Kotter (2017) the first phase creates a climate ready for change and includes three steps. Step one is to create a sense of urgency. Leaders must describe the change as one that is appealing to those impacted (Kotter, 2018). Leaders help staff understand the need for change in a bold and clear manner that communicates the importance to act immediately. The second step is building a guiding coalition. This step consists of building an interprofessional team to guide, coordinate, and communicate the change agent. A key step in forming the coalition is to select a diverse team with multiple experience levels and educational backgrounds. The third step is to form a strategic vision and initiatives. This step must target and coordinate activities that aid in making the vision

a reality (Kotter, 2018). The vision must motivate individuals to act while clarifying how the change will improve the future (Kotter, 2018).

**Phase 2: Engaging and Enabling the Organization.** Kotter (2017) second phase engages and enables the site and includes three steps. Step four enlists a volunteer army. Implementing change that could affect an entire organization requires support from a large number of individuals. Building a successful army of supporters involves motivation, a strong vision, and engagement of the volunteers (Kotter, 2018). The fifth step is to enable action by removing barriers such as inefficient processes, hierarchies that restrict freedom, and the presence of silos within an organization. Removal of barriers allows employees to work across disciplines while impacting patient outcomes. Step six involves generation of short-term wins. Showing evidence that a change is having a positive impact can help energize and motivate individuals to continue with the change.

**Phase 3: Implementing and Sustaining Change.** The last phase of the model involves implementation and sustaining the change and includes two steps. Step seven is to sustain acceleration. Leaders of the change must continue to apply pressure by motivating staff to continue with the change (Kotter, 2018). The process of change does not end with the first sign of improvement. Improvement must be used to demonstrate the change is working and to motivate others to continue to change. The final step is to institute change. New behaviors, actions, and roles must be sustained to become part of the culture of the organization (Kotter, 2018). Communicating the connection of new expectations with patient outcomes will aid in successful, sustainable change.



## **Implementation Steps and Strategies**

Nine evidence-based implementation strategies to promote improvement were used (see Appendix L).

### **1. Develop a formal implementation blueprint.**

A toolkit was finalized in January 2019 that included guidelines developed utilizing evidence-based research (Green & Johnson, 2015; Henneman, Kleppel, & Hinchey, 2013; Institute for Healthcare Improvement, 2010; Kenaszchuk, Reeves, Nicholas, & Zwarenstein, 2010; Li et al., 2018) and input from the site mentor and team (see Appendix M). The toolkit was developed to provide structure to daily rounds. Observations of daily rounds along with field note discussions guided the development of the toolkit that included tools for education.

### **2. Assess for readiness and identify barriers and facilitators.**

Each project, setting, and environment is unique and present barriers and facilitators that impact readiness for change (Powell et al., 2015). Assessment of the site's degree of readiness for change, barriers, and strengths can support implementation through uptake of evidence (Powell et al., 2015). From November to December 2018 RNs, the RN manager, physicians, pharmacists, and CM involved in daily rounds were observed to gather more information on barriers and facilitators for inclusion of IPC during daily rounds with a focus on discharge planning. Data collected provided evidence to support the need for structured daily rounds. From December 2018 to January 2019 staff completed a survey to identify barriers and facilitators to practice change for structured daily rounds (see Appendix N).

### **3. Distribute educational materials.**

From December 2018 to January 2019 the toolkit was distributed to both RN managers. RNs were provided education by the RN managers prior to implementation. The RN managers

obtained education from the DNP student via the toolkit. The toolkit included information as to why the change was occurring (see Appendix O), timeline for implementation (see Appendix P), a nursing guideline (see Appendix Q), daily rounds guideline (see Appendix M), unit specific daily round structure characteristics (see Appendix R), and individual reference cards for staff (see Appendix S). The toolkit also included audit tools to evaluate the success of daily rounds (see Appendix T and U).

#### 4. Involve executive boards.

Involving existing governing structures in the implementation effort while reviewing the current implementation process is an evidence-based strategy (Powell et al., 2015). From December 2018 through March 2019 the student attended bi-weekly meetings with the physician advisory group. The group included key stakeholders for the daily rounds project. The bi-weekly meeting discussed the implementation project progress, reviewed LOS data, and obtained feedback on the progress of implementation for the new structured daily rounds from CM supervisors and RN managers.

#### 5. Organize clinician implementation team meetings.

Developing and supporting teams of clinicians who are involved with implementation allows stakeholders the opportunity to have time to reflect on the implementation effort, share lessons learned, and support one another's learning (Powell et al., 2015). From November 2018 through February 2019 meetings with RN managers were conducted. The meetings included RN managers who have already rolled out the daily rounds project to allow them time to provide feedback, share about lessons learned, and to support the process going forward.

#### 6. Stage implementation scale up.

Phasing implementation efforts by starting with a small group with the goal of gradually involving the entire system for implementation is an evidence-based strategy (Powell et al., 2015). Implementation of daily rounds was initiated with a small group with the goal of implementation system wide. This would be a gradual process throughout the organization and would take several months to complete. The implementation involved one unit every three weeks. The quality improvement project would include the implementation for two units, with each implementation scheduled two weeks apart in January 2019. The audit tool (see Appendix T) guided the schedule for implementation based on the needs of each unit.

#### 7. Promote adaptability.

Identifying the ways a project can be tailored to meet the needs of each unit while clarifying which elements of the project must be maintained are necessary to ensure success for change (Powell et al., 2015). With the use of the toolkit and observations, it was identified that each unit had different needs for daily rounds. For example, some units included providers in rounds while others did not. Adapting tools to meet the needs of each unit while ensuring elements that were necessary to provide structure to daily rounds organization wide was key to success and sustainability. The audit tool was utilized from January through February 2019 (see Appendix U). Continued observation of rounds identified the need to change structures per unit specific needs while maintaining the core components of daily rounds were met.

#### 8. Audit and provide feedback.

Audit and feedback are an implementation strategy to collect and summarize clinical performance data over a time period (Powell et al., 2015). Feedback assists to monitor, evaluate, and modify behaviors while maintaining sustainability (Powell et al., 2015). During January and February 2019 RNs, the RN manager, providers, pharmacists, CM, and any other staff involved

in rounds were observed to gather information on discharge planning during daily rounds. Data was collected utilizing the audit tool to ensure sustainability and continued compliance with structured daily rounds (see Appendix U). Feedback was provided to the RN manager and CM leadership team. This strategy allowed management to see how practice was impacting patient outcomes while demonstrating the need for improvement. The organization developed the audit tool in January 2019 into an electronic version that is utilized weekly to assess the success of structured daily rounds.

#### 9. Assess clinician competency during daily rounds.

Current knowledge of daily rounds was evaluated to identify the need for support at the organizational level. Information on staff perceptions of daily rounds and how to include collaboration in discharge planning aided in identifying facilitators and barriers to improvements. During December 2018 to January 2019 staff involved in rounds completed a survey to assess baseline knowledge and satisfaction with daily rounds (see Appendix N). During February 2019, staff completed a survey to evaluate staff knowledge and satisfaction with daily rounds following the implementation of structured daily rounds (see Appendix N). Data obtained provided evidence supporting the continuation of structured daily rounds throughout the organization.

#### **Measures**

Measures, timing for collection, and method of collection for this project are shown in Appendix L. The data collected were used to determine the effectiveness of the toolkit during daily rounds. The organization granted the DNP student access to daily rounds and bi-weekly meetings. Competency data was obtained utilizing a survey. The survey consisted of 11 Likert format questions. The scale ranged from “strongly disagree” to “strongly agree”. Patient and system outcome measures included patient LOS. Access to de-identified LOS audits were also

provided by the site mentor. Sustainability measures were to audit and provide feedback bi-weekly on the process of discharge planning during structured daily rounds hospital wide.

### **Data Collection Procedures**

Data were collected by the student, the CM leaders, and quality improvement teams.

- Each member of the patient care team was observed during daily rounds by the student for proper structure and adherence with guidelines during discharge planning. Data was compiled in February 2019 by the student (see Appendix T).
- Field note data were collected by the student during discussions with key stakeholders from November 2018 to March 2019.
- RN, CM, physician, and RN manager competency of daily rounds was collected by the student utilizing the survey December 2018 to February 2019 (see Appendix N).
- Data on LOS were provided by the quality improvement team via the site mentor from November 2018 through February 2019.

### **Data Management**

Data was collected on paper forms and transferred to an excel spreadsheet for analysis.

Data from the quality improvement team was provided by the site mentor. Paper forms were shredded. Electronic data was stored on a password protected computer and de-identified prior to analysis.

### **Analysis**

Data were analyzed utilizing descriptive analysis. Results are reported in charts, graphs, and percentages. Statistical analysis of the survey was completed via the FREQ method. Analysis of the audit tool was completed via the MEANS procedure.

## Resources & Budget

The budget for this DNP project is in Appendix V. Costs for this project were based on time spent by individuals. The student acted as the facilitator or project manager for this project. The student donated 200 hours to collect and analyze data. The student is an RN with seven years of experience whose time was calculated at \$28.67 per hour (Payscale, 2018a). The total donated cost for the student's time was \$5,734. In addition, a statistician from the university donated 10 hours to analyze the data, estimated at \$29.23 per hour for a total of \$292.30 (Payscale, 2018b).

The most valuable resource required to complete this project was time. Two unit managers spent a total of five hours providing information and feedback regarding the toolkit. The site mentor spent ten hours discussing the project plan, purpose, and objectives throughout the implementation period. Staff on the medical-surgical unit needed to take five minutes of their time to complete a pre-post survey. The time spent to complete surveys was estimated to be 170 minutes. This calculated to 31 RNs at \$28.67 for a total of \$81.23. The involvement of CM is critical to the success of this project. The CM would spend roughly one hour per day, five days per week preparing for daily rounds. The implementation period will take roughly two weeks per unit. CM average hourly rate was \$44 (Payscale, 2018c). Additionally, physician advisors were crucial during implementation. There were two physician advisors sharing the units for implementation. The internal medicine physician average hourly rate was \$97 (Payscale, 2018d). The physicians spent roughly one hour per day preparing for daily rounds, five days per week. The implementation period will take roughly two weeks per unit.

The savings to the hospital to improve daily rounds and reduce hospital costs could be significant. An estimated \$13 billion could be saved by implementing IPC (Nagelkerk et al.,

2017). The average cost per day for a hospital admission is \$2,245 (Henry J Kaiser Family Foundation, 2016). Structured daily rounds could reduce the LOS on average by 10 days, averaging a cost savings of \$22,450 per patient (Dunn et al., 2017). The total net savings and income the organization on average is \$16,983.93.

### **Timeline**

To ensure that the clinical question, purpose, and objectives of the DNP project were addressed, Kotter's model served as the guide. See Appendix W for the timeline of each step.

- 1. Create a sense of urgency:** The site determined that structured daily rounds were an area of concern and need for improvement. The student met with stakeholders, including the RN manager, CM, and leadership in November of 2018. Each stakeholder agreed that daily rounds could be enhanced, and the process of discharge planning had room for improvement.
- 2. Create a coalition:** The student met with the CM team in November 2018. The CM team developed a guiding coalition consisting of physician advisors, CM supervisors, department chairs, PT, and RN managers. The student attended a bi-weekly meeting with the coalition.
- 3. Create a vision:** The student gathered evidence through daily round observations and LOS data. A need for change within the organization related to structured daily rounds and discharge planning was apparent
- 4. Communicate the vision:** Key stakeholders supported the vision of the project and were motivated to implement change throughout the organization. The vision was communicated to RN managers in January 2019 along with data of each units LOS to support practice change for structured daily rounds during discharge planning.

5. **Empower Action:** A toolkit was finalized in January 2019. The toolkit provided education for RN managers and staff while removing barriers for inefficient daily rounds. Providing more structure for daily rounds made the process more efficient, accurate, and beneficial to those involved. Guidelines for daily rounds assisted in breaking down patient care silos within the organization through improved communication among the team.
6. **Create quick wins:** Audit and feedback was provided to key stakeholders in February 2019 which demonstrated improvement in LOS and staff satisfaction while providing further evidence for change.
7. **Building on the change:** A final review of data collected through audits and surveys indicated the success of structured daily rounds on discharge planning. Continuation of audits will provide data to support sustainability for structured daily rounds.
8. **Make it stick:** Once the implementation of structured daily rounds is complete, the progress must be maintained. CM leadership along with the RN managers must ensure the structure for rounds is continued. Performing weekly audits with data for LOS will provide staff evidence of a positive impact on patient outcomes to allow the new culture of daily rounds to be sustained.

## **Results**

The following are the results of the project.

### **Pre-Post Education Survey**

The pre-implementation survey completion rate was 47.2% (25 of 53) and post was 20.8% (11 of 53) (see Appendix N). The pre survey included 21 RNs, two RN managers, one



physician, and one unknown; while the post had 10 RNs and one CM. Overall, pre to post survey scores improved 11.3% (62.2% to 73.5%) (see Appendix X).

**Understanding of the Cadence for Daily Rounds.** Cadence understanding improved 11.5% from 88.5% (n=23) to 100% (n=12) following implementation (see Appendix Y).

**Understanding Team Roles.** Team role understanding improved 12% from 88% (n=22) to 100% (n=12) following implementation (see Appendix Z).

**Understanding Personal Role.** Personal role understanding declined by 0.6% from 92.3% (n=24) to 91.7% (n=11) following implementation (see Appendix AA).

**Geometric Length of Stay.** The understanding of the geometric length of stay (GMLOS) improved 38.5% from 11.5% (n=3) to 50% (n=6) following implementation (see Appendix BB).

**Plan for the Day and Plan for the Stay.** The response from participants for understanding the plan for the day and stay for patients improved 18.7% from 68.8% (n=33) to 87.5% (n=21) following implementation (see Appendix CC).

**Escalation Criteria.** Escalation criteria understanding improved 13.5% from 61.5% (n=16) to 75% (n=9) following implementation (see Appendix DD).

**Discharge Plan.** Understanding of the patient's discharge plan improved 29.4% from 61.5% (n=16) to 90.9% (n=10) following implementation (see Appendix EE).

### **Audit of Daily Rounds**

Twenty-two audits were performed during daily rounds (see Appendix U). Audits started on day one of implementation and continued for two weeks. Eleven audits were conducted on each unit.

**Duration of Daily Rounds.** The mean time for daily rounds on unit A was 32.82 minutes and unit B was 41 minutes (see Appendix FF). To show progression on Unit A, daily rounds

lasted 38 minutes on day one and 37 minutes on day 14 of implementation, a reduction of one minute (see Appendix GG). While on Unit B daily rounds were 52 minutes on day one and 45 minutes on day 14, a reduction of seven minutes.

**Disciplines Present.** Disciplines present during daily rounds for each unit were audited (see Appendix HH). Unit A had a CM, physician, and RN present 100% of the time and 73% of the time included PT, pharmacist, and RN manager. Unit B had the CM and RN present 100% of the time and the RN manager was present 90%, social worker 73%, and PT 27% of the time.

**Team Leader.** Each unit consisted of different team leaders (see Appendix II). Unit A daily rounds were led by the CM 82% of the time, an RN 9%, and other disciplines 9%. Unit B was led by the CM 100% of the time.

**Geometric Length of Stay Discussion.** The GMLOS was discussed 81% of the time for unit A and 100% for Unit B; with an overall average of 91% (see Appendix JJ).

**Expected Discharge Date.** The expected discharge date was discussed 73% of the time for unit A and 91% for Unit B; with an overall average of 82% (see Appendix KK).

**Admission Status.** The admission status was discussed 9% of the time for unit A and 36% of the time for unit B; with an overall average of 23% (see Appendix LL).

**Plan for the Day and Stay.** The plan for the day and plan for the stay was discussed 100% of the time for unit A and B (see Appendix MM).

**Therapy Recommendations.** Therapy recommendations were discussed 36% of the time for unit A and 45% for unit B, an overall average of 41% (see Appendix NN).

**Discharge Planning.** Discharge planning was discussed 100% of the time for unit A and Unit B (see Appendix OO).

**Barriers to Discharge Planning.** The identification of barriers to discharge was discussed 91% of the time for unit A and 100% for unit B, an overall average of 95% (see Appendix PP).

**Plan for Escalation.** The plan to escalate barriers identified to discharge planning was discussed 54% of the time for unit A and 64% for unit B, with an overall average of 59% (see Appendix QQ).

**Interruptions to Flow of Rounds.** The frequency of interruptions to the flow of rounds was determined to be 73% of the time for unit A and unit B (see Appendix RR).

**Additional Observations.** The last item on the audit tool was free text. This allowed recording of other aspects of rounds that enhanced or diminished the quality and efficiency of rounds. Trends that were identified during the audits for unit A and B included: excessive discussion about details not related to patient care or discharge planning, waiting for the next RN to come to rounds, PT input being skipped over or missed entirely, float CM unaware of process for daily rounds, and rounds never started on time.

### **Length of Stay Outcomes**

The goal was to determine the impact structured daily rounds had on LOS. This project was implemented on two units, unit A and B. From October to December 2018 the LOS for unit A was 4.96 and unit B was 4.94 (see Appendix B and C). The National Milliman LOS benchmark for Unit A is 5.02 and 4.78 for unit B. The hospital average LOS was 5.35. Unit A was below the National Milliman benchmark and hospital average prior to implementation; however, the month of implementation, January 2019, the average LOS was 7.4, putting the unit above the benchmark and hospital average. Unit B was above the benchmark and below the hospital average prior to implementation.

Implementation began on January 14, 2019 for unit A and January 29, 2019 for unit B. When comparing the pre-implementation period (October to December 2018) to post implementation (February 2019), both units demonstrated successful reductions in LOS (see Appendix SS). Unit A LOS reduced by 0.09 days from 4.96 to 4.87. Unit B LOS reduced by 0.14 days from 4.94 to 4.80. When comparing LOS data by month, the results continue to demonstrate a reduced LOS (see Appendix B and C). Pre-implementation (December 2018) compared to post-implementation (February 2019), unit A decreased by 0.09 days (4.96 to 4.87) while unit B decreased by 0.52 days (5.32 to 4.80).

### **Discussion**

The outcomes expected were improved staff satisfaction and decreased LOS following implementation of structured daily rounds. The survey demonstrated an 11.3% improvement in understanding of daily rounds including the purpose, roles, and impact on patient outcomes (see Appendix X). The LOS data findings indicate an improvement in LOS following implementation of structured daily rounds by 0.09 days for Unit A and 0.52 days for Unit (see Appendix B and C). For both units A and B the LOS declined from December (pre-implementation) as compared to February (post-implementation), illustrating a positive relationship between structured daily rounds with the use of the toolkit and LOS.

The DNP student found that each RN manager utilized the toolkit in a different manner. While one manager used aspects of the toolkit, the other manager tailored the toolkit to meet the needs of the department. Tailoring the toolkit to meet the needs of all departments without modifications is necessary for future units to ensure standardization across the organization.

Several barriers to implementing structured daily rounds included lack of staff education organization wide prior to initiation, lack of buy-in from nursing staff and the Hospitalist group,

and lack of confidence from CMs to lead daily rounds. Education is necessary organization wide prior to implementation due to the structure of staffing and needs of each department. Having staff on units that do not understand the structure of daily rounds impacted the flow of rounds in a negative manner. CMs and RNs organization wide need improved education.

An additional barrier to implementation was the involvement of PT. The implementation prior to the DNP student's involvement included a structure that required attendance by CM, RN, and PT. Throughout implementation the presence of PT was questioned. PT recommendations were skipped and missed frequently. The overall average in which therapy recommendations were discussed was 41% (see Appendix NN). PT was present 27% of the time. Evidence suggests the involvement of PT during the discussion of discharge planning and care transition can aid in reducing readmissions and decreasing patient LOS (Falvey et al., 2016). When PT recommendations are not reviewed, recommendations are three times higher to be replaced with less intensive interventions leading to readmissions (Falvey et al., 2016).

Multiple factors acted as facilitators for this project. First, the organization was supportive and agreed a change in daily rounds must occur. Second, the CM team had begun implementation of structured daily rounds which required enhanced evidence-based tools. Lastly, the coalition built by the CM team consisted of key stakeholders necessary for success and sustainability.

### **Limitations**

Although this project remains in the early stages of implementation, several limitations were apparent. First, this project had a short implementation period and small sample sizes. The implementation period of two weeks per unit limited the amount of data collected. Additionally, the sample sizes for the survey made it a challenge to evaluate statistical differences in the

survey. Second, due to quality initiatives, the data for LOS is delayed. With the delay in data, identifying improvement in LOS for patients was difficult. Having no up-to-date data for the two units in the project made obtaining statistical differences unachievable. Third, each unit participated in daily rounds in a different manner. While one unit was already participating in daily rounds, the other was not. The differences by unit proved challenging to overcome due to different expectations on each unit. Lastly, practice change, in any environment is hard to achieve. Although the staff and organization were motivated to work to improve daily rounds, changing was difficult due to inconsistencies in discipline involvement and education.

The DNP student updated the CM leadership team during a bi-weekly meeting including necessary feedback to enhance future implementation. The CM team appreciated the feedback. After several key stakeholders witnessed the same concerns as the DNP student, changes began and improvements in daily rounds were noted. The DNP student would recommend having a toolkit that included education for RNs and CM for all future units to ensure understanding, sustainability, and stability with daily rounds.

### **Stakeholder Support and Sustainability**

The manager of unit A brought this project to the attention of the DNP student. The DNP student then met with the CM team and key stakeholders for inclusion in the practice change. The key stakeholders support for the daily rounds was crucial for successful implementation. Due to the strong support, the DNP project will be sustainable.

Success of a project is achieved only if sustained through several approaches. This project guided the development of a toolkit to impact LOS and staff satisfaction. The CM leadership team and key stakeholders are committed to enhancing daily rounds and utilizing the toolkit developed by the DNP student including the survey and audit tools. Additionally, staff

education surrounding the change to daily rounds by the organization is crucial. Rather than educating by unit, providing a brief overall education organization wide may be necessary to decrease interruptions in flow due to misunderstanding of the structure for rounds.

The DNP student suggested that aspects of the toolkit change to meet the needs of the organization. Feedback was obtained by previous RN managers on units in which implementation has occurred. The need for discipline specific education for CM and RNs was determined. Education material was developed by the DNP student (see Appendix TT through WW). Incorporating these documents into education is necessary to ensure understanding, buy-in, and sustainability among the key stakeholders during daily rounds. Additionally, the DNP student recommended updating the daily rounds audit tool to remove redundancy and to include a key (see Appendix XX). Including a key to provide direction as to which option to select will help remove subjectivity and increase objectivity making the audit tool more reliable and sustainable. Lastly, the DNP student recommended developing a calendar for PT involvement. Providing staff expectations for PT involvement during daily rounds is necessary to achieve sustainability and support for structured daily rounds. A calendar for PT involvement for each unit who has undergone implementation was developed by the DNP student and incorporated into the toolkit (see Appendix YY).

Ownership of the toolkit will be handled by the physician advisor workgroup. This group will maintain the toolkit and update information as needed. The DNP student has provided a handoff of the toolkit including aspects that must be maintained throughout the implementation process. The site mentors will be provided with six physical copies of the toolkit for utilization for implementation systemwide.

### **Implications for Practice and Further Study in the Field**

This DNP project had multiple practice implications. LOS can be reduced with proper communication among disciplines when discussing discharge planning. By reducing the LOS, patient quality outcomes are enhanced and healthcare costs will decrease. Evidence supports discharge planning through structured daily rounds to impact LOS, readmission rates, and patient outcomes.

When evaluating the implementation of structured daily rounds and the implications for practice, it is important to include the process for change. During the process the willingness for providers, RNs, CM, and PT to change wavered. Providers involved in rounds were not educated appropriately on this matter and were reluctant to change initially. However, with repeated discussions and encouragement by physician advisors, change did occur. The DNP student would recommend improved education of daily rounds structure to the Hospitalist group to improve buy-in. Including one to two Hospitalists as representatives on the Physician Advisor workgroup bi-weekly meeting will improve buy-in for daily rounds. A barrier identified during the implementation period was related to role confusion with provider involvement in daily rounds. The DNP student created a second daily rounds structure that detailed the roles for each discipline to eliminate any role confusion (see Appendix ZZ).

Furthermore, the RNs did not understand the need for change due to inconsistent education. With the inclusion of the toolkit the RNs were able to receive necessary education to understand why the process needed to change and how the current process was negatively impacting patients. The CMs who were educated on the practice change grasped the concept and were successful. However, the float CM did not receive education prior to implementation which resulted in misunderstanding of the new structure for rounds, and inadvertently, rounds would



regress to previous structures. Empowering CMs to lead, guide, and re-direct daily rounds as needed can aid in ensuring the structure of rounds are maintained.

### **Recommendations for Future Use**

The involvement of providers and patients in daily rounds is a crucial aspect to ensure sustainability within the organization. The DNP student would recommend the involvement of all providers within the structure of daily rounds, as is supported by evidence which will aid in further impacting LOS, readmissions, and cost reductions for the organization (Connolly et al., 2016; Reeves et al., 2017; Schubert et al., 2016; Siaw et al., 2017). The inclusion of patients in rounds can enhance discharge planning with the participation of key stakeholders. Involving patients and family members in rounds would be easily accomplished with the use of the toolkit. The toolkit was designed to provide structure, education, and guidelines for daily rounds. The location in which daily rounds are performed would have no effect on the impact of the toolkit on daily rounds. The model of care for daily rounds could be enacted at the bedside without adaptation.

The DNP student recommends further analysis on the impact of the toolkit on patient and family satisfaction. Utilizing the hospital consumer assessment of healthcare providers and systems (HCAHPS) survey to determine if an improvement in discharge planning occurred is recommended. Areas on the HCAHPS survey that may be impacted by structured daily rounds and the use of the implementation toolkit include communication with nurses, communication with providers, and discharge information (Hospital Consumer Assessment of Healthcare Providers and Systems, 2017). Comparing pre to post-implementation as a representation for enhanced discharge planning due to structured daily rounds should be analyzed.

The implementation of this project required the CMs to take on a role of facilitators and leaders. A barrier identified during the implementation period was the lack of training and education CM have had related to this new role. A recommendation of the DNP student would be to evaluate the impact facilitation and leadership training would have on CM ability to lead rounds. Evaluating education for CM and the impact on daily rounds should be assessed to determine the impact on discharge planning for the organization.

### **Conclusion**

A large Midwestern healthcare organization CM department sought to decrease LOS by optimizing discharge planning during daily rounds with improved structure. An organizational assessment of the current practice surrounding discharge planning, paired with a literature review on IPC, identified that IPC among multiple professions could decrease patient LOS. Two theoretical frameworks were utilized to understand the phenomenon and implement discharge planning through structured daily rounds on two medical-surgical units. Key stakeholder involvement, assessment, education, and audit and feedback were used to implement this practice change. Implementation took place for one month, two weeks on each unit. Observation, audits, surveys, and discussion with staff were used to evaluate the practice change, staff satisfaction in understanding of the practice change, and patient LOS.

LOS was positively impacted by structured daily rounds. The LOS for unit A reduced by 0.09 days while unit B reduced by 0.14 days following implementation. Staff satisfaction and understanding of the practice change improved 11.3% following implementation, yet still needs improvement to reach goal of 90%. These increases demonstrate improved understanding of daily rounds with the utilization of the toolkit. Optimized daily rounds could potentially save the organization up to \$16,675.

The implementation of structured daily rounds was intended to improve discharge planning and decrease patient LOS. The toolkit was developed to meet the goal of decreasing patient LOS. Utilizing the toolkit for education and guidance will improve the structure of daily rounds and result in decreased LOS, readmission rates, and improved patient outcomes (Connolly et al., 2016; Reeves et al., 2017; Schubert et al., 2016; Siaw et al., 2017). Inclusion of the toolkit into structured daily rounds reduced patient LOS, improved staff satisfaction, and enhanced the quality of care for patients.

### **Dissemination of Results**

Results were disseminated via several methods. First, results of the project were presented to key stakeholders within the organization in March 2019. Second, it was presented in poster form at the organization on April 9, 2019. Third, the outcomes of the quality improvement project were presented as part of the student's final defense at Grand Valley State University in front of the DNP's student project team and other members of the college who chose to attend the presentation on April 12, 2019. Fourth, the student's final scholarly project paper was published on Scholar Works and can be accessed by anyone who is interested.

### **Reflection on DNP Essentials**

The DNP essentials were developed by the American Association of Colleges of Nursing (AACN) as a guideline for required competencies that must be met for all graduates of a DNP program (American Association of Colleges of Nursing, 2006). This project aimed to meet all eight essentials required by the AACN through assessment, development, implementation, and dissemination.

**Essential I: Scientific Underpinnings for Practice**

The scientific foundations of nursing practice founded on the natural and social science to provide nursing with a body of knowledge to contribute to the discipline of nursing (Chism, 2019). This essential is met through the enhancement of healthcare delivery, evaluation of outcomes, and the development of new practice approaches (American Association of Colleges of Nursing, 2006). The DNP student met this essential throughout the project by performing a literature review on IPC and using the evidence to promote improved patient care through the development of guidelines for daily rounding. In addition, theories on teamwork, evidence-based practice for change, and implementation were used as frameworks to guide the project.

**Essential II: Organizational and Systems Leadership**

Preparation in organizational and systems leadership is imperative for DNP graduates to have an impact on and improve healthcare delivery and patient-care outcomes (Chism, 2019). This essential provides the DNP graduate expertise in assessing organizations while identifying systems issues and facilitating system wide changes in care delivery (Chism, 2019). The student demonstrated organizational and systems leadership by meeting with key stakeholders throughout the organization and performing an organizational assessment of the medical-surgical units related to IPC in discharge planning during daily rounds. The information gathered during the organizational assessment was used to improve daily rounds with guidelines, structure, and a toolkit. Leadership and communication skills were utilized throughout the duration of the project to identify facilitators and barriers, obtain feedback from staff and stakeholders, and to provide education surrounding the toolkit.

**Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice**

Translation of research into practice through dissemination and integration of new knowledge is an essential role for the DNP graduate (Chism, 2019). The DNP graduate is expected to evaluate, integrate, translate, and apply evidence-based practice (Chism, 2019). The student used analytic methods to evaluate literature and identify the best evidence for IPC and to analyze the current practice and data surrounding IPC during discharge planning prior to designing the toolkit. The project included education, expectations, and evidence surrounding the need for practice change.

**Essential IV: Information Systems Technology**

Information systems technology is necessary for DNP graduates to understand in order to improve patient care and outcomes (Chism, 2019). DNP graduates must utilize information technology to support practice leadership and clinical decision making through evaluation of patient outcomes, data extraction, as well as legal and ethical considerations (Chism, 2019). This project allowed the DNP student the opportunity to utilize the organizations readmission tableau to gather data pre-implementation that supported the need for change. E-mail was utilized for communication with key stakeholders. Excel was used for inputting, organizing, and analyzing data. The student remained diligent with following all ethical guidelines and maintained strict confidentiality of any identifiable patient data.

**Essential V: Advocacy for Health Care Policy**

Obtaining knowledge and skills related to healthcare policy are central to nursing practice while influencing care delivery issues, health disparities, cultural sensitivity, access to care, quality of care, and equity in the delivery of healthcare (Chism, 2019). The DNP prepared nurse must be able to identify factors that influence the development of policy across multiple

healthcare settings through engagement in the process of policy development and advocating for healthcare policy (Chism, 2019). During the duration of this project the student considered the organization's current policies for discharge planning while considering the opportunity for improvement in policies. The student also met this essential through attending advocacy day at the state capital. The student helped with promotion of policies and proposals by actively participating in meeting with area representatives and legislatures. Serving as a leader to educate those in power on the need for improved scope of practice for advanced practice nurses in order to promote improved patient outcomes.

### **Essential VI: Interprofessional Collaboration**

Collaboration among all healthcare disciplines must exist to achieve IOM's goals along with the foundation of nursing to provide safe, timely, patient-centered care (Chism, 2019). DNP graduates are experts at facilitating collaboration and team building through effective communication and leading teams to implement change in a healthcare system (Chism, 2019). Essential VI was the most utilized essential during this DNP project. This project surrounded the impact of IPC impact on patient outcomes. Aspects of IPC met during this project included participation in effective communication with multiple disciplines to promote leadership, enhance organizational concerns, and improve patient outcomes. The student acted as a consultant to interprofessional teams to implement structured daily rounds within the organization.

### **Essential VII: Clinical Prevention and Population Health**

Preventing health disparities as best done through health promotion and risk reduction for communities and populations through all aspects of healthcare delivery (Chism, 2019). The DNP graduate is prepared to impact population health through analysis of epidemiological data while

developing, implementing, and evaluating the clinical prevention and promotion of population health (Chism, 2019). This project encouraged improved population health through enhanced communication to reduce the amount of time individuals spend in the acute care setting.

Additionally, the student met this essential via volunteer work at a local flu clinic. Encouraging flu vaccination aided in promoting individual, family, community, and population health while reducing risk of illness through prevention with a vaccine.

