

**Applying a Sustainability Framework to Leadership Oversight for Progressive Mobility on  
Medical-Surgical Units**

By

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A Directed Scholarly Project Submitted to the  
Department of Nursing  
in the Graduate School of  
Bradley University in  
partial fulfillment of  
the requirements for the  
Degree of Doctor of Nursing Practice

Peoria, Illinois

2022

**DNP Project Team Approval Form**

Bradley University  
Department of Nursing

Applying a Sustainability Framework to Leadership Oversight  
for Progressive Mobility in Medical-Surgical Units

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has been approved

7/10/2022

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### **Acknowledgements**

To my DNP Project Faculty Mentor, Dr. Sokonie Reed, thank you for your unwavering support, guidance, and insight during this journey. I appreciate your optimism and faith in me. To my DNP Practice Mentor, Dr. Ginny Riggall, thank you for being my thought partner and providing inspiration throughout my project. Your presence, expertise, and leadership have inspired me to look outward for continuous learning venues and initiatives to impact change. Much appreciation to Fremont Medical Center nurse leaders, Karen Tejcka, Chief Operating Officer/Chief Nurse Executive, Damon Rowden, Clinical Adult Services Director, and the nurse leaders on med-surg for supporting my project. Your passion for patient safety and nursing excellence is duly noted and appreciated. Thanks to all of my peers in Northern California, Kaiser Permanente, who have continuously supported my learnings and allowed me to partner and influence multiple initiatives to improve the care and infrastructure of our organization.

All glory goes to God for sustaining, guiding, and surrounding me with a great support system. I am thankful to my mother, family, and friends for their encouragement and faith in me throughout this program. Your endless love and encouragement allowed me to reach my goals, and I'm forever grateful. Finally, I dedicate this DNP journey to my late earthly father, Eric Fishburne. You have always been in my corner and instilled a passion for caring and supporting your loved ones in me at an early age. Your influence will continue to inspire my future endeavors and goals.

### **Abstract**

Healthcare leaders found setting priorities and using sustainability as a strategic process increased professional practice development at the unit level (Fleischer et al., 2016). Leaders impact healthcare outcomes through supporting system level activities through leading and guiding work. Internal analysis during COVID-19 pandemic revealed decreased mobility performance across a large integrated healthcare system and selected project site. This project aimed to apply the IHI sustainability framework to improve progressive mobility in the medical-surgical (med-surg) units. The application of a sustainability framework guided project activities to focus on leadership adherence to sustainability methodologies supporting oversight and improving mobility performance. The implementation process involved surveying the nurse leaders on elements supporting sustainability. The survey and nurse leaders' consensus chose to leverage huddles to improve communication with frontline, solicit feedback, and problem solving for barriers to mobility. After implementation, data from the survey measuring leadership adherence, mobility performance, and barriers to mobility were analyzed which resulted in a positive impact to leadership oversight and mobility performance on medical-surgical units. Applying a sustainability framework provided a process and structure for nurse leaders to maintain focus of unit priorities while engaging frontline staff to improve mobility.

*Keywords:* sustainability, sustaining mobility, quality improvement, med-surg mobility

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## **Applying a Sustainability Framework to Leadership Oversight for Progressive Mobility on Medical-Surgical Units**

### **Chapter 1: Introduction**

Healthcare sustainability with quality improvement is variable, poorly defined, and risks providing high-quality care (Scoville et al., 2016). Healthcare organizations can make tremendous progress with quality improvement but struggle to maintain those improvements due to drift in practice and competing priorities. Collaborative national coalitions achieved a decrease in harm through national campaigns and initiatives, for example, protecting five million lives by the Institute for Healthcare Improvement (IHI) (Institute for Healthcare Improvement, 2008). However, the continued variation in performance highlights a breakdown in sustained efforts to consistently reduce harm. Failure to sustain standard work or quality of care results in bad outcomes for the patient, demotivates frontline teams, and wastes valuable resources (Lennox et al., 2018). Healthcare outcomes can also be related to the leaders who lead and guide the work. Leaders need frameworks and the necessary tools to ensure appropriate focus on system-level thinking that supports their team in delivering the best care possible. The topic of sustainability was chosen to enhance leadership oversight and engagement to improve clinical practice.

“Mobility is medicine” is a thoughtful and systematic approach to enhancing the patient’s ability to walk and prevent hospital complications (Pavon et al., 2021, p. 1846). Progressive mobility is one approach to enhancing patient’s movement in acute care settings. Progressive mobility terminology was adopted from critical care settings. It refers to a series of movements and planned activities initiated early in the care to increase mobility and return the patient to their baseline (Zink & Geocadin, 2017). Progressive mobility, a clinical initiative, was designed to better capture patient activities and staff efforts to promote mobility across the continuum of care

in the hospital. However, their efforts have decreased since the pandemic. This project implemented a framework to give leaders a structure and approach to sustain improvements in clinical practice.

### **Background and Significance**

Mobility is a standard nursing care activity that involves executing and promoting physical activity, such as getting out of bed to stand, sitting in a chair, walking in the hallway, or going to the bathroom (Smart et al., 2018). The term *progressive mobility* has been implemented in acute care settings to address barriers of delayed mobility activities and to empower nurse-driven protocol in progressing mobility to ensure safety and return the patient to their highest level of mobility (HLOM) possible (Zink & Geocadin, 2017). The term *mobility efforts* refers to staff attempts and opportunities to actively engage patients in mobility activities, from range of motions in the bed through walking. In January 2018, the mobility scale and mobility protocol were redesigned within a large integrated healthcare system in Northern California. Local leaders and frontline teams advocated for a mobility scale that truly captures patient activities that can be indicative of a patient's mobility efforts from a scale of zero to seven (no mobility to walking) using the HLOM (see Appendix A).

Upon the spread and hardwiring of the new mobility scale in 2019, Northern California mobility efforts increased. However, there was a decline in performance due to seasonal surges during the pandemic that hindered performance. During the pandemic, mobility drastically decreased across all nursing units, such as critical care and medical-surgical (med-surg) units. The completion of a COVID-19 impact analysis, led by the regional Hospital and Emergency Department Reliable and Operational Excellence and Safety (HEROES) team, revealed that med-surg units drastically decreased mobility performance. The decrease in mobility was



associated with increased occurrences of hospital complications, such as falls and hospital-acquired pressure injuries (HAPIs).

Concerning mobility, the HEROES group released a preventive strategy to help guide leaders and frontline teams concerning patient mobilization to decrease hospital-acquired pneumonia (HAP), falls, and HAPIs. Regionally, the decreased mobility performance was highlighted as an issue that resulted in developing a COVID Mobilization Playbook. The COVID Mobilization Playbook supported efforts that “mobility is medicine,” and with a multidisciplinary approach and guidance, teams will be able to address patients with COVID-19 with a team approach to enhance mobility (Pavon et al., 2021, p. 1846).

In addition to the COVID Mobilization Playbook, it is imperative to integrate this clinical initiative with day-to-day operations for leadership support, frontline team engagement, and reporting structures to maintain focus (Scoville et al., 2016). The significance of not sustaining standardized work and clinical practice for mobility can hinder quality care, demoralize frontline team efforts, and engagement for future improvement efforts. Healthcare policy can also guide clinical practice. From a policy perspective, safe patient handling practices were adopted from the California Assembly Bill 1136, which supports performing mobility assessments and using equipment to reduce patient harm and protect staff (Kaiser Permanente, 2019).

Sustainability concepts regarding sustaining improvements of evidenced-based interventions have recently expanded (Shelton et al., 2018). Initially, sustainability was defined as a sub-concept to implementation. In addition, sustainability frameworks can be used as a process during performance improvement to evaluate and provide foundational structures to support ongoing work and change to clinical practice. There is a growing need to explore the effects of sustainability with evidence-based practices (EBPs) to provide rigor and explore

different components of processes, capacity, and adaptability within health care (Shelton et al., 2018).

Decreased and impaired mobility has financial consequences that may impact falls (Zhao et al., 2019). For example, fall incidences were shown to increase the hospital length of stay from 6 days to 12 days. According to Zhao et al. (2019), falls can cost an average of \$13,316 per fall. In addition, evidence demonstrates decreased mobility can lead to an increase in falls. Approximately one million patients experience falls each year in the hospital (Zhao et al., 2019). Increasing mobility in the hospital is a tactic and strategy to fall prevention and should be addressed with fall prevention. Sustaining the focus on mobility would not only reduce harm but also save money in healthcare utilization.

### **Needs Assessment**

The medical-surgical (med-surg) and telemetry units at a small hospital that is part of a Northern California healthcare system was the focus of this Doctor of Nursing Practice (DNP) project supporting progressive mobility. Local facility initiatives are codesigned to spread throughout the Northern California region. In Northern California, a small hospital within an integrated healthcare system's mobility performance had declined over the past year in the med-surg and intensive care units (ICU). The COVID-19 pandemic had perpetrated barriers to patient mobility from March 2020 to June 2021.

By way of the HEROES program, regional leaders from Infection Prevention and Patient Care Services and I conducted a COVID-19 impact analysis on prioritized clinical initiatives like fall prevention. Decreased mobility activities were correlated to a higher incidence of falls and HAPIs in the med-surg areas. Mobility performance during the pandemic had been a challenge for frontline teams due to understanding of the disease, staff safety concerns, efforts to conserve

personal protective equipment (PPE), disruption to frontline workflows, inadequate staffing, and patient education.

In the Northern California region, the COVID-19 pandemic impacted quality measures and performance. An organizational COVID-19 impact analysis revealed additional contributing factors with patient volume, workflows, staffing, and product changes. Unexpected patient volumes hindered mobility efforts, such as flexing nursing units between Designated Area for Personal Protective Equipment Optimization (DAPO) units throughout the hospital. The DAPO unit is a designated hospital unit comprised of only patients with COVID-19. Changes in workflows hindered patient mobility. Due to the evolving understanding of the COVID-19 disease, isolation precautions and PPE conversations within the hospital limited the patient's ability to go outside their rooms. Limited patient mobility and movement throughout the hospital caused a decreased sense of awareness of the importance of patient mobility.

Limited visitor policies also minimized family involvement in care, thus creating a barrier to leveraging family to improve patient education and reinforce care activities to reduce harm. Staffing challenges from cross-training staff in other areas and shortage of supplemental traveling staff caused delays in efforts for mobility. Supplemental staffing and cross-training between departments were utilized to support inpatient nursing units. Teams were provided education on their designated areas and care standards; however, with the PPE conservation focus, mobility was not the priority. Supply shortages with PPE, N-95 masks, cleaning supplies, and product changes also significantly impacted harm measures.

Before the pandemic, there were opportunities to improve and sustain mobility performance. In 2019, the regional subject matter experts (SMEs) developed an integrated approach to increasing progressive mobility, promoting safe patient handling and fall prevention,

and reducing workplace injuries in Northern California hospitals within an integrated healthcare system. In partnership with workplace safety and Hill-Rom vendor, in-person courses were conducted with frontline members from nursing, safety, physical therapy, transporters, and unit assistant to reeducate concepts of safe patient handling. The didactic presentation covered concepts and EBPs of the benefits of increased mobility with patients. The Hill-Rom vendor provided hands-on training to practice bed functionalities and clinical scenarios by selecting the appropriate safe patient handling to mobilize the patient. As a result, Northern California saw increased mobility within the med-surg areas and decreased falls and pressure injuries.

Hospital senior leaders were engaged in a commitment and follow-up to continuous support and integration of progressive mobility into standard work and daily practice. Unfortunately, mobility practices were not sustained in multiple hospitals, causing decreased mobility performance and increased harm rates. The organization invested multiple resources to redesigning the approach to mobility, recently with a dedicated group of SMEs, including nursing, physicians, and physical therapy. Failure to maintain this redesign work and new standard work could lead to project fatigue, frontline disengagement, loss of revenue, and increased patient harm (Scoville et al., 2016).

The project site measures the mobility scale using the HLOM. Mobility data are measured with the highest two bouts of documented mobility efforts averaged (average maximum mobility). Average maximum mobility is measured daily, monthly, and on a 3-month rolling basis to track and monitor performance throughout the organization. The med-surg average maximum mobility goal is 4.8. The regional average maximum mobility for 2020 was 4.4 (see Appendix B). The facility's med-surg average maximum mobility was 4.1 for 12-month rolling period, May 2020 to April 2021 (see Appendix C). The daily average maximum mobility

report allows for exploration of real-time data for mobility, which frontline teams can use to monitor and identify potential missed opportunities to maximize mobility. During needs assessment, there were inconsistencies between frontline teams and leadership styles in operationalizing and framing unit priorities. The objective was to apply a sustainability framework and methodologies to improve the average maximum mobility. By applying a sustainability framework to improve the mobility initiative, the hope was the performance of average maximum mobility would increase from 4.1 to the target of 4.8 in med-surg. The refocused and structured approach to integrating mobility into daily patient care activities may decrease harm in patients.