### **Essential VIII: Advanced Nursing Practice**

Preparation that requires expertise, advanced knowledge, and mastery in the arena of advanced practice nursing is the core foundation to the DNP graduate (Chism, 2019). The DNP graduate is prepared to conduct advanced health history and provide systematic assessments in complex patient populations while sustaining relationships with patients in order to design, implement, and evaluate necessary treatment plans (Chism, 2019). The student met the requirements for essential eight through shadow hours with a nurse practitioner which included assessment of health history, physical exams, development of interventions, relationship building, and education of patients. Additionally, the student acted as a leader while demonstrating advanced nursing practice through development and facilitation of the toolkit.

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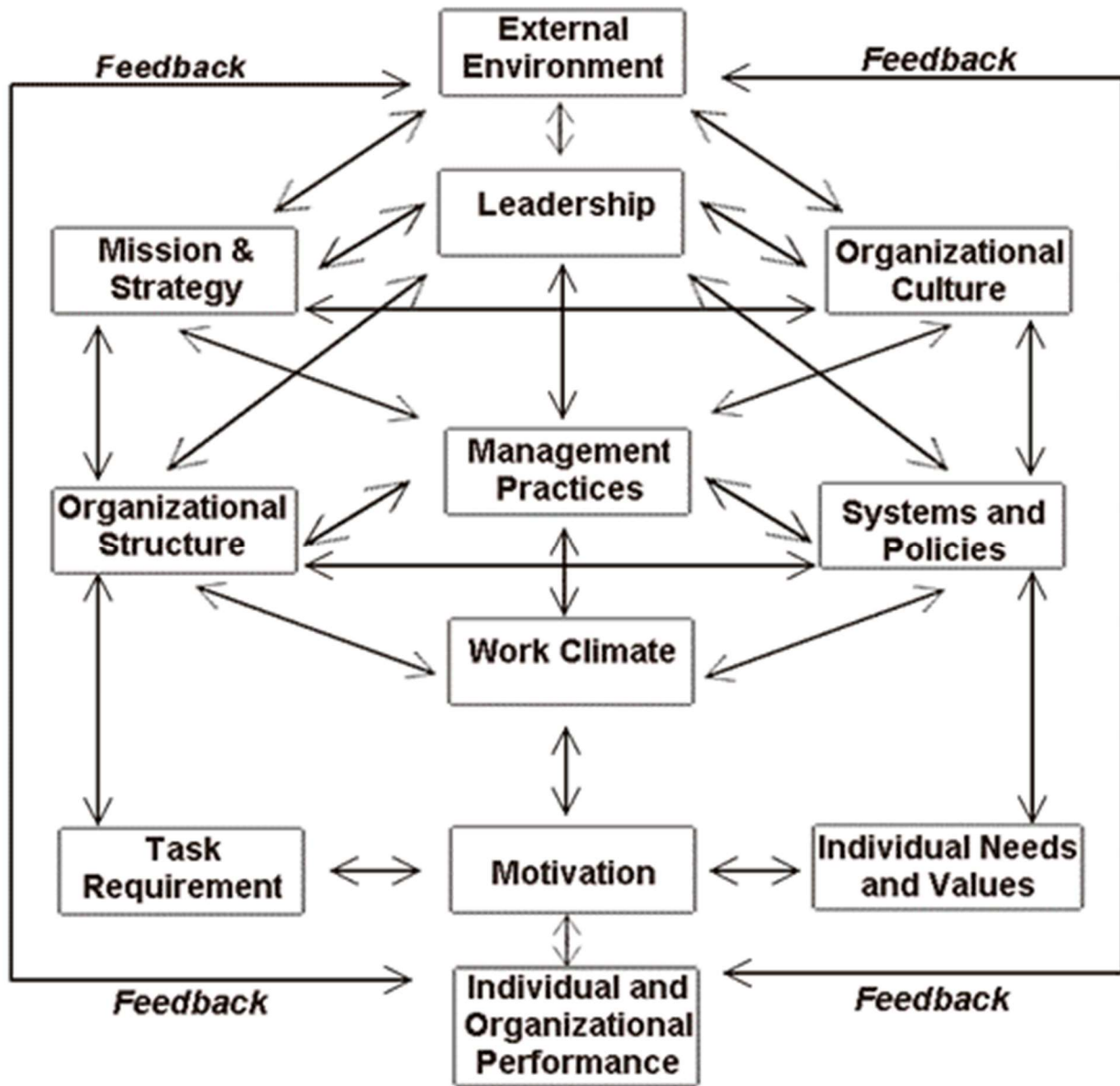
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Appendices

Appendix A

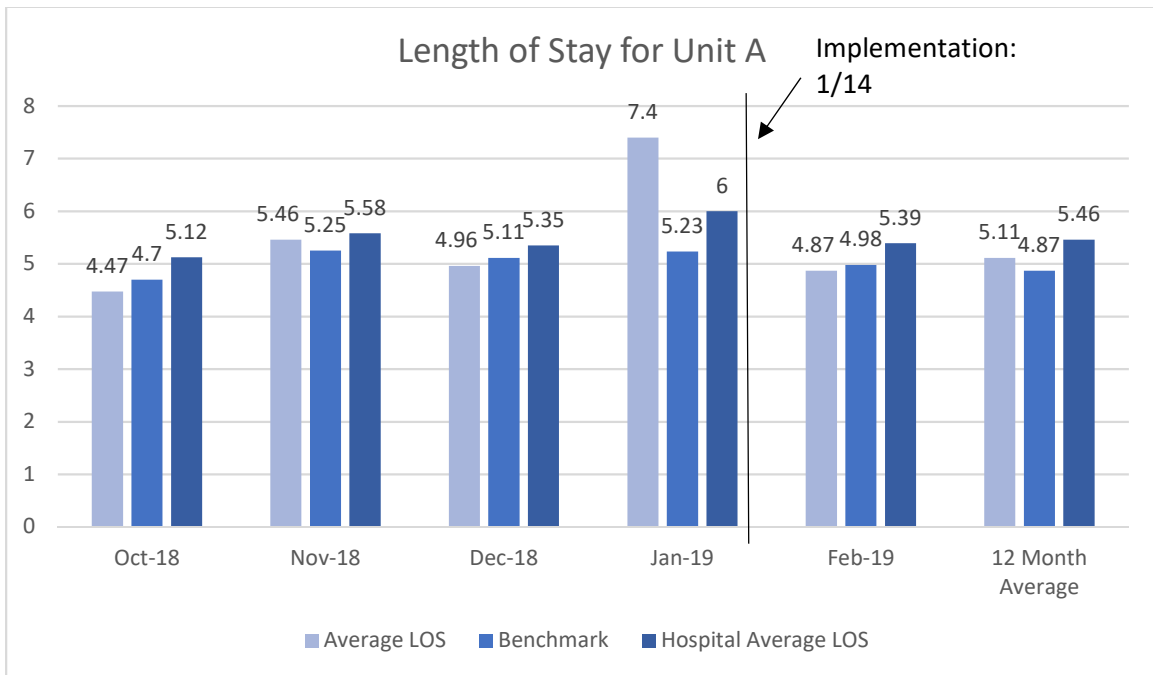
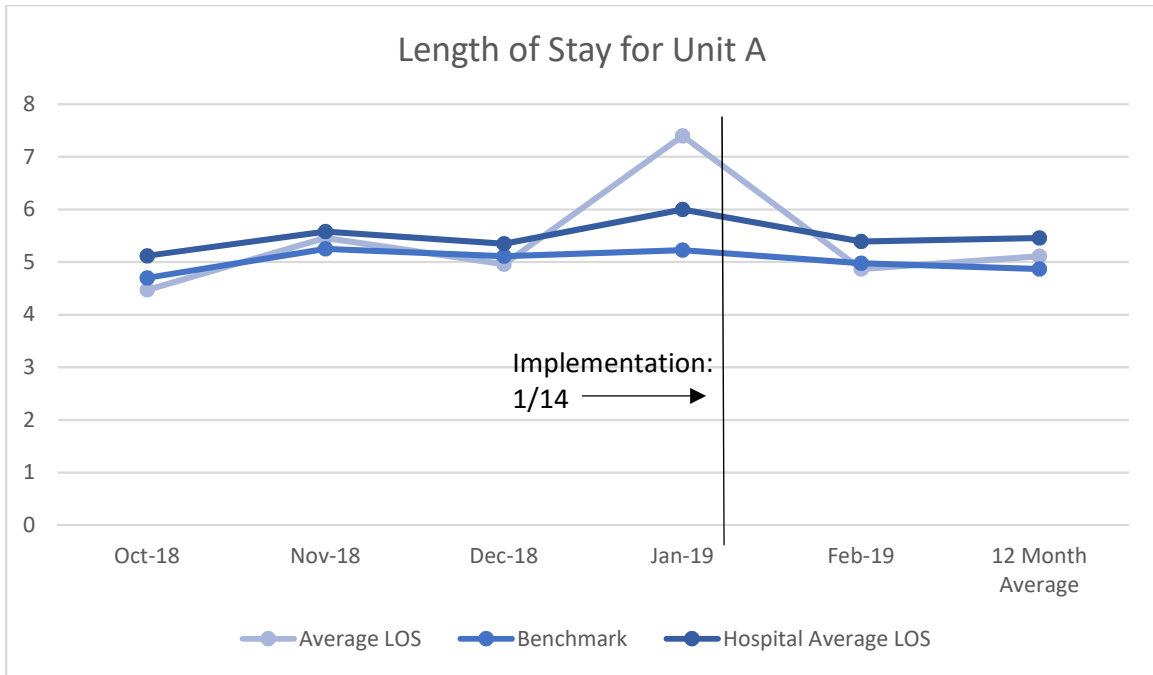
Burke-Litwin Causal Model



Adapted from “A Causal Model of Organizational Performance and Change,” by W. W. Burke and G. H. Litwin, 1992, *Journal of Management*, 18, 528. Copyright 1992 by Southern Management Association.

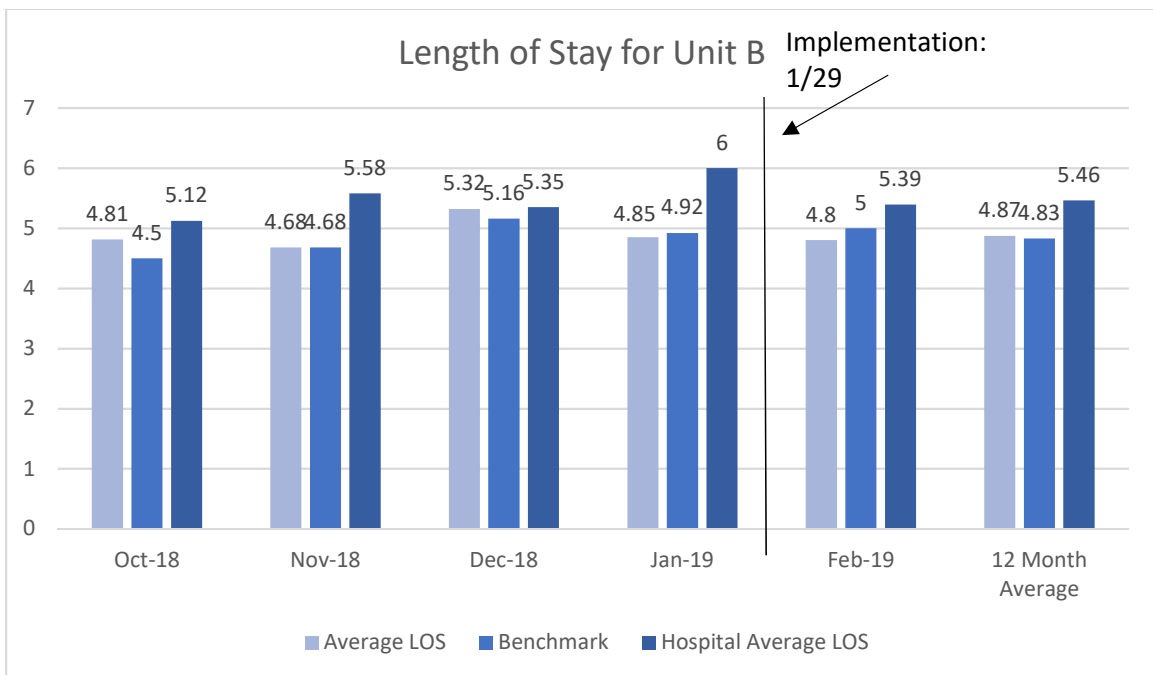
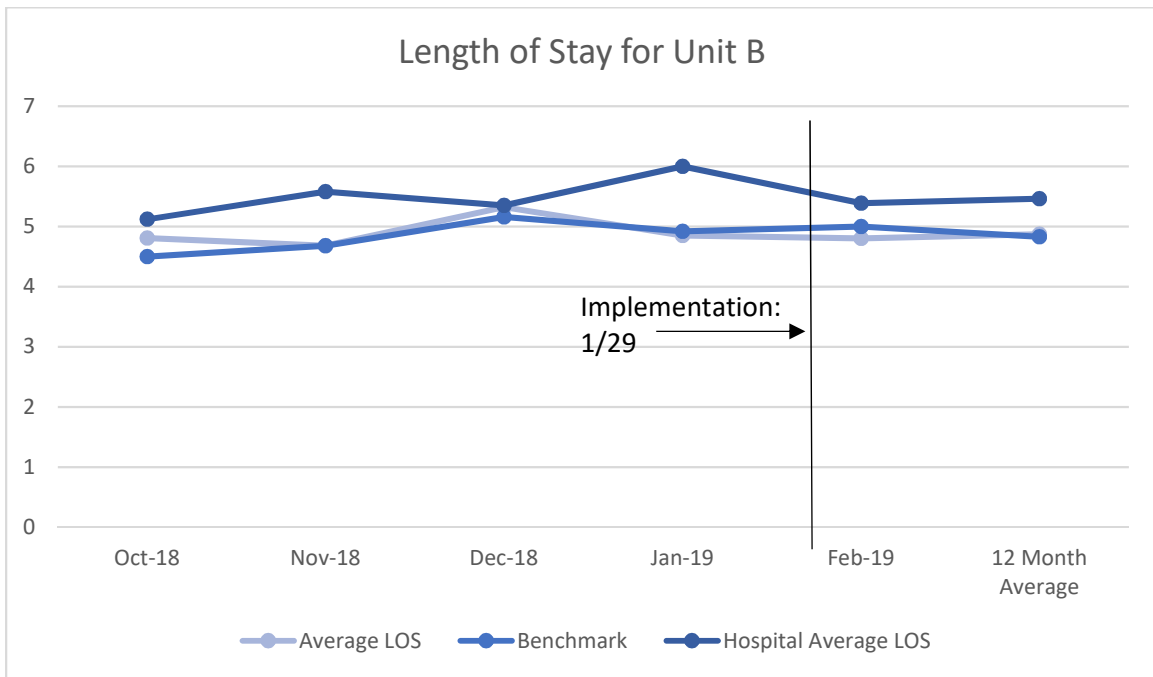
Appendix B

Length of Stay for Unit A



Appendix C

Length of Stay for Unit B





## Appendix D

## GVSU IRB Approval Letter



DATE: January 10, 2018

TO: Sandra Spoelstra  
 FROM: HRRC  
 STUDY TITLE: Reducing Readmission Rates with Interprofessional Collaboration During Discharge Planning  
 REFERENCE #: 18-138-H  
 SUBMISSION TYPE: HRRC Initial Submission

ACTION: Acknowledgement  
 EFFECTIVE DATE: January 10, 2018  
 REVIEW TYPE: Administrative Review

Thank you for your submission of materials for your planned scholarly activity. It has been determined that this project does not meet the definition of covered human subjects research\* according to current federal regulations and the following:

A Not Research letter from Spectrum Health was attached. No additional protocol information was attached. An acknowledgement letter will be sent back to the PI, but this will not be an official determination as the study details could not be reviewed.

The project, therefore, does not require further review and approval by the HRRC.

If you have any questions, please contact the Office of Research Compliance and Integrity, at (616) 331-3197 or [rci@gvsu.edu](mailto:rci@gvsu.edu). The office observes all university holidays, and does not process applications during exam week or between academic terms. Please include your study title and reference number in all correspondence with our office.

\*Research is a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge (45 CFR 46.102 (d)).

*Human subject* means a living individual about whom an investigator (whether professional or student) conducting research obtains: data through intervention or interaction with the individual, or identifiable private information (45 CFR 46.102 (f)).

Scholarly activities that are not covered under the Code of Federal Regulations should not be described or referred to as *research* in materials to participants, sponsors or in dissemination of findings.

Appendix E

Organization IRB Approval Letter

Available Upon Request

Appendix F

Letter of Support from Site Mentor

Available Upon Request

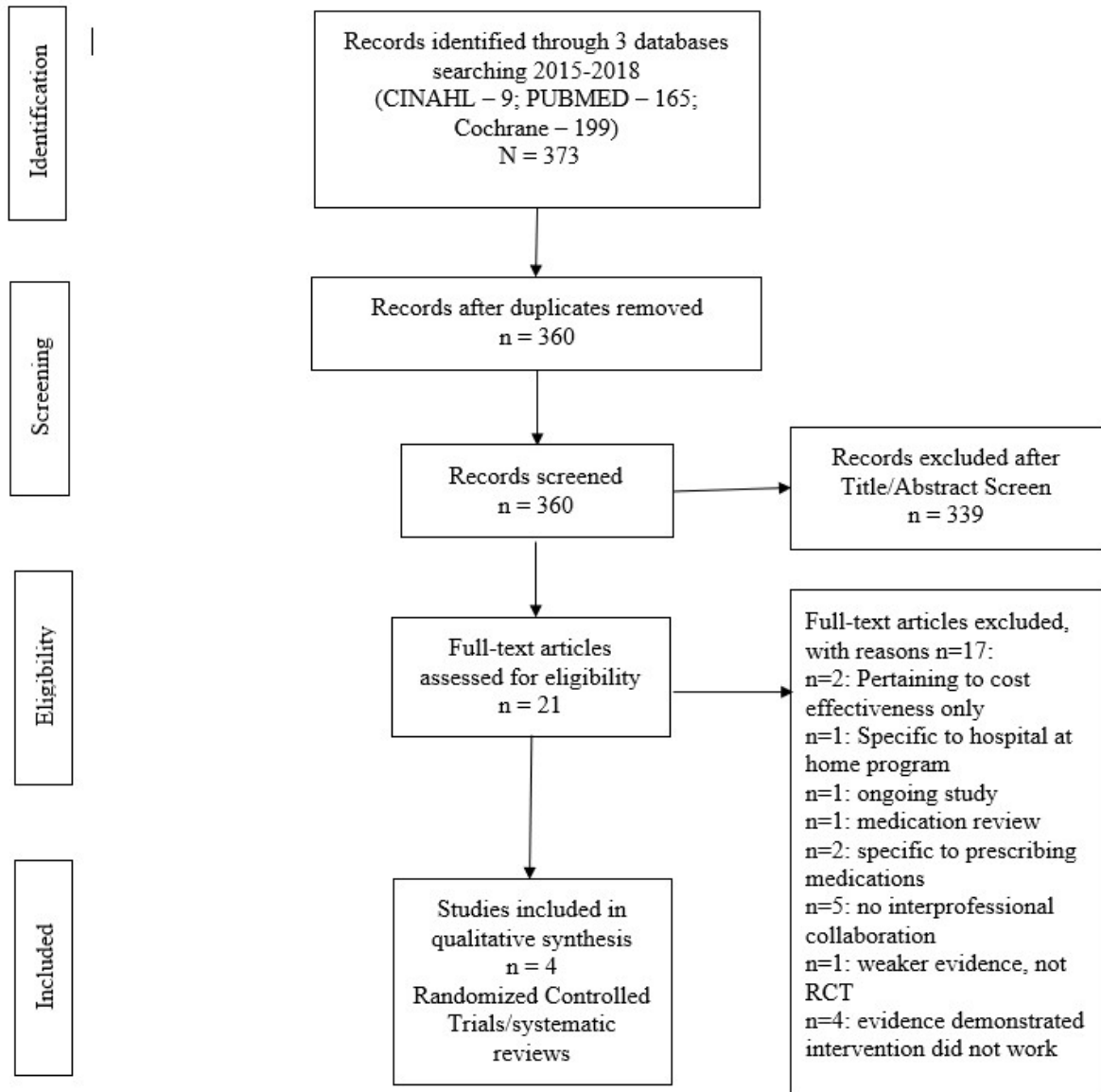
## Appendix G

## SWOT Analysis

<p style="text-align: center;"><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Unit is within large hospital system with a large amount of resources</li> <li>• Hospital system comprised of forward-thinking mission and values</li> <li>• Sustainable organization at the system, community, and individual levels</li> <li>• Support for collaborative and coordinated care</li> <li>• Participated in interprofessional rounds daily during the week on Unit A</li> <li>• Interprofessional care plan guidelines in place</li> <li>• Pharmacist student assigned to unit A, familiar with patients on unit</li> <li>• Motivated leaders, management, and staff that support process improvements</li> <li>• Supportive manager and administration</li> <li>• Fully staffed with no shortages</li> </ul>	<p style="text-align: center;"><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Unit A is a newer unit, opened in past 3 years</li> <li>• Many of the RNs within the unit have less than 2 years' experience with this being their first nursing job</li> <li>• Medical-surgical unit that takes on a variety of patients with several diagnosis, no specific diagnosis group</li> <li>• Elevated length-of-stay averages</li> <li>• New EHR implemented in November 2017</li> <li>• Interprofessional rounds are table top instead of bedside, missing patient and family involvement</li> <li>• Participate in rounds once per week on Unit B</li> </ul>
<p style="text-align: center;"><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Improving quality of care through evidence-based practice</li> <li>• Improving outcomes of care and a culture of safety</li> <li>• Improving interprofessional collaboration through enhancing patient care and discharge planning</li> <li>• Improving daily rounds with structure and support</li> <li>• Standardizing daily rounds hospital wide</li> <li>• Improving IPC with policies and protocols</li> </ul>	<p style="text-align: center;"><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Interprofessional collaboration efforts may not be the priority for this unit with many other bench markers taking priority (example-fall rates)</li> <li>• Members of the interprofessional team may not "buy-in" to the proposed practice change</li> <li>• Funding for interprofessional collaboration education and interventions</li> <li>• Staff burnout to education and change with the new EHR role out</li> </ul>

Appendix H

PRISMA Flow Diagram of Systematic Search



Adapted from “Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement,” by D. Moher, A. Liberati, J. Tetzlaff, D. Altman, and PRISMA Group. Copyright 2009 by PLoS Medicine.

## Appendix I

## Literature Review

Author (Year) purpose	Design (N) inclusion criteria	Intervention comparison	Results	Conclusion
<p>Connolly (2016)</p> <p>Determine if an interdisciplinary outreach intervention can decrease avoidable hospitalizations from long-term care (LTC). A post hoc analysis of the ARCHUS cluster-randomized controlled trial</p>	<p>Randomized controlled trial (RCT) (N=1,998)</p> <p>LTC facilities with low-level rest home care and private hospital care</p>	<p>Intervention included four steps:</p> <ol style="list-style-type: none"> <li>1. baseline facility assessment</li> <li>2. benchmarking resident indicators linked to quality of care</li> <li>3. one-hour multidisciplinary team meetings</li> <li>4. enhanced education and clinical coaching for LTC nurses and caregivers</li> </ol>	<p>The rate of admissions for the five diagnoses was reduced (95% CI=0.54-0.99, p=0.043)</p> <p>Three months post- 34.7% less likely to have an admission (95% CI=0.49-0.88, p=0.005)</p>	<p>Multidisciplinary interaction between secondary care, primary care, and long-term facilities staff is crucial</p> <p>A multi-disciplinary generic intervention may reduce acute hospitalizations of LTC residents for common diagnoses</p>
<p>Reeves (2017)</p> <p>To assess the impact of practice-based interventions designed to improve interprofessional collaboration (IPC) amongst health and social care professionals, compared to usual care or an alternative intervention, on at least one of the</p>	<p>Systematic Review (N=9 studies with 6540 participants)</p> <p>Individual or cluster-randomized studies, interventions that targeted any type of health and social care professional, and any practice-based intervention with an</p>	<p>IPC interventions consisted of externally facilitated IPC interventions, interprofessional rounds, interprofessional meetings, and interprofessional checklists</p>	<p>Interdisciplinary rounds decreased length of stay 5.46 days compared to 6.06 days (p=0.006).</p>	<p>The review demonstrated mixed results in patient outcomes. Studies reviewed do not have sufficient evidence to draw clear conclusions on the effects of IPC interventions. It is recommended that future studies have a clear and explicit focus on IPC, while evaluating longer periods before implementation</p>

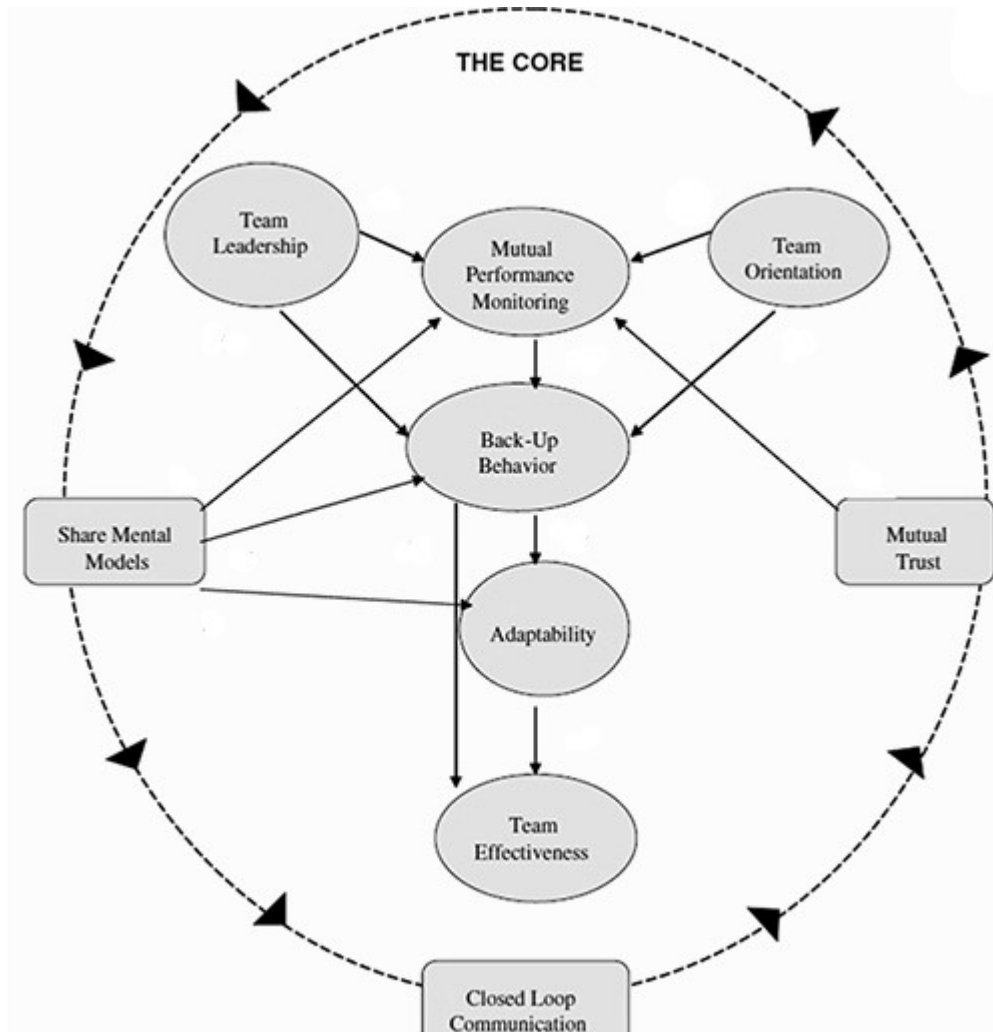
<p>following primary outcomes: patient health outcomes, clinical process or efficiency outcomes or secondary outcomes (collaborative behavior)</p>	<p>explicit objective of improving collaboration between two or more health or social care professionals.</p>			<p>and after implementation of IPC interventions.</p>
<p>Schubert (2016)</p> <p>It was hypothesized that implementing a geriatric resource for assessment and care of elders (GRACE) program in high-risk veteran populations would result in less acute care usage and lower costs to the VA medical center</p>	<p>RCT (N=179)</p> <p>Aged 65 and older; living at home or in an assisted living within Marion County, Indiana; enrolled in primary care at Indianapolis VAMC; not on dialysis; life expectancy of at least six months</p>	<ul style="list-style-type: none"> <li>• In-home post-hospital transition visit within seven days</li> <li>• The team returned to the home in three to four weeks to conduct a comprehensive geriatric assessment</li> </ul>	<p>Participants in the GRACE program had 7.1 fewer ED visits (p=0.59), 14.8% fewer 30-day readmissions (p=0.19), 37.9% fewer hospitalizations (p=0.14). The intervention group had a 30-day hospitalization readmission rate of 9.5% as compared to 15.6% with the comparison group. Estimated savings \$237,303 in the first year, avoiding \$782,408 acute care costs.</p>	<p>The GRACE program is associated with less acute care use in high-risk older veterans and has the potential to contribute to overall cost savings in the care of this population.</p>
<p>Siaw (2017)</p> <p>Compare the clinical impact of multidisciplinary collaborative care to</p>	<p>RCT (N=214 for intervention, 197 for control)</p> <p>High-risk patients 21 or</p>	<ul style="list-style-type: none"> <li>• Clinical pharmacists followed up regularly with all patients every four to six weeks via face-to-face visits or phone</li> </ul>	<p>Mean HbA1C reduction of up to 0.85 was observed in the multidisciplinary intervention group. A difference of</p>	<p>The positive impact of multidisciplinary collaborative care on the clinical, humanistic, and economic outcomes were</p>

<p>physician-centered care in managing patients with diabetes.</p>	<p>older with uncontrolled type two diabetes, polypharmacy and multiple comorbidities</p>	<p>calls.</p> <ul style="list-style-type: none"> <li>• The control group had no regular contact with clinical pharmacists.</li> </ul>	<p>0.5% among the intervention and control group average HbA1c was observed at six months (<math>p=0.04</math>), with neither group achieving a HgbA1c of less than 7% at six months. The problem areas in diabetes showed a greater change in score for the intervention group (<math>p&lt;0.001</math>). Diabetes treatment satisfaction score significantly improved in the intervention group as compared to the control group (<math>p&lt;0.001</math>)</p>	<p>continuous and persistent over the six-month period. The multidisciplinary collaborative care approach appeared to be effective in managing high-risk patients with uncontrolled diabetes.</p>
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## Appendix J

## The Big Five in Teamwork



A model of the Big Five in Teamwork. Adapted from “the Big Five in Teamwork” by E. Salas, D. E. Sims, and C.S. Burke, 2005, *Small Group Research*, 36, 555-599. Copyright 2005 by Sage Publications.

Appendix K

Kotter's Eight Step Change Model



Adapted from “Kotter’s 8-Step Process”, by J. Kotter. Copyright 2017 by Kotter International.

## Appendix L

## Measures for Project

	Concept measured	How measured (tool, survey, variable)	When measured	Who measures
Implementation Strategies	Develop a formal implementation blueprint	Audit tool, field notes discussions with unit managers and care management team	Pre-implementation (December 2018-January 2019)	Student
	Assess for readiness and identify barriers and facilitators	Care Progression Rollout Survey	At each observation/interview session (December 2018-January 2019)	Student
	Distribute educational materials	Rollout Toolkit	December 2018-January 2019	Student
	Involve executive boards	Field notes	November 2018-March 2019	Student, Care Management
	Organize clinician implementation team meetings	Field notes	November 2018-February 2019	Student, Care Management
	Stage implementation scale up	Audit Tool	At each observation (January-February 2019)	Student, Care Management
	Promote adaptability	Audit Tool, field notes	January 2019-February 2019	Student, Care Management
	Audit and provide feedback ➤ Ability to follow guidelines for daily rounds	Audit Tool	During each observation (January-February 2019)	Student, Care Management
	Assess clinician competency during daily rounds ➤ Current understanding of what daily rounds represent	Care Progression Rollout Survey	Pre-implementation (December-January 2018) and Post-implementation (February 2019)	Student

Patient Outcomes	Length of Stay	Quality Tableau	Pre-implementation (7/1/18-11/31/18) and post implementation (February 2018)	Student, Director of Units, Care Management
System Outcomes	Length of Stay	Quality Tableau	Pre-implementation (7/1/18-11/31/18) and post implementation (February 2019)	Student, Director of Units, Care Management
Sustainability	Audit and provide feedback ➤ Continuation of discharge planning during structured daily rounds hospital wide	Audit Tool	February 2019	Unit Manager, Care Management

## Appendix M

**Daily Interdisciplinary Rounds Guideline**  
**Daily Interdisciplinary Rounds Guideline**

**Interdisciplinary Collaboration:** the involvement of teamwork between at least two different professions working toward a common clinical goal. IPC is useful for solving complex problems, when input from multiple clinicians is needed.