### ***Strengths, Weakness, Opportunities, and Threats (SWOT) Analysis***

A SWOT analysis provides a framework used to determine opportunities of using a sustainability framework to drive progressive mobility. Applying a sustainability framework and methodologies to improve average maximum mobility could help reduce harm in other harm measures. Strong leadership, frontline engagement, data-driven interventions, and sustainability methodologies will help reduce threats. They will also provide structure for a learning environment to meet the mobility target and reduce harm to patients.

**Internal Strengths.** Implementation of this project was supported from a regional and local hospital perspective in Northern California. The HEROES program provided the Northern California region structure for quality and clinical initiative in its portfolio with sustainability methodologies. Leveraging the local HEROES group's structure for leadership support and frontline team support for prioritized standard work is foundational to EBPs for reducing falls, HAPIs, and length of stay for patients.

**Internal Weakness.** With the regional recommendations to establish local HEROES groups at each hospital during the pandemic, inconsistency and variability in how the structure is

operationalized is an internal weakness. Competing priorities with operational and quality initiatives at the hospital was a barrier and weakness to a consistent focus on prioritized clinical initiatives like mobility. Lack of an interdisciplinary and coordinated leadership approach to support mobility efforts can hinder performance and focus for frontline teams. Failure to sustain standard work or quality of care results in bad outcomes for patients, demotivates frontline teams, and wastes valuable resources (Lennox et al., 2018). Without a coordinated and strategic effort to maintain focus and remove barriers to success, there may be further diminished gains for improving mobility performance (Scoville et al., 2016).

**External Opportunities.** Applying and adopting a systemic sustainability framework from a reputable affiliation could provide a crosswalk to EBPs that reduce harm in other prioritized initiatives, such as falls and HAPIs. Decreasing falls and HAPIs occurrences are nursing-sensitive indicators that indicate nursing performance and quality used for external benchmarking and comparison with other hospitals (Afaneh et al., 2021). Consistent focus and sustainability methodologies with mobility are beneficial for patients, aid in increasing function, strengthen dexterity, and reduce the length of stay in the hospital (Bergbower et al., 2020).

**External Threats.** Availability and new safe patient handling equipment from multiple vendors and suppliers could have been a barrier to success. Ordering and maintaining safe patient handling equipment can be associated with the quality of the products purchased. Consideration for the county or state regulations on equipment in nursing areas can hinder safe patient handling equipment from being correctly and conveniently placed in the unit for frontline teams. At the time of the SWOT analysis, COVID-19 cases were on the decline. However, new disease variants could have caused unexpected surges that affect hospital operations, staffing, and unit priorities.

### ***Recommendations***

Using an established framework to guide actions and decisions concerning clinical practice, team engagement, and improving patient outcomes is critical in nursing operations (Scoville et al., 2016). Alignment with local HEROES structure and clinical initiatives to coordinate efforts can ensure visibility of barriers to performance and celebration of success. With sustainability methodology application, nurse leaders could emphasize continuous learning and improvement rather than a strict focus on performance. Synchrony of leadership coordination with the utilization of quality structures and sustainability methods create a shared accountability and feedback loop to identify what is and what is not working. Clear indications from the frontline teams and methods to maintain focus on standards of care could be beneficial in balancing competing priorities with utilization and application of sustainability.

### **Congruence with Organizational Strategic Plan**

The mission and vision of this integrated healthcare system in Northern California is to provide high-quality and equitable care to improve health outcomes (Kaiser Permanente, 2018). Strategic quality planning and setting priorities are imperative to focus healthcare teams to improve healthcare outcomes. In Northern California, Crossing the Quality Chasm (CQC) is used to prioritize regional efforts for quality improvement. CQC provides a quality framework that establishes annual quality and patient safety priorities, aligns teams, identifies areas of opportunity, and drives meaningful change (Agency for Healthcare Research and Quality, 2018). Regional and local hospital executive leaders cascade CQC targets and other prioritized clinical initiatives to their frontline teams.

The CQC process reviews each clinical initiative for clinical and organizational importance, accompanied by baseline data, current performance, and proposed targets for the

following year. Strategies, current interventions, and barriers help clarify the current, pending, and future work supporting improvement efforts. Progressive mobility for med-surg and ICU is a CQC-approved measure cascaded to each hospital with regional targets, inclusion, and exclusion criteria for performance improvement. The progressive mobility initiative accompanies fall performance as a CQC measure identified as an area of opportunity for improvement at this hospital.

In 2020, the regional HEROES program implemented and spread a local HEROES group recommendation to provide structure to clinical initiatives, such as fall prevention. To build upon the work in 2020, this hospital embarked on improvement efforts to improve progressive mobility and fall prevention, implementing a sustainability framework was evaluated to give the teams structure and another lens to improve patient care and focus on prioritized clinical initiatives supporting nursing operations and quality. Partnering with senior leadership, med-surg leaders, and frontline staff in applying sustainability methodologies could provide structure to reengagement of progressive mobility, while reducing harm to patients.

### **Problem Statement**

Progressive mobility at this hospital has yet to meet the mobility target of 4.8 average maximum mobility since its inception in 2018. Pandemic focus and efforts have caused a drift in practice and quality improvement for progressive mobility in acute care settings. Refocused efforts toward progressive mobility can help decrease adverse outcomes, such as falls and pressure injuries at this hospital. Nurse leaders applying a sustainability framework and quality improvement methodologies can help teams refocus and monitor their progress to sustain efforts to improve patient care.



**Clinical Question/PICOT**

The purpose of a clinical question assists the researcher in formulating a focused inquiry or problem (Moran et al., 2020). The PICOT question is: For nurse leaders on medical-surgical units in a small Northern California urban hospital (P), how does a sustainability framework (I), compared with no sustainability framework (C), affect the achievement and sustainability of mobility performance (O), in 12 weeks (T)?

## Chapter II: Evidence

### Search Strategy

The literature search was conducted through the following databases: PubMed, CINAHL, Cochrane, and Google Scholar. The following keywords were used to perform the search: *sustainability, sustaining improvement, sustaining mobility, quality improvement, med-surg mobility*, and various combinations of these terms. The search parameters included articles from the past 5 years, 2016 to 2021, with over 200 articles found. The 200 articles were further filtered for peer review and English language. Twenty reviewed articles were filtered down by systematic reviews on sustainability frameworks and mobility in acute care settings, which provided specific articles. No articles were found to specify sustainability practices on mobility within the med-surg units. However, articles were selected outside of med-surg units to highlight themes.

### Summary of Appraisal

The search for evidence for sustainability and mobility yielded positive and impactful evidence to support all 20 articles selected. The 20 selected articles consisted of evidence on sustainability models and mobility through quality improvement, systematic reviews, quantitative and qualitative studies, and nonresearch expert opinion. The evidence consisted of eight systematic reviews (Level Three), four qualitative studies (Level Three), four quality improvement projects (Level Five), two quasi-experimental studies (Level Two), one randomized control trial (Level One), and one nonresearch expert opinion article (Level Five). The supporting evidence from the latter articles highlighted sustainability (Baid et al., 2021; Barson et al., 2017; Dombrowski et al., 2016; Fleischer et al., 2016; Klein et al., 2018; Lacerna, 2020; Woodnutt, 2018), benefits of patient mobility (Booth et al., 2019; Hickmann et al., 2018;

Smart et al., 2018), barriers to patient mobility (Bianchi et al., 2018; Zhao et al., 2019), improvement in patient mobility (Hoyer et al., 2016; Jones et al., 2020; King et al., 2016), and mobility perspectives from patients and staff (Constatin & Dahkle, 2018; Patel et al., 2021; Scheerman et al., 2020). Overall evaluation of quality, based off the level of evidence and support is sustainability frameworks could be used to set priorities, focus, and sustain mobility improvements.

### **Synthesis of the Evidence**

The literature review revealed different aspects of patient mobility and sustainability. Patient mobility from staff and patient perspectives highlighted feelings toward nurse-driven protocols to increase mobility and sustain those efforts. Sustainability perspectives of the literature for patient mobility were limited. However, the literature offered different ways of defining sustainability and potential ways to measure it. To better organize the evidence, highlighted themes emerged from the search: sustainability, mobility perspectives, improvement in patient mobility, benefits of patient mobility, and barriers to patient mobility.

### ***Sustainability***

Eight articles provided support and exploration of sustainability in this review (Barson et al., 2017; Baid et al., 2021; Dombrowski et al., 2016; Fleischer et al., 2016; Klein et al., 2018; Lacerna, 2020; Lennox et al., 2018; Woodnutt, 2018). Three of the eight articles explored different sustainability approaches through systematic reviews and through leveraging existing knowledge of sustainability (Barson et al., 2017; Dombrowski et al., 2016; Woodnutt, 2018). In two systematic reviews, sustainability revealed diverse and variability approaches (Lennox et al., 2018; Woodnutt, 2018). Lennox et al. (2018) search strategy revealed existing approaches of sustainability that included frameworks, models, tools, strategies, checklists, and processes.

Although there are similarities between different approaches to sustainability, the review included a resource for practitioners to explore current approaches to sustainability. Lennox et al. (2018) further explained themes and the purpose of exploring the topic of sustainability, as many healthcare organizations must pioneer significant innovations through quality improvement. However, efforts are not sustained long enough to truly see the benefits. Lennox et al. and Woodnutt (2018) shared similar conclusions that sustainability lacked rigor in measuring sustained efforts. Dombrowski et al. (2016) contributed to this field in providing targeted behavioral change to assist sustainability efforts. However, the measurement of sustainability of this systemic review was less than a year, which supports Woodnutt's findings of lack of rigor for measurement.

Two qualitative studies addressed hospital leaders and quality improvement perspectives on sustainability activities for staff and patients. Healthcare leaders found setting priorities and using sustainability as a strategic process increased professional practice development at the unit level (Fleischer et al., 2016). Barson et al. (2017) queried quality improvement practitioners for common themes for designing quality improvement. The researchers reported that practitioners agreed sustainability was essential in planning, but often poorly executed and overlooked.

One quasi-experimental study tested sustainability in a neurological ICU. Klein et al. (2018) measured sustainability in a nurse-driven mobility protocol in the neurological ICU. In their study, the nursing staff had significant buy-in for early patient mobility. After implementing the protocol, researchers noted continued mobility efforts, fewer patient days, and decreased depression and anxiety from patients while in the ICU.

Two articles on sustainability included one expert opinion and one DNP scholarly project defining sustainability in the ICU. Baid et al. (2021), expert opinion, commented on critical care

sustainability as maintaining the financial, environmental, and social resources in the ICU across multiple levels that can affect the unit. The study revealed practitioners in critical care associated sustainability to the satisfaction of quality with the unit's resources. The authors' views support the evidence that sustainability can be achieved through system-level thinking that increases satisfaction in the work while furthering improvement.

Baid et al. (2021) further defined what sustainability meant to the critical care team, which also provided a systematic approach to ongoing critical care issues. Lacerna (2020) approached sustainability as a regional quality improvement DNP project in applying an IHI framework that led to decreased harm and increased staff satisfaction in a large, integrated healthcare system. The IHI framework helped restructure leadership support and oversight of a hospital quality called the Hospital and Emergency Department Reliable and Operational Excellence and Safety (HEROES). The HEROES group was charged with harm prevention, with hospital-acquired infections and harm prevention. Overall efforts and results from the project yielded a 9% decrease in overall harm from year-over-year comparison due to establishing a sustainability framework. Sustainability should be looked at on many levels, with structured processes and strategies for continuous improvement (Baid et al., 2021; Lacerna, 2020).

### ***Benefits of Patient Mobility***

Three articles provided support for the benefits of patient mobility (Booth et al., 2019; Hickmann et al., 2018; Smart et al., 2018). One randomized control trial explored the impact of early inpatient mobility in mechanically ventilated patients who experienced septic shock in the ICU. Hickmann et al. (2018) tested muscle fiber preservation in 22 patients between two patients mobilized in the ICU. The control group received one session of manual, passive, and active limb mobilization once a day. The intervention group received two 30-minute continuous,

passive, and active leg exercises, followed by manual passive and active limb mobility. Between the two groups, the intervention group had a significant muscle fiber preservation in their quadriceps, compared to the control group of once a day with passive and active limb mobilization. As a result, 83% of the control group was able to transfer to a chair by the end of ICU discharge, versus the intervention group, where 100% was able to transfer to a chair.