**Daily rounds must include the following:**

1. A designated team member who leads the rounds
2. Individualized patient “plan for the day” and “plan for the stay”
3. Identification of potential discharge or transfer date
4. Identification of barriers and goals for transition
5. Identification of GMLOS

The team leader ensures each discipline contributes the following during daily rounds:

<b>Discipline</b>	<b>Definition</b>	<b>Examples</b>
Care Manager:	<p>Leads daily rounds. Ensures timely progression through rounds (time keeper). Coordinates discharge needs and ensures patient transition to appropriate/safe environment.</p> <p><i>Does not physically interact with every patient. Care managers take recommendations from RNs on who needs to be seen.</i></p>	<ul style="list-style-type: none"> <li>• Introduces patient               <ul style="list-style-type: none"> <li>○ Name</li> <li>○ Room number</li> <li>○ Admission date</li> <li>○ Diagnosis</li> <li>○ LOS</li> <li>○ GMLOS</li> <li>○ Expected discharge date</li> <li>○ Risk Stratification</li> </ul> </li> <li>• Admission Status</li> <li>• Facilitates transitions</li> <li>• Insurance</li> <li>• DME orders</li> <li>• Discharge needs/barriers</li> </ul>
Physician:	<p>Summarize plan of care for the day. Identifies needs for discharge.</p> <p><i>Will not be present on all units.</i></p>	<ul style="list-style-type: none"> <li>• Expected discharge date</li> <li>• Anticipated discharge location</li> <li>• Plan of care</li> <li>• Entry of orders</li> </ul>
RN:	<p>Discusses patient progress, any concerns from previous 24 hours. Bring aspects of care to rounds that is pertinent to discharge planning. Brings forward patient input to the team.</p> <p>Reviews team discussion with the patient following rounds. If anticipating discharge needs, ensures care management is involved.</p>	<ul style="list-style-type: none"> <li>• Plan for the day               <ul style="list-style-type: none"> <li>○ Patient assessment pertinent to discharge planning</li> <li>○ Clinical issues/concerns</li> </ul> </li> <li>• Plan for the stay               <ul style="list-style-type: none"> <li>○ Barriers to discharge/care</li> </ul> </li> <li>• Only need to discuss elements of care that are <i>barriers, or potential barriers, to discharge</i></li> </ul>
Physical and Occupational Therapy:	<p>Discuss recommendations for safe discharge.</p> <p>Review need for PT/OT evaluation.</p>	<ul style="list-style-type: none"> <li>• Has PT/OT been consulted               <ul style="list-style-type: none"> <li>○ If not, is a consult needed</li> </ul> </li> <li>• Last date seen</li> <li>• Therapy recommendations</li> </ul>

*May not be present daily on all units.  
Please see corresponding calendar.*

Social Worker:	Discusses psychosocial needs.  <i>May not be present on all units.</i>	<ul style="list-style-type: none"> <li>• Social Needs</li> <li>• Addiction concerns</li> <li>• Withdrawal concerns</li> </ul>
Pharmacist:	Discusses medication orders (IV to PO conversion), monitor therapeutic levels, antibiotic stewardship, ensure DVT and GI prophylaxis.  <i>May not be present on all units.</i>	<ul style="list-style-type: none"> <li>• Medication use/needs</li> <li>• Home medication issues               <ul style="list-style-type: none"> <li>○ Discharge medication concerns</li> </ul> </li> </ul>
Unit Manager:	Provides coaching and feedback to RNs.	<ul style="list-style-type: none"> <li>• Ensures each profession contributes appropriate information</li> </ul>
Care Management Supervisor:	Provides coaching and feedback to RNs.	<ul style="list-style-type: none"> <li>• Ensures each profession contributes appropriate information</li> </ul>

## Appendix N

## Care Progression Rollout Survey

**Care Progression Rollout Survey**  
**Take prior to and after Care Progression Rollout**

Please select your profession from the following list:

1= Care Manager 2=RN 3=PT/OT 4=Physician 5=Unit Manager 6=Pharmacist 7=Other \_\_\_\_\_

*For each of the listed questions, please select the response that best represents your view.*

1. I understand the cadence for daily rounds:

Strongly Disagree    Disagree    Neutral    Agree    Strongly Agree

2. There is a need for improved cadence in daily rounds:

Strongly Disagree    Disagree    Neutral    Agree    Strongly Agree

3. I understand the role of each member involved in daily rounds:

Strongly Disagree    Disagree    Neutral    Agree    Strongly Agree

4. I understand my role in daily rounds:

Strongly Disagree    Disagree    Neutral    Agree    Strongly Agree

5. Each member of the team present contributes to daily rounds:

Strongly Disagree    Disagree    Neutral    Agree    Strongly Agree

6. I understand the "Geometric Length of Stay (GMLOS)":

Strongly Disagree    Disagree    Neutral    Agree    Strongly Agree

7. I know the expected discharge date for patients I care for:

Strongly Disagree    Disagree    Neutral    Agree    Strongly Agree

8. I understand each patient's plan for the day that I care for:

Strongly Disagree    Disagree    Neutral    Agree    Strongly Agree

9. I understand each patient's plan for the stay that I care for:

Strongly Disagree    Disagree    Neutral    Agree    Strongly Agree

10. I understand the escalation criteria for care progression:

Strongly Disagree    Disagree    Neutral    Agree    Strongly Agree

11. Each patient's discharge plan was made clear during daily rounds:

Strongly Disagree    Disagree    Neutral    Agree    Strongly Agree

## Appendix O

## Welcome to Care Progression

**Welcome to Care Progression**  
*“Plan for the Day, Plan for the Stay”*

*The purpose of this Toolkit is to provide structured guidelines to roll out care progression optimization and utilization across the organization.*

**The Problem:**

- Patients across the organization have increased length of stay for many reasons
- Daily rounds can play a role in effective discharge planning
  - Ineffective discharge planning can occur if daily rounds are not conducted per guidelines and can negatively impact the patient

**Current Practice:**

- Each unit performs daily rounds differently
- Some units do not participate in daily rounds
- Each unit uses different strategies for discharge planning
- Patient needs are not always identified early in the hospitalization
  - Increasing the length of stay

**Recommendations:**

1. Rollout standardized daily rounds guidelines
  - a. On units who currently do not conduct daily rounds
  - b. On units where daily rounds are practiced, yet need to be optimized
2. Streamline daily rounds time: < 30-45 minutes
3. Increase RN knowledge regarding:
  - a. GMLOS impact on patient outcomes
    - i. GMLOS: the average LOS for a diagnosis
  - b. Care Progression team escalation criteria for all staff in daily rounds
4. Care Management Guideline:
  - a. Leads daily rounds
  - b. Structure of daily rounds:
    - i. Introduce the patient
    - ii. State GMLOS and LOS
    - iii. Identify expected hospital discharge date
      1. Discuss avoidable hospital days
    - iv. Identify patients who require escalation to Care Progression Team
      1. When escalation occurs: Care Manager contacts physician advisors, Dr. Manley or Dr. Camp, as needed
5. RN role on all units:
  - a. To “Plan for the Day”
  - b. To “Plan for the Stay”
6. Patients will:
  - a. Be aware of the daily schedule and anticipated discharge date and plan
  - b. Experience a shorter hospital length of stay
  - c. Have fewer avoidable hospital days



## Appendix P

## Care Progression Rollout Timeline

**Care Progression Rollout Checklist***3 Weeks Prior to Care Progression Rollout (Phase 1)*

- Unit manager will meet with care management leadership to discuss plan for unit Care Progression rollout
- Care management leadership will provide the unit manager with Rollout Toolkit and discuss expectations

*2 Weeks Prior to Care Progression Rollout (Phase 2)*

- Unit manager provides education and pocket cards to RNs while clarifying expectations
- Unit manager to contact Jennifer Babcock at 391-1358 to launch SYS Observation Status Patient RN SLM Module in SHLIO for RN team

*During Care Progression Rollout (usually ~2 weeks) (Phase 3)*

- Unit manager is present at daily rounds and provides coaching and support to RNs
- Care management leadership, Care Management supervisors, and Physician Advisors, Dr. Manley or Dr. Camp, present at rounds until guidelines are followed and stabilization checklist is complete

*After Care Progression Rollout (Phases 4 and 5)*

- Care manager will lead rounds
- Unit manager will attend daily rounds weekly, or as needed, and recognize when to coach staff
- Unit manager or CM supervisor will perform a weekly audit to ensure daily rounds follow guidelines
- Members of the Care Progression team (care management supervisor and physician advisors) will continue to attend and coach staff for 3 weeks or until rounds are stable (*Phase 3/4*)
- After the unit demonstrates stability, the Care Progression team will not always attend, but will be available to coach and offer support. Leadership and Physician Advisors will attend daily rounds roughly 3 times per week (*Phase 4*)
- Once stability checklist is complete, Care Management leadership will attend rounds once per week (*Phase 5*)

## Appendix Q Nursing Care Progression Guideline

### Nursing Care Progression Guideline

**Definition:** Care Progression – The trajectory of a patient’s hospitalization from admission to discharge.

**Goal of Care Progression:** To identify patients who need progression. To promote interdisciplinary collaboration on the patient’s treatment and discharge plan.

**Objectives:**

1. Identify barriers to care progression and need for escalation
  - a. Examples:
    - i. Delay in a procedure or surgery
    - ii. Disagreement in treatment plan
2. Team awareness of the anticipated discharge plan and date.
3. Implement discharge planning based on risk indicators in collaboration with the care team.
4. Enhance interdisciplinary team collaboration
5. Reduce patient LOS and avoidable hospital days

**Expected Outcomes:**

1. More rapid identification of need for Care Progression and removal of progression/transition barriers
2. Reduced length of stay
3. Proactive anticipatory versus reactive approach to care progression
4. Improved daily rounds interdisciplinary team work flow satisfaction

**RN-Bedside Process:**

1. Collaborate with treatment team to identify:
  - a. **Expected Discharge Date:**
    - i. Reinforce education needed prior to discharge
    - ii. IV prn medications administered within 24 hours can delay discharge date.
    - iii. Restraints or sitter initiated with 24-72 hours of discharge can delay discharge date.
  - b. **Observation Patient Classification: *Plan for Observation Status Education to Units***
    - i. Prioritize observation patient needs and identify areas where care can be expedited and aggressively pursue discharge.
    - ii. If provider intends another overnight, contact Care Management team.
2. Review **interdisciplinary and ancillary department notes and results**, maintain communication with interdisciplinary team; expedite patient assessments, evaluations and tests.
3. Maintain **dialogue** with provider(s) (attending and consulting) and Care Management throughout the hospitalization regarding: patient and/or family goals and concerns, treatment plan for the day and the stay, and patient progress with potential barriers.
4. Examples of RN dialogue with the treatment team during daily rounds.
  - *What clinical outcome are you waiting for?*
  - *What concern would you have if patient discharged today?*
  - *What prevents discharge today?*

## Appendix R

## Daily Round Structure

## iRounds Structure

Discipline	Areas to Address	Example
Care Management	Patient name Patient room number Patient admission date Diagnosis LOS GMLOS Risk stratification Admission status <ul style="list-style-type: none"> <li>• Outpatient, inpatient, or observation</li> </ul> Expected discharge date Discharge disposition plan Discharge barriers	“John Doe admitted to Room 7026 on 1/7 with community acquired pneumonia. He has LOS of 7 days, which is 4 days over GMLOS. Patient is expected to discharge on 1/17 to SH Fuller SAR as long as he is able to wean to room air.”
Therapy	Therapy consulted Last date seen Therapy recommendations	“PT/OT is consulted and last saw patient on 1/12. PT/OT recommend patient can go home with no assistance.”
Nursing	Plan for the Day <ul style="list-style-type: none"> <li>• Clinical issues or concerns</li> </ul> Plan for the Stay <ul style="list-style-type: none"> <li>• What clinical or other outcomes (i.e. guardianship designation) are we waiting on before we can safely discharge.</li> <li>• Barriers to care progression</li> </ul>	“Patient plan for today is to continue to monitor oxygen needs and administer antibiotics. Plan for the stay is that we expect patient will be ready to discharge once transitioned from IV to PO antibiotics, which should take place in 3 days. Has been on room air since this morning and oxygen sats remain stable. No current barriers for discharge identified.”

*RN order can be determined on a first come, first served basis, utilizing a sign-up sheet, assigning timeslots, or having the unit secretary/charge nurse call the next RN on the list. Determine and utilize the most efficient technique for your unit.*

**Care Progression Daily Rounds Objectives:**

1. Identify barriers to care progression and need for escalation
  - a. Examples:
    - i. Delay in a procedure or surgery
    - ii. Disagreement in treatment plan
2. Team awareness of the anticipated discharge plan and date.
3. Implement discharge planning based on risk indicators in collaboration with the care team.
4. Enhance interdisciplinary team collaboration
5. Reduce patient LOS and avoidable hospital days

Appendix S

Daily Round Structure Reference Cards

<p><b>RN iRounds Preparation</b></p> <ol style="list-style-type: none"> <li>1. Plan for the Day             <ol style="list-style-type: none"> <li>a. Patient Assessment pertinent to discharge planning</li> <li>b. Clinical Issues or Concerns</li> </ol> </li> <li>2. Plan for the Stay             <ol style="list-style-type: none"> <li>a. What Clinical or other outcomes (i.e. guardianship designation) are we waiting on before we can safely discharge.</li> <li>b. Barriers to discharge</li> </ol> </li> </ol> <p><b>Please sign up for a time on the sign-up sheet. Be prepared and be prompt.</b></p>	<p><b>Example</b></p> <table border="1"> <thead> <tr> <th data-bbox="792 407 1045 443">Script</th> <th data-bbox="1045 407 1341 443">Example</th> </tr> </thead> <tbody> <tr> <td data-bbox="792 443 1045 636"> <p><b>Plan for the Day</b></p> <ul style="list-style-type: none"> <li>• Clinical Issues or Concerns</li> </ul> </td> <td data-bbox="1045 443 1341 636"> <p><i>Patient plan for the day</i> is that patient is on day 4 of 7 of antibiotics. Continue to monitor oxygenation. Patient intermittently on 2 L NC, will help with IS use and monitor on room air.</p> </td> </tr> <tr> <td data-bbox="792 636 1045 995"> <p><b>Plan for the Stay</b></p> <ul style="list-style-type: none"> <li>• Clinical Outcomes awaiting before discharge (guardianship, prior authorization?)</li> <li>• Barriers to Discharge</li> </ul> </td> <td data-bbox="1045 636 1341 995"> <p><i>Patient plan for the stay</i> is for discharge to SAR once transitioned from IV to PO antibiotics and stable on room air consistently, should take place in 3 days. No current barriers for discharge identified.</p> </td> </tr> </tbody> </table>	Script	Example	<p><b>Plan for the Day</b></p> <ul style="list-style-type: none"> <li>• Clinical Issues or Concerns</li> </ul>	<p><i>Patient plan for the day</i> is that patient is on day 4 of 7 of antibiotics. Continue to monitor oxygenation. Patient intermittently on 2 L NC, will help with IS use and monitor on room air.</p>	<p><b>Plan for the Stay</b></p> <ul style="list-style-type: none"> <li>• Clinical Outcomes awaiting before discharge (guardianship, prior authorization?)</li> <li>• Barriers to Discharge</li> </ul>	<p><i>Patient plan for the stay</i> is for discharge to SAR once transitioned from IV to PO antibiotics and stable on room air consistently, should take place in 3 days. No current barriers for discharge identified.</p>
Script	Example						
<p><b>Plan for the Day</b></p> <ul style="list-style-type: none"> <li>• Clinical Issues or Concerns</li> </ul>	<p><i>Patient plan for the day</i> is that patient is on day 4 of 7 of antibiotics. Continue to monitor oxygenation. Patient intermittently on 2 L NC, will help with IS use and monitor on room air.</p>						
<p><b>Plan for the Stay</b></p> <ul style="list-style-type: none"> <li>• Clinical Outcomes awaiting before discharge (guardianship, prior authorization?)</li> <li>• Barriers to Discharge</li> </ul>	<p><i>Patient plan for the stay</i> is for discharge to SAR once transitioned from IV to PO antibiotics and stable on room air consistently, should take place in 3 days. No current barriers for discharge identified.</p>						

Appendix T

Care Progression Rollout Audit Tool

**Care Progression Rollout Audit Tool**

*This tool is to track Care Progression Rollout on each unit. Once each unit has met criteria for stability (per the checklist), the Care Progression team will become a resource to each unit.*

Unit	Leadership Planning Date	Nursing Education Date	Care Progression Rollout Date	Rounds Cadence Stable	Nursing Adoption Stable	CM Adoption Stable	Notes/Barriers:

**Stability Requirements:**

<b>Rounds Cadence Stable</b>	<ul style="list-style-type: none"> <li>• All team members prepared</li> <li>• Rounds are led by CM</li> <li>• Time interval is less than 30-45 minute timeframe</li> <li>• Participation from each discipline (CM, PT, RN, physician/pharmacist if applicable)</li> <li>• Understand and verbalize the "Plan for the Day, Plan for the Stay"</li> <li>• Discusses GMLOS</li> <li>• CM entering expected discharge date during rounds if not entered</li> <li>• Team calling out all barriers</li> <li>• Leadership is comfortable that majority of care management understand and use the "Escalation Criteria" (Date _____)</li> </ul>
<b>Nursing Adoption Stable</b>	<ul style="list-style-type: none"> <li>• Nursing follows the cadence of rounds</li> <li>• Nursing includes "plan for the day" routinely during rounds</li> <li>• Nursing includes "plan for the stay" routinely during rounds</li> <li>• There are no interruptions in the flow of rounds</li> </ul>
<b>Care Management Adoption Stable</b>	<ul style="list-style-type: none"> <li>• Leadership is comfortable that staff managing their cases recognize observation patients (Date _____)</li> <li>• Use of GMLOS Epic function</li> <li>• Leading rounds</li> <li>• Escalating cases to medical directors as needed</li> <li>• Including expected discharge date</li> </ul>

## Appendix U

## Daily Rounds Guideline Audit Tool

***Daily Rounds Guideline Audit Tool***

*This audit tool will be completed by leadership on a weekly basis. This tool will be given to the Care Management Manager to ensure guidelines of Daily Rounds are being maintained.*

Unit: \_\_\_\_\_ Disciplines Present (please circle):  
 Date: \_\_\_\_\_ 1. Care Manager 6. Pharmacist  
 Start Time: \_\_\_\_\_ 2. Physician 7. Pharmacy Student  
 End Time: \_\_\_\_\_ 3. RN 8. Unit Manager  
 4. Physical Therapy 9. Patient  
 5. Social Worker 10. Other (describe): \_\_\_\_\_

Please circle yes, no, or N/A (not applicable) or use a code to indicate what occurred during interprofessional rounds.

Who was the team leader? (please circle):  
 1=Care Manager  
 2=Physician  
 3=RN  
 4=Unit Manager  
 5=Other (describe): \_\_\_\_\_

1. Was the physician present during rounds?	YES	NO	N/A
2. Did the care manager lead rounds?	YES	NO	N/A
3. Did the care manager discuss GMLOS?	YES	NO	N/A
4. Was the expected discharge date discussed?	YES	NO	N/A
5. Was the admission status called out?	YES	NO	N/A
6. Was the nurse present during rounds?	YES	NO	N/A
7. Was the plan for the day/plan for the stay discussed?	YES	NO	N/A
8. Was physical therapy present during rounds?	YES	NO	N/A
9. Were therapy recommendations provided?	YES	NO	N/A
10. Was discharge planning discussed?	YES	NO	N/A
11. Were barriers to discharge needs identified?	YES	NO	N/A
12. If discharge barriers exist, is there a plan to escalate?	YES	NO	N/A
13. Were there interruptions in the flow of rounds?	YES	NO	N/A
14. What else occurred other than listed above? (free text)			

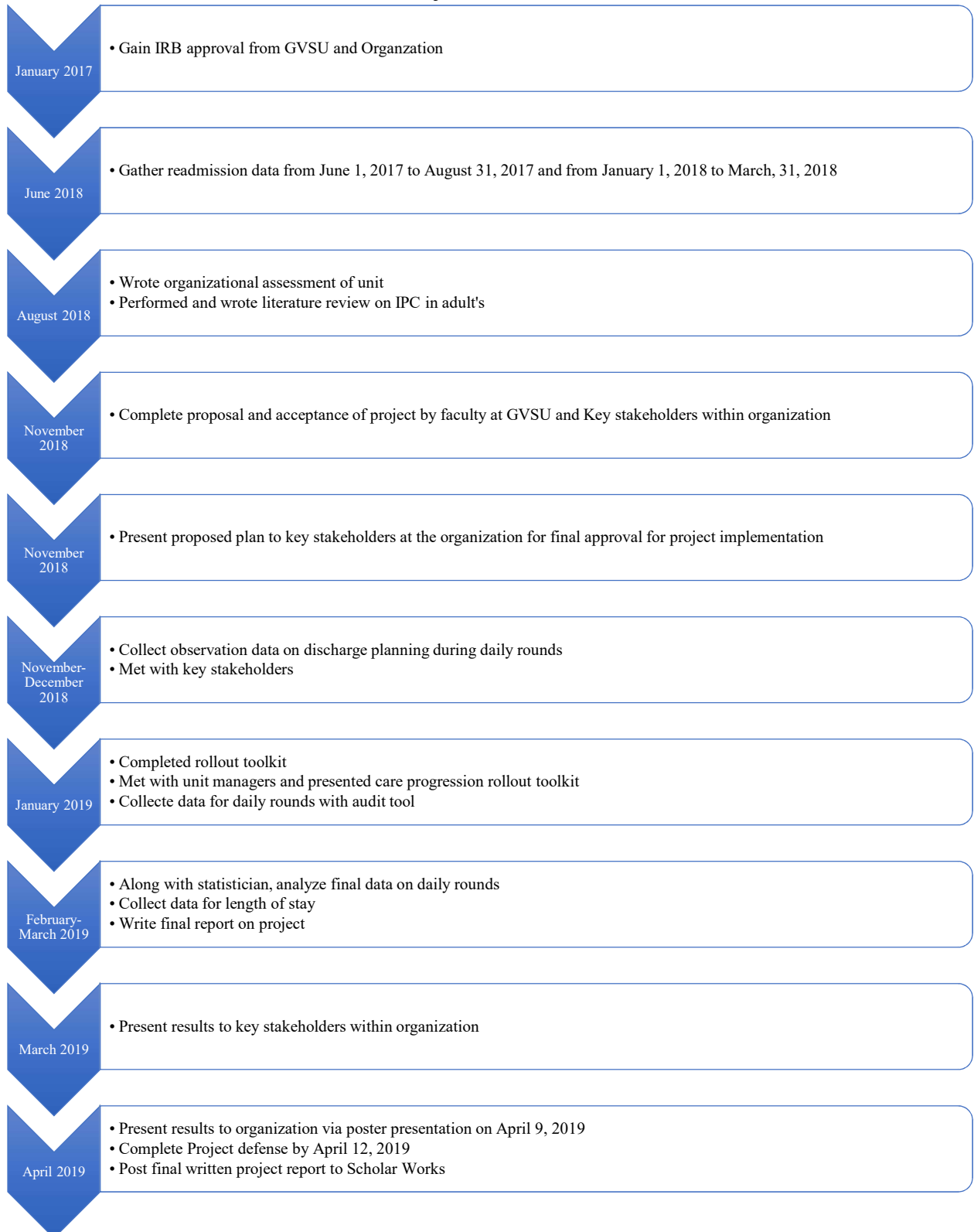
## Appendix V

## Budget for DNP Project

<b>Initial Cost: A Program Evaluation of Interprofessional Collaboration during Discharge Planning on a Medical-Surgical Unit</b>	
Revenue	
Project Manager Time (in-kind donation)	5,734.00
Statistician (in-kind donation)	292.30
Decreased LOS (on average)	22,450.00
<b>TOTAL INCOME</b>	<b>28,476.30</b>
Expenses	
Project Manager Time (in-kind donation)	5,734.00
Statistician (in-kind donation)	292.30
Team Member Time:	
Site Mentor	310.00
RN Manager	302.50
RNs (time spent doing survey)	81.23
Physicians (time spent doing survey)	8.08
Care Manager	883.66
Internal Medicine Physician Advisors x 2	3,880.00
<b>TOTAL EXPENSES</b>	<b>11,492.37</b>
<b>NET OPERATING INCOME</b>	<b>16,983.93</b>

## Appendix W

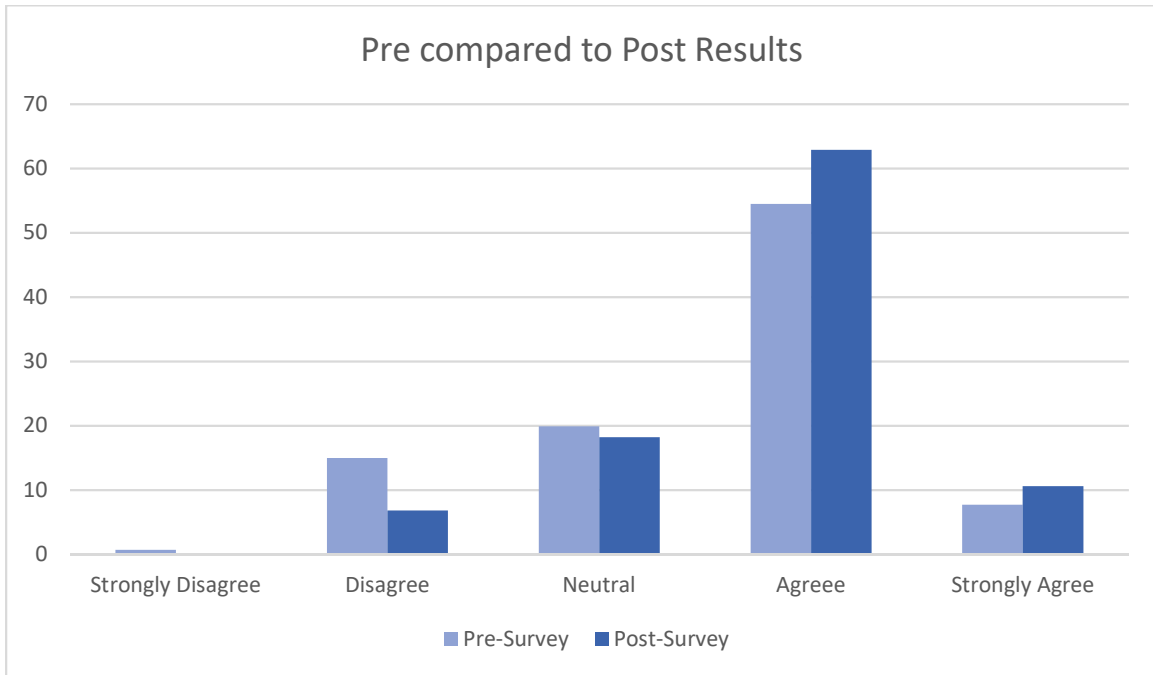
## Project Timeline





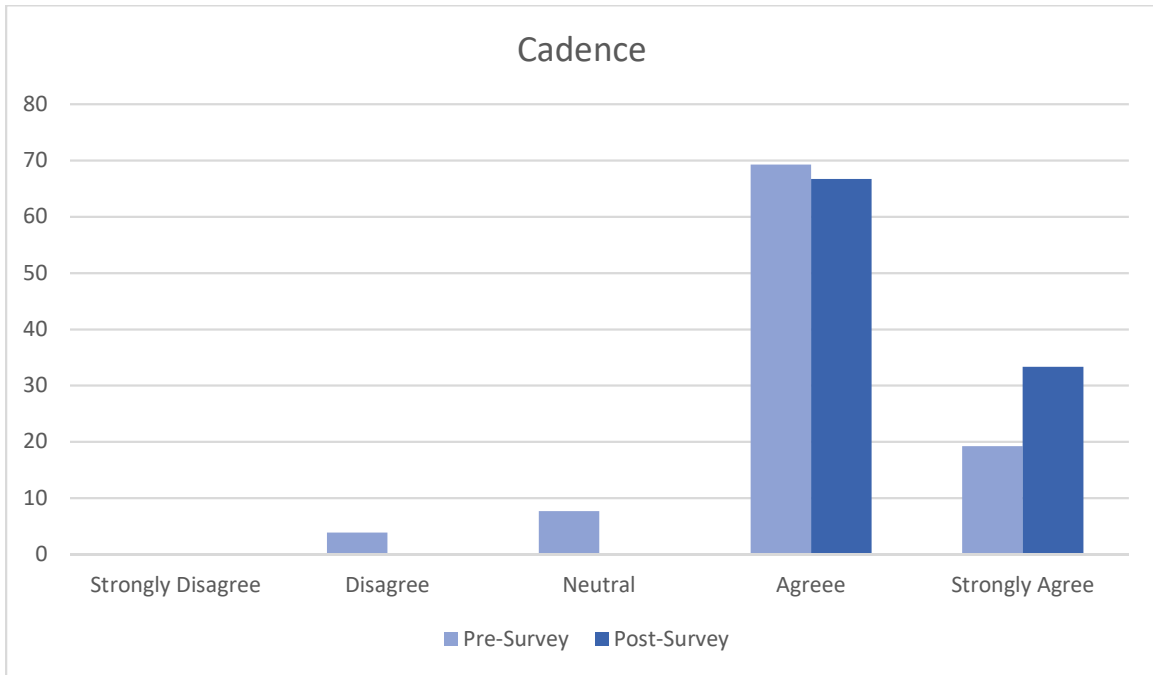
Appendix X

Daily Rounds Survey Results-Pre compared to Post



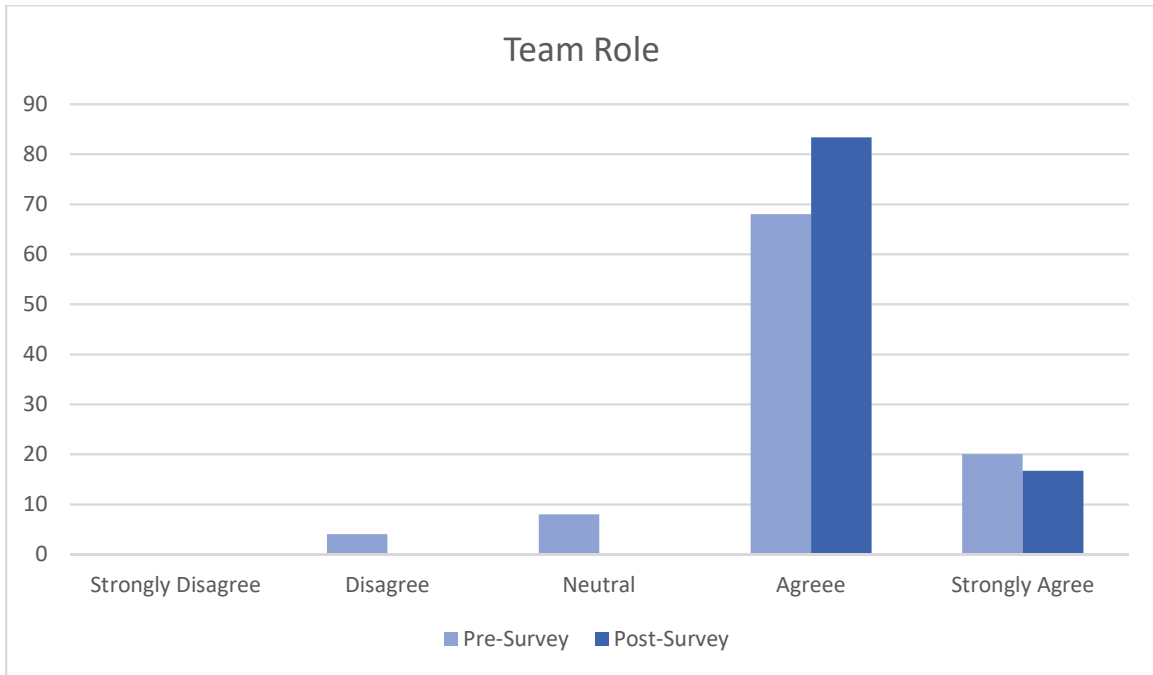
Appendix Y

Daily Rounds Survey Results-Understanding Cadence



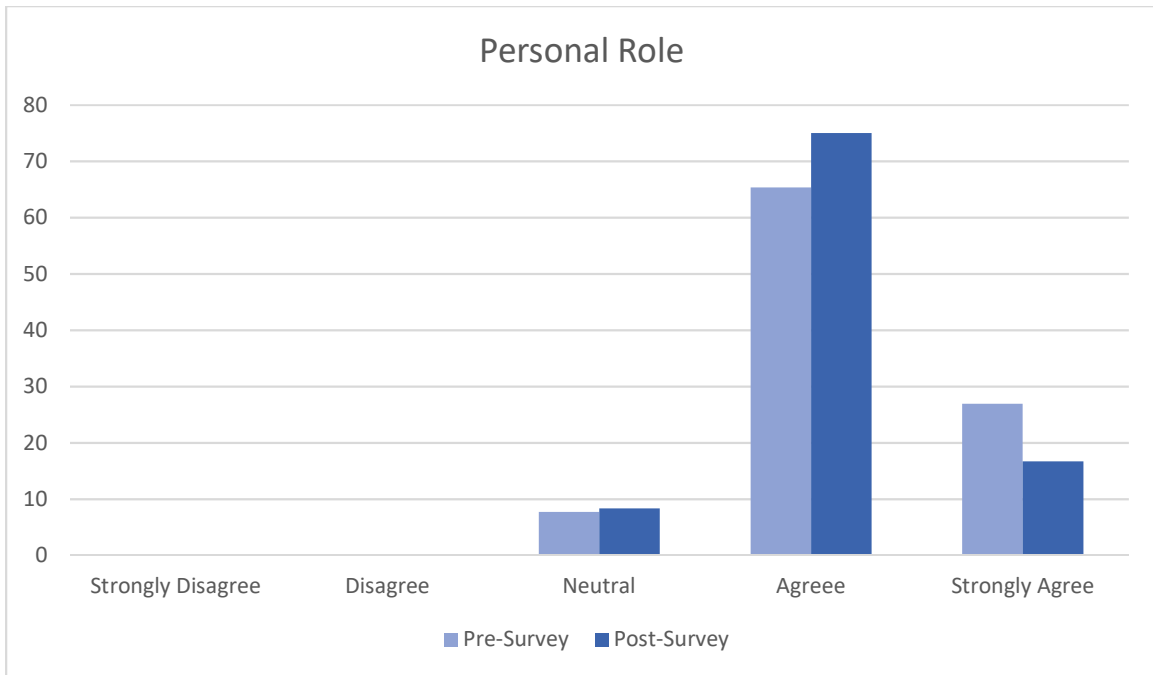
Appendix Z

Daily Rounds Survey Results-Team Roles



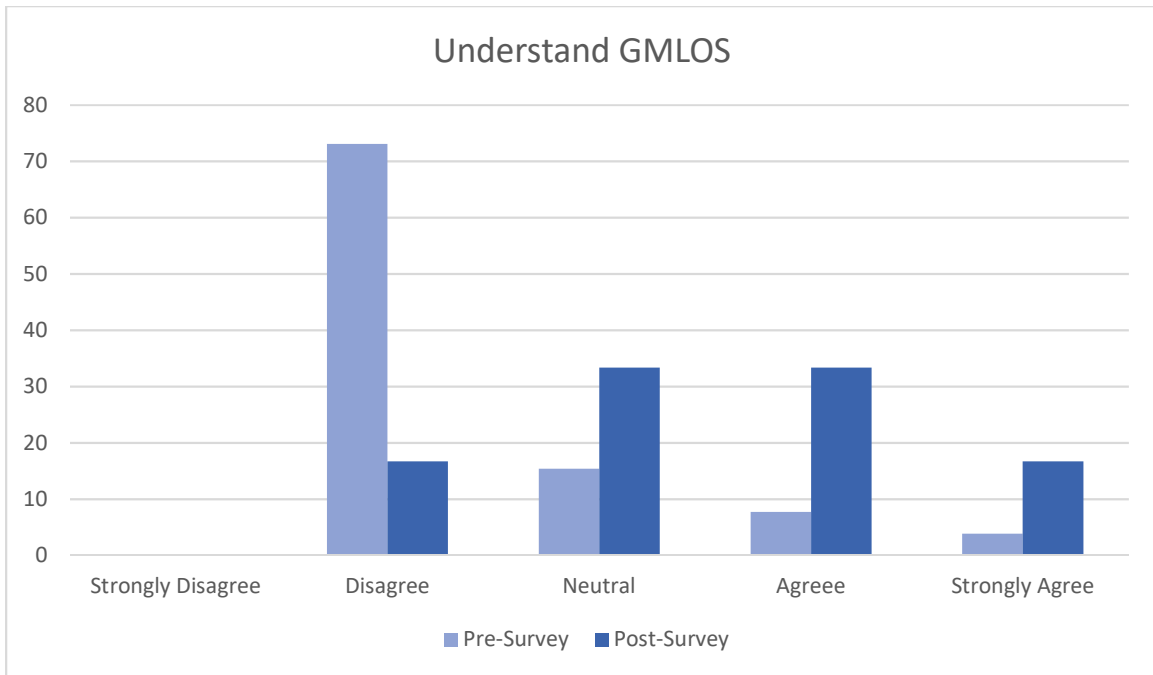
Appendix AA

Daily Rounds Survey Results-Personal Roles



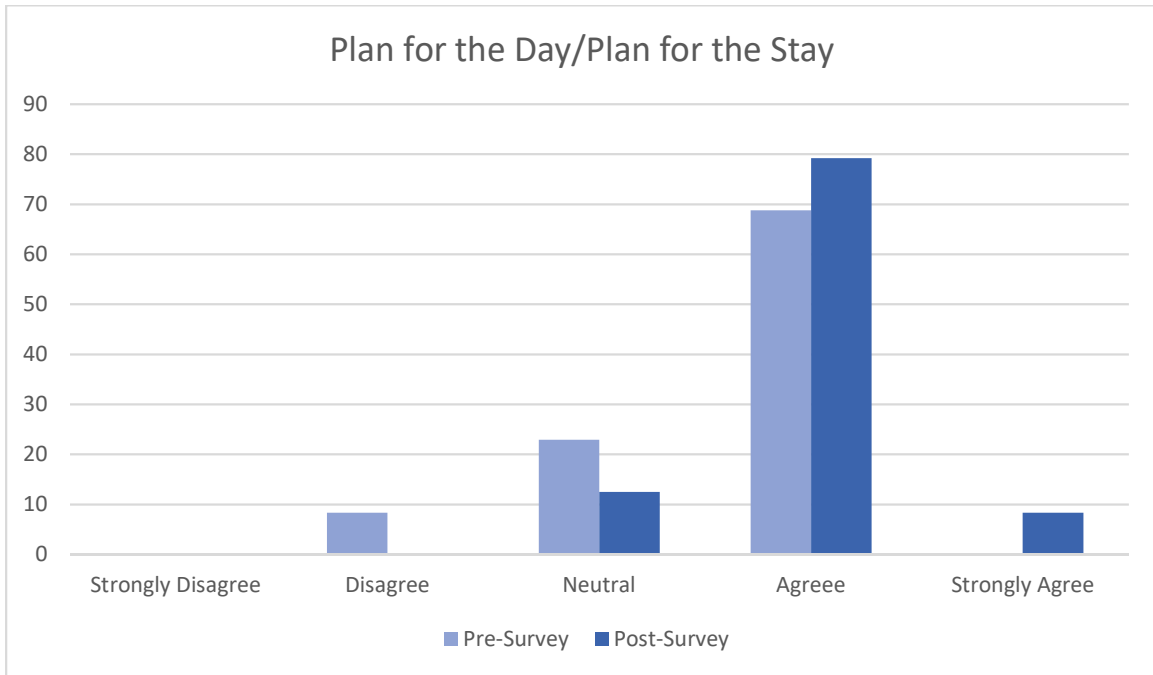
Appendix BB

Daily Rounds Survey Results-GMLOS



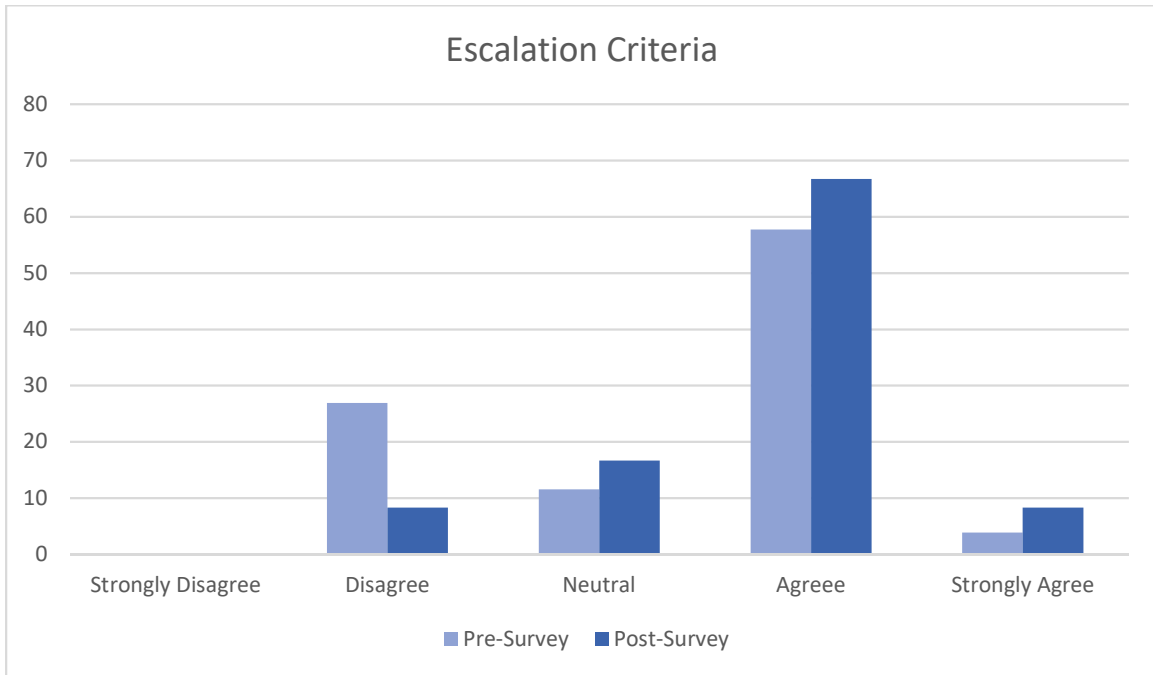
Appendix CC

Daily Rounds Survey Results-Plan for the Day/Plan for the Stay



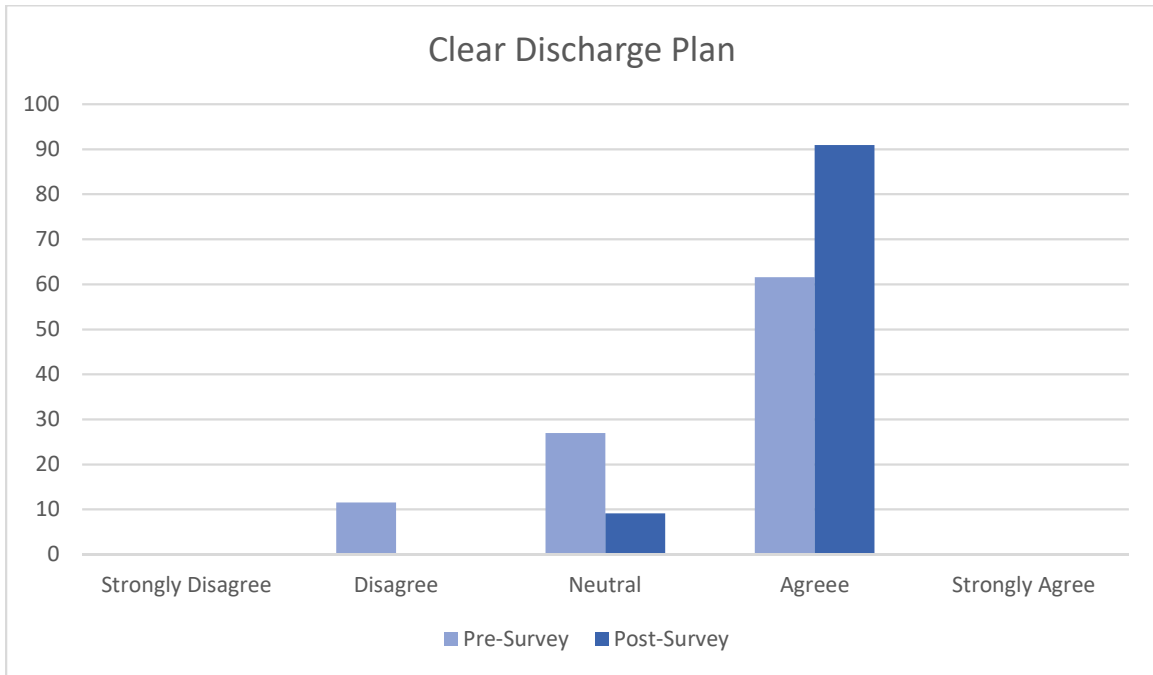
Appendix DD

Daily Rounds Survey Results-Escalation Criteria



Appendix EE

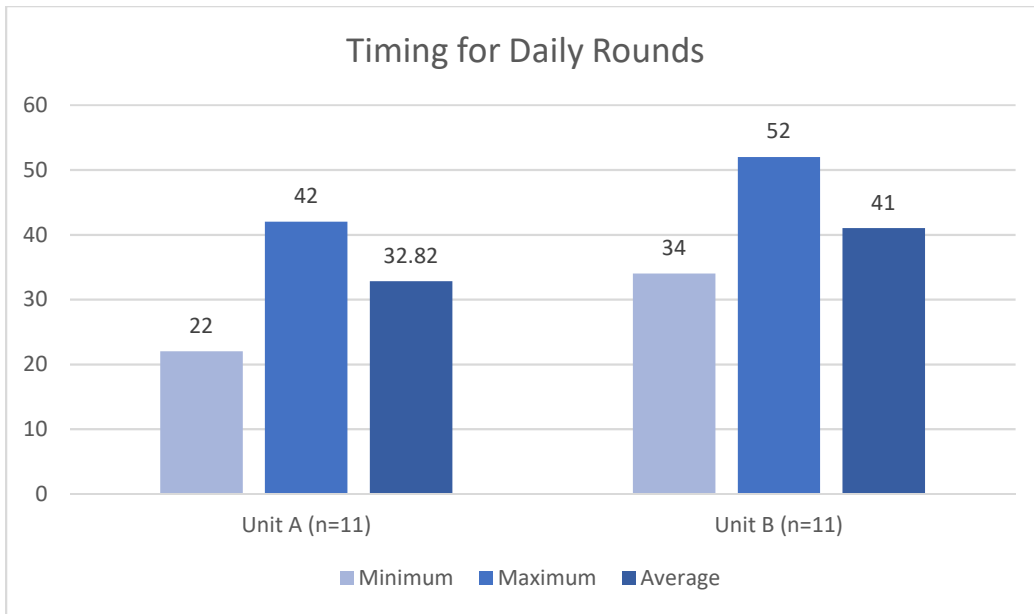
Daily Rounds Survey Results-Discharge Plan





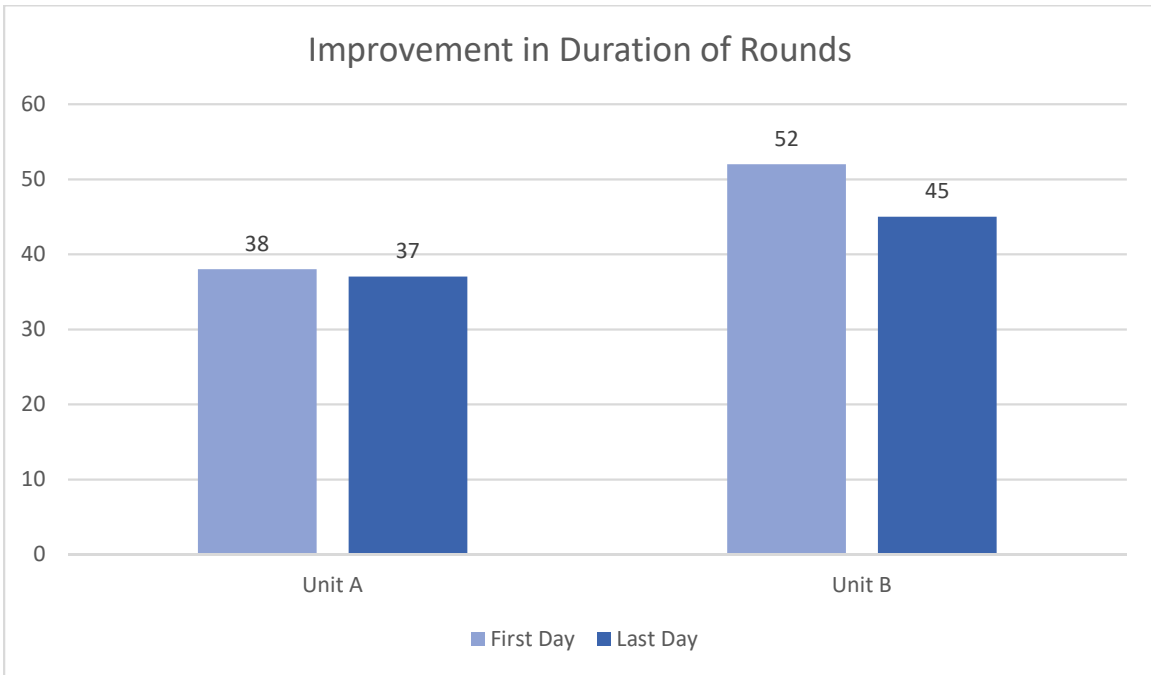
Appendix FF

Daily Rounds Audit Results-Duration of Daily Rounds



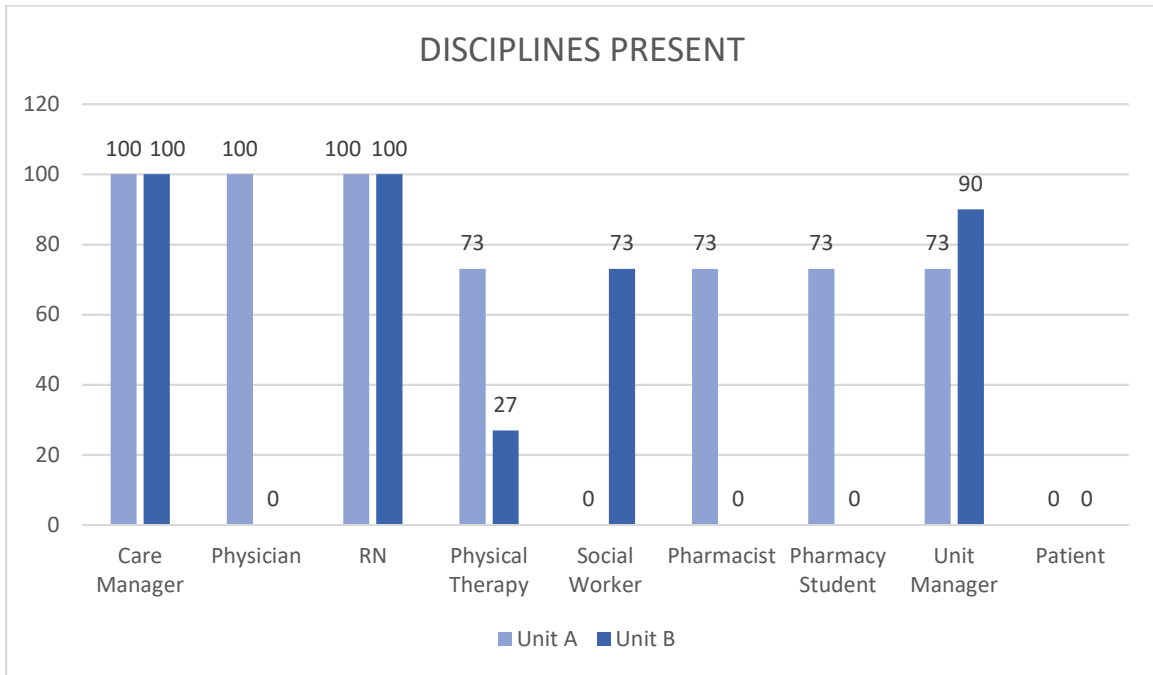
Appendix GG

Daily Rounds Audit Results-Improvement in Duration of Daily Rounds



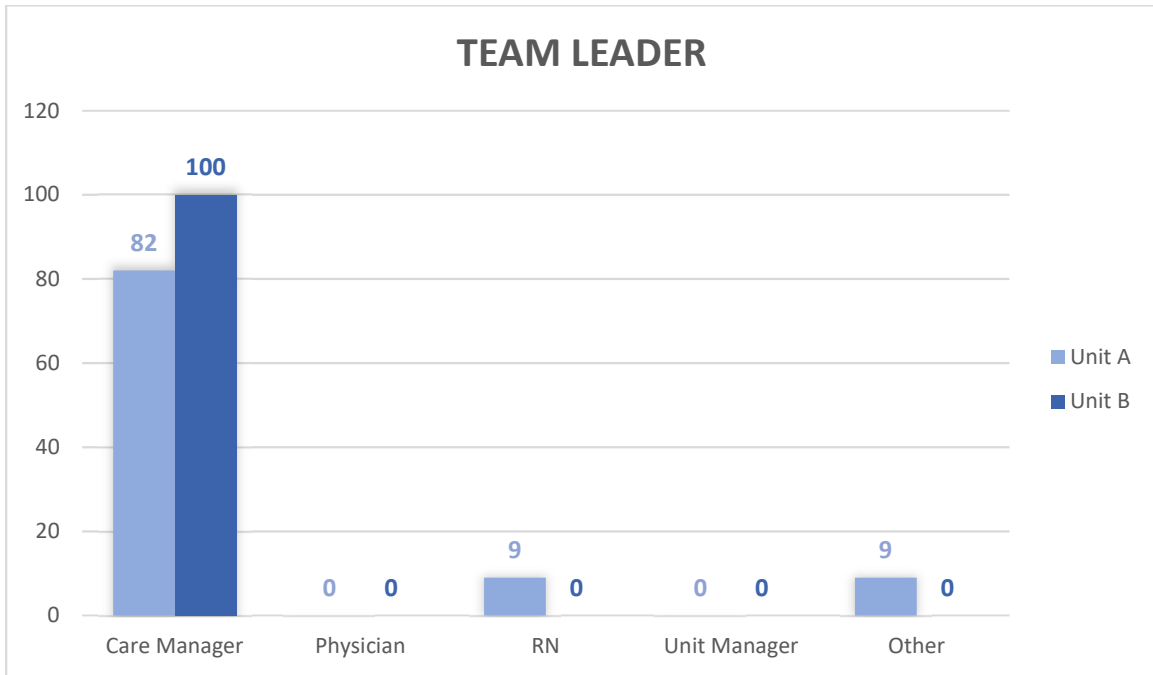
Appendix HH

Daily Rounds Audit Results-Disciplines Present at Daily Rounds



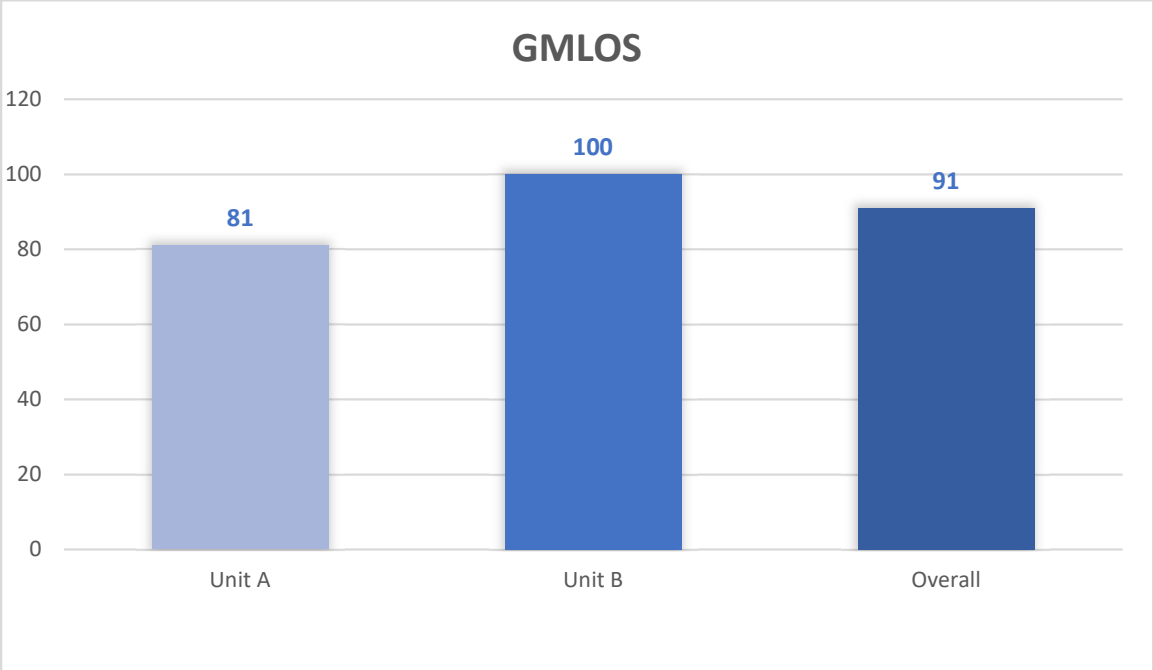
Appendix II

Daily Rounds Audit Results-Team Leader



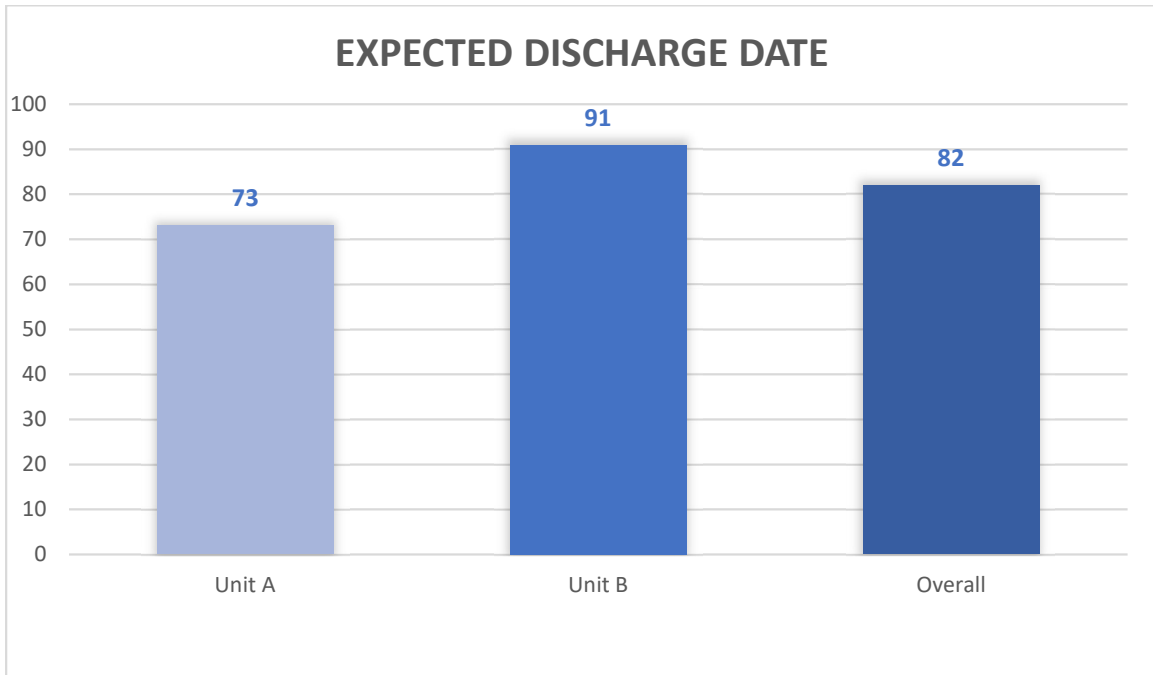
Appendix JJ

Frequency Daily Rounds GMLOS Discussed



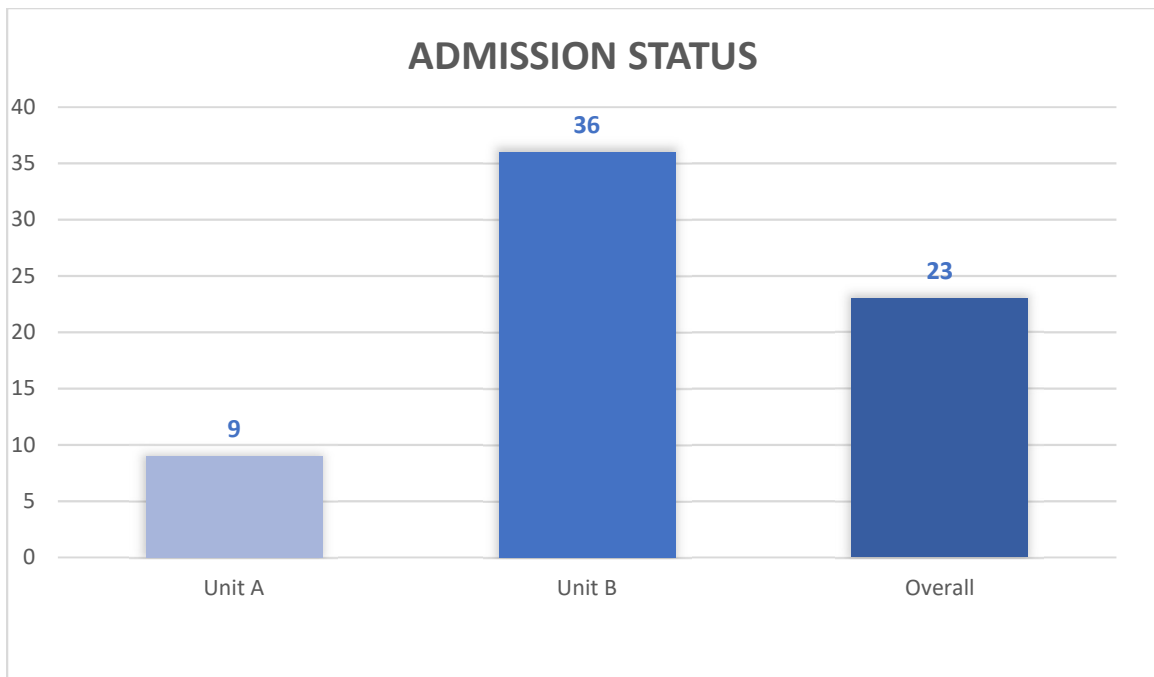
Appendix KK

Frequency Daily Rounds Expected Discharge Date Discussed



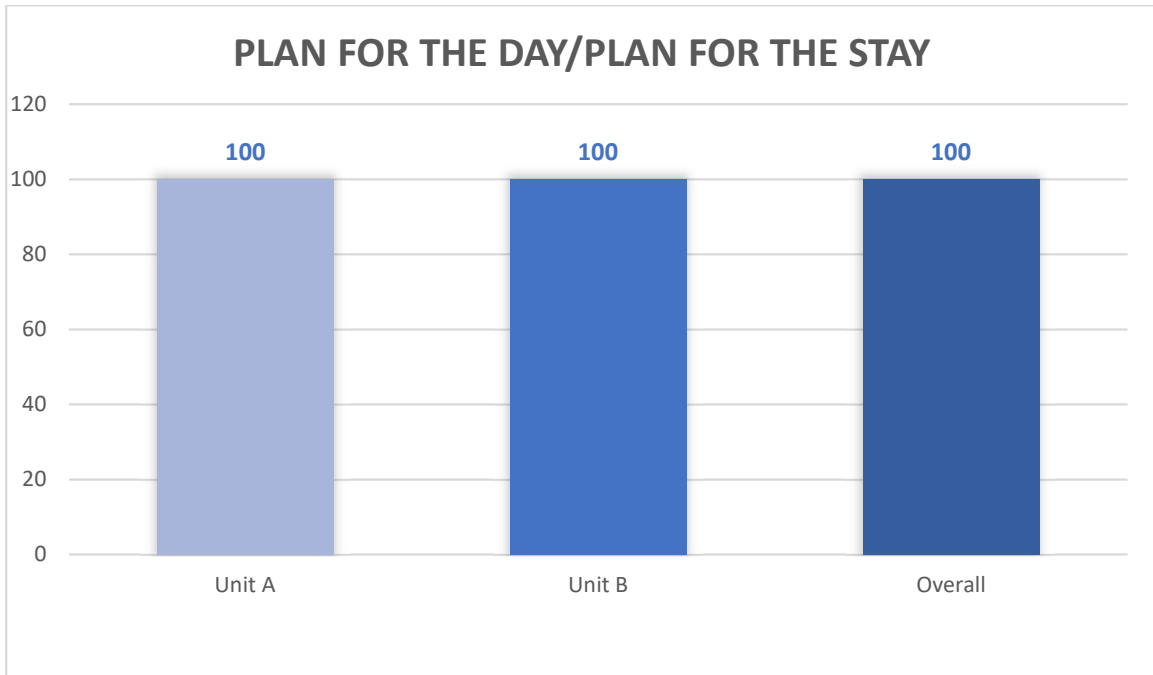
Appendix LL

Frequency Daily Rounds Admission Status Discussed



Appendix MM

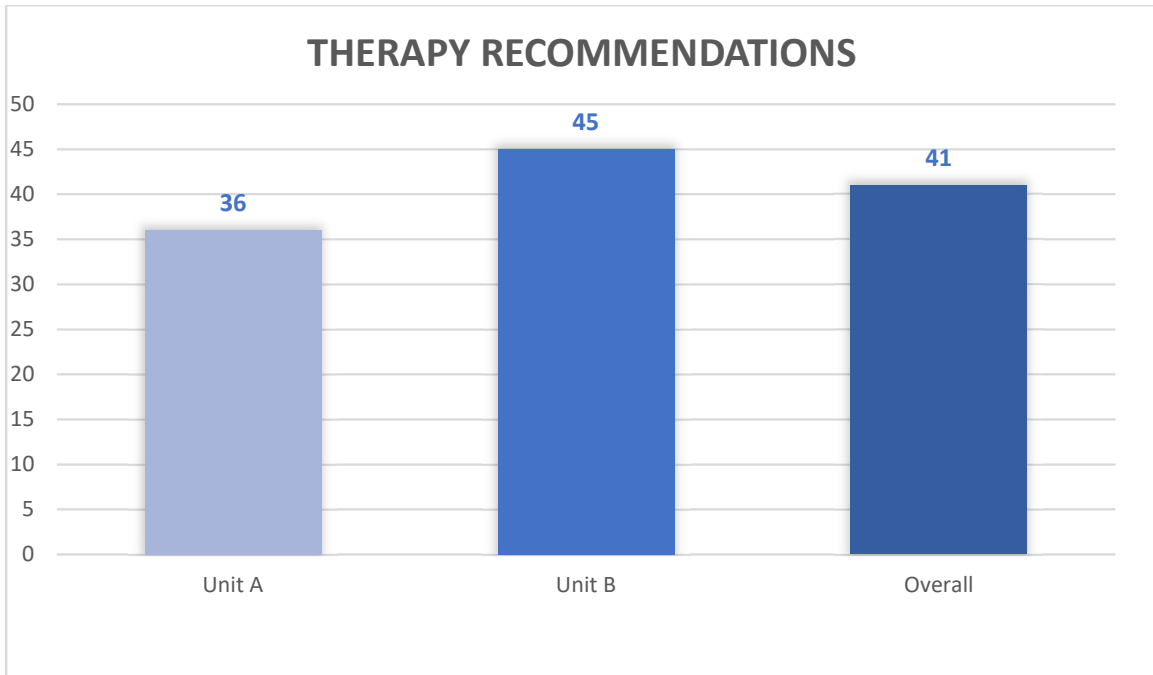
Frequency Daily Rounds Plan for the Day and Stay Discussed