Two systematic review articles supported the benefits of mobility. A multidisciplinary approach, systematic process, and procedures aimed at mobility in nursing units showed benefits in function, decreased delirium, and decreased length of stay (Booth et al., 2019; Smart et al., 2018). A review by Smart et al. (2018) concluded that early mobility for older adults could benefit from a multidisciplinary approach. The review also revealed mobility programs that used quantified and validated measurements tools for mobility were able to provide feedback to patients about the benefits of early mobility. Implementation of early mobility and protocols showed a financial gain with decreased length of stay by 57% in the observed unit. The observed unit demonstrated a length of stay drop from 8.72 days to 4.96 days (Smart et al., 2018).

### ***Barriers to Patient Mobility***

Two systematic review articles illustrated barriers to patient mobility and gaps in implementing best practices (Bianchi et al., 2018; Zhao et al., 2019). Patient mobility is an important activity in which patients interact within their environment. Zhao et al. (2019) noted that fear of falling in weak patients can lead to reduced patient mobility and increased risk for falling due to loss of dexterity. Patient falls are a severe issue and top priority for hospitals. Reduced mobility in patients is not just related to staying in bed, but can be perpetuated by acute illness and comorbidities, like osteoporosis, that increase the fear of falling (Zhao et al., 2019).

Bianchi et al. (2018) identified a gap in implementation of EBPs. The researchers found it takes approximately 17 years to move 14% of EBPs into practice.

Nursing leaders are expected to inspire and uphold a culture within their units that supports EBPs and addresses barriers to implementation for the most influential work environment. They are also charged to engage staff and to promote the best outcomes for patients. Nurse leadership should leverage EBPs, while using strategies to increase staff engagement for optimal patient outcomes and staff satisfaction (Bianchi et al., 2018; Zhao et al., 2019).

### ***Improvement in Patient Mobility***

Three quality improvement projects provided support in this review for improving patient mobility (Hoyer et al., 2016; Jones et al., 2020; King et al., 2016). Two studies illustrated nurse-driven support in developing nursing protocols that leveraged mobility assessments and scales for improvement in patient mobility in acute care settings (Jones et al., 2020; King et al., 2016). The premise in both studies showed mobility was of known importance. However, restructured workflows and education were needed to increase awareness and adherence to improvement with patient mobility. Both studies identified nurses as primary coordinators of care who are within their scope to initiate and promote patient mobility.

Jones et al. (2020) quality improvement focused on closing the gap on nurses' lack of knowledge to confidently mobilize their patients. Upon completion of the project, nurses increased their confidence to effectively mobilize their patients, which resulted in a 14% decrease in inappropriate physical therapy consults, with no changes in falls or pressure injuries. The main objective for King et al. (2016) and Jones et al. (2020) was improving patient mobility through increased engagement with nurses related to patient ambulation. Providing structure,

tools, equipment, and nurse education helped improve mobilization within their units, decreasing delayed care and proper stewardship of physical therapy resources. Hoyer et al. (2016) project improvement focused on a multidisciplinary approach implementing the Johns Hopkins Highest Level of Mobility (JH-HLM) scale to quantify mobility demonstrated by the patient and created a common language among clinicians. Promoting patient mobility decreased length of stay, without increasing falls on the units (Hoyer et al., 2016; Jones et al., 2020; King et al., 2016).

### ***Mobility Perspectives***

Four articles in the body of evidence provided support and exploration of mobility perspectives (Constantin & Dahkle, 2018; Patel et al., 2021; Pavon et al., 2021; Scheerman et al., 2020). Three of the four articles provided a nursing perspective on mobility. Nurses shared a mental model that mobilization is a key task for their patients (Constantin & Dahkle, 2018; Patel et al., 2021; Scheerman et al., 2020). One insight from Scheerman et al. (2020) surveyed nurses and demonstrated that 90% of nurses stated responsibility for physical activity promotion; yet, only 32% were satisfied with the patient's actual mobility. The nursing staff's low sense of satisfaction with their patient's actual mobility level is paramount. This study provided a snapshot of nurses' sense of the quality of care and outcomes of their patients. Patel et al. (2021) reported that pediatric ICU nurses showed ownership and sustainability of their nurse-driven protocol for early mobility 3 years after implementation. Staff and patient perceptions of mobility measured the culture of patient mobility within a facility. Therefore, hospital leaders focused on developing learning systems among staff to address barriers (Constantin & Dahkle, 2018; Patel et al., 2021; Pavon et al., 2021; Scheerman et al., 2020).

### ***Strengths and Limitations***



In the literature review, all 20 articles supported this project. Sustainability is still being studied and tested in health care, and there is limited existing knowledge to define sustainability for the profession. However, the existing research findings invite clinicians and practitioners to explore sustainability more. There is a breadth of knowledge on patient mobility, which is a considerable advantage in this review.

One of the limitations in this review is the general lack of studies on early mobility within the general medicine or med-surg settings. However, the extensive breadth of knowledge gained from testing the benefits of early and progressive mobility on rehabilitation and ICU settings can be beneficial to other hospital units. Another limitation to the body of evidence is the lack of information on nursing leadership leveraging sustainability models and validity measurements for sustainability methodology for sustaining change in mobility. However, there was sufficient evidence to interpret sustainability as a process. The concept of sustainability can be anticipated to be a process of performance evaluation.

### **Project Aim**

This project aims to apply the IHI sustainability framework to improve progressive mobility in the med-surg units. To achieve sustainability in the mobility performance by the end of this project, leaders will apply a sustainability framework and leverage local Hospital and Emergency Department Reliable and Operational Excellence and Safety (HEROES) structure and expertise to improve their approach to progressive patient mobility. The objectives for this project are as follows:

- Influence nurse leaders' adherence to the IHI Facility Sustainability Assessment Tool to support mobility performance within 12 weeks as evidenced by 80% of nurse leaders demonstrating sustainability methodologies supporting mobility.

- Increase the average maximum mobility to 4.8 within three med-surg units within 12 weeks by applying the IHI sustainability framework.

### **Implementation Model and Theoretical Framework**

#### ***Plan, Do, Study, Act***

The plan, do, study, act (PDSA) cycle guided the efforts of the DNP quality improvement project (see Appendix D). The PDSA cycle is a model of improvement used by IHI (Moran et al., 2020). In 1992, the PDSA cycle was created by Associates in Process Improvement from the work of Walter Shewhart, W. Edwards Deming, and Joseph Juran (Scoville & Little, 2014). The purpose of PDSA is to learn from changes with purposeful actions for improvement. PDSA cycles supports quality improvement by providing a systematic approach to improve clinical practice through a continuous effort to achieve measurable outcomes and team approach that requires commitment on all levels, especially from leaders.

The rapid cycles of improvement are initiated to drive the change (Moran et al., 2020). The *plan* is driven by what is trying to be accomplished. Planning incorporates outlining objectives that provide focus to improvement and plan for data collection. *Do* is associated with implementing the change. Implementing change is demonstrated by running tests, observing events, and collecting data. The *study* is monitoring for the change. Monitoring for the change is demonstrated by comparing outcomes from data and summarizing the findings. The *act* is the actions taken related to the results of the cycle (Moran et al., 2020). Act also provides an opportunity to adopt, adapt, or abandon. Act allows the project to adjust to change methodologically to support learning, engagement, and success of measurable outcomes (Moran et al., 2020).

#### ***IHI Framework***

The IHI framework for sustaining work is focused on frontline managers, frontline teams, and management systems to indicate standard work for all levels in the system (Scoville et al., 2016). In this project, the IHI framework was used to assess sustainability at the unit level and used to guide interventions for improvement. The IHI framework was established by Juan Trilogy's grounded theory that indicated three pillars of high-performance management: quality planning, quality control, and quality improvement (see Appendix E). The framework is focused on quality control for frontline managers in managing daily activities within the unit to maintain focus, monitor quality, and build staff capacity with engagement in work (Scoville et al., 2016). In addition, support of standard work by frontline teams, leadership, and high-level coordinated infrastructure provides guidance and reinforces daily efforts with standard work. Partnership from the patients up to the executive level should embody leadership support, management infrastructure, and frontline engagement to support sustainability.

## **Chapter III: Methodology**

### **Project Design**

The DNP project helps a student demonstrate a systemic and academic pose by applying eight DNP Essentials to create change in the healthcare environment (Moran et al., 2020). This project utilized a quality improvement design to demonstrate the application of these essentials, while identifying gaps in clinical practice to improve healthcare outcomes. This quality improvement project was guided by the PDSA cycle. In addition, performance improvement methodologies helped provide resourceful tools to provide a structured approach for clear communication and project management. The project utilized the existing local Hospital and Emergency Department Reliable and Operational Excellence and Safety (HEROES) group and meetings to streamline communication of multiple stakeholders.

### **Setting**

The project took place on three med-surg units at a hospital. Patients arrived on this unit from the emergency department, post-anesthesia room, ICU, or direct admission from another facility. All three units had 22 beds, private rooms, capable of caring for various conditions with no unit specialties. The hospital has a total of 66 beds between three med-surg units that are telemetry capable. Patients are discharged from med-surg but can also be transferred to a higher level of care, such as intensive care or procedural suites like interventional radiology for tests and procedures.

Nursing staff procedures for the med-surg units reflect California Title 22 for general acute care hospitals (Department of Health Care Services, 2021). Med-surg units staff 24 hours, per the regulation with fixed ratios. Nursing staff on med-surg units work 8-hour shifts. Generally, the med-surg patient ratio is one registered nurse to five patients. Telemetry patients

in med-surg units can have one registered nurse to four patients. However, depending on patient acuity, the ratio can be enhanced to provide closer observation of acuity. Patient care technicians are staffed to each unit and can vary depending on the patients' acuity or safety needs. Unit assistants are not a part of the nursing staff mixture, but each unit has one unit assistant supporting unit activities, such as transfers, admissions, record-keeping, and as a conduit for relaying messages to staff and unit leaders.

The leadership structure for each unit contains one unit manager and three assistant nurse managers designated as nursing leaders. Nurse leaders are salaried employee who work 8-hour shifts. The unit manager is responsible for 24-hour nursing unit operations, including budgeting, staffing, and patient care activity standards. Assistant nurse managers are responsible and accountable for their assigned shifts, day, evening, or night. The assistant nurse manager duties include nurse productivity, staffing, patient care activities, and assigned direct reports of nursing staff, including registered nurses, patient care technicians, and unit assistants. The unit managers report to the clinical adult services director, who is responsible for all adult inpatient units, including the ICU, medical psychiatric unit, and med-surg. The clinical adult service director reports directly to the chief nurse executive/chief operations officer, who is ultimately accountable and responsible for care delivery, patient outcomes, and operations of all areas in the hospital.

Project site support for nursing leadership came from the DNP Student. Quality was involved early in the planning phases to inquiry about overlapping project work. There was some potential to leverage frontline support from quality councils. Unfortunately, the quality meetings were cancelled during the project due to COVID-19 surges and exposures leading to staffing challenges.

**Population**

The project included three populations, which included the nurse leaders, patients, and frontline staff. Members of each population were adults over age 18. Members were included without regards to gender, race, or ethnicity. The first population was the nurse leaders on the med-surg units. The inclusion criteria for nurse leader participants was the unit managers and assistant nurse managers on each med-surg unit and the clinical adult services director. The exclusion criteria was other senior leaders associated with the hospital.

The second population included frontline staff who directly influence patient care activities. The inclusion criteria for frontline staff are registered nurses, patient care technicians, and unit assistants who are assigned to care for patients on the three designated med-surg units. Exclusion criteria consists of frontline staff such as respiratory therapy, occupational therapy, and physical therapy.

The third population involved in this project were the patients in med-surg. Inclusion criteria for this population are consistent with the qualifications for average maximum mobility med-surg units. Average maximum mobility measures overall documented mobility activities over the total number of opportunities for patients in med-surg. Those who qualify included all adult patients, 18 years or older, in all three med-surg units at this hospital who have spent at least 7 hours on the unit. The exclusion criteria for this population were patients on comfort care or documented on the problem list as brain dead. The med-surg population and nurse leaders align with the settings and participants that were used in the synthesis of evidence.