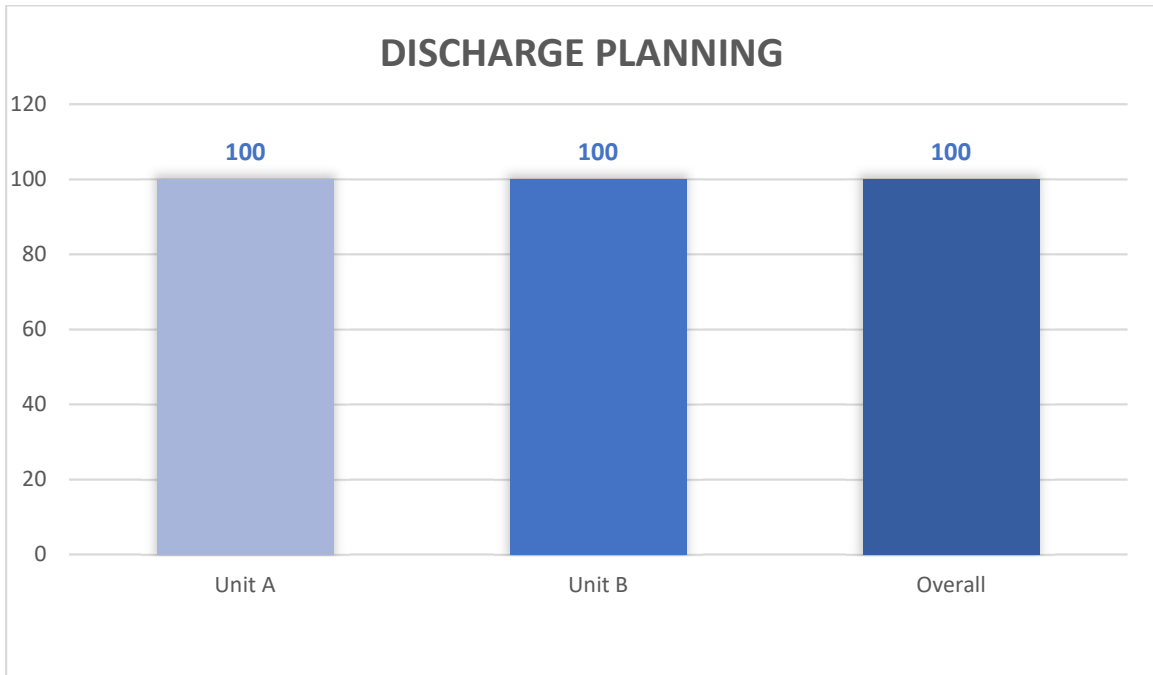
Appendix NN

Frequency Daily Rounds Therapy Recommendations Discussed



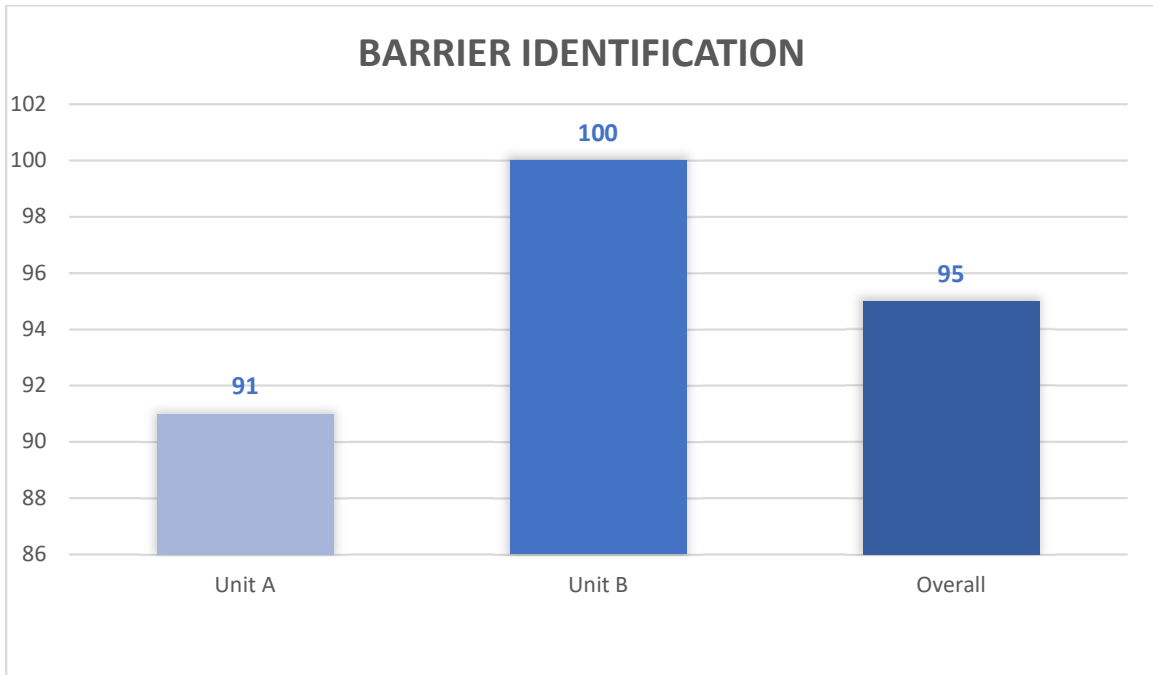
Appendix OO

Frequency Daily Rounds Discharge Planning Discussed



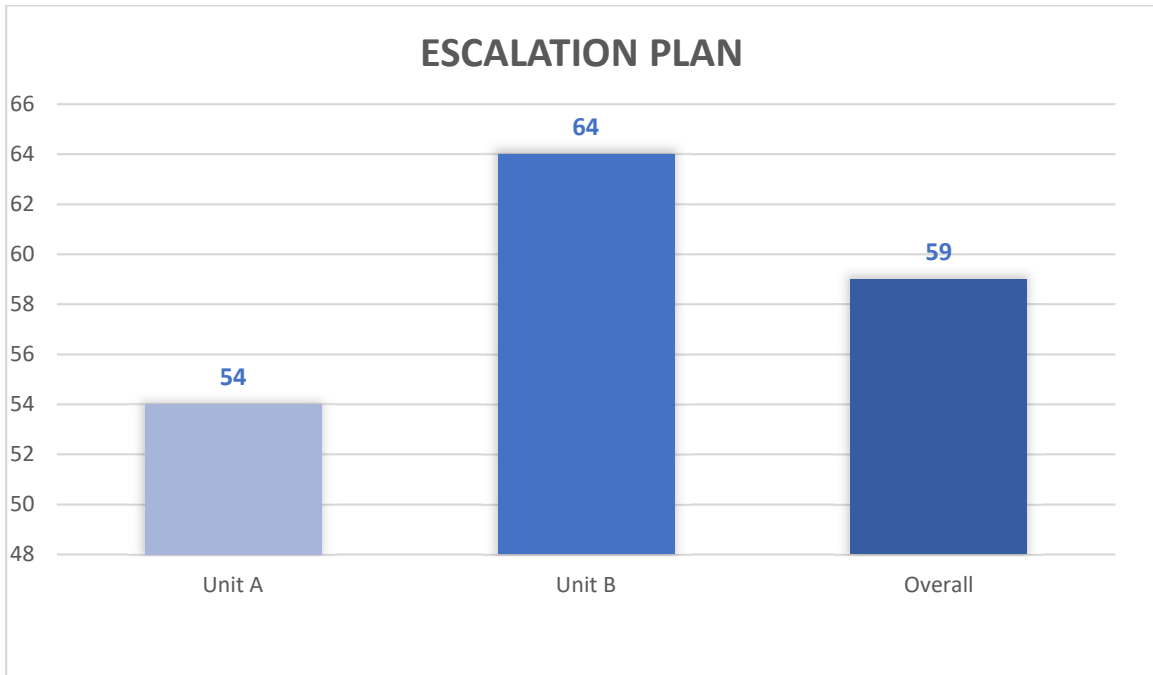
Appendix PP

Frequency Daily Rounds Barrier Identification Discussed



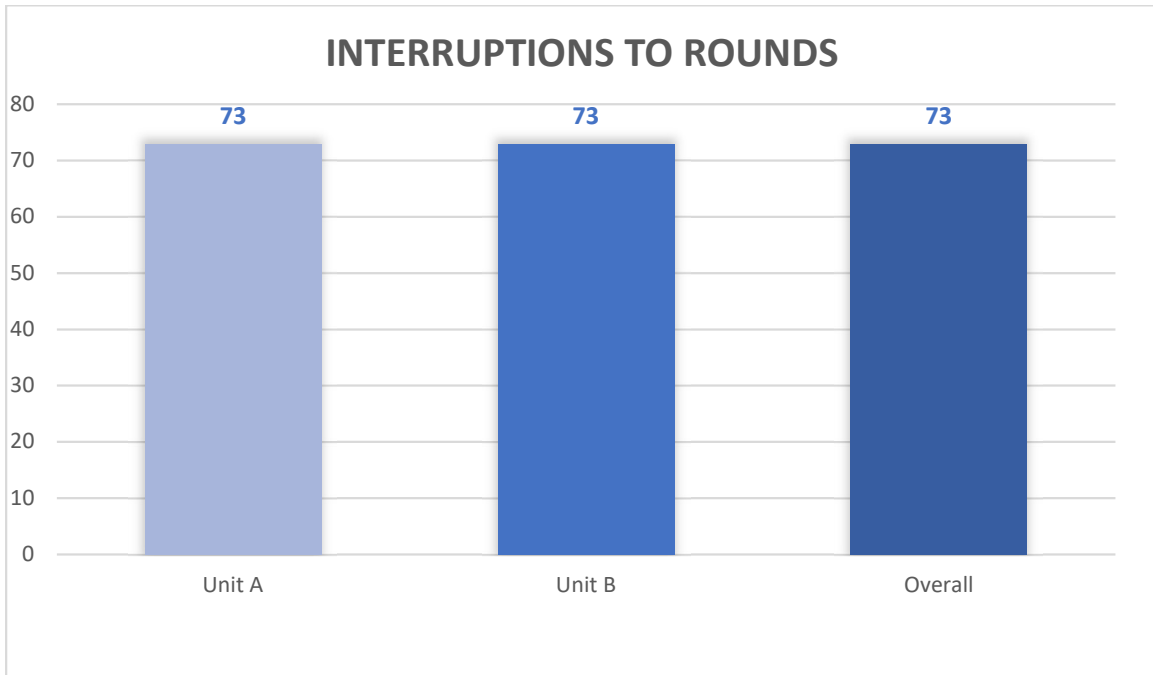
Appendix QQ

Frequency Daily Rounds Escalation Plan Discussed



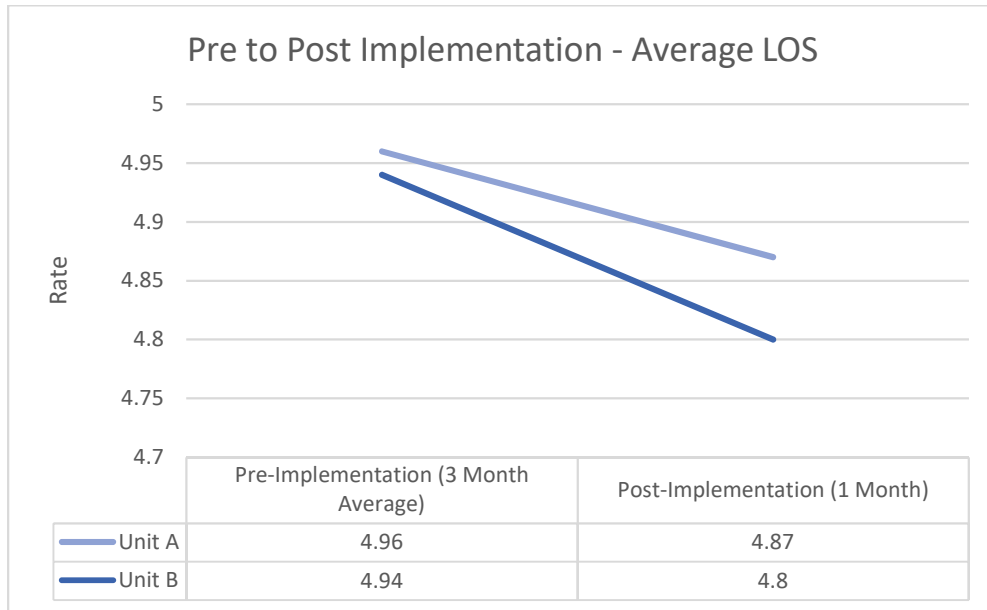
Appendix RR

Frequency of Interruptions to Daily Rounds



Appendix SS

Post-Implementation LOS Data



## Appendix TT

## Education Card for Care Managers

<p><b>Care Manager Rounds Preparation</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Lead and Facilitate Rounds</li> <li><input type="checkbox"/> Introduce the Patient <ul style="list-style-type: none"> <li>• Patient Name</li> <li>• Patient Room Number</li> <li>• Patient Admission Date</li> <li>• Diagnosis</li> </ul> </li> <li><input type="checkbox"/> State GMLOS and LOS</li> <li><input type="checkbox"/> Admission Status <ul style="list-style-type: none"> <li>• Outpatient, Inpatient, or Observation</li> </ul> </li> <li><input type="checkbox"/> Expected Discharge Date</li> <li><input type="checkbox"/> Discharge Disposition Plan</li> <li><input type="checkbox"/> Discharge Needs/Barriers</li> </ul>	<p style="text-align: center;"><b>ESCALATION CRITERIA FOR PHYSICIAN ADVISORS</b></p> <ul style="list-style-type: none"> <li>• There is no clear answer to the question “Why is this patient still here?”</li> <li>• The anticipated LOS is approaching 15 days with no clear imminent discharge plan</li> <li>• Observation Patient that is over 72 hours</li> <li>• When Ethics is involved</li> <li>• Running into barriers with provider communication/decision making</li> </ul> <p><b>Communication with Physical Therapy</b> <i>If PT not at rounds, communicate separately</i></p> <ul style="list-style-type: none"> <li>• Are there updated notes?</li> <li>• Are discharge plans consistent with PT recommendations?</li> <li>• Does the patient need PT evaluation in order for care progression or discharge?</li> </ul>
---	--

## Appendix UU

## RN Education Flier

**CARE PROGRESSION**

## Nursing Education

***“Plan for the Day, Plan for the Stay”*****Purpose of the change:**

- Patients will be aware of the daily schedule / anticipated discharge plan, and experience a shorter hospital LOS with less avoidable days
- Reducing LOS saves money

**Geometric Length of Stay (GMLOS):** The average length of stay according to diagnosis. The goal is that patients are discharged before they surpass their GMLOS.

**What you need to know:**

1. The Care Manager leads rounds.
2. The RN contributes by discussing:
  - i. **PLAN FOR THE DAY**
    - (i) Clinical issues/concerns
  - ii. **PLAN FOR THE STAY**
    - (i) Clinical needs prior to discharge
    - (ii) Barriers/potential barriers to discharge

**Examples:**

***Patient plan for the Day*** is that patient is on day 4 of 7 of antibiotics. Continue to monitor oxygenation. Patient intermittently on 2 L NC, will help with IS use and monitor on room air.

***Patient plan for the Stay*** is for discharge to SAR once transitioned from IV to PO antibiotics and stable on room air consistently, should take place in 3 days. No current barriers for discharge identified.



## Appendix VV

## Updated Daily Rounds Structure

## Daily Rounds Structure (No provider present)

Discipline	Role	Areas to Address	Example
<b>Care Management</b>  <i>Will attend Daily to Lead Rounds</i>	<p>Ensures timely progression through rounds.</p> <p>Coordinates discharge needs and ensures patient transition to appropriate/safe environment.</p> <p><i>Does not physically interact with every patient. Care managers take recommendations from RNS on who needs to be seen.</i></p>	<b>Introduces Patient:</b> <ul style="list-style-type: none"> <li>• Patient name</li> <li>• Patient room number</li> <li>• Admission date</li> <li>• Diagnosis</li> <li>• LOS</li> <li>• GMLOS</li> <li>• Risk stratification</li> <li>• Admission status (Outpatient, inpatient, or observation)</li> <li>• Expected discharge date</li> <li>• Discharge disposition plan</li> <li>• Facilitates transitions</li> <li>• Discharge barriers</li> </ul>	<p>“John Doe admitted to Room 9326 on 1/7 with community acquired pneumonia. He has LOS of 7 days, which is 4 days over GMLOS. Patient is expected to discharge on 1/17 to SH Fuller SAR as long as he is able to wean to room air.”</p>
<b>Therapy</b>  <i>May be Present Daily or Intermittently</i>	<p>Discuss recommendations for safe discharge.</p> <p>Review need for PT/OT evaluation.</p>	<ul style="list-style-type: none"> <li>• Has therapy been consulted? <ul style="list-style-type: none"> <li>○ If not, is a consult needed</li> </ul> </li> <li>• Last date seen</li> <li>• Therapy recommendations</li> </ul>	<p>“PT/OT is consulted and last saw patient on 1/12. PT/OT recommend patient can go home with no assistance.”</p>
<b>Bedside Nursing</b>  <i>Attends Daily</i>	<p>Discusses patient progress with any concerns from the previous 24 hours. Bring aspects of care to rounds that is <i>pertinent to discharge planning</i>. Brings forward patient input to the team. If anticipating discharge needs, ensures care management is involved. Reviews team discussion with the patient following rounds.</p>	<p>Plan for the Day</p> <ul style="list-style-type: none"> <li>• Clinical issues or concerns</li> <li>• Patient assessment <i>pertinent to discharge planning</i></li> </ul> <p>Plan for the Stay</p> <ul style="list-style-type: none"> <li>• What clinical or other outcomes (i.e. guardianship designation) are we waiting on before we can safely discharge.</li> <li>• Barriers to care progression</li> </ul> <p><i>Only discuss needs pertinent to discharge.</i></p>	<p>“<i>Patient plan for today</i> is to continue to monitor oxygen needs and administer antibiotics. <i>Plan for the stay</i> is that we expect patient will be ready to discharge once transitioned from IV to PO antibiotics, which should take place in 3 days. Has been on room air since this morning and oxygen saturation remains stable. No current barriers for discharge identified.”</p>

## Appendix WW

## RN Expectations

## Daily Rounds Structure

### Sign-Up Process:

*The goal is to have the next RN on stand-by to start rounds once the current RN is complete. This process will help prevent gaps in discussion, allowing rounds to be more efficient and timely for all involved.*

- The sign-up process used on each unit will be dependent on what works best for the unit, as determined by the unit manager
  - RN order can be determined on a first come, first serve basis
  - RN order can be determined utilizing assignments or a sign-up sheet
- The process for presenting to rounds will be as follows:
  - First RN and second RN present at initiation of rounds
  - Once first RN is complete, they will call the 3<sup>rd</sup> RN to come to rounds
  - The second RN will then call the 4<sup>th</sup> RN to come rounds
  - This process will continue until all RNs have presented at daily rounds

### What you can expect at rounds:

1. Care Manager will lead rounds
2. If physical therapy is present, they will present recommendations following the care manager
3. The bedside RN will then present the “*plan for the day, plan for the stay*”
4. You may see other disciplines present at times, but not routinely. If any of the following disciplines are present, you can expect them to include the following information:
  - Unit Manager
    - Provides coaching and feedback to RNs
  - Care Management Leadership
    - Provides coaching and feedback to RNs and care manager
  - Physician Advisors
    - Provides assistance with care progression and escalation needs
  - Social Work
    - Discuss psychosocial needs including addiction and withdrawal concerns
  - Physician
    - Summarize plan of care for the day while identifying discharge needs
  - Pharmacist
    - Discuss medication concerns (for example IV to PO conversion)

## Appendix XX

## Updated Daily Rounds Guideline Audit Tool

***Daily Rounds Guideline Audit Tool***

*This audit tool will be completed by CM leadership or the Unit Manager on a weekly basis. This tool will be submitted electronically to ensure guidelines of Daily Rounds are being maintained.*

Unit: \_\_\_\_\_ Disciplines Present (please circle):  
 Date: \_\_\_\_\_ 1. Care Manager 6. Pharmacist  
 Start Time: \_\_\_\_\_ 2. Attending Physician 7. Pharmacy Student  
 End Time: \_\_\_\_\_ 3. RN 8. Unit Manager  
 Number of patients reviewed: \_\_\_\_\_ 4. Physical Therapy 9. Patient  
 5. Social Worker 10. Other (describe): \_\_\_\_\_

Please circle yes, no, or N/A (not applicable) to indicate what occurred during interprofessional rounds.

Who was the team leader? (please circle):  
 1=Care Manager  
 2=Attending Physician  
 3=RN  
 4=Unit Manager  
 5=Other (describe): \_\_\_\_\_

- |  |     |    |     |
|--|-----|----|-----|
| 1. Did the care manager discuss GMLOS?                       | YES | NO | N/A |
| 2. Was the expected discharge date discussed?                | YES | NO | N/A |
| 3. Was the admission status called out?                      | YES | NO | N/A |
| 4. Was the plan for the day/plan for the stay discussed?     | YES | NO | N/A |
| 5. Were therapy recommendations provided?                    | YES | NO | N/A |
| 6. Was discharge planning discussed?                         | YES | NO | N/A |
| 7. Were barriers to discharge needs identified?              | YES | NO | N/A |
| 8. If discharge barriers exist, is there a plan to escalate? | YES | NO | N/A |
| 9. The flow of rounds had few to no interruptions?           | YES | NO | N/A |
| 10. What else occurred other than listed above? (free text)  |     |    |     |

**Key:** Yes = > 75%, No = < 75%, N/A = discipline not expected to be at rounds

## Appendix YY

## Physical Therapy Schedule

**Physical Therapy Schedule*****By Unit:***

**Unit C:** Present *everyday* (Monday-Friday) starting at 10:15 am

**Unit D:** Present on *Monday* and *Thursday* starting at 11:00 am

**Unit E:** Present on *Wednesday* starting at 11:20 am

**Unit A:** Present on *Monday* and *Thursday* starting at 10:00 am

**Unit B:** *Not attending*

**Unit F:** Present *everyday* (Monday-Friday) starting at 09:30 am

***By Day:*****Monday:**

09:30 AM: **UNIT F**

10:00 AM: **UNIT A**

10:15 AM: **UNIT C**

11:00 AM: **UNIT D**

**Tuesday:**

09:30 AM: **UNIT F**

10:15 AM: **UNIT C**

**Wednesday:**

09:30 AM: **UNIT F**

10:15 AM: **UNIT C**

11:20 AM: **UNIT E**

**Thursday:**

09:30 AM: **UNIT F**

10:00 AM: **UNIT A**

10:15 AM: **UNIT C**

11:00 AM: **UNIT D**

**Friday:**

09:30 AM: **UNIT F**

10:15 AM: **UNIT C**

## Appendix ZZ

## Daily Rounds Structure with Providers

## Daily Rounds Structure (Provider present)

Discipline	Role	Areas to Address	Example
<b>Care Management</b>  <i>Will attend Daily to Lead Rounds</i>	Ensures timely progression through rounds. Coordinates discharge needs and ensures patient transition to appropriate/safe environment.  <i>Does not physically interact with every patient. Care managers take recommendations from RNS on who needs to be seen.</i>	<b>Introduces Patient:</b> <ul style="list-style-type: none"> <li>• Patient name</li> <li>• Patient room number</li> <li>• Admission date</li> <li>• Diagnosis</li> <li>• LOS</li> <li>• GMLOS</li> <li>• Risk stratification</li> <li>• Admission status (Outpatient, inpatient, or observation)</li> <li>• Discharge disposition plan</li> <li>• Facilitates transitions</li> <li>• Discharge barriers</li> </ul>	“John Doe admitted to Room 9326 on 1/7 with community acquired pneumonia. He has LOS of 7 days, which is 4 days over GMLOS. Patient is expected to discharge on 1/17 to SH Fuller SAR as long as he is able to wean to room air.”
<b>Therapy</b>  <i>May be Present Daily or Intermittently</i>	Discuss recommendations for safe discharge. Review need for PT/OT evaluation.	<ul style="list-style-type: none"> <li>• Has therapy been consulted?               <ul style="list-style-type: none"> <li>◦ If not, is a consult needed</li> </ul> </li> <li>• Last date seen</li> <li>• Therapy recommendations</li> </ul>	“PT/OT is consulted and last saw patient on 1/12. PT/OT recommend patient can go home with no assistance.”
<b>Provider</b>  <i>Attends Daily</i>	Summarize plan of care for the day.  Identifies needs for discharge.  <i>Will not be present on all units.</i>	<ul style="list-style-type: none"> <li>• Plan for the Day</li> <li>• Expected Discharge Date</li> <li>• Barriers to discharge from providers view</li> </ul>	“ <i>Patient plan for today</i> is to continue to monitor oxygen needs while weaning off nasal cannula. Expected discharge date is in 2 days with a potential barrier related to IV antibiotics, we will need to transition to PO antibiotics tomorrow.”
<b>Bedside Nursing</b>  <i>Attends Daily</i>	Discusses patient progress with any concerns from the previous 24 hours. Bring aspects of care to rounds that is <i>pertinent to discharge planning</i> . Brings forward patient input to the team. If anticipating discharge needs, ensures care management is involved. Reviews team discussion with the patient following rounds.	Plan for the Stay <ul style="list-style-type: none"> <li>• Clinical issues or concerns</li> <li>• Patient assessment</li> <li>• What clinical or other outcomes (i.e. guardianship designation) are we waiting on before we can safely discharge.</li> <li>• Barriers to care progression</li> </ul> <i>Only discuss needs pertinent to discharge.</i>	“ <i>Plan for the stay</i> is that we expect patient will be ready to discharge once transitioned from IV to PO antibiotics, which should take place in 1-2 days. Has been on room air since this morning and oxygen saturation remains stable. No current barriers for discharge identified.”

# Interprofessional Collaboration during Discharge Planning for a Large Midwestern Hospital

Sarah Shepler

DNP Project Final Defense

April 12, 2019

# Interprofessional Collaboration to Improve Discharge Planning

Erica Spalding

DNP Project Final Defense

April 12, 2019



## Acknowledgements

Advisor:

Dr. Sandra Spoelstra

Advisory Team:

Dr. Sylvia Simons

Dr. Mary Dougherty

Kim Doherty

Statistician:

Daniel Muzyka-Graduate Assistant

Joint Project with

Sarah Shepler and Erica Spalding

# Objectives for Final Defense

1. Discuss Clinical Problem: IPC during Discharge Planning with context of organizational assessment
2. Summarize literature review
3. Review project plan results and implications for practice
4. Discuss sustainability and dissemination plan
5. Reflect on DNP essentials



# Introduction

- Poor communication among disciplines has led to 100,000 patient deaths annually (Lancaster, Kolakowsky, Kovacich, & Greer-Williams, 2015).
- An estimated \$240 billion in annual healthcare savings with the use of IPC (Nagelkerk, Coggan, Pawl, & Thompson, 2017).
- The Institute of Medicine, World Health Organization, and the Joint Commission support the use of IPC (Menefee, 2014; The Joint Commission, 2013).
- Structured daily rounds decrease LOS and improve patient outcomes (Reeves et al., 2017).

# Introduction

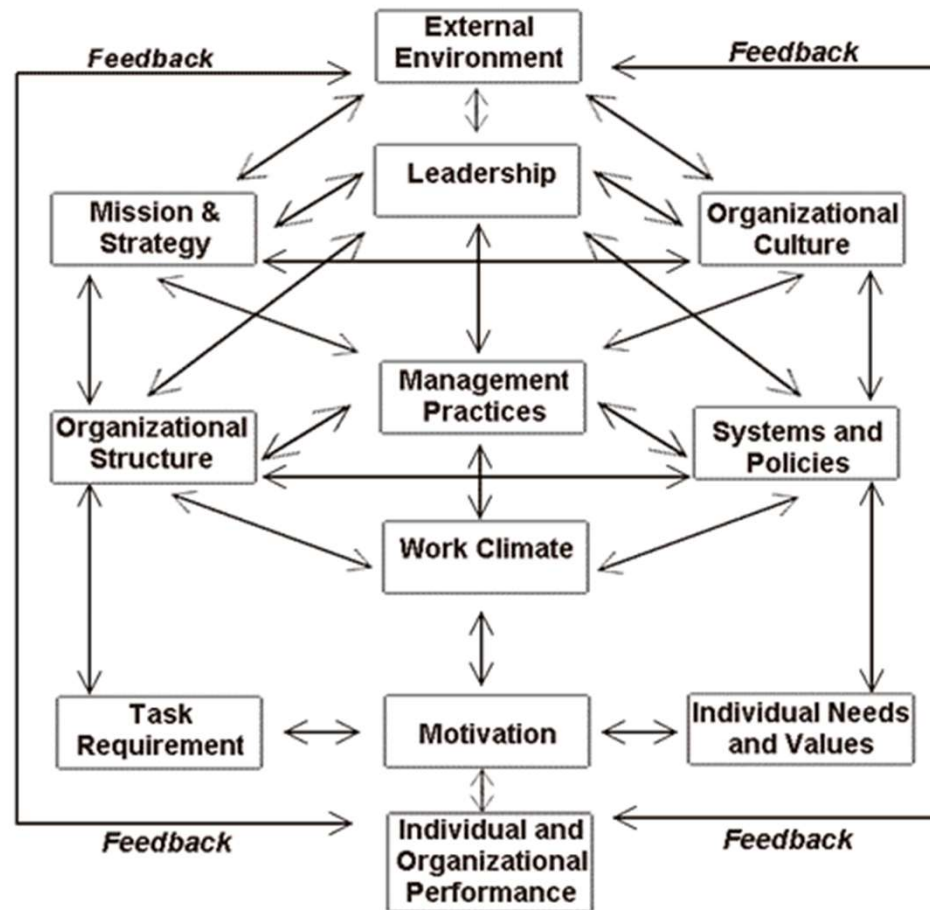
- IPC can:
  - Reduce hospital readmissions
  - Decrease length of stay
  - Decrease healthcare costs
  - Prevent adverse events
  - Decrease mortality

(Menefee, 2014; The Joint Commission, 2013; Jeffs, Dhala, Cardoso, & Bell, 2014).