Recruitment efforts for participants were targeted to recruit participants by verbal and virtual invitation. A recruitment email (see Appendix F) was sent to the clinical adult service director who forwarded the email to approximately 13 nurse leaders to ask for participation in

the project and completion of the IHI Facility Readiness Assessment Tool (Presurvey and Postsurvey). I worked with the clinical adult service director to recruit managers and assistant nurse managers on the three med-surg units. Participation target was nine nurse leaders. The clinical adult service director, managers, and assistant nurse managers were not personally identifiable.

Although the targeted sample size of 13 is small and the location is limited, we did not analyze data or present findings in a way that could make it possible to identify individual participants—for example, one assistant nurse manager on a med-surg unit. The frontline staff was notified of the project through staff meetings and huddles (see Appendix G). Staff participation was mandated as employees of the units. No recruitment was needed for the patients as mobility is part of their standard care and indirectly influenced by the project. The project provides structure to leadership support to improve mobility in med-surg. Mobility is a part of the standard of care in med-surg units, and there are no changes to the mobility protocol, hence no written consent is needed for patients. Patients agreed to these standards with the consent to treat upon admission to the hospital. Patients were informed about progressive mobility by frontline staff through accurate assessments, engagement, and safe patient handling to promote progressive mobility per assessment standards in med-surg units.

### **Tools and Instruments**

The project tools included the IHI Facility Readiness Assessment Tool. This tool was used as a pre- and post-survey to assess the facility's response to sustainability regarding progressive mobility initiative in med-surg units at this hospital before and after implementation (see Appendix H). The tool encompasses six sustainability elements (*supportive management structure, developed structures to "foolproof" change, created robust, transparent feedback*

*systems, shared sense of the systems to be improved, culture of improvement and a deeply engaged staff, and formal capacity building programs are supported*) with 17 questions pertaining to an organization's demonstration of sustainability (IHI, 2008). The IHI Facility Assessment Readiness Tool assessed the need for more tools that may need to be incorporated for the implementation phase. I used the IHI Facility Assessment Readiness Tool for educational purposes, so no permission was needed from IHI.

The daily mobility report is a tool generated seven days a week for med-surg and ICU units (see Appendix I). The report captured patient mobility documentation for the last 24 hours and a last 3-day look back. The report includes the prior level of function and current level of function. Prior level of function refers to the patient's baseline mobility two weeks before admission. The current level of function includes the patient documented mobility activities in real-time. The documented mobility activities are abstracted from the activity flowsheet in the electronic health record (EHR). The information is compiled, automated, and generated into a daily report by the data analytics team. This report is a tool that can inform leaders and staff on the progression, regression, or plateaued patient mobility activities. The daily mobility report was used by nurse leaders to discuss the gaps in mobility.

## **Project Plan**

### ***Description of Interventions***

The proposed intervention for this project was to apply the IHI sustainability framework to improve leadership oversight and progressive mobility. A sustainability framework was chosen to provide focus and a foundational process to guide the project. The framework allows nurse leaders to maintain focus on mobility while improving mobility performance. Applying the IHI Facility Sustainability Assessment Tool provided focus on areas of opportunity for



sustainability. This tool was used by leaders to strategize areas and brainstorm interventions to maintain standardization, accountability, visual management, problem-solving, escalation, and integration into day-to-day operations.

### ***Project Implementation***

The project plan was guided by the model of improvement which utilizes the *plan, do, study, act* implementation model. The objective was to increase average maximum mobility to 4.8 and influence nurse leaders' adherence to IHI Facility Assessment tool on med-surg units through the implementation of a sustainability framework within 12 weeks. We tracked mobility performance and adherence strategies to improve sustainability.

**Plan.** I partnered with other regional and local leaders to detect and monitor a decline in mobility performance during the past year due to the pandemic. As a result, I approached hospitals within a large integrated healthcare system who have found it challenging to gain sustainability with mobility. The gaps in clinical practice related to efforts to sustain mobility performance were shared, including COVID impact analysis, average maximum mobility data, and literature review, which revealed the need to address these gaps. Furthermore, the strains and unpredictability of surges from COVID-19 revealed leaders struggled with competing priorities, leading to drift in performance.

In the planning stage, I conducted an educational session to introduce the nurse leaders to the sustainability framework (see Appendix J). The IHI Facility Assessment Readiness Tool guided the project team on gaps in sustainability elements and crafts interventions for implementation through leadership support. The tool served as a readiness tool on system level thinking for mobility within the hospital. It allowed the frontline teams to demonstrate elements supporting sustainability pertaining to mobility.

Frontline staff were informed of the project by nursing leaders at their staff huddles. This was done on each shift one week prior to implementation and the week of implementation for day and evening shifts. Nursing leaders communicated and encouraged staff participation to continue current workflows and mobility protocol, to participate, and partner with multidisciplinary teams to address barriers to inpatient mobility. Nursing leaders and I communicated the project focus in the local hospital councils.

**Do.** The implementation phase focus was on the leaders' oversight, frontline staff, and patients of progressive mobility activities on all three med-surg units. The mobility protocol is not new and a part of standard practice. The nurse leaders reinforced and supported this protocol. The testing required the nurse leaders consistently adhere to monitoring and addressing mobility activities with the staff. The nurse leaders used the daily mobility report to address patients' mobility activities. On these days, nursing leaders discussed unit mobility performance with the staff and barriers inhibiting each patient's progression. In addressing regression, nurse leaders consulted with the nursing staff to identify and remove barriers hindering progressive mobility. Patients who could not progress back to their baseline were escalated to the physician to address medical issues and referral for physical therapy. Nursing leaders followed up with nursing staff to ensure physical therapy consult was ordered and confirm what activities the staff can safely do with the patient to prevent loss of dexterity and weakness.

Frontline staff continued to follow the mobility protocol. Upon admission, nurses documented patient reported level of function (PLOF) and clinician assessed level of function (CLOF). The nurse documented PLOF and CLOF in the electronic health record. The nurses and patient care technicians progressed the patients' mobility levels as appropriate. If gaps existed between the PLOF and CLOF, or regresses, they were consulted with physical therapy. The

frontline staff continued to document mobility activities throughout their shift but at least twice daily until discharged or transferred from med-surg units.

The patients participated in mobility activities as part of standard care of med-surg. Upon admission, the patients were asked questions concerning their PLOF two weeks prior to admission. The leveling from this assessment by the nurses guided the mobility activities for progression. The patients were encouraged, educated, and supported to safely participate in progressive mobility activities daily on the med-surg units until discharged.

**Study.** Data collection occurred throughout the duration of the project. Mobility performance was reviewed with the staff on a weekly basis along with barriers to mobility. The nurse leaders and I tracked barriers weekly and analyzed the data. In turn, barriers to mobility and leadership adherence to sustainability elements were studied and adjusted accordingly. Comparison from baseline data and predictions was analyzed and studied from our learnings. The data was studied and used to inform next steps.

**Act.** During the act phase, the process and outcome measures were utilized to convey change in performance. Analyzing the data for average maximum mobility and adherence of nurse leaders to reviewing the daily mobility reports and problem-solving for patients who cannot progress were used to guide next steps for action planning. Leadership adherence to monitoring and discussing mobility reports were analyzed. Average Maximum Mobility was monitored and tracked to see if it met the target of 4.8. Analysis of these objectives guided next steps and adjustments. The IHI Facility Assessment Readiness Tool (Presurvey and Postsurvey) was conducted again for the nurse leaders and compared to their baseline data.

## Data Collection

Data collection occurred during the planning, implementation, and evaluation phase of this project. Data collection of IHI Facility Assessment Readiness Tool (Presurvey and Postsurvey), average maximum mobility, and barriers to mobility (themes) supported the following objectives:

- Influence nurse leaders' adherence to the IHI Facility Sustainability Assessment Tool to support mobility performance within 12 weeks as evidenced by 80% of nurse leaders demonstrating sustainability methodologies supporting mobility.
- Increase the average maximum mobility to 4.8 on three med-surg units within 12 weeks by applying the IHI sustainability framework.

The data collected was housed in a protected and private Microsoft Excel file on an assigned and password protected laptop. The Microsoft Excel file contained three tabs: IHI Facility Assessment Survey, average maximum mobility, and barriers to mobility (see Appendix K). The Microsoft Excel was on a secured and private team site.

The IHI Facility Assessment Readiness Tool (Presurvey and Postsurvey) served as a outcome measure to improve leadership oversight in mobility. At the beginning of implementation, the presurvey was administered electronically to the nurse leaders in med-surg. The results of the survey were used to focus attention on areas of improvement to support improvement in leadership oversight of mobility. At the end of implementation, the postsurvey was administered again to the nurse leaders to measure leadership adherence and agreement of demonstrating leadership oversight.

The mobility performance was generated through data analytics and served as the outcome measure. Mobility performance (average maximum mobility) was collected for baseline

data, monitored throughout the project, and compared to baseline data. As an employee of the organization, I have access to collect data from the internal Statit scorecard, where data is stored. Mobility performance comes from the highest two bouts of mobility documented by frontline staff in the EHR activity flowsheet daily.

The daily mobility report and barriers to mobility (themes) served as process measures to support improvement in mobility and leadership oversight. The daily mobility report was generated by data analytics. This report supported the focus on improving the mobility performance. The report was comprised of mobility activities for each patient in med-surg units. During project implementation, the daily mobility report was emailed electronically to the nurse leaders seven days a week. The nurse leaders reviewed the daily mobility report, conducted chart review as necessary, consulted with frontline staff, and noted the barriers to mobility. In turn, the nursing leaders and I captured the barriers by a private electronically secured and private team group using Microsoft Teams application. I transferred the highlighted barriers in Microsoft Teams to the Microsoft Excel spreadsheet on barriers to mobility tab. The barriers to mobility were addressed weekly among the nursing leaders and disseminated to the staff for awareness and problem-solving. The nurse leaders and I reviewed opportunities for mobility improvement. The nurse leaders and I shared suggestions for improvement and feedback with staff during huddles.

### **Sustainability**

The sustainability framework gave leaders and staff a guide on elements to maintain focus on quality care and initiatives to reduce harm to our patients. In keeping with sustainability, a transition plan included integrating leadership oversight and monitoring mobility

moving forward. Sustainability is not just about sustaining but building upon recent gains and changes with meaningful oversight.

The suggestion would be to integrate the mobility work into the HEROES group for continuous, coordinated leadership oversight. HEROES is sponsored by executive leaders and led by senior leaders. This group consists of leaders who are accountable and responsible for infection and harm prevention within the hospital. The group also consists of clinical workgroups, with a mixture of frontline staff, experts, physicians, and leaders who can lead change at the unit level. The HEROES group leads, monitors, and responds to harm measures, such as falls and pressure injuries, in which mobility could serve as a process measure. If mobility performance decreases, the leaders could consider forming a mobility workgroup or integrate the mobility work with fall prevention. The project site and nurse leaders have agreed to continue their pursuit to improve mobility in med-surg. In addition, other medical centers are interested in this approach of assessing sustainability within this large integrated healthcare system in Northern California pertaining to mobility.

### **Project Timeline**

The project was organized in three sections—planning, implementation, and evaluation (see Appendix L). Project planning lasted approximately 5 months, starting in August of 2021 and ending in January 2022. Project planning was associated with collaboration and partnership with the project site to identify the DNP project team, project introduction, project plan review, goals establishment, Institutional Review Board approval, presurvey results completion and stratification, and communication plan development.

The project's implementation phase began on February 22, 2022, ending on May 20, 2022. During the implementation phase, the DNP project team reviewed the project plan and

communication plan, implemented the project, reviewed PDSA cycles, analyzed and adjusted to the PDSA cycles, and completed IHI Facility Readiness Assessment Tool (Presurvey and Postsurvey) for leadership adherence to sustainability practices for mobility.

The evaluation phase began after the 12 weeks of implementation. During the evaluation phase, the data was reviewed and analyzed with the DNP project team. Results of mobility performance, adherence to sustainability practices, and postsurvey results were compared to baseline data. The DNP project team discussed potential forums to share project results and transferability to other units.

### **Data Analysis**

Data analysis was guided by the practice mentor and I who have experience in data analysis. The data was stored on a Microsoft Excel file on an assigned laptop to me as an employee. Access to the data was viewable and private to the practice mentor and me. In the planning phase, the IHI Facility Assessment Readiness Tool (presurvey) was administered, and multiple areas were identified for improvement. A Pareto analysis provided guidance for targeted interventions and to help focus improvement efforts. Pareto analysis is a technique used to help maximize benefit and effort with multiple competing priorities (Moran et al., 2020). I used the same IHI Facility Assessment Readiness as a postsurvey to evaluate the leaders' adherence to the target interventions as identified from the Pareto analysis of the pre-survey. The data analysis utilized descriptive statistics for comparing mobility performance and IHI Facility Assessment Readiness tool. Average maximum mobility was measured before and throughout the project implementation. The data was demonstrated through multiple types of graphs like line, bar, column graphs, and percentage change (delta) to depict improvement.