# ORGANIZATIONAL ASSESSMENT

# Framework: Burke & Litwin Causal Model (Burke & Litwin, 1992)



# Burke & Litwin:

## Facilitators

- Mission and strategy
- Leadership
- Organizational culture
- Management practices
- Task requirements
- Individual skills
- Work unit climate
- Individual needs and values
- Motivation
- Individual performance
- Organizational performance

## Barriers

- Structure
- Organization system

# Unit Assessment: Analysis

## Inconsistencies among units

- Some units participate; while others do not

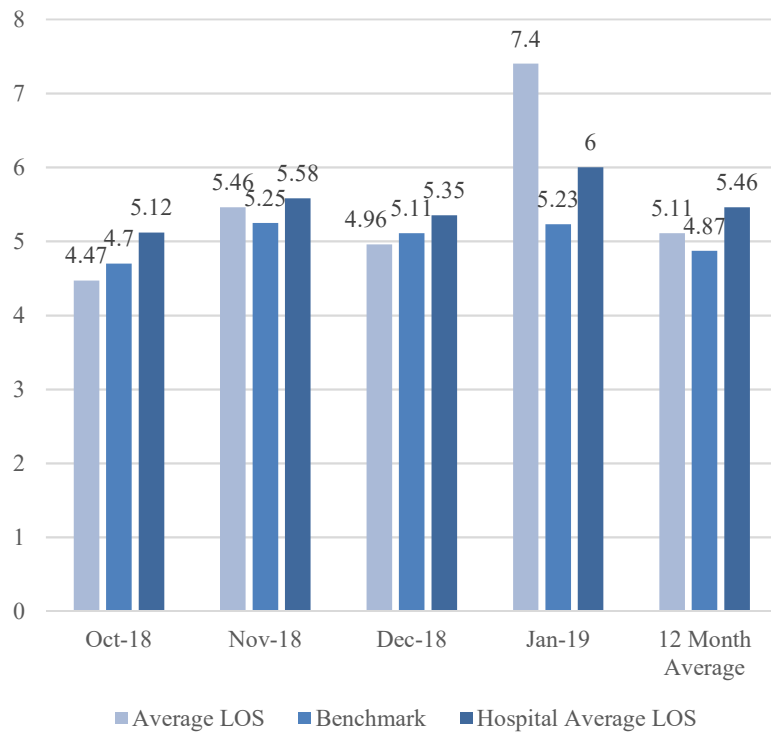
## Daily interprofessional rounds

- Not all patients on unit discussed during rounds
- Patients not involved during rounds
- Does not include all disciplines
- Does not focus on discharge planning
- Does not include RNs everyday

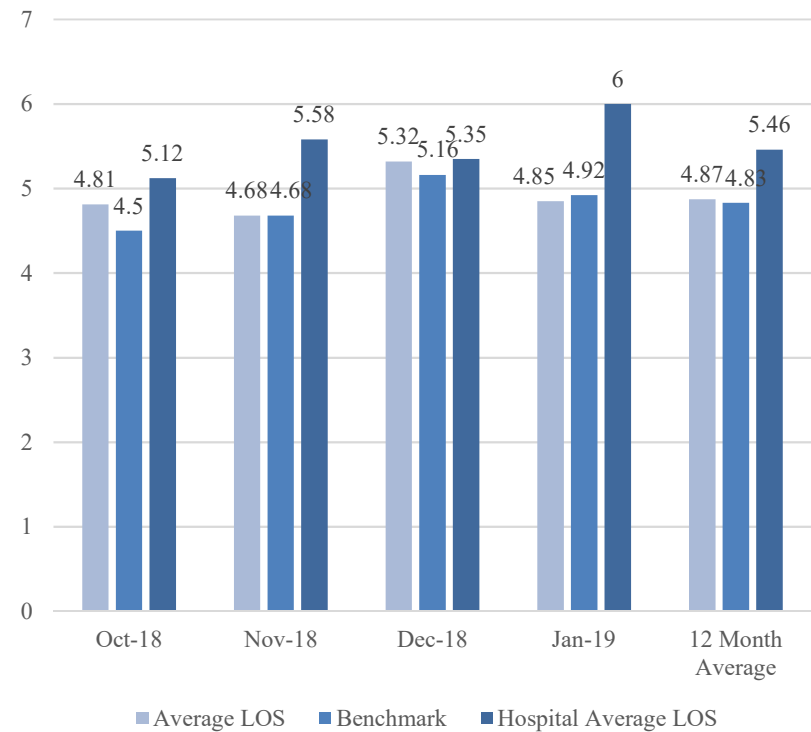
## Lack of guidance for daily rounds

# Baseline LOS Data

## Length of Stay for Unit A



## Length of Stay for Unit B



# IRB Determination

- The university and site Institutional Review Boards (IRBs) determined the projects were quality improvement and not research



# Stakeholders

## Key stakeholders:

- Patients
- Providers (physicians)
- RNs
- Unit Manager
- System Administration
- Care Managers

## Other stakeholders:

- Therapists (occupational and physical)
- Pharmacist

# SWOT Analysis

Strengths	Weaknesses
<p>with a large amount of resources                      and-thinking mission and values                      m, community, and individual levels                      ated care</p> <p>Participate in interdisc                      Interprofessional care                      One provider group (I                      Pharmacist student as                      Motivated leaders, ma                      Supportive manager a</p> <p><b>Motivated</b></p> <p><b>Participate in Interprofessional Rounds on Unit A</b></p> <p><b>Supportive System</b></p>	<p>New unit                      Many of the RNs within this unit h                      M                      Lack of Guidance for IPC                      EL                      N                      Varying length of stays                      Often get pa                      Interprofessi                      family</p> <p><b>Inconsistent Levels of Experience</b></p> <p><b>Exclude Patients</b></p>
Opportunities	Threats
<p>Im                      Im                      Im                      discharge planning                      Sepsis is a nationwide problem, and is t                      readmissions                      Improving IPC with policies and protocols</p> <p><b>Standardization</b></p> <p><b>IPC Enhancement</b></p>	<p>may not be the priority for this unit                      taking priority (example-fall rates)                      may not “buy-in” to the proposed                      tion e                      Staff burnout to education and change with t</p> <p><b>Quality Benchmarks</b></p> <p><b>Burnout</b></p>

# Clinical Practice Question

“Will optimized interprofessional rounds impact discharge planning to reduce LOS and improve staff satisfaction?”



LITERATURE  
REVIEW

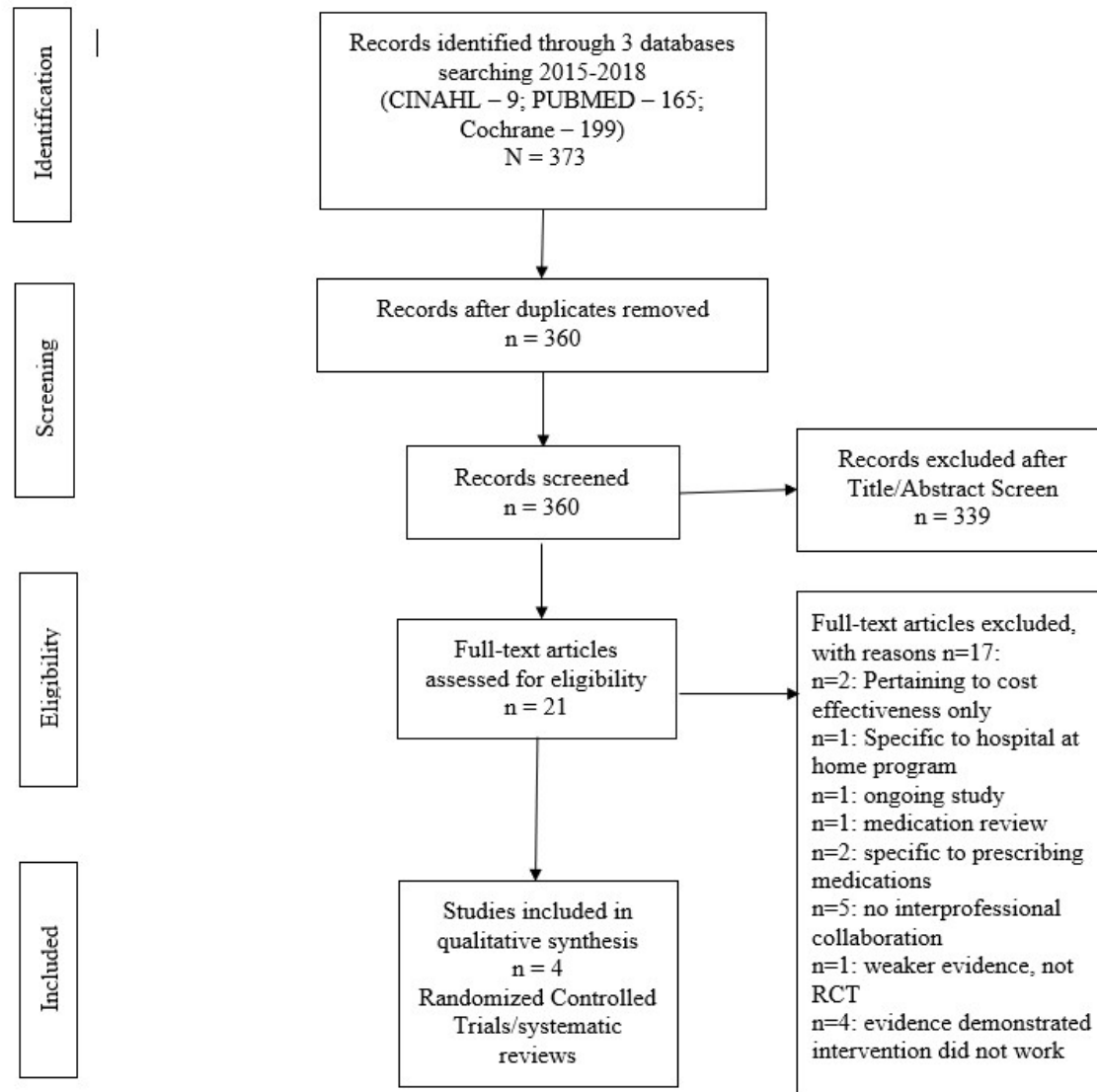
# Literature Review

## Questions:

1. How does IPC impact patient outcomes or readmission rates?
2. Are there interventions to enhance IPC in adult patients?
3. Which components of IPC interventions promoted IPC within the acute care setting?

# Review Method

- Higher level of Evidence Sought:
  - Systematic Reviews
- CINAHL, PubMed, and Cochrane Databases
- Limitations:
  - English Language
  - Publications since 2015
- Keywords:
  - Interprofessional collaboration
  - Multidisciplinary team
  - Interdisciplinary team
  - Adult



# Summary of Table

## Connolly (2016)

- Multidisciplinary interactions with team meetings and enhanced education for RNs, interactions between primary, secondary and long-term care

## Reeves (2017)

- Systematic review: interprofessional rounds, meetings, and checklists used

## Schubert (2016)

- Interprofessional teams with in-home transition visits, after discharge from hospital

## Siaw (2017)

- Multidisciplinary team visits, pharmacists key stakeholders



# Results: Literature Review

- Interprofessional Team Characteristics:
  - Gerontology nurse specialists, geriatrician, pharmacist, general practitioner, RNs (Connoly et al, 2016).
  - Staff included those within LTC, acute-care, and surgical teams (pharmacist, physicians, RNs...)  
(Reeves et al, 2017).
  - Geriatrician, pharmacist, psychologist, PCP, patient (Schubert, Myers, Allen, & Counsell, 2016).
  - Pharmacist, RNs, educators, dieticians (Siaw et al, 2017).

# Results: Literature Review

- Measures:
  - Outcomes:
    - Improved IPC among disciplines and decreased LOS (Reeves et al, 2017).
    - Decrease readmission rates (Schubert, Myers, Allen & Counsell, 2016)
    - Decreased acute care usage (Connolly et al, 2016; Schubert, Myers, Allen & Counsell, 2016)
    - Lowered health care costs (Reeves et al., 2017; Schubert, Myers, Allen & Counsell, 2016; Siaw et al., 2017).
    - Improved management of patients with chronic conditions (Siaw et al, 2017).

# Results: Literature Review

- Efficacy:
  - Reduced readmissions by 34.7% ( $p=0.005$ ) (Connolly et al, 2016).
  - Decreased LOS of 5.46 days compared to 6.06 days ( $p=0.006$ ) (Reeves et al, 2017).
  - 14.8% fewer 30-day readmissions ( $p=0.19$ ) (Schubert, Myers, Allen, & Counsel, 2016).
  - 37.9% fewer hospitalizations ( $p=0.14$ ) (Schubert, Myers, Allen, & Counsel, 2016).
- Limitations:
  - Variation among interventions and settings
  - Inclusion of multiple disciplines with multiple team sizes

# Evidence for Project

- Evidence supports a relationship between IPC and improved patient outcomes
  - **Decreased LOS**
  - Reduced readmission rates
  - Improved control of chronic conditions

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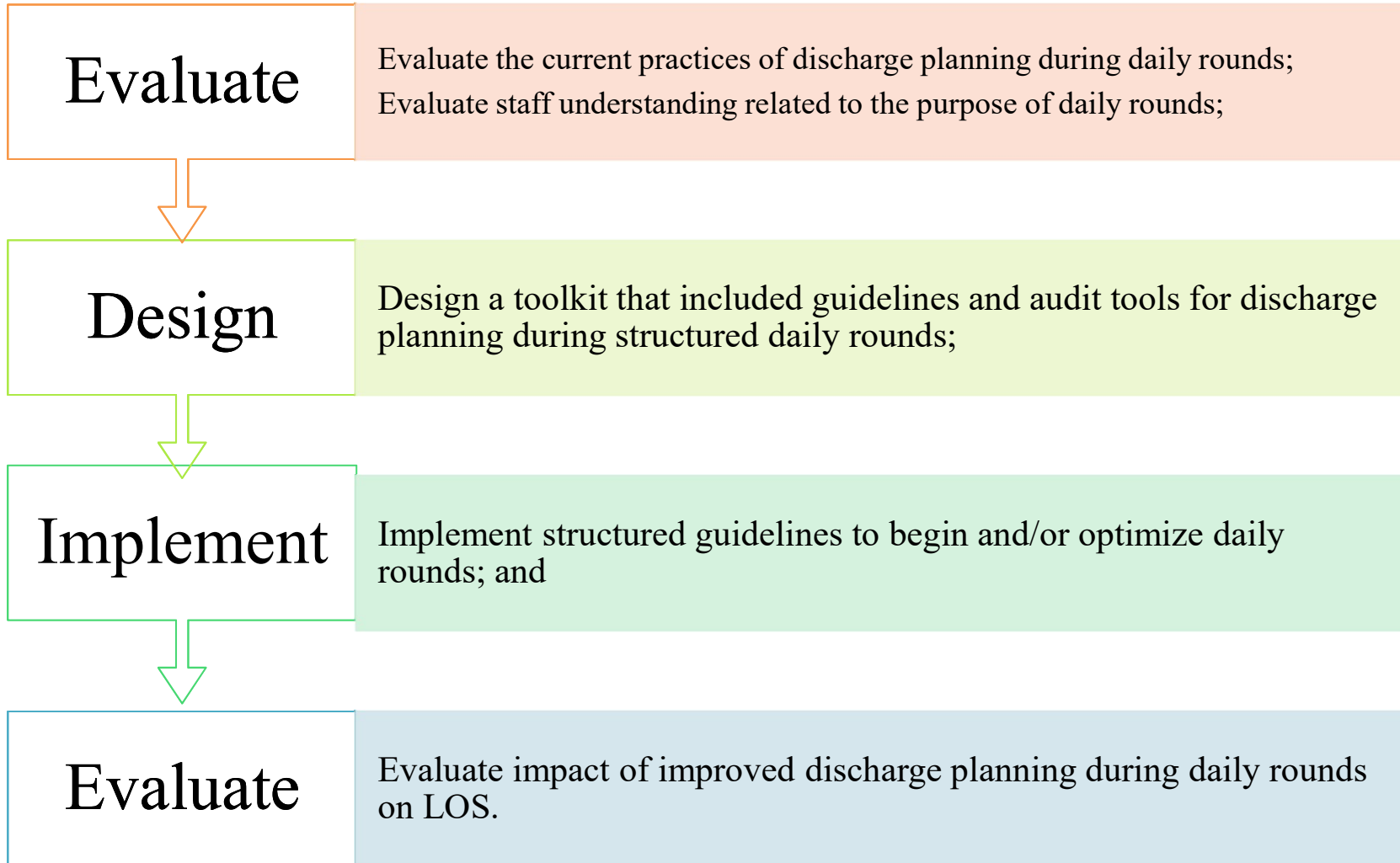


# Project Plan

# Project Purpose

- Implement structured daily rounds during discharge planning on two medical-surgical units
  - Ultimate goal: to reduce length of stay and improve staff satisfaction
- To answer the clinical question:  
“Will optimized interprofessional rounds impact discharge planning to reduce LOS and improve staff satisfaction?”

# Project Objectives

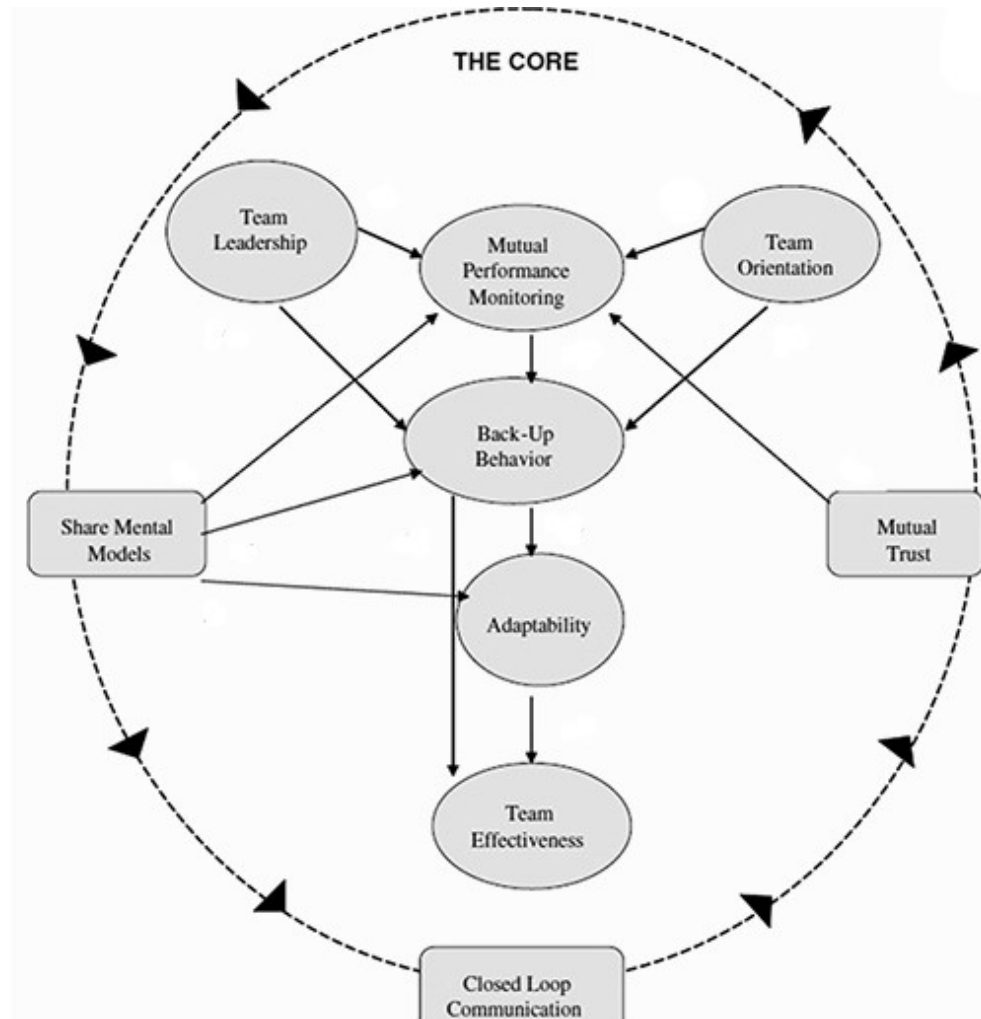


# Phenomenon Model: Big Five in Teamwork

(Salas, Sims, & Burke, 2005)

## 5 Core Concepts:

- Team Leadership
- Mutual Performance
- Backup Behavior
- Adaptability
- Team Orientation





# Design

## Quality Improvement Project

- Improve discharge planning by:
  - Structured daily rounds with guidelines
- Patient and System Outcomes:
  - Decrease LOS

# Setting & Participants-

- Where: 2 medical-surgical units
  - Unit A=24 beds
  - Unit B=38 beds
- Who:
  - Staff (RNs, physicians, care managers, unit managers, PT)
  - Patients

# Implementation Model: Kotter's Eight Step Change Model (Kotter, 2017)



# Implementation Strategies

	Concept measured	How measured (tool, survey, variable)	When measured	Who measures
Implementation Strategies	Develop a formal implementation blueprint	Audit tool, field notes discussions with unit managers and care management team	Pre-implementation (December 2018-January 2019)	Student
	Assess for readiness and identify barriers and facilitators	Care Progression Rollout Survey	At each observation/ interview session (December 2018-January 2019)	Student
	Distribute educational materials	Rollout Toolkit	December 2018-January 2019	Student
	Involve executive boards	Field notes	November 2018-March 2019	Student, Care Management
	Organize clinician implementation team meetings	Field notes	November 2018-February 2019	Student, Care Management
	Stage implementation scale up	Audit Tool	At each observation (January-February 2019)	Student, Care Management
	Promote adaptability	Audit Tool, field notes	January 2019-February 2019	Student, Care Management
	Audit and provide feedback ➤ Ability to follow guidelines for daily rounds	Audit Tool	During each observation (January-February 2019)	Student, Care Management
	Assess clinician competency during daily rounds ➤ Current understanding of what daily rounds represent	Care Progression Rollout Survey	Pre-implementation (December-January 2018) and Post-implementation (February 2019)	Student

Patient Outcomes	Length of Stay	Quality Tableau	Pre-implementation (7/1/18-11/31/18) and post implementation (February 2018)	Student, Director of Units, Care Management
System Outcomes	Length of Stay	Quality Tableau	Pre-implementation (7/1/18-11/31/18) and post implementation (February 2019)	Student, Director of Units, Care Management
Sustainability	Audit and provide feedback ➤ Continuation of discharge planning during structured daily rounds hospital wide	Audit Tool	February 2019	Unit Manager, Care Management

# Implementation Strategy #1

## **Develop a formal implementation blueprint**

- Toolkit was developed in December 2018
  - Designed to provide structure for daily rounds
- Adapted to be utilized across the system
  - Includes interprofessional education materials
- Measured with audit tool, field notes, discussions by student
  - December 2018 to January 2019

# Implementation Strategy #2

## **Assess for Readiness and Identify Barriers and Facilitators**

- Observed interprofessional rounds
- Obtained pre-implementation survey
  - December 2018-January 2019

# Implementation Strategy #3

## **Distribute educational materials**

- Toolkit distributed to RN managers 2 weeks prior to implementation
- Contained information related to why the change was occurring, timeline, education for bedside RNs, expectations, and audit tools.
  - Refer to toolkit

# Implementation Strategy #4

## **Involve executive boards**

- Attended bi-weekly physician advisor meetings
  - Group includes all key stakeholders for daily rounds project
  - Discussed feedback related to project implementation and LOS data



# Implementation Strategy #5

## **Organize implementation team meetings**

- Feedback from RN managers on units who underwent implementation
  - Lessons learned
  - Support process moving forward
- Met with RN managers from Unit A and Unit B
  - Specific department needs

# Implementation Strategy #6

## **Stage implementation scale up**

- Gradual implementation roll out
  - System wide, year long process
- DNP Project involved 2 units
  - 2 weeks apart
- Measured through audit tool
  - Observations December 2018-January 2019

# Implementation Strategy #7

## **Promote adaptability**

- Toolkit originally unit-specific
- Adapted toolkit to meet the needs of organization
  - Divided into roles (RN manager, CM, Bedside RN)
    - CM section included Escalation criteria and reference card
    - Bedside RN section included one page flier
  - Updated guidelines
  - PT schedule
  - Daily Rounds structure
    - With and without provider
    - Sign-up process
- Audit tool utilized to ensure staff adapting well to change in daily rounds
  - Was updated to delete redundancies

# Implementation Strategy #8

## **Audit and provide feedback**

- Observed staff during daily rounds
  - Utilized daily audit tool
- Feedback provided to RN managers and CM leadership
  - Reviewed at bi-weekly physician advisor meeting

# Implementation Strategy #9

## **Assess clinician competency of daily rounds**

- Obtained pre and post-implementation survey
  - Pre: December 2018-January 2019
  - Post: February 2019

# Measures

## Care Progression Rollout Survey Take prior to and after Care Progression Rollout

Please select your profession from the following list:

1= Care Manager 2=RN 3=PT/OT 4=Physician 5=Unit Manager 6=Pharmacist 7=Other \_\_\_\_\_

For each of the listed questions, please select the response that best represents your view.

1. I understand the cadence for daily rounds:  
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree
2. There is a need for improved cadence in daily rounds:  
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree
3. I understand the role of each member involved in daily rounds:  
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree
4. I understand my role in daily rounds:  
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree
5. Each member of the team present contributes to daily rounds:  
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree
6. I understand the "Geometric Length of Stay (GMLoS)":  
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree
7. I know the expected discharge date for patients I care for:  
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree
8. I understand each patient's plan for the day that I care for:  
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree
9. I understand each patient's plan for the stay that I care for:  
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree
10. I understand the escalation criteria for care progression:  
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree
11. Each patient's discharge plan was made clear during daily rounds:  
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

## Daily Rounds Guideline Audit Tool

This audit tool will be completed by leadership on a weekly basis. This tool will be given to the Care Management Manager to ensure guidelines of Daily Rounds are being maintained.

Unit: \_\_\_\_\_ Disciplines Present (please circle):  
 Date: \_\_\_\_\_ 1. Care Manager 6. Pharmacist  
 Start Time: \_\_\_\_\_ 2. Physician 7. Pharmacy Student  
 End Time: \_\_\_\_\_ 3. RN 8. Unit Manager  
 4. Physical Therapy 9. Patient  
 5. Social Worker 10. Other (describe): \_\_\_\_\_

Please circle yes, no, or N/A (not applicable) or use a code to indicate what occurred during interprofessional rounds.

Who was the team leader? (please circle):  
 1=Care Manager  
 2=Physician  
 3=RN  
 4=Unit Manager  
 5=Other (describe): \_\_\_\_\_

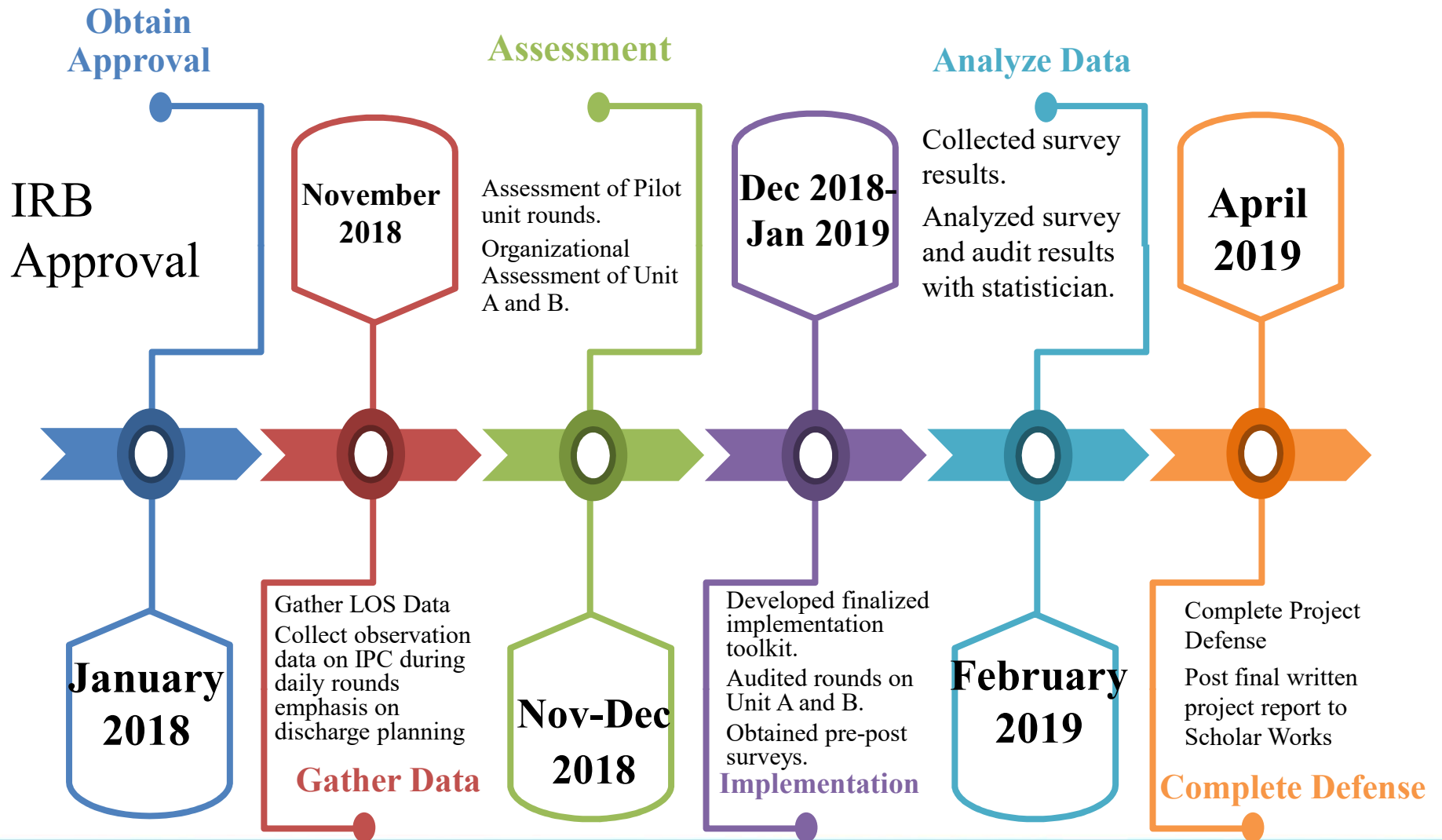
- |   |     |    |     |
|---|-----|----|-----|
| 1. Was the physician present during rounds?                   | YES | NO | N/A |
| 2. Did the care manager lead rounds?                          | YES | NO | N/A |
| 3. Did the care manager discuss GMLoS?                        | YES | NO | N/A |
| 4. Was the expected discharge date discussed?                 | YES | NO | N/A |
| 5. Was the admission status called out?                       | YES | NO | N/A |
| 6. Was the nurse present during rounds?                       | YES | NO | N/A |
| 7. Was the plan for the day/plan for the stay discussed?      | YES | NO | N/A |
| 8. Was physical therapy present during rounds?                | YES | NO | N/A |
| 9. Were therapy recommendations provided?                     | YES | NO | N/A |
| 10. Was discharge planning discussed?                         | YES | NO | N/A |
| 11. Were barriers to discharge needs identified?              | YES | NO | N/A |
| 12. If discharge barriers exist, is there a plan to escalate? | YES | NO | N/A |
| 13. Were there interruptions in the flow of rounds?           | YES | NO | N/A |
| 14. What else occurred other than listed above? (free text)   |     |    |     |



# Resources and Budget

<b>Initial Cost: A Program Evaluation of Interprofessional Collaboration during Discharge Planning on a Medical-Surgical Unit</b>	
Revenue	
Project Manager Time (in-kind donation)	5,734.00
Statistician (in-kind donation)	292.30
Decreased LOS (on average)	22,450.00
<b>TOTAL INCOME</b>	
28,476.30	
Expenses	
Project Manager Time (in-kind donation)	5,734.00
Statistician (in-kind donation)	292.30
Team Member Time:	
Site Mentor	310.00
RN Manager	302.50
RNs (time spent doing survey)	81.23
Physicians (time spent doing survey)	8.08
Care Manager	883.66
Internal Medicine Physician Advisors x 2	3,880.00
<b>TOTAL EXPENSES</b>	
11,492.37	
<b>NET OPERATING INCOME</b>	
16,983.93	