### **Institutional Review Board and Ethical Issues**

This quality improvement project applied and was approved for an exemption through the regional Research Determination Outcome (RDO) office at the project's site (see Appendix M). After approval from RDO, I applied for project approval to Bradley University's Committee of Use of Human Subjects in Research (CUHSR). This project was approved by CUHSR on February 17, 2022 (see Appendix N).

The project presented no more than minimal risk of harm to subjects and involved no procedures for which written consent is normally required. The project did not include any special or vulnerable populations. Participation in the project was mandatory for nurse leaders. However, nurse leaders could opt out of participation in the IHI Facility Assessment Readiness Tool (Presurvey and Postsurvey). The participants and leadership were encouraged to communicate factors that may hinder their participation in the project due to operational or personal aspects affecting involvement. With participation, nurse leaders could apply a sustainability framework to evaluate and sustain improvements in clinical initiatives. Applying a sustainability framework for nurse leaders was beneficial by giving structure and establishing standard work for nurse leaders. Frontline staff and patient participants yielded potential benefits in less harm from falls or other hospital complications that could increase length of stay.

Access into the company's network was protected by password and a unique user ID and issued to all employees of the company. The project site, my employer, utilizes Microsoft applications such as Microsoft Excel, Microsoft Forms, and Microsoft Teams. The Microsoft applications in this organization were only usable within the company's firewall or by virtual private network authentication, issued to the employee with a unique user ID and password protected. The Microsoft Excel file was stored on a secured and encrypted assigned laptop issued



by my organization. The Microsoft Excel file was stored on a private Microsoft Team's Channel and only accessible to the practice mentor and I. Private channel in this context refers to controlled access to the channel, folder, and documents.

One ethical consideration that was addressed was conflicts of interest for the nurse leaders, staff, and me. Support for the project's objectives, participants, and tools were used to improve leadership oversight and promote patient safety. There were no commercial or financial interests involved in this project, which was communicated in the educational session. Nurse leaders and staff had no commercial or financial conflicts with this project as patient mobility is a part of standard work. Other ethical considerations that were considered were anonymity and confidentiality. I collected the data for this project, which was stored in a Microsoft Excel file with tabs for average maximum mobility, IHI Facility Assessment Readiness Tool (Presurvey and Postsurvey) results for leadership adherence to sustainability elements, and barriers to mobility. The project used the IHI Facility Assessment Readiness Tool (Presurvey and Postsurvey) before and after implementation. Using this tool for presurvey and postsurvey was agreed upon from the hospital permission. Nurse leaders anonymously participated in the presurvey and postsurvey on Microsoft Forms. Microsoft Forms did not track the names of participants who submitted a survey. The data results from both surveys were transferred over and stored in a Microsoft Excel file. The excel file was placed in a DNP project folder in my Outlook email. The data will be retained for four years before it will be destroyed in accordance with the company's retention policy. After four years, the email will be automatically deleted by Outlook.

The cumulative data from the Statit scorecard did not include sensitive personal information. However, it contained all 21 hospitals within the region in which the data was de-identified. The daily mobility report included a unique patient identification, but this information was only accessible to the nursing leaders for controlled access. The individual patients' identification was not collected or stored. Barriers to mobility were collected, yet this information is not linked to individual patients. Participants of this project and I followed the Health Insurance Portability and Accountability Act as we are employees and have access to sensitive information that should always remain protected.

The nursing leaders and I collected barriers to mobility for data collection. Barriers to mobility does not contain any identifiable information that can be traced back to the patient. Barriers to mobility were used to foster learning. Identifying and tracking the barriers to mobility further assisted leaders and teams on what needs to improve.

## **Chapter IV: Organizational Assessment and Cost-Effectiveness Analysis**

### **Organizational Assessment**

The project site demonstrated enthusiasm and dedication to deliver positive change to their teams and patients. The project site administrator and senior leadership approved the support of this project (see Appendix O and Appendix P). The nursing leaders showed interest in improving the care delivery in their units through collaboration with other disciplines through their HEROES groups to improve fall prevention across the continuum. The nurse leaders demonstrated a passion for empowering their staff to lead from the bedside and to partner with their leaders to improve care. With continued leadership engagement, this quality improvement project was successfully supported.

January 2022 to February 2022 another COVID-19 surge occurred in surrounding areas in Northern California, which was a barrier. This hospital did not experience an increased in COVID-19 cases with patients. However, they experienced increased sick calls due to positive COVID cases among the staff and leaders. During this time, the regional command center has been activated again to support areas with increased COVID-19 cases and hospitalizations, which caused a delay in care for specific services and bed availability. There was also the need to repatriate patients or accept patients from other facilities if patient volumes increase.

There was some resistance from staff on the units. As mentioned, there was growing staff fatigue due to the extended length of the COVID-19 pandemic. Staff and leaders had faced unprecedented times with PPE shortages, staffing shortages, revised workflows, alternative products, and decreased patient touchpoints due to increased isolation and exposure precautions.

With mobility, there was also a barrier in motivating specific staff on progressive mobility. During the pandemic, staff clustered care activities to decrease the chance of exposure

and decreased surveillance of patients due to the patient's doors being closed. Furthermore, perpetuating decreased mobility activities may have led to loss of dexterity in patients and increased fear of patient falls (Zhao et al., 2019). However, the evidence demonstrates that mobility, strengthening, and conditioning from bed mobility and ambulation helps patients maintain their function, decrease delirium, and decrease stay length (Booth et al., 2019; Smart et al., 2018).

### **Cost Factors**

Mobility is used as a process measure in other harm prevention to reduce the risk of harm from HAP, falls, and pressure injuries. There is a potential for cost avoidance in decreasing harm occurrences like HAP, falls, and pressure injuries. As this project was integrated into the current leadership structures and local HEROES group, there is no associated increase in cost for implementation of the project. Project planning for the nurse leaders occurred during scheduled monthly meetings to utilize and maximum the nurse leaders' time.

## Chapter V: Results

### Analysis of Project outcome data

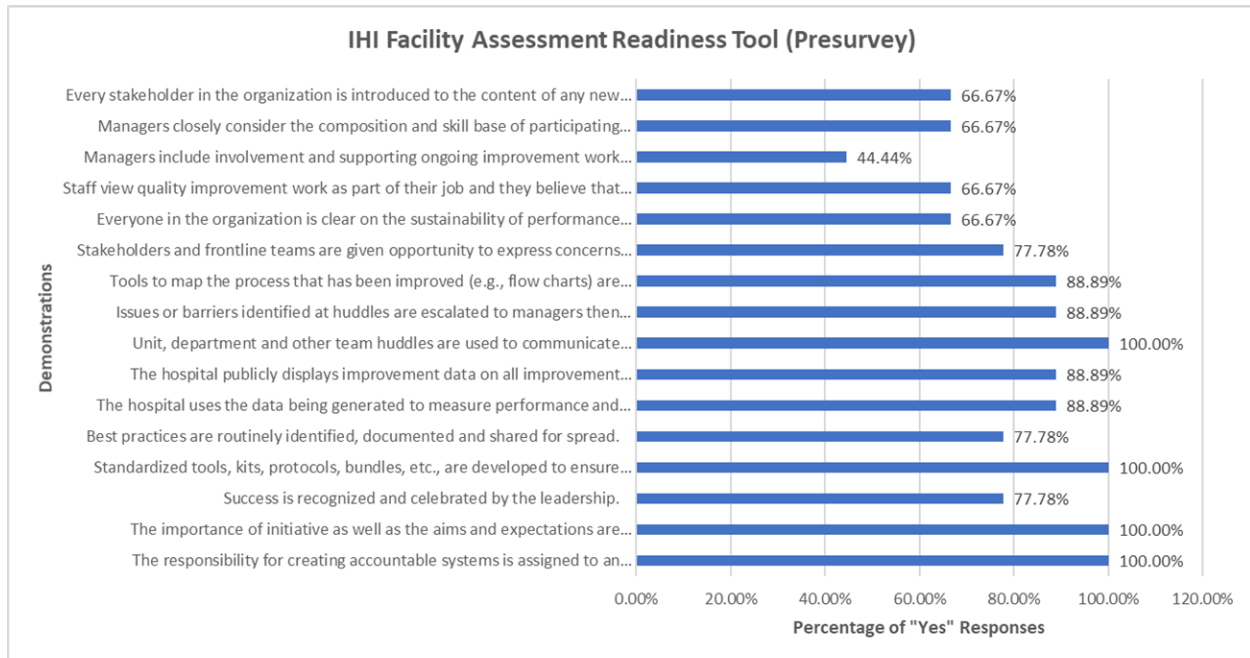
The project implementation objectives were to influence nurse leaders' adherence to the IHI Facility Sustainability Assessment Tool to support mobility performance as evidenced by 80% of nurse leaders demonstrating sustainability methodologies and increase the average maximum mobility in med-surg to target of 4.8. The two objectives were evaluated using the IHI Facility Assessment Readiness Tool (Presurvey and Postsurvey) and average maximum mobility for mobility performance. Barriers to mobility (themes) served as a learning tool in highlighting issues and fostering problem-solving among the frontline teams. Together, all measures provided an assessment of leadership, systems, and tools related to mobility in med-surg units.

### *Nurse Leaders' Adherence*

IHI Facility Assessment Readiness Tool (Presurvey and Postsurvey) was administered at the beginning and end of implementation to assess bright spots and areas of opportunity that would further guide the project team on which areas we should focus on for improvement of mobility. I used the IHI Facility Assessment Readiness postsurvey to evaluate the leaders' adherence and tested the proposed interventions to mobility improvement. The survey included 17 questions that were *yes* or *no*. All 17 questions were calculated with the number of *yes* and *no* answers and converted to percentages. The 17 questions represented "demonstrations" that were used to measure leadership adherence among the nurse leaders at the project site depicted in Figure 1.

### **Figure 1**

*IHI Facility Assessment Readiness Tool (Presurvey)*



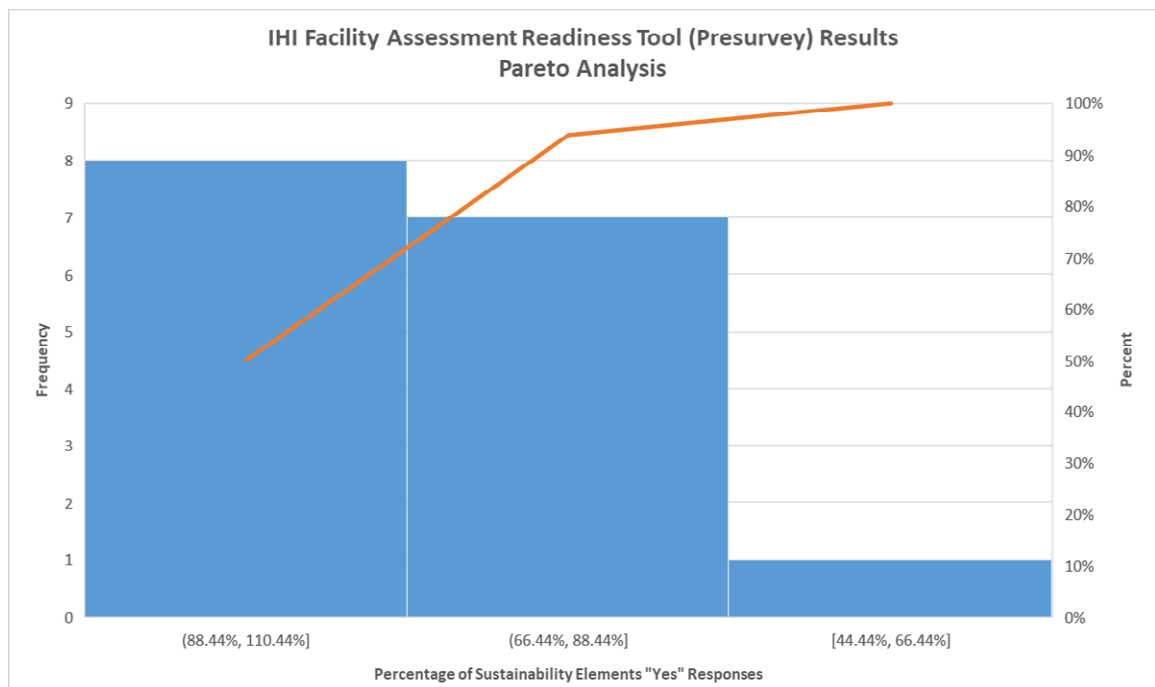
*Note.* This figure demonstrates IHI Facility Assessment Readiness Tool presurvey used to assess and measure leadership adherence and oversight in mobility performance. Percentage of “yes” responses depicted the nurse leaders 17 demonstrations of sustainability at the beginning of project implementation.

The IHI Facility Assessment Readiness Tool (Presurvey) at the beginning of the implementation, 9 out of 13 nurse leaders responded to the survey, with a 69% response rate. I used the Pareto analysis to highlight bright spots and areas of opportunity for sustainability and leadership oversight. Bright spots were noted as 100% consensus among the nurse leaders, and areas of opportunity were noted as percentages less than 100%. The Pareto analysis revealed a focus to the questions of the survey with a score of 88% for maximum project effort and benefit. The selective scoring of 88% further narrowed the area of focus for the nurse leaders to help improve mobility as well. Moreover, while percentages less than 66% are important, the Pareto analysis guidelines instructs for further analysis to be done to determine root causes (Moran et al., 2020). The project team reviewed questions with 88% and higher to strategize. The project

team chose to focus on two sustainability elements: *Created Robust, Transparent Feedback Systems* and *Shared Sense of the Systems to be Improved*. Results of the Pareto analysis led to the selection of nurse leaders' areas of focus that were 88% and higher for maximal effort are depicted in Figure 2.

**Figure 2**

*IHI Facility Assessment Readiness Tool (Presurvey) Results Pareto Analysis*



*Note.* This figure demonstrates the pareto analysis results from the presurvey depicting the maximum benefit of focusing on sustainability demonstrations of 88%. Figure also depicts grouped yes responses of 66% and 44% that would need further analysis to determine root causes.

Following the pareto analysis, the nurse leaders studied the presurvey results to formulate focused interventions in sustainability and improving leadership oversight. *Created Robust, Transparent Feedback Systems* and *Shared Sense of the Systems to be Improved* was supported

by leader rounding and standardized huddle messaging to demonstrate leadership oversight.

Table 1 demonstrates interventions for each sustainability demonstration.

**Table 1**

*IHI Facility Assessment Tool (Presurvey) Focused Sustainability Elements with Interventions*

<b>Sustainability Element</b>	<b>Demonstrations</b>	<b>Presurvey Response Rate</b>	<b>Selected Intervention</b>
<i>Created Robust Transparent Feedback</i>	The hospital uses the data being generated to measure performance and being shared at all levels – from leadership to frontline.	88.89%	Huddle
	The hospital publicly displays improvement data on all improvement interventions, noting performance as measured against aims articulated by leadership.	88.89%	Huddle
	Unit, department and other team huddles are used to communicate expectations and issues.	100%	Huddle and Leader Rounding
	Issues or barriers identified at huddles are escalated to managers then communicated to accountable leaders.	88.89%	Huddle and Leader Rounding
<i>A Shared Sense of the Systems to be Improved</i>	Tools to map the process that has been improved (e.g., flow charts) are routinely shared with teams allowing for shared analysis of systems as sustainability work proceeds.	88.89%	Huddle
	Stakeholders and frontline teams are given opportunity to express concerns about the improvement process, and to share ideas for improvement.	77.78%	Huddle and Leader Rounding

*Note.* The pareto analysis revealed that items that receive a response of at least 88% should be targeted as those areas are likely to see the most growth. Therefore, these sustainability elements and demonstrations were targeted based off the pre-survey response of at least 88%. Leader



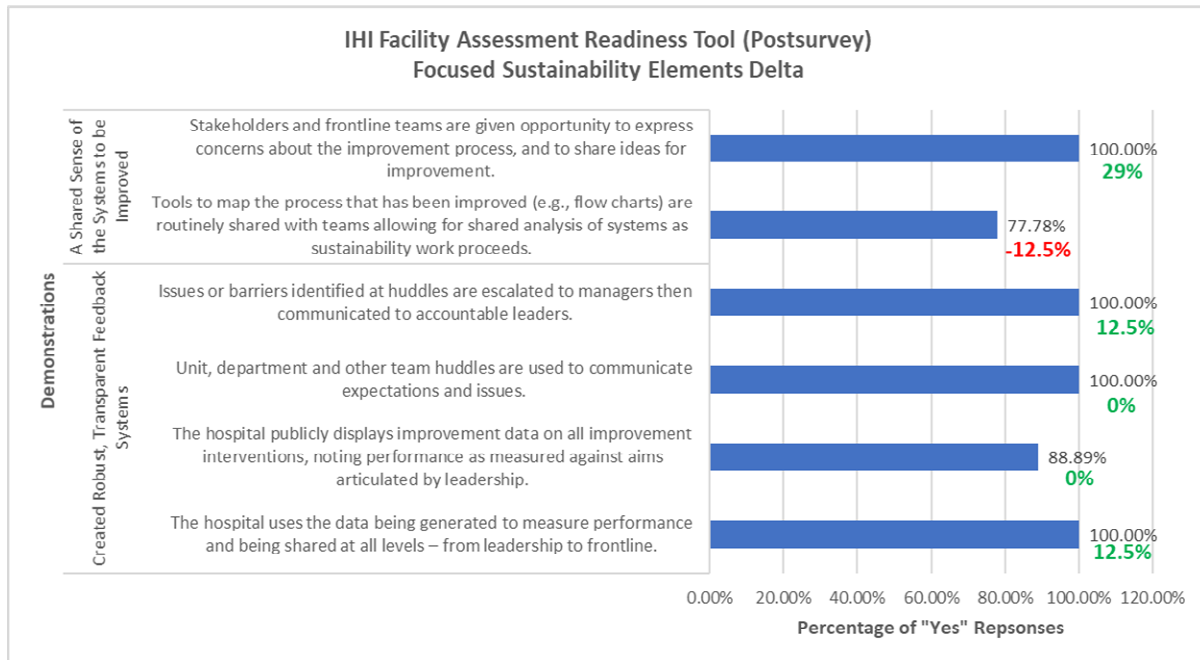
rounding and huddles were selected interventions chosen to increase leadership oversight of progressive mobility

The same IHI Facility Assessment Readiness Tool was conducted at the end of the project as a postsurvey to evaluate leadership adherence to targeted interventions of nurse leader rounding and huddles. Again, 9 out of 13 nurse leaders responded to the survey, with a 69% response rate. Leadership adherence to those interventions was evaluated through nurse responses to survey items associated with the sustainability elements *Created Robust, Transparent Feedback Systems* and *Shared Sense of the Systems to be Improved*. Out of the six demonstrations between the two elements, three demonstrations increased in leadership adherence, two stayed the same, and one decreased from the presurvey. Greatest increase in focused leadership adherence was represented with the demonstration item *Stakeholders and frontline teams are given opportunity to express concerns about the improvement process, and to share ideas for improvement*. This survey item is associated with the sustainability element: *Shared Sense of the Systems to be Improved* and increased by 29% and 100% of nursing leaders agreed to adherence compared to the presurvey. We also noted a regression on the postsurvey of 12.5% on demonstration *Tools to map the process that has been improved are routinely shared with teams allowing for shared analysis of systems as sustainability work proceeds*. This regression could be due to the inconsistencies of using A3, project charter, as a supplemental way to communicate findings of the project when we were not able to meet in person. During implementation, we were unable to meet three times which could have contributed to some degradation of project status. The delta is represented in the notated percentage difference from the presurvey and postsurvey notating improvement or regression in leadership adherence to

sustainability in mobility. Figure 3 depicts the survey results of the focused sustainability elements and their associated demonstrations.

**Figure 3**

*IHI Facility Assessment Readiness Tool (Postsurvey) Focused Sustainability Elements with Delta*

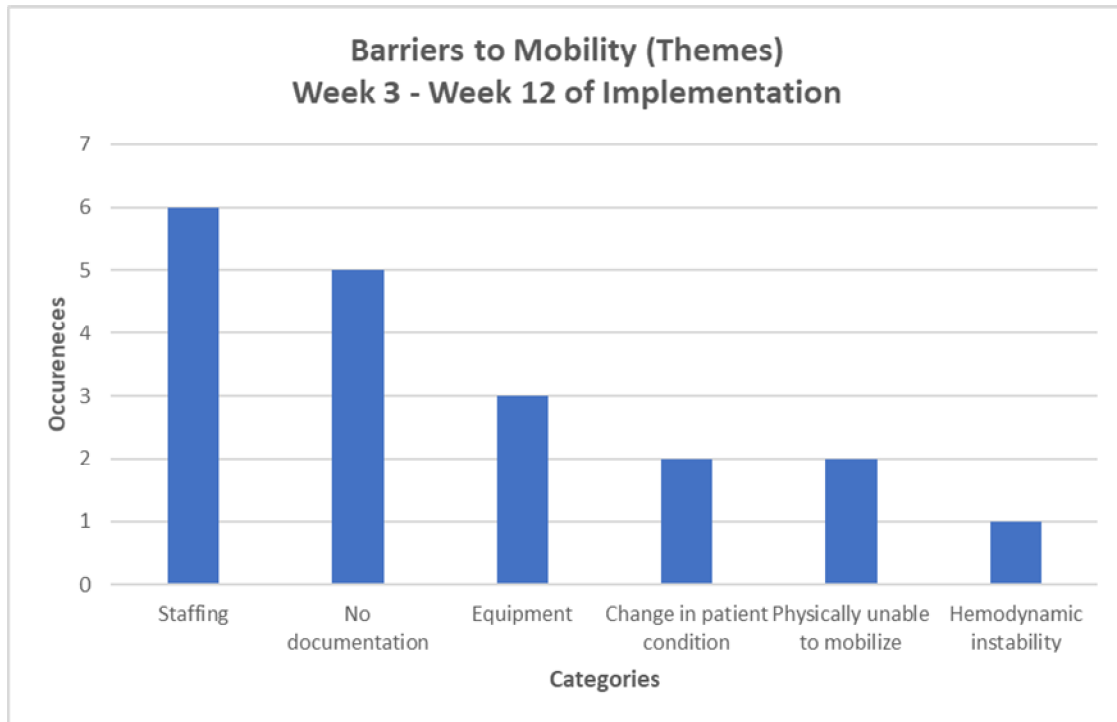


*Note.* This figure demonstrates postsurvey demonstrations from targeted interventions with “green” delta percentages representing improvement and “red” delta percentages representing a decrease in comparison to presurvey results.

Barriers to mobility (themes) were also used as a process measure to capture learnings from nurse leader, DNP student rounding, and huddles to improve leadership oversight. This data was captured weekly and used as a learning tool for the med-surg team to begin problem-solving and better understanding barriers hindering mobility from week 3 to week 12 demonstrated in Figure 4.

**Figure 4**

*Barriers to Mobility (Themes)*



*Note.* This figure demonstrates categories of barriers to mobility which were collected during the project implementation phase of the project listing the highest to lowest occurrences limiting mobility within the med-surg units.

Barriers ranged from staffing, no documentation, equipment, change in patient condition, physically unable to mobilize, and hemodynamic instability. Engaging the frontline staff through leadership rounding and huddles supported leadership oversight while noting issues hindering mobility activity on med-surg units. As a learning tool, the barriers kept a consistent line of communication between nurse leaders and frontline supporting the two sustainability elements: *Created Robust, Transparent Feedback Systems* and *Shared Sense of the Systems to be Improved*. Perhaps having active conversations about barriers to mobility supported an increase with the demonstration of *Stakeholders and frontline teams are given opportunity to express concerns about the improvement process, and to share ideas for improvement and Issues or barriers identified at huddles are escalated to the managers then communicated to accountable*



*Note.* This figure demonstrates average maximum mobility during the planning, implementation, and evaluation phase with notation of key events affecting mobility performance. Average maximum mobility bouts for November 2021 to May 2022.

Results of the data collected were aligned with objectives and tools used in this DNP project. Microsoft Excel was used to create graphs and conduct descriptive analysis of the data. There was no missing data, and all data was analyzed and collected according to project plan. Graphs, tables, and calculations of data support objectives and conclusions of this DNP project.