# Timeline





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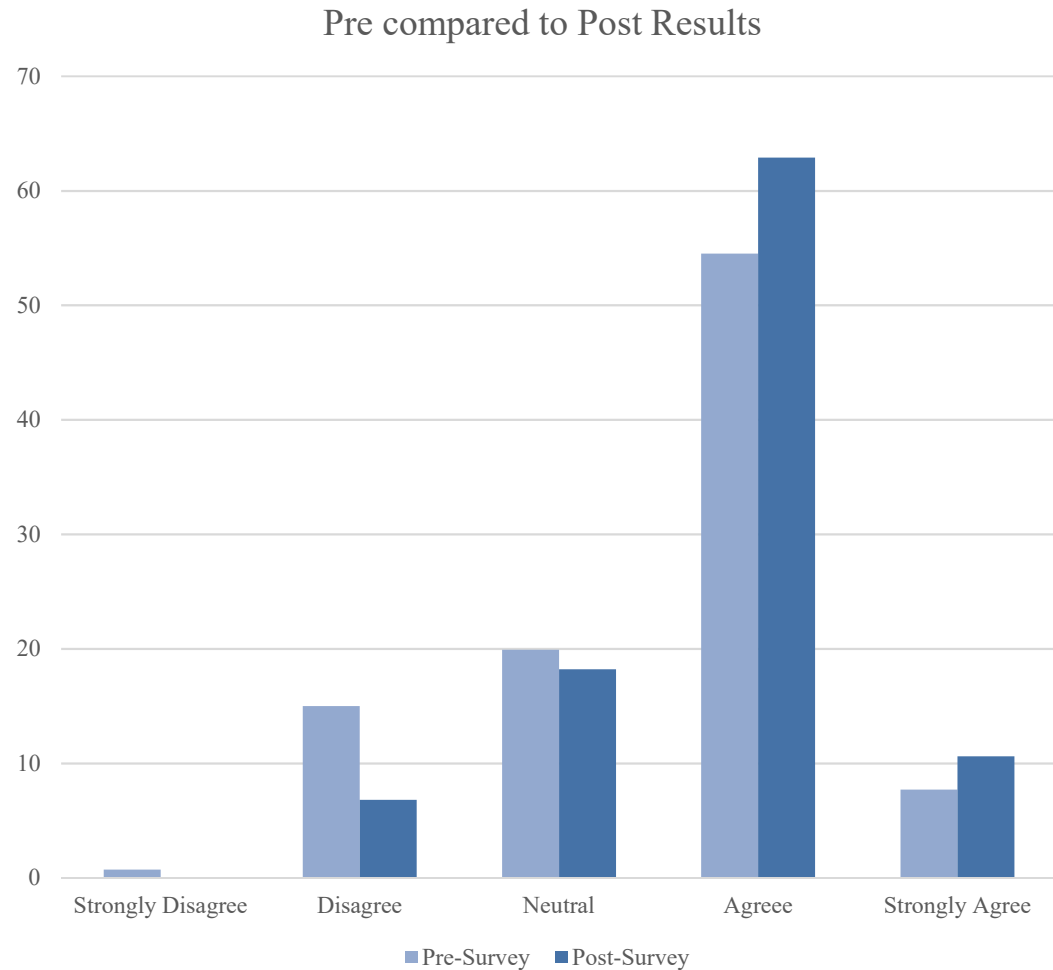
# Results

# Results: Participant Characteristics

- Pre-Post Education Survey
  - Completion Rate:
    - Pre: 26 individuals
    - Post: 12 individuals
  - Participants:
    - 31 RNs
    - 2 RN Managers
    - 1 Care Manager
    - 1 Physician
    - 1 “other”
    - 2 unknown

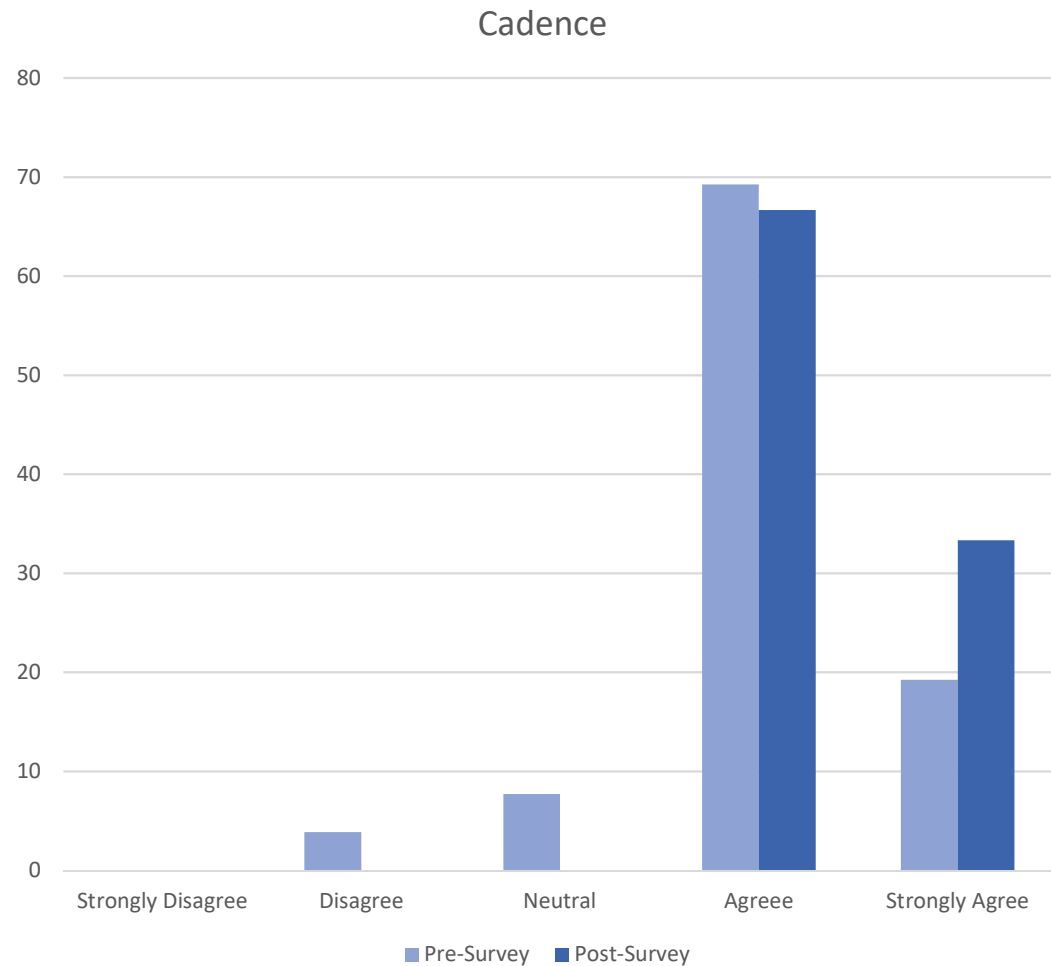
## Results: Pre/Post Education Survey

- Overall frequency of Answers “Agree” and “Strongly Agree”
- Improved by 11.3%
  - Pre: 62.2%
  - Post: 73.5%
  - **+11.3%**



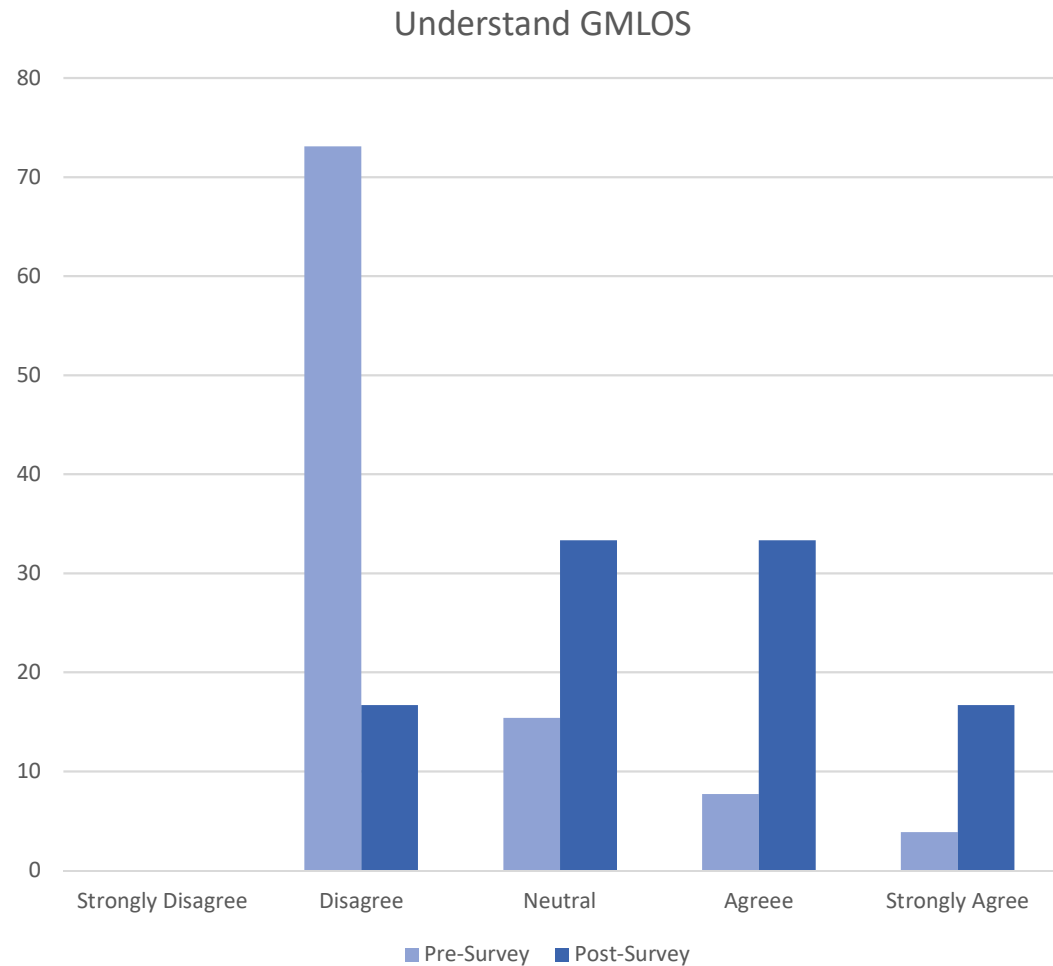
## Results: Pre/Post Education Survey

- Understanding of Cadence:
  - Pre: 88.5%
  - Post: 100%
  - **+11.5%**



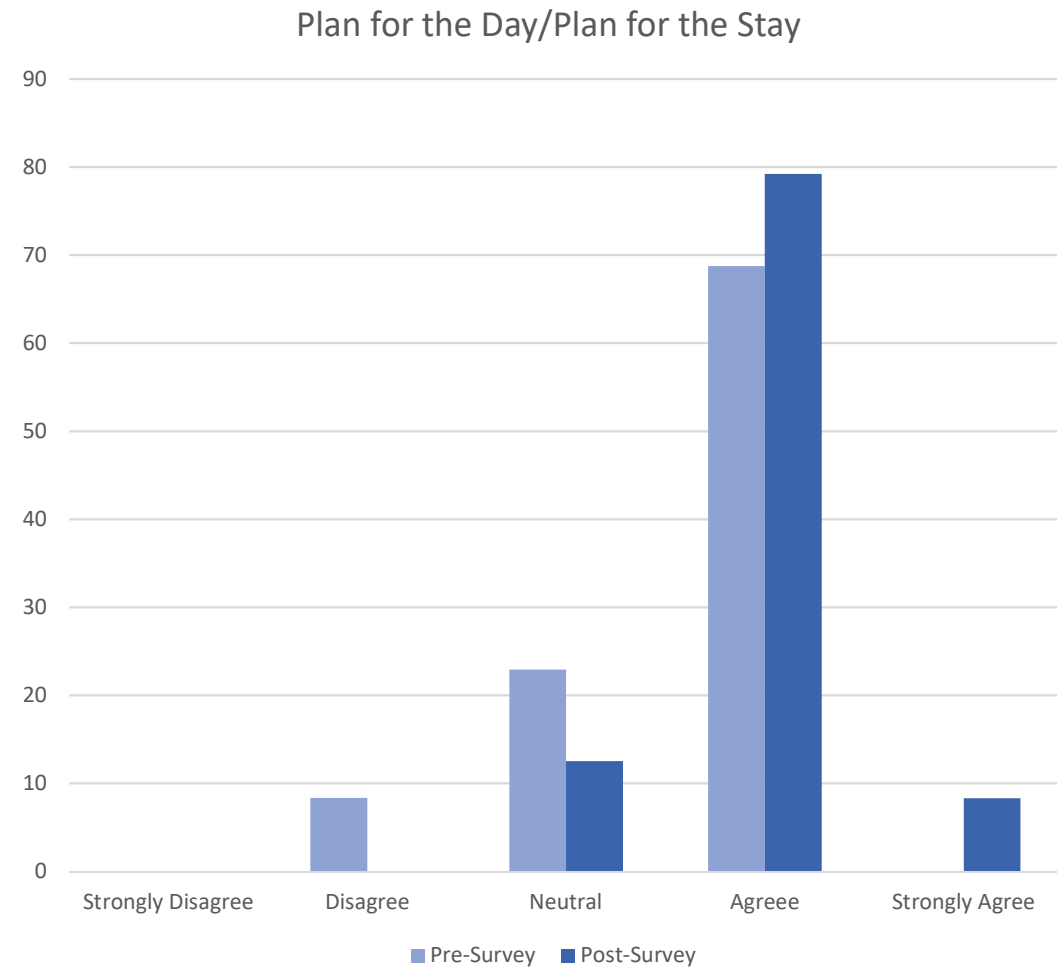
## Results: Pre/Post Education Survey

- Understanding Geometric Length of Stay:
  - Pre: 11.5%
  - Post: 50%
  - **+38.5%**



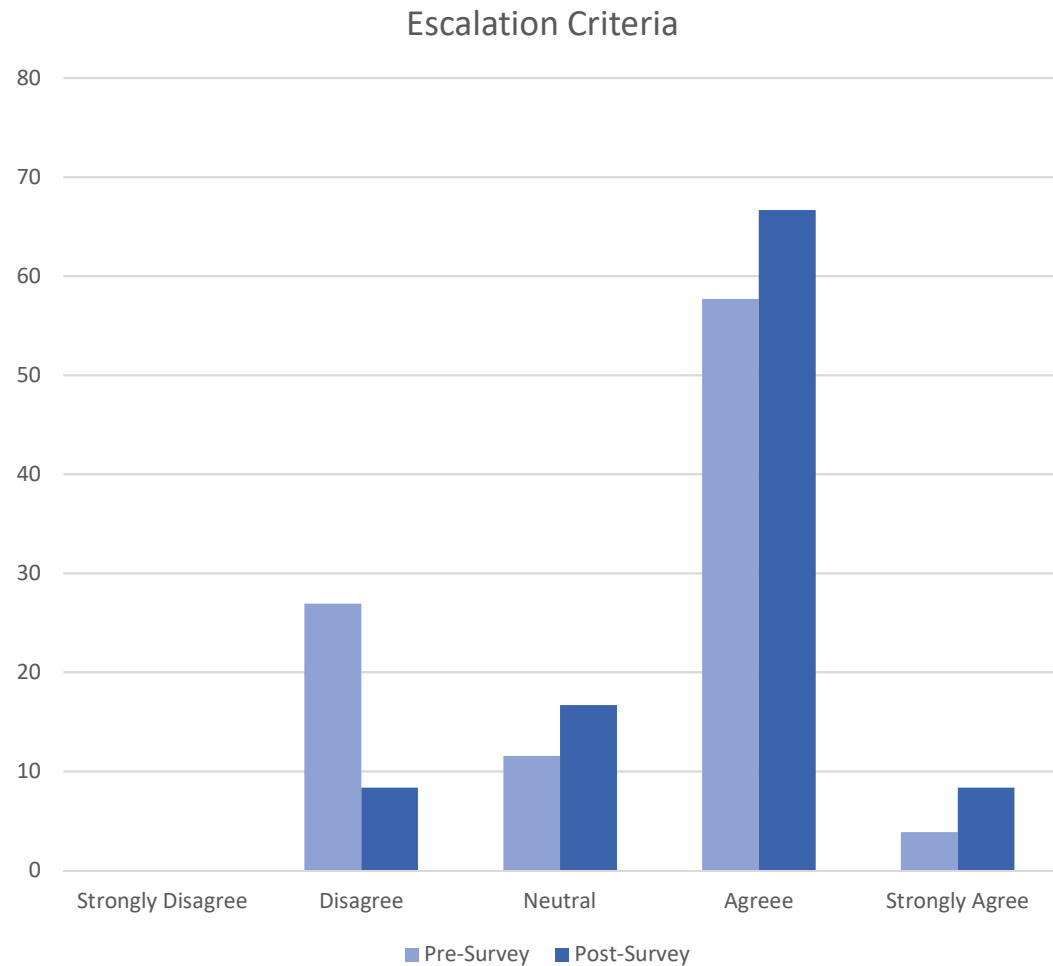
## Results: Pre/Post Education Survey

- Understanding Plan for the Day/Stay:
  - Pre: 68.8%
  - Post: 87.5%
  - **+18.7%**



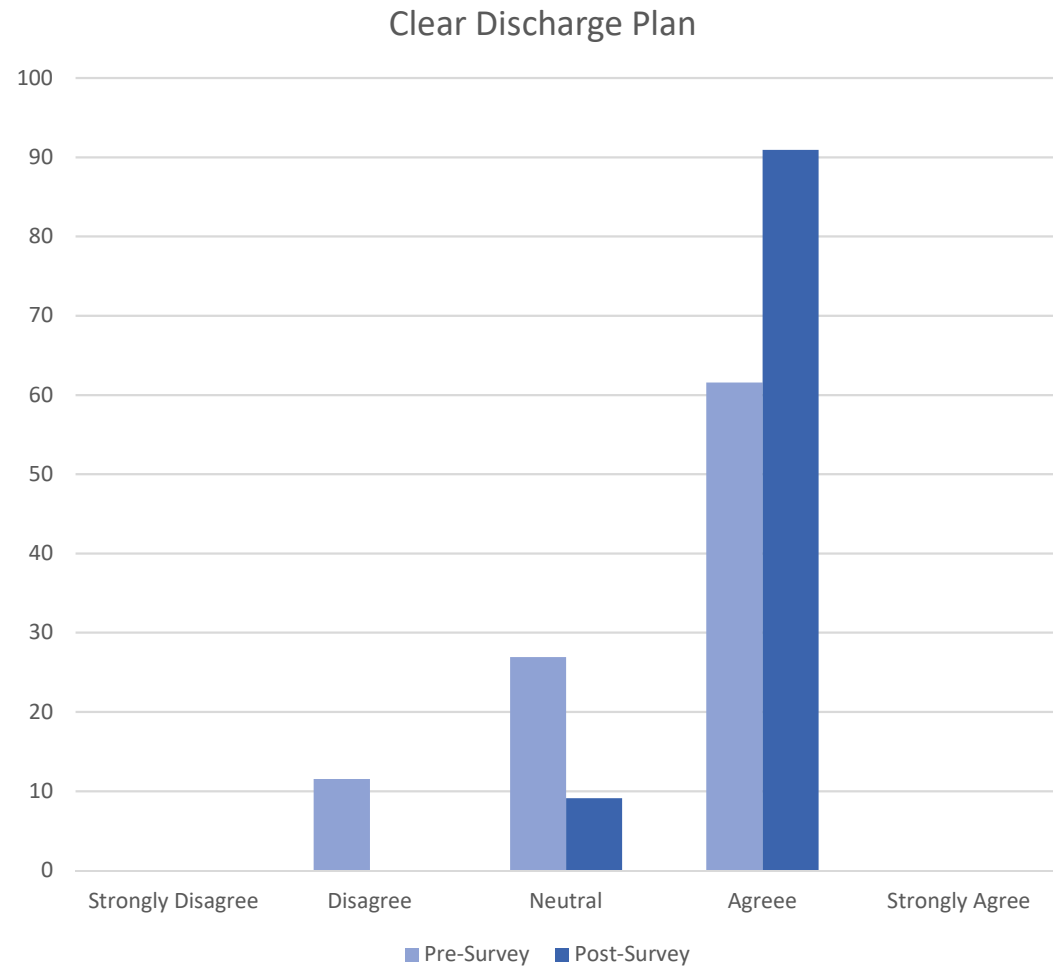
## Results: Pre/Post Education Survey

- Understanding of Escalation Criteria:
  - Pre: 61.5%
  - Post: 75%
  - **+13.5%**



## Results: Pre/Post Education Survey

- Understanding of Discharge Plan:
  - Pre: 61.5%
  - Post: 90.9%
  - **+29.4%**



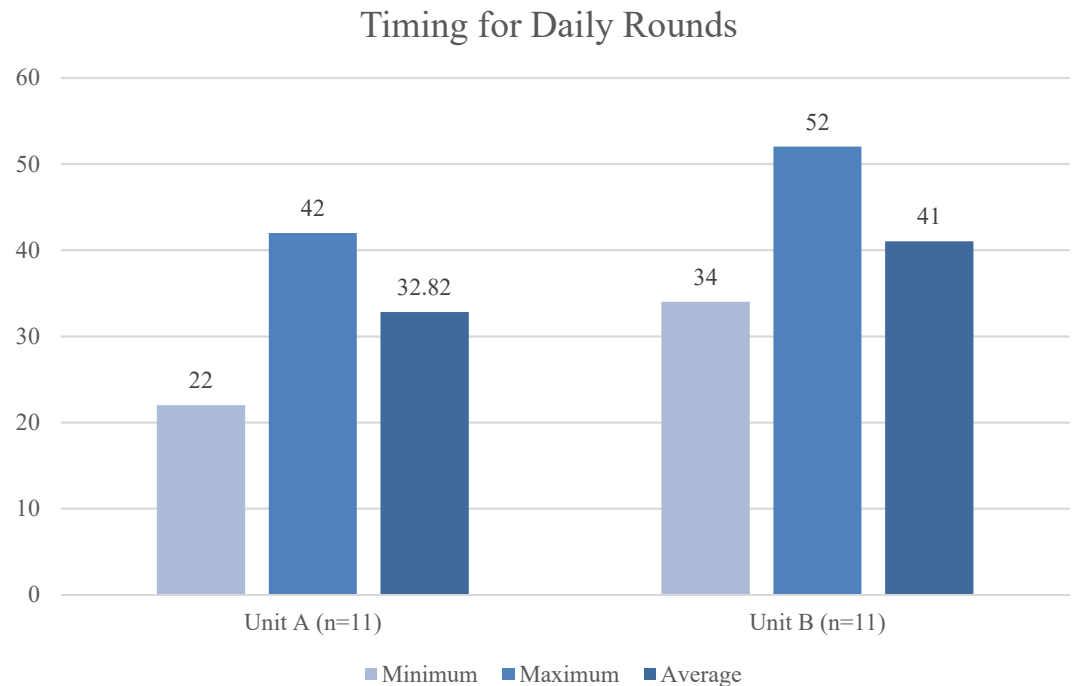


# Results: Participant Characteristics

- Audit of Daily Rounds
  - 22 audits performed
    - 11 on each unit
    - First Audits performed on first day of rollout on each unit

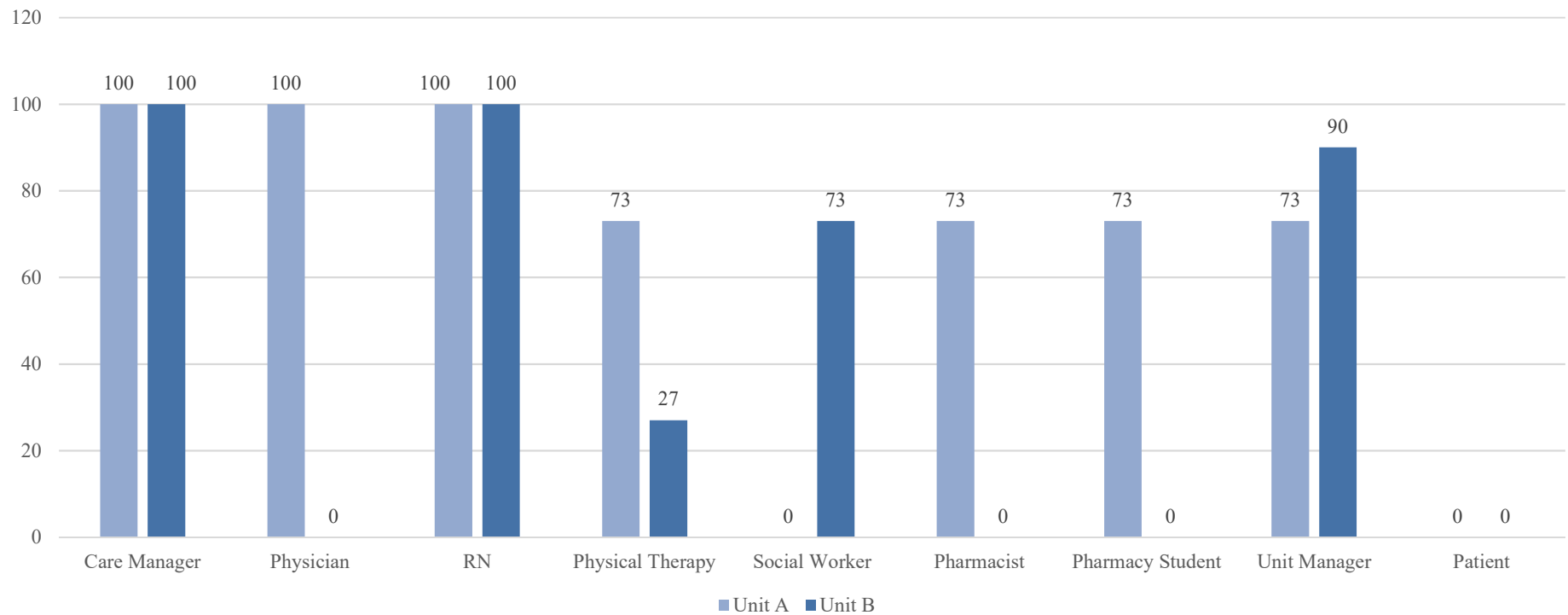
# Results: Audit of Daily Rounds

- Duration of Daily Rounds:
  - Unit A:
    - 32.82 minutes
    - Reduced by 1 minute (from day 1 to 11)
  - Unit B:
    - 41 minutes
    - Reduced by 7 minutes (from day 1 to 11)



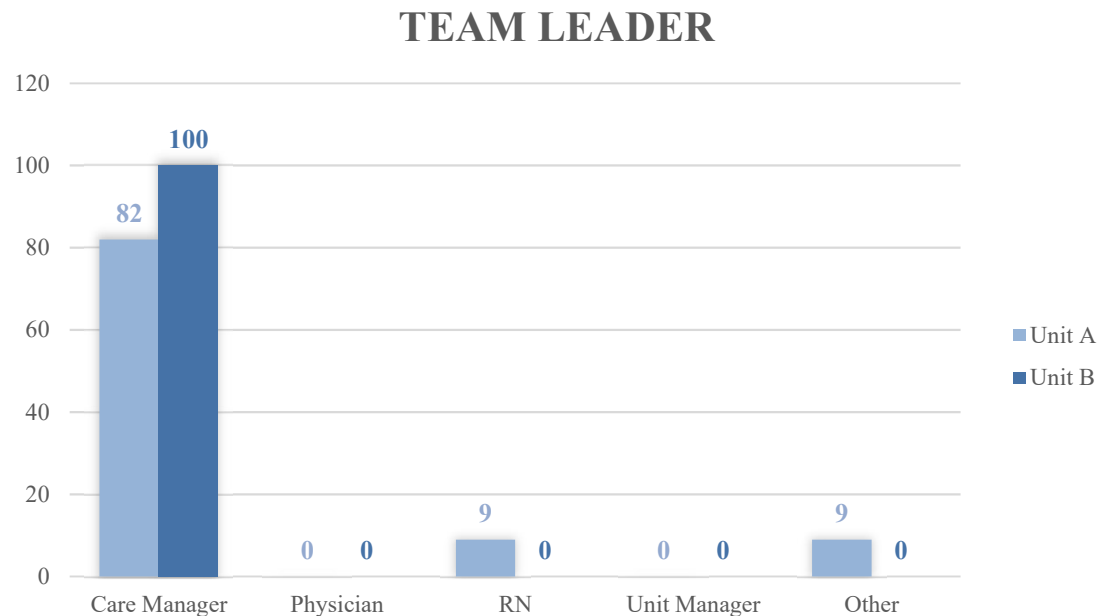
# Results: Audit of Daily Rounds

## DISCIPLINES PRESENT



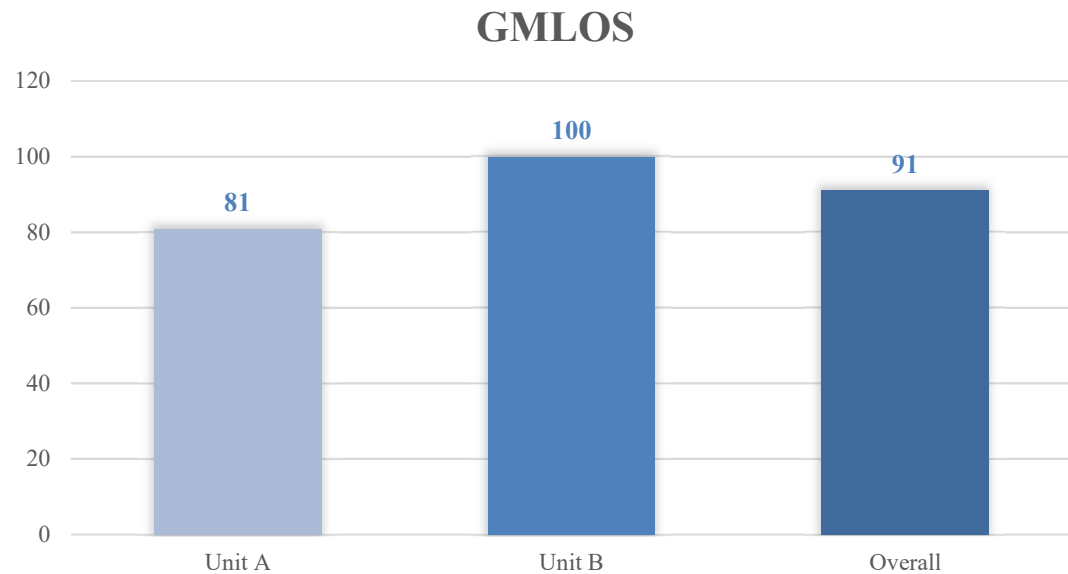
# Results: Audit of Daily Rounds

- Team Leader:
  - Unit A:
    - CM 82%
  - Unit B
    - CM 100%



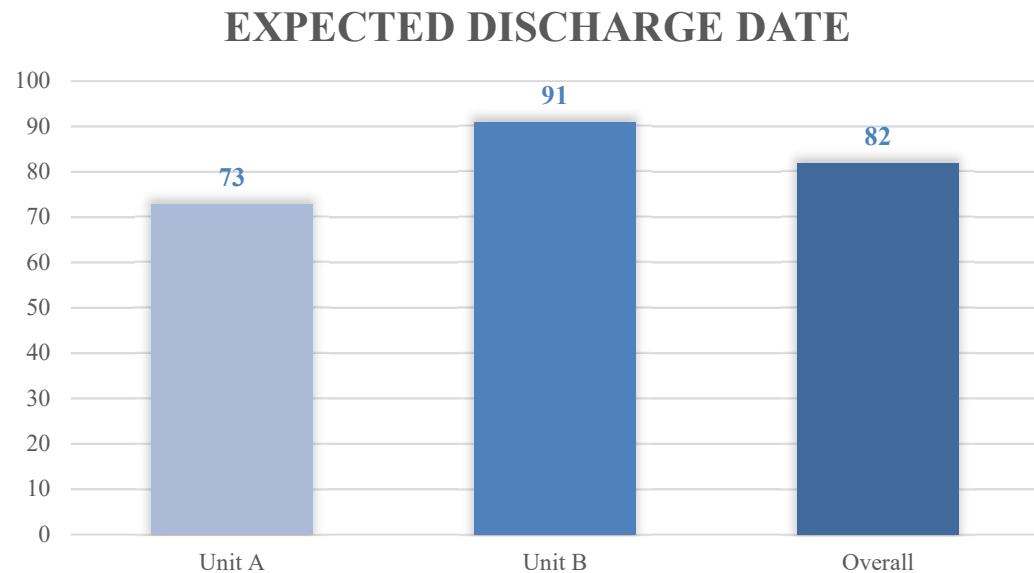
# Results: Audit of Daily Rounds

- GMLOS Discussed:
  - Unit A:
    - 81%
  - Unit B:
    - 100%
  - Overall Average:
    - 91%