## **Chapter VI: Discussion**

### **Findings**

Analysis of the data demonstrated a positive impact for nurse leaders using a sustainability framework. The first objective, influence nurse leaders' adherence to the IHI Facility Sustainability Assessment Tool to support performance mobility of 80% leadership adherence, was met. Nurse leaders' perception on sustaining performance exhibited improvement in communication with their frontline teams and among nurse leaders. The second objective, increase the average maximum mobility to 4.8, was not met. However, the mobility performance before implementation did not decrease further and saw a slight improvement toward the end of implementation. As this project was focused on leadership and sustaining performance, leadership adherence to selected interventions to increase performance were successful. Through their focus on huddles, soliciting, and problem-solving with staff concerning barriers to mobility, nurse leaders demonstrated that they were able to sustain mobility activities on med-surg units

### **Analysis of the Implementation Process**

The IHI Facility Assessment Readiness Tool (Presurvey and Postsurvey) was conducted at the beginning and end of the project to evaluate leadership adherence to targeted interventions. After conducting and analyzing the presurvey at the beginning of the project, with leadership vacancy among the med-surg nurse leaders and recent COVID surges and COVID exposures among leaders and staff, a choice was made to focus on huddle messaging included standardizing huddle messaging and leader rounding to include mobility performance and barriers to mobility. These interventions were repeated each week throughout the project as they

were deemed standard work and would serve to reengage staff and maintain consistent oversight of unit activities.

The huddle was chosen for focus as a result of new temporary nurse leaders onboarded at the beginning of this project. With new personnel, the nurse leaders felt a synchronous leadership message would keep unit priorities consistent across all shifts and med-surg units. With new leaders onboarding during the project, I rounded with the nurse leaders each week to role model expected behaviors of leadership with a mobility focus. Rounding occurred each week with the leaders where we discussed mobility performance, barriers to mobility, and solutions. The rounding allowed me to collect barriers and communicate highlight trends in themes with leaders. One top issue communicated was short staffing, which included whether the nursing or patient care technician may have affected mobility activities within the unit.

Implementation of this DNP project, with a focus on leadership, revealed influential lessons learned. First, leadership is imperative and essential to patient outcomes. With leadership setting priorities and focusing the team, it provides an essential component to improving patient outcomes from a systematic or clinical practice approach. Second, leadership vacancy also impacts improvement and sustainability efforts. Turnover of leaders creates a barrier and hindrance to improvement. Staff may become confused with what is a priority and not fully understand how their clinical practice affects patient outcomes and the need for improvement. Third, engagement is imperative to a successful project, and this team demonstrated a deep commitment to improve. In spite of leader and staff burnout coupled with staff and leader vacancy, the team pulled together for a common purpose to engage the whole team. The final lesson learned was role modeling behaviors influence reliable leadership and clinical practice. Demonstrating how quality outcomes can be incorporated into daily huddles and integrated into

leadership and clinical practice provided the nurse leaders with aspirations to improve performance. In turn, creating systems and processes to engage all members of the team could lead to increased engagement to improve practice and inspire others to improve as well.

### **Limitations and Deviations from Project Plan**

There are three annotated limitations that may have altered the outcomes of this project. First, the COVID-19 surge occurred prior to project implementation, which may have affected the opportunity to test multiple improvement cycles during implementation and created staffing challenges for nurse leaders and staff. Second, there was a lack of project improvement training among all nurse leaders. Some nurse leaders had experience leading quality improvement, and some did not, which could potentially hinder future quality improvement projects. Third, new temporary nurse leaders joined during the first few weeks and participated in the project. New nurse leaders were onboarded. All new nurse leaders had experience in management and nursing operations. As a result, I met with all the nurse leaders to provide context, scope, and objectives of the DNP project. There was a consensus among the new nurse leaders concerning consistent communication among the leaders regarding unit priorities and the benefits of mobility for patients. They believed this would give them standard work in how to communicate and engage this staff while motivating them to improve mobility.

One deviation from the plan occurred, which was related to the Plan, Do, Study, Act (PDSA) cycle. The PDSA cycle was designed to conduct multiple tests and adjust interventions as necessary. With a nurse of leadership vacancy and new temporary nurse leaders and leader burnout, the project team decided to focus on one intervention that would provide a consistent messaging across the med-surg units. By only focusing on the intervention of huddles and leader



rounding, other opportunities, which may have increased mobility performance, went unexplored.

## **Implications**

### ***Practice***

Overall, this DNP project was successful in applying a sustainability framework to assess clinical practice to improve performance. Applying a sustainability framework to improve progressive mobility is sustainable and generalizable with some caveats. First, sustainability is poorly defined, and components within the framework can be interpreted as subjective.

Organizations and leaders using frameworks should understand performance improvement and quality to correlate systems thinking to their clinical practice. Second, sustainability frameworks may reveal multiple areas of opportunity, which makes problem-solving tools beneficial. For instance, narrowing down areas of opportunities for maximal effect are helpful. In turn, leaders will still need to develop a strategy to address opportunities. Having the performance improvement or quality resources can assist leaders in transferability of using a sustainability framework to improve leadership oversight.

### ***Future Research***

Sustainability frameworks and methodologies utilized in health care are relatively new. Sustainability concepts and frameworks are still very abstract for health care. Therefore, further research is needed to identify a common definition and validated tools for sustainability. Future research inquiries may include:, “*Does sustainability frameworks allow nurse leaders to assess their unit performance to improve nursing performance?*” Potential outcomes of this research could measure overall quality outcomes along with successfully integrating quality improvement projects into standard work. The project would involve quality, nursing, physicians, finance, and

other allied health professionals for a comprehensive approach to performance measurement in the organization.

### ***Nursing***

The impact of this project demonstrated the ability of nurse leaders using a sustainability framework as a system-thinking approach to improving progressive mobility. Sustaining mobility and improving the attempts to restore function to patients is imperative to their quality of life and reducing other hospital complications. Leaders impact the quality of care, which means a systematic approach to ensuring and supporting nursing care like mobility is vital to patient outcomes. Sustainability frameworks highlight a systems approach and process to assess performance that nurse leaders can utilize. Using sustainability as a process to assess performance can be used as a continuous quality improvement, further supporting an approach to reducing harm to patients. Supporting the practice of sustainability could give nurse leaders a process and framework to improving performance.

### ***Health Policy***

Promoting progressive mobility helps restore patient function, improve quality of life, and reduce hospital complications. One area in which progressive mobility intersects with policy and procedure is when it involves workplace injuries and safe patient handling. A study was conducted in 2016 in which the U.S. Bureau of Labor Statistics estimated registered nurses' experiences over 19,790 nonfatal injuries from work-related injuries which accounts for 1 day of missed work (Dressner & Kissinger, 2018). The majority of the reported injuries were musculoskeletal disorders associated with overexertion and lifting patients. California Assembly Bill (AB) 1136 mandates employers maintain safe patient handling policies in acute care hospitals (California Legislative Information, 2011).

Safe patient handling practice indicates registered nurses, as the coordinator of care, are responsible for safe patient lifts and mobilization of patients. As the coordinators of care, registered nurses have the responsibility of mobilization and transfers of patients to ensure safety through direct observation. Currently, the project site follows the national safe patient handling policy that reflects the AB 1136 (Kaiser Permanente, 2019). With equipment issues being a barrier to mobility, nurse leaders and staff have a responsibility to ensure proper equipment and safe practices related to mobility and transfers in their unit.

## **Chapter VII: Conclusion**

### **Value of the Project**

This project demonstrates applying a sustainability framework as a process to improving leadership oversight, and improving progressive mobility is impactful. The results demonstrated leadership adherence when applying a sustainability framework. It not only provides a process to assess clinical practice but also addresses focus on improving performance. With improvement, there is usually more than one area of opportunity for improvement yet applying a sustainability framework can address these issues, which are valuable to a leader in support of quality outcomes. It is difficult to address all areas at one time and quite unrealistic to expect change instantly. Moreover, sustaining performance does not mean quality outcomes will decrease or a drift in practice will not occur. However, the act of applying evidence-based frameworks to support a systematic approach to involving leaders and staff can support clinical practice and sustaining focus to continuously improve.

### **DNP Essentials**

The DNP Essentials outline foundation competencies in support of advanced practice nursing with a practice focus (American Association of Colleges of Nursing [AACN], 2006). These essentials not only provide competencies but also establish a foundational outline for advanced practice providers to become leaders in their respective fields while providing nursing expertise at the highest levels of the profession. These eight DNP Essentials were demonstrated throughout the entire project. As a result, I was able demonstrate the foundational core competencies not only for advanced practice nursing but an emerging leader as well.

### ***DNP Essential I***

DNP Essential I prepares the graduate student to integrate nursing science along with exposure knowledge of other sciences like organizational and analytics science to practice at the highest level of nursing (AACN, 2006). Throughout the project, I applied this essential in search of a research topic and applying the findings of evidence-based practices and research. The ability to apply nursing science along with other forms of science allowed me to evaluate new practice approaches to improve clinical practice. As a result, I was successfully able to identify actions, describe actions, and deploy strategies to enhance healthcare delivery.

### ***DNP Essential II***

DNP Essential II focuses on the application of organizational and systems leadership in quality improvement to improve patient outcomes (AACN, 2006). Organizational and systems leadership looks to improve care delivery with principles effecting operations. Developing approaches to improving operational strategies further enhances healthcare outcomes while demonstrating the ability to navigate diverse cultures and situations. In this project, applying a sustainability framework provided nurse leaders with a process and different lens to assess their leadership oversight to improve progressive mobility performance. I exhibited pose with sensitivity to operations in relation to staffing resources, pandemic constraints, and integration with other clinical programs to enhance care delivery methods. In turn, I employed different tactics of advanced communications to lead this DNP project.

### ***DNP Essential III***

DNP Essential III focuses on clinical scholarship and analytics for evidenced-based practice (AACN, 2006). Clinical scholarship provides the ability to discover new evidence but bring thoughtful meaning to different sciences and concepts to solve clinical practice issues. In this project, I was able to demonstrate scholarship through a search strategy while highlighting

themes to demonstrate correlations between the evidence. Analytic methods were used to appraise evidence and also generate what evidence is feasible for practice. Demonstrating this essential assisted me in organizing evidence that facilitated connections between gaps in practice and evidence-based practice to support new approaches for improving clinical practice.

Disseminating new findings and evaluation of quality improvement projects support the shared learnings and new research question to improve practice and healthcare outcomes (AACN, 2006).

#### ***DNP Essential IV***

DNP Essential IV highlights the ability to use technology to assess, design, and evaluate outcomes of systems and quality improvement (AACN, 2006). This essential prepares the graduate to leverage and integrate technology into advance nursing practice. In this project, data dashboards generated quality data for monitoring performance through automated daily mobility reports. Automated reports were used to track performance and highlight prior performance to enhance leadership oversight of mobility performance. Data abstraction was utilized in this project from three different sources into one Microsoft Excel file. Information technology and systems support data transparency, data accuracy, and timeliness in oversight of performance.

#### ***DNP Essential V***

DNP Essential V focuses on healthcare policy advocacy where the advanced practice nurse will demonstrate design, influence, and implementation of healthcare policies (AACN, 2006). During my planning phase, I worked on revisions to the safe patient handling policy. I conducted a crosswalk on workplace and patient injuries for review. Participation in healthcare policy illustrated the importance for advocating and upholding healthcare policies to reduce harm to patients and empower nursing practice.

***DNP Essential VI***

DNP Essential VI pertains to interprofessional collaboration while improving patient and population specific health outcomes (AACN, 2006). Interprofessional collaboration was demonstrated through leadership, organizational, staff, and academia support in the implementation of this project. The success of this project would not be possible without the engagement, partnership, and collaboration to improve health outcomes. With multiple priorities in the midst of a pandemic, the DNP project team and I were able to “lead interprofessional teams in the analysis of complex practice and organizational issues” (AACN, p. 15, 2006). We improved communication skills among the nurse leaders and staff nurses, which was displayed in this project.

***DNP Essential VII***

DNP Essential VII involves improving national healthcare clinical prevention and population health (AACN, 2006). The National Institute on Aging (2020) calls out the importance of maintaining mobility is essential to function and independence in older adults. When mobility and function are not maintained in older adults, they lose dexterity, which may result in falls. In conjunction, Healthy People 2020, also highlighted improving health, function, and quality of life in older adults by reducing falls, which is the leading cause of injury in this population (Office of Disease Prevention and Health Promotion, 2022). Overall, this essential was demonstrated by improving leadership oversight to increase mobility efforts in maintaining and restoring function.