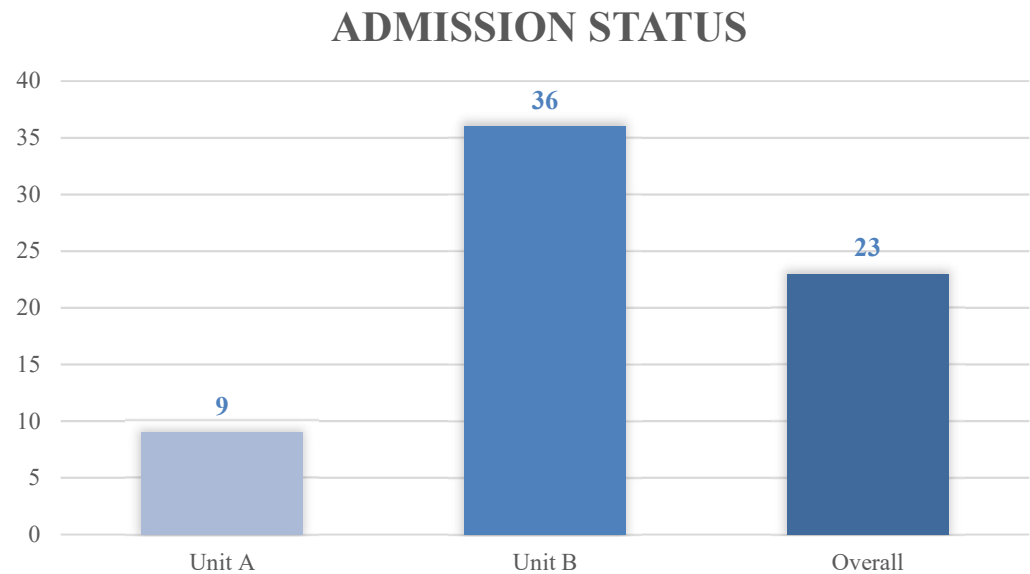
# Results: Audit of Daily Rounds

- Expected Discharge Date Discussed:
  - Unit A:
    - 73%
  - Unit B:
    - 91%
  - Overall Average:
    - 82%



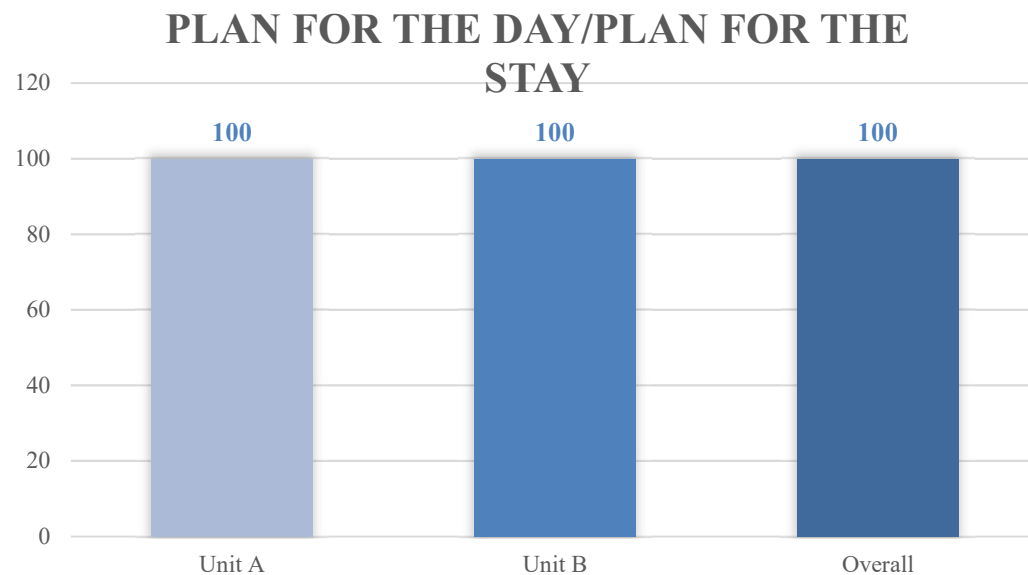
# Results: Audit of Daily Rounds

- Admission Status Discussed:
  - Unit A:
    - 9%
  - Unit B:
    - 36%
  - Overall Average:
    - 23%



# Results: Audit of Daily Rounds

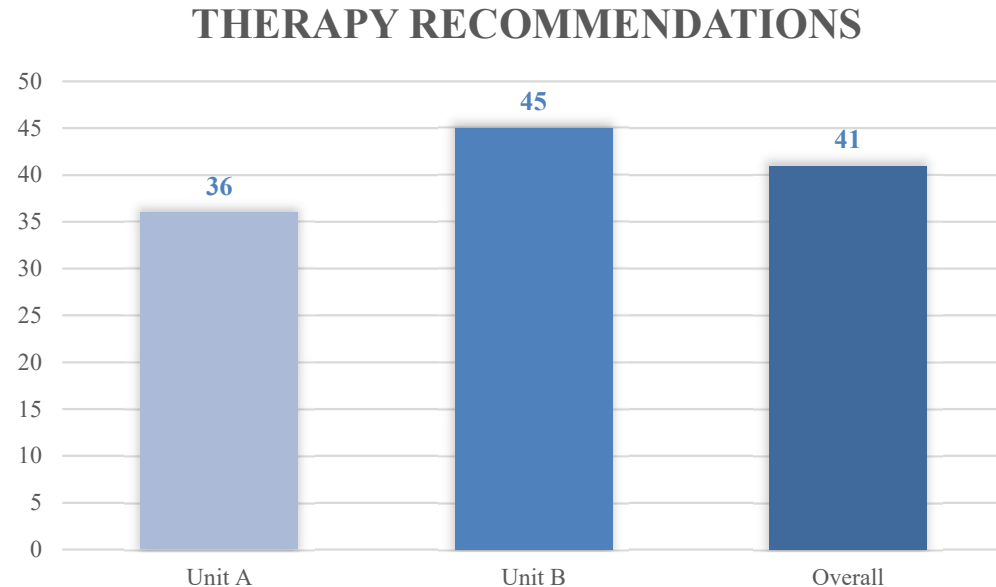
- Plan for the Day/Stay Discussed:
  - Unit A and B:
    - 100%





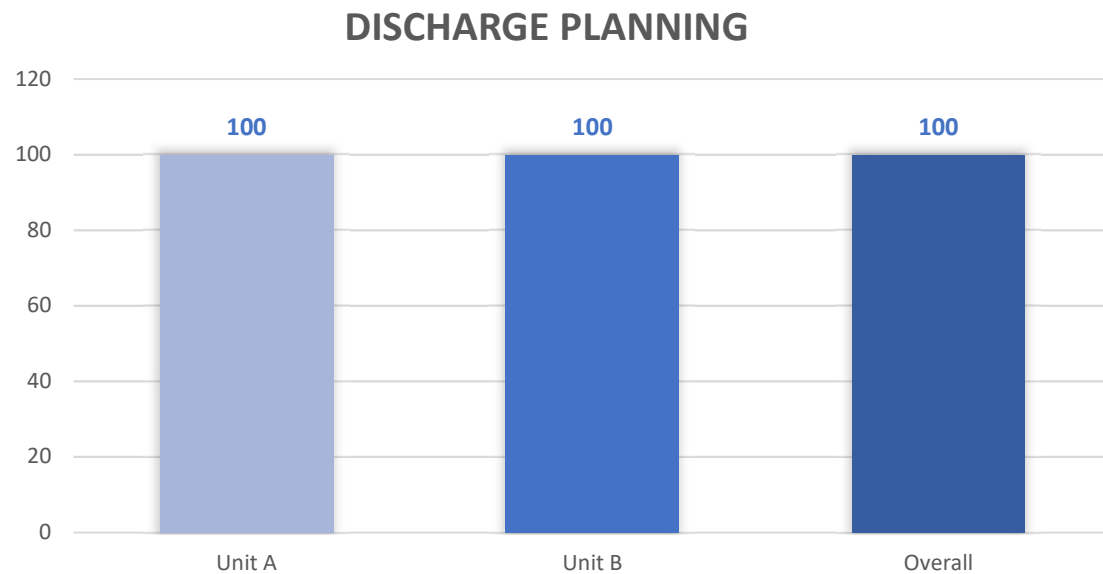
# Results: Audit of Daily Rounds

- Therapy Recommendations Discussed:
  - Unit A:
    - 36%
  - Unit B:
    - 45%
  - Overall Average:
    - 41%



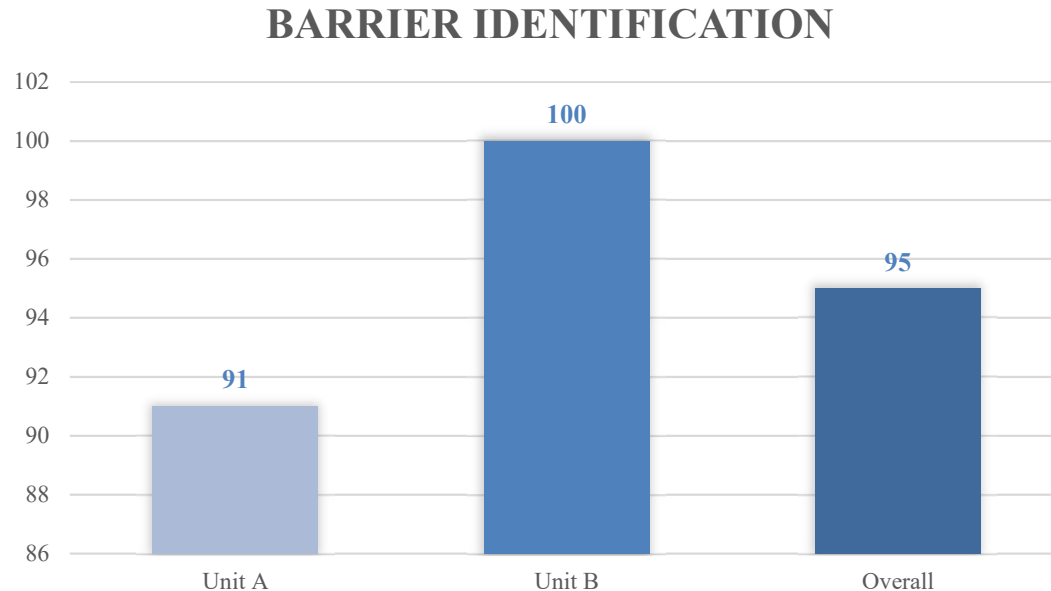
# Results: Audit of Daily Rounds

- Discharge Planning Discussed:
  - Unit A and B:
    - 100%



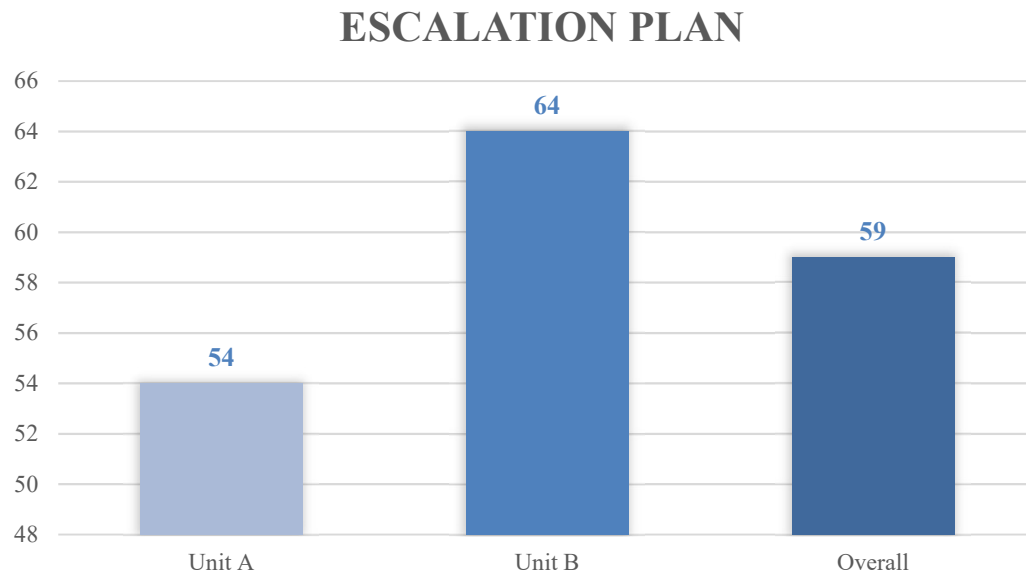
# Results: Audit of Daily Rounds

- Barriers to Discharge Planning Discussed:
  - Unit A:
    - 91%
  - Unit B:
    - 100%
  - Overall Average:
    - 95%



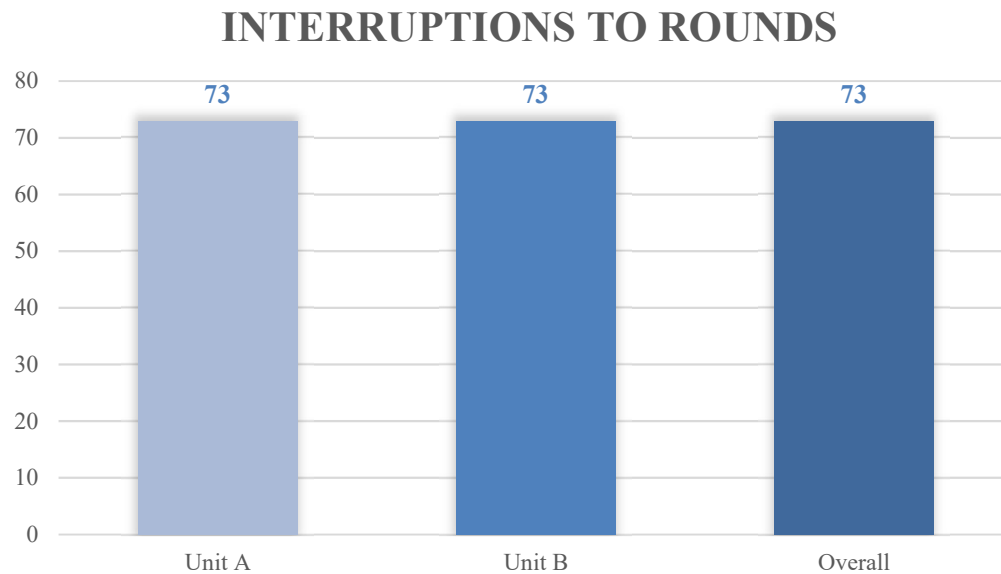
# Results: Audit of Daily Rounds

- Plan for Escalation Discussed:
  - Unit A:
    - 54%
  - Unit B:
    - 64%
  - Overall Average:
    - 59%



# Results: Audit of Daily Rounds

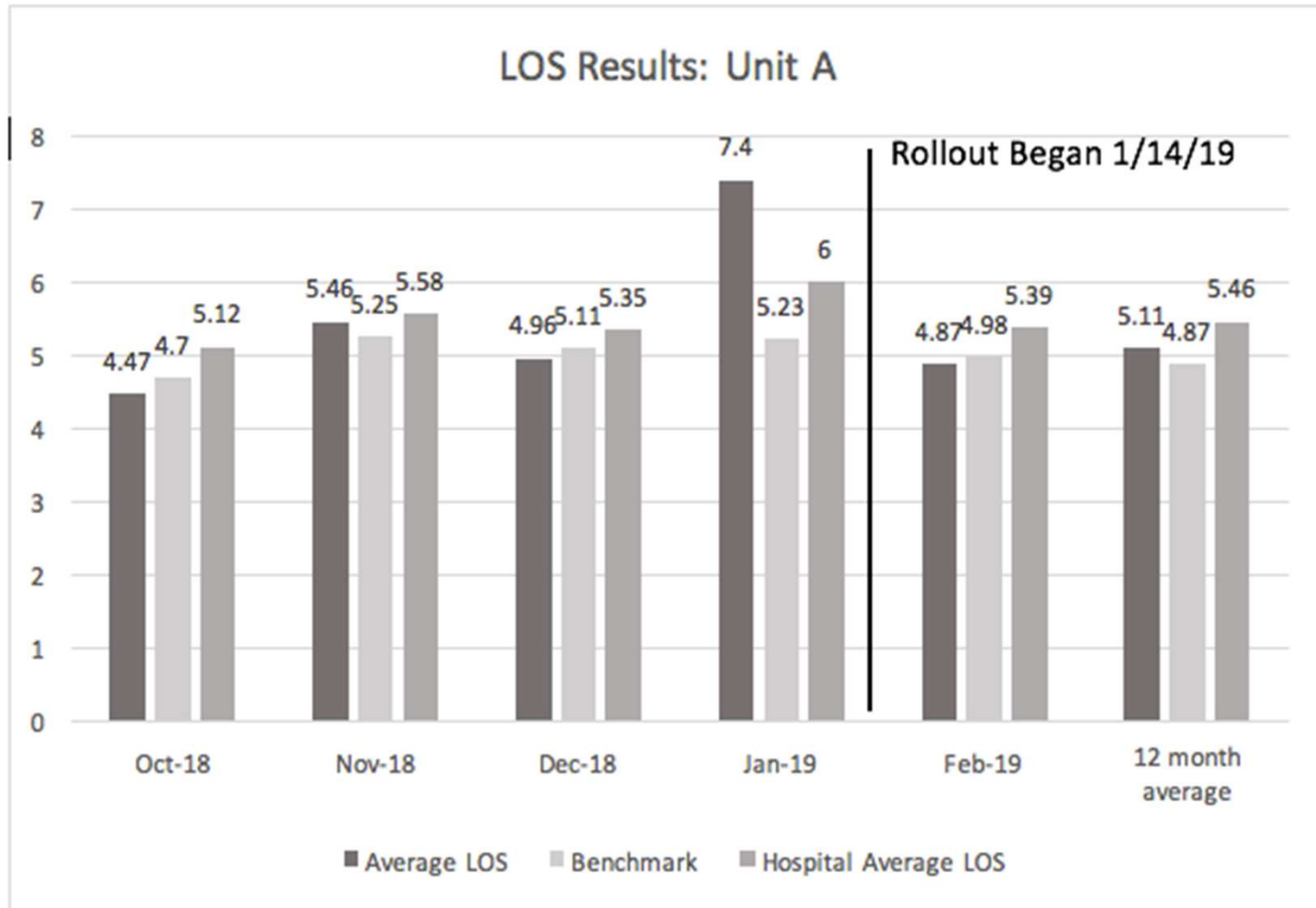
- Interruption to Flow of Rounds:
  - Unit A and B:
    - 73%



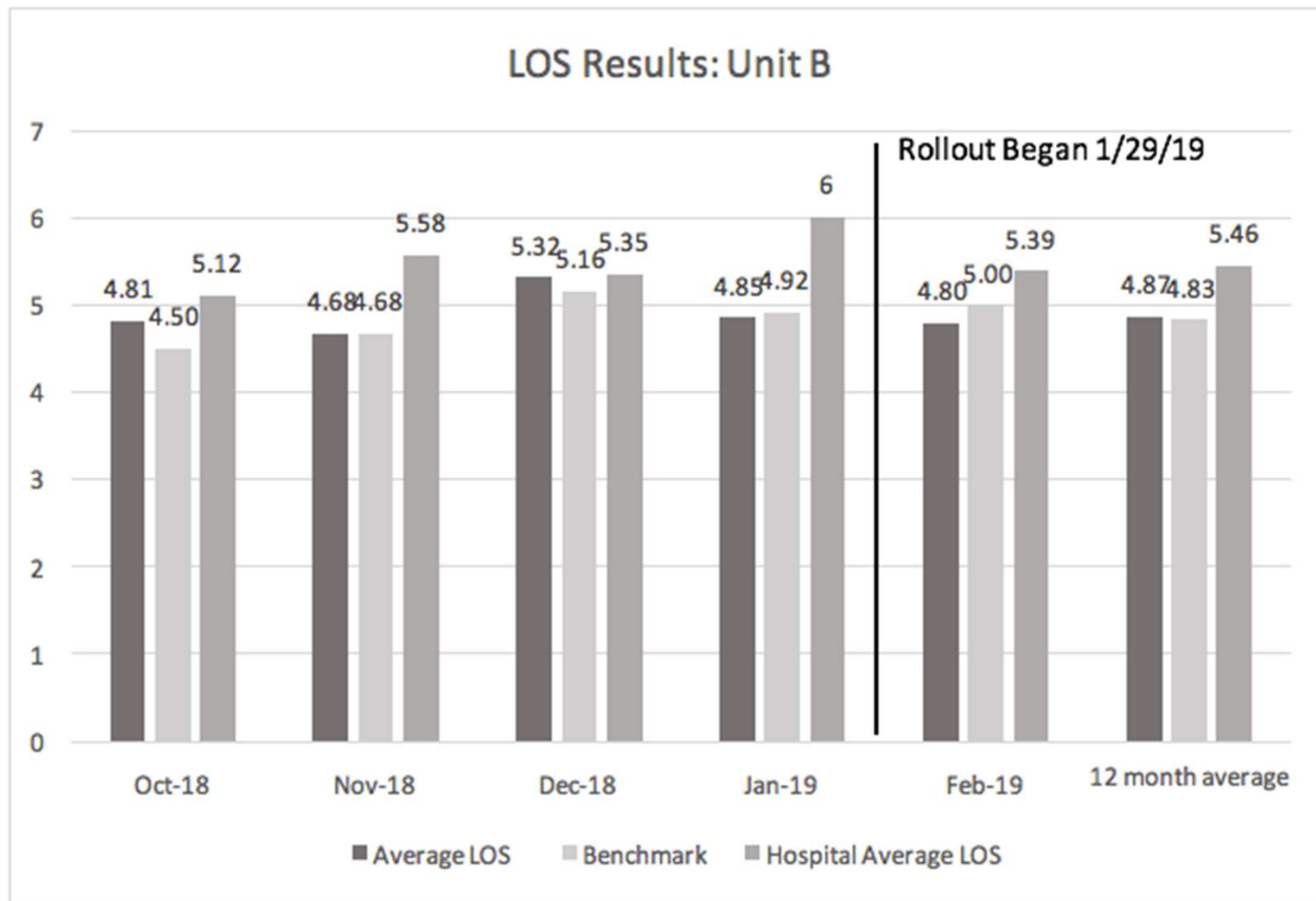
# Results: Audit of Daily Rounds

- Additional Observations:
  - Excessive discussion about details not related to patient care or discharge planning/side conversation
  - Waiting for next RN to come to rounds
  - PT input being skipped over or missed entirely
  - Float CM unaware of new cadence for daily rounds
  - Rounds not starting on time

# Results: Length of Stay Unit A



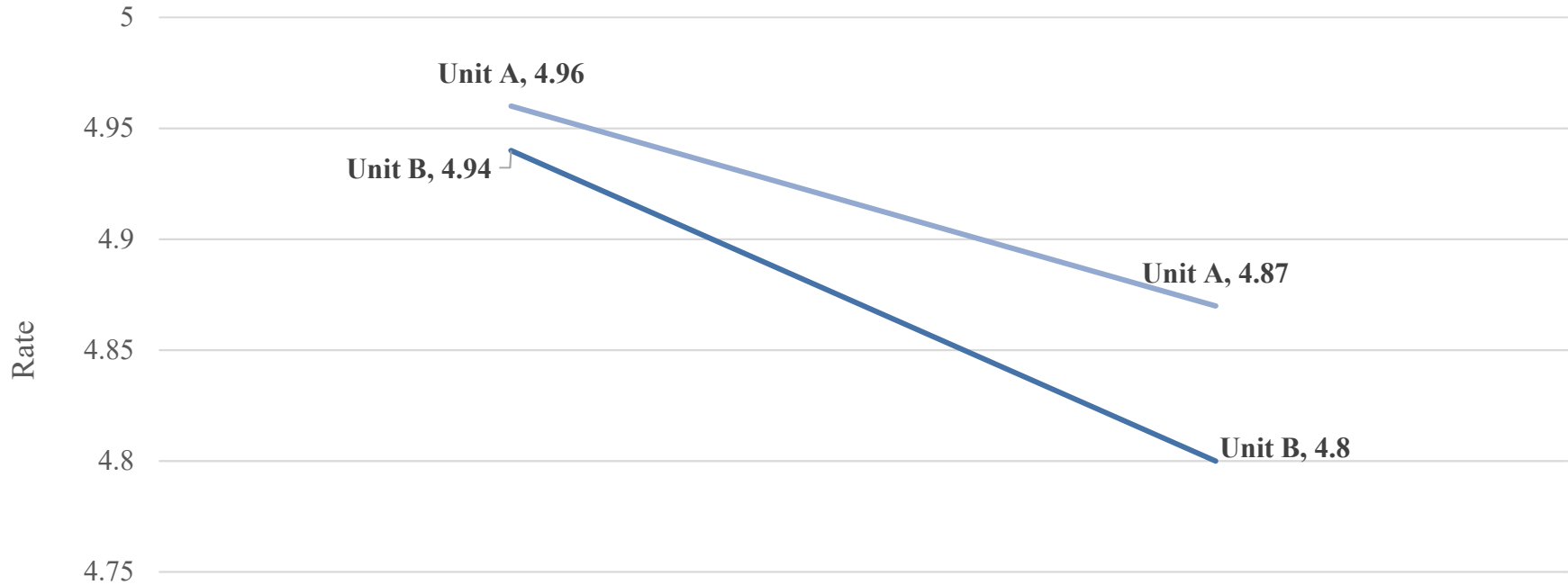
# Results: Length of Stay Unit B





# Results: Length of Stay

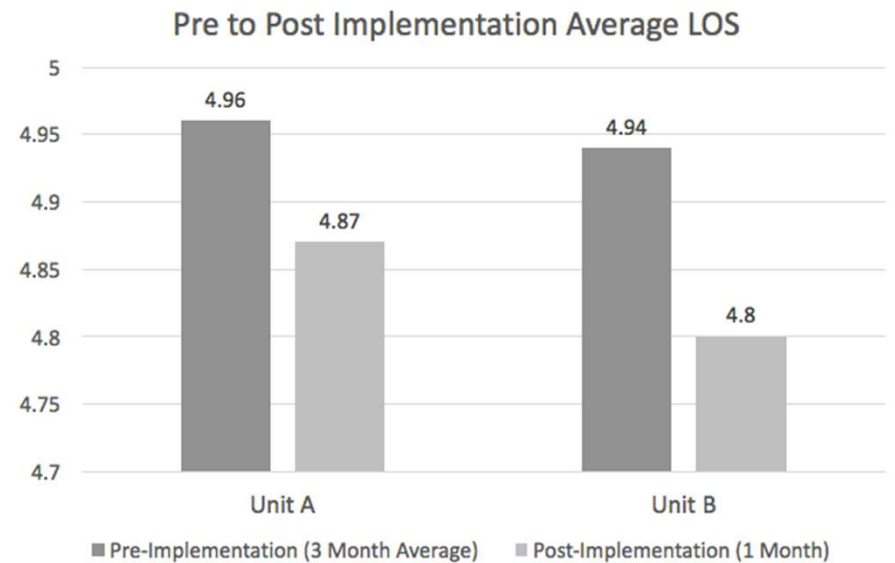
## Pre to Post Implementation – Average LOS



	Pre-Implementation (3 Month Average)	Post-Implementation (1 Month)
Unit A	4.96	4.87
Unit B	4.94	4.8

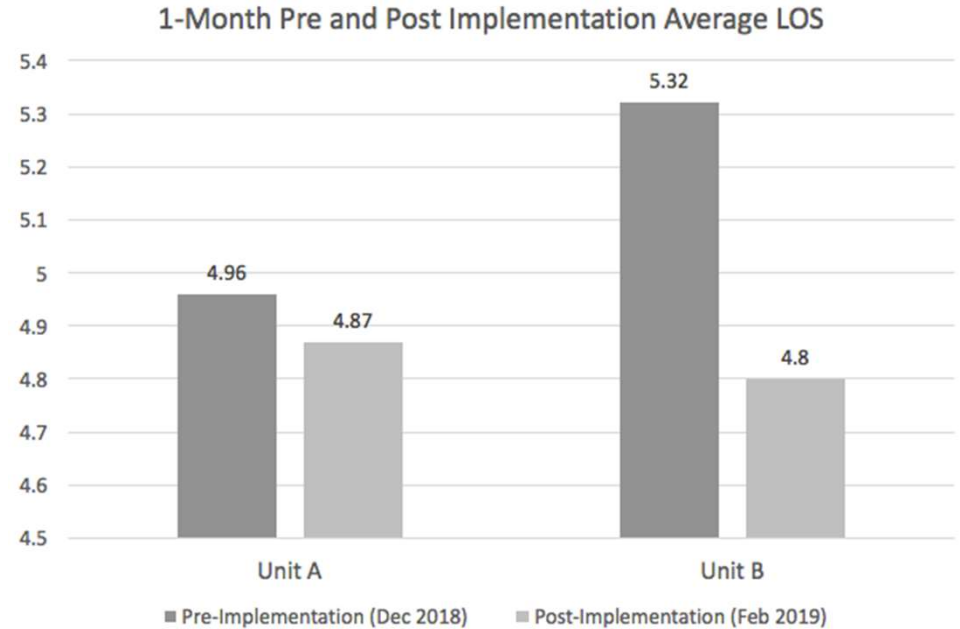
# Results: LOS Data

- **Pre-Implementation** (average from October 2018 to December 2018):
  - Unit A: 4.96
    - National Milliman Benchmark: 5.02
    - Hospital Average: 5.35
  - Unit B: 4.94
    - National Milliman Benchmark: 4.78
    - Hospital Average: 5.35
- **Post-Implementation** (February 2019):
  - Unit A: 4.87
    - National Milliman Benchmark: 4.98
    - Hospital Average: 5.39
  - Unit B: 4.80
    - National Milliman Benchmark: 5.00
    - Hospital Average: 5.39



# Results: LOS Data

- Comparing one month prior to implementation to one month post:
- Unit A Average LOS
  - Dec 2018: 4.96 Days
  - Feb 2019: 4.87 Days
- Unit B Average LOS
  - Dec 2018: 5.32 Days
  - Feb 2019: 4.80 Days





# DISCUSSION

# Limitations

- Short implementation period
- Small sample sizes
  - Difficult to evaluate statistical differences
- Delayed LOS results
- Inconsistent utilization of toolkit despite standardization
- Inconsistent education led to confusion in daily rounds
  - Hospitalists
  - Care managers – competence in leadership
  - RNs
- Inconsistent key stakeholder buy-in across system
  - Hospitalist involvement

# Implications for Practice

- Improved discharge planning will decrease LOS, and improve patient outcomes
- Improved LOS will decrease healthcare costs
- Toolkit created can impact staff satisfaction and LOS
  - Evidence-based (Green & Johnson, 2015; Henneman, Kleppel, Hinchey, 2013; Institute for Healthcare Improvement, 2010; Kenaszchuk, Reeves, Nicholas, & Zwarenstein, 2010; Li et al, 2018).
  - Guideline provides structure that allows for standardized daily rounds

# Recommendations for the Future

- Organization-wide education
    - All team members should be educated at the same time
  - Include providers in daily rounds systemwide
    - Development of provider involved structure for rounds (provided in toolkit)
  - Patients included
- (Connoly et al, 2016; Reeves et al, 2017; Schubert, Myers, Allen, & Counsell, 2016; Siaw et al, 2017).
- Physical therapy involvement
    - Recommendations need to be included during daily rounds (provided in toolkit) (Falvey et al, 2016)

# Sustainability Plan

- Managed by Care Management Leadership
  - Physician Advisor Workgroup
- Adapted toolkit to meet the needs of the organization
- Staff Education in toolkit (RN Manager, CM, Bedside RN)
  - Toolkit will be distributed by care management leadership to unit managers
- Quality monitoring tool (Daily and Rollout Audits)
  - Provided in toolkit
  - Continued by physician advisor group (electronic format)
- Survey
  - Provided in toolkit
  - Distributed electronically by unit managers to staff



# Dissemination

- Presented to key stakeholders
  - Care Manager Leadership
  - Poster presentation at organization
- Presented at DNP final defense
- Paper published via Scholar Works

# Conclusions

- Standardized IPC daily rounds improve staff satisfaction
  - Improved by 11.3% (small improvement)
- Structured daily rounds improve LOS
  - Limitation: duration of project
- Daily rounds could save the organization roughly \$16,983 per patient through a reduction in LOS by improving IPC related to discharge planning



# DNP ESSENTIALS

# DNP Essentials Reflection

## **Essential I: Scientific Underpinnings:**

- Research on IPC during discharge planning
- Literature review on IPC during discharge planning
- Use of science-based theories to implement
- Created implementation toolkit based on evidence

## **Essential II: Organizational and Systems Leadership:**

- Organizational assessment
- Met with stakeholders including organizational leaders
- Communicate with IPC team
- Assess barriers and facilitators
- Created implementation toolkit based on evidence
- Developed a budget
- Disseminated results
- Ethical and cultural sensitivity

## **Essential III: Clinical Scholarship and Analytical Methods for EBP:**

- Literature review
- Analyzed daily rounds audits, pre and post-survey results, and LOS data
- Evaluation of statistical results

## **Essential IV: Information Technology:**

- E-mail communication
- Use of Excel to organize and analyze data
- Maintain patient confidentiality
- Created implementation toolkit based on evidence

# DNP Essentials Reflection

## Essential V: Healthcare Advocacy:

- Hospital policy and procedures versus current practice
- Literature review
- Education

## Essential VI: Interprofessional Collaboration:

- Collaborate with IPC stakeholders:
  - Nursing, CM, PT, Pharmacy, Management, Providers, Social Work, Administration, Statistician

## Essential VII: Clinical Prevention and Population Health

- Decreasing LOS within acute care to improve overall population health
- Quality of life
- Cost

## Essential VIII: Advanced Nursing Practice:

- Organization assessment
- Relationships
- Education
- Quality improvement project for improved patient outcomes

# Questions??



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