***DNP Essential VIII***

DNP Essential VIII focuses on advancing my nursing education as an advanced practice registered nurse (AACN, 2006). In addition to preparing for boards, this essential also focuses on

mentoring, training, and education. During this project, I had a chance to provide training and mentoring to nurse leaders, which influenced the improvement in nursing practice and leadership oversight. I believe my leadership skills as a critical care manager have prepared me to provide training and mentorship in complex environments while maintaining enhancing autonomy and trust among my peers. As a clinical practice consultant, I have had the ability to guide and influence strategic initiatives and healthcare programs to improve patient outcomes and culture of clinicians caring for patients. The ability to use multiple resources in addition to sharing one's expertise can truly advance nursing practice with the combination of evidence-based practice clinical care, educating, and using conceptual skills.

### **Plan for Dissemination**

Project findings will be shared among the DNP project team, staff, and senior leadership for the evaluation of the DNP project. Showing the findings with the project site will help role model close loop feedback and next steps to improving leadership oversight and mobility performance. Sharing the results is also a time to reiterate the importance to continue the work and building upon project success. I also plan to present and share these DNP project findings with our organization's research innovation community of practice. There is also a future potential to publish these findings and present them to others in nursing.

### **Attainment of Personal and Professional Goals**

Being a tenure professional registered nurse, I am passionate about sustaining quality care to my patients and influencing my peers to practice to the highest levels throughout my career. Completing this DNP project is a major milestone in my career. The DNP education and project has enhanced, solidified, and challenged me in areas where I was able to grow as a nurse leader and advanced practitioner. Even with my current and recent experience in leadership and



quality improvement, I was still able to challenge myself by demonstrating each element of the eight DNP Essentials.

During this journey, I have learned the value of promoting nursing practice and sharing work with other peers not only for visibility but for creating interprofessional connections to improve my practice and work. This DNP project created an opportunity for me to demonstrate my own commitment to excellence and build upon my passions in hopes of positively impacting a better environment where we can all thrive in professionally and personally.

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<https://doi.org/10.1097/ccm.0000000000002455>

Appendix A

Highest Level of Mobility (HLOM) Scale

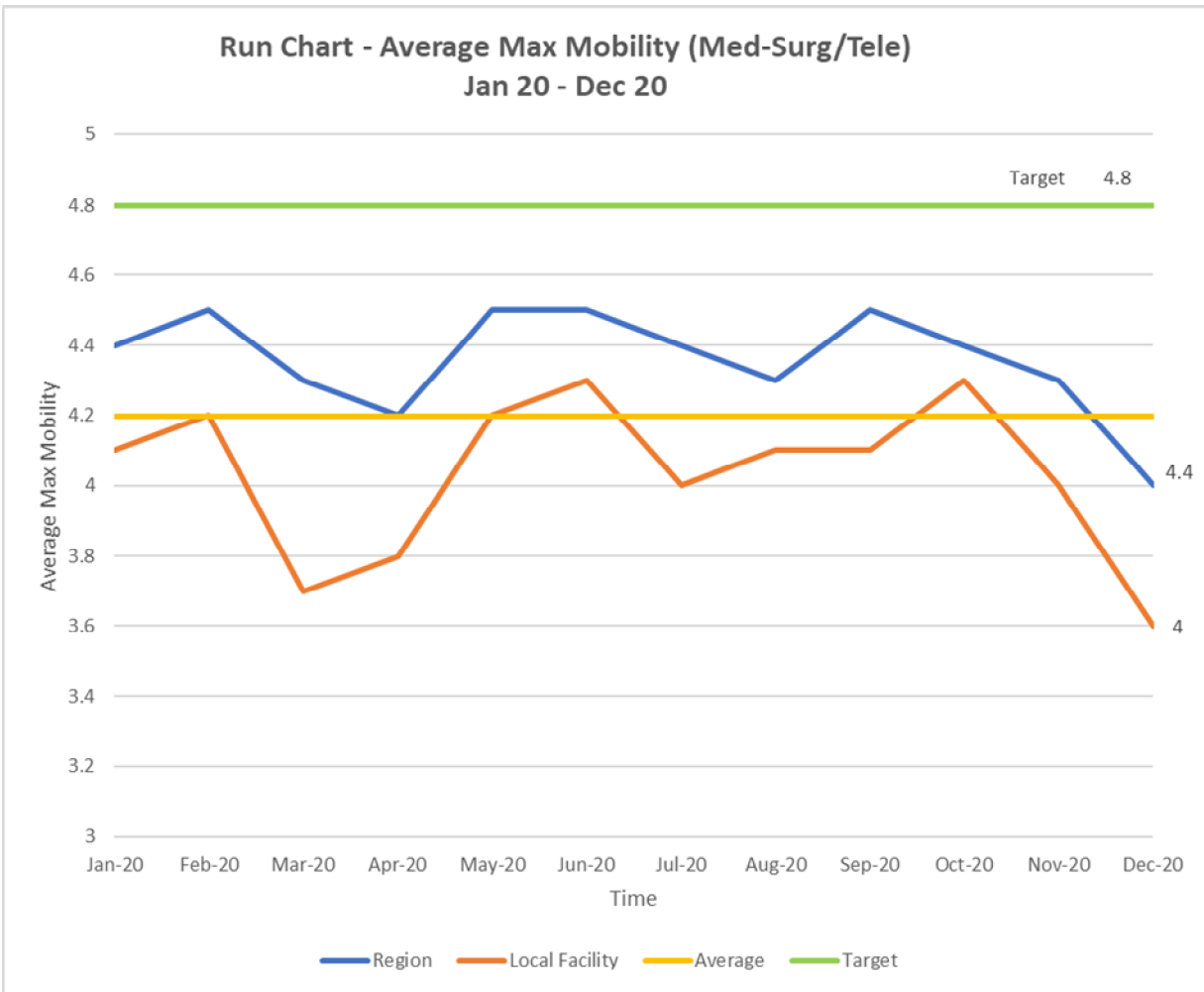
Mobility Level	Scale	Nursing Flow Sheet Activity Types
Walk	7	Over 200 feet 101-200 feet
	6	51-100 feet
	5	21-50 feet
	4	1-20 feet
Stand / Transfer	3	stood at bedside up to commode up in chair (++) <i>HAP Flowsheet Position for Feeding: Sitting in Chair</i>
Sit	2	sitting, edge of bed/dangle (++)
AROM, Bed Activity	1	up in cardiac chair (++) <b>Active Range of Motion</b> on LUE, RUE, LLE, RLE Bilateral Upper and Lower Extremities
No mobility	0	PROM resting in bed no documentation of active mobility

*Note.* Internal HLOM document created by regional mobility group.



**Appendix B**

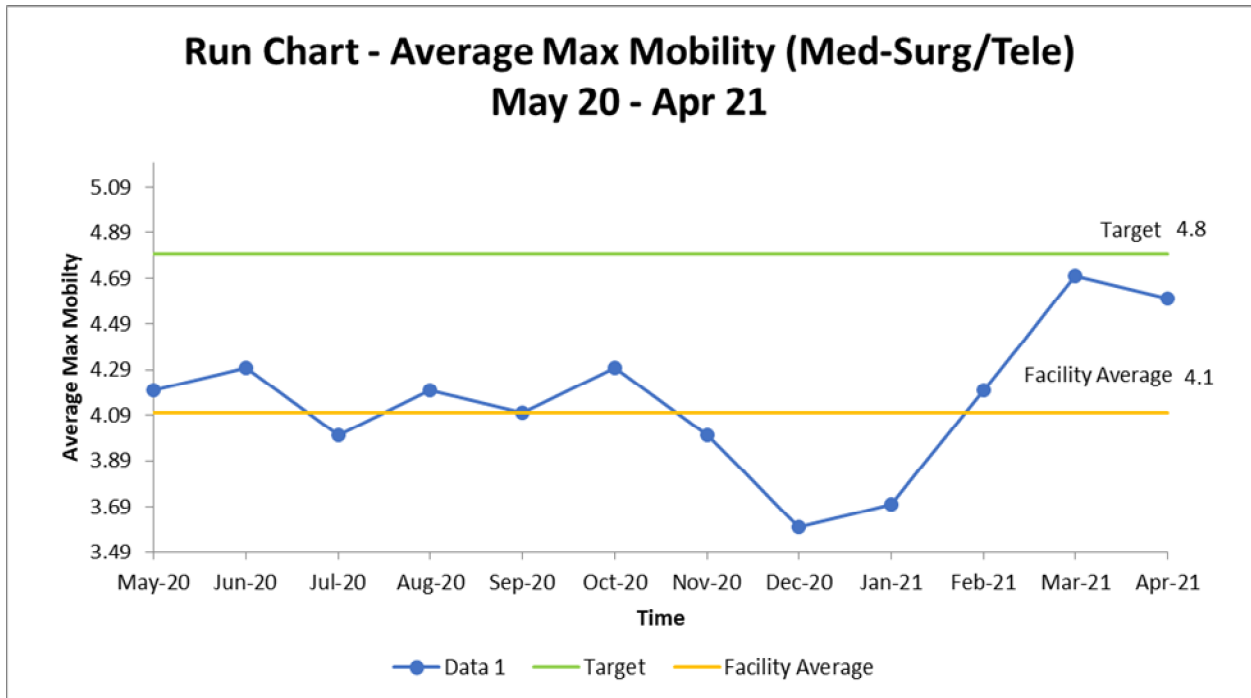
**Mobility Performance**



*Note.* Graph created by author to demonstrate 2020 average maximum mobility for region and local facility against target.

Appendix C

Baseline Mobility Performance



*Note.* Graph created by author to demonstrate baseline performance of average maximum mobility for selected facility.

**Appendix D****Implementation Model: PDSA Cycle****Model for Improvement**

Developed by Associates in Process Improvement

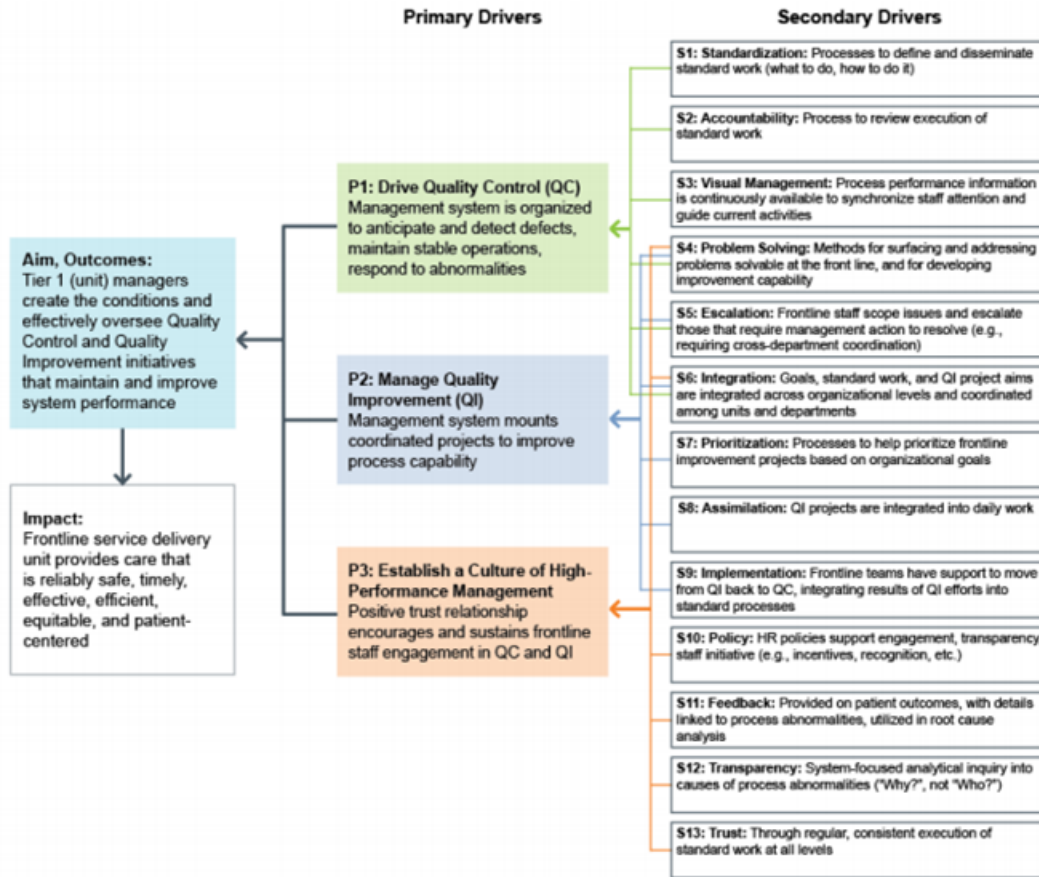
Adapted from: Scoville, R., & Little, K. (2014). *Comparing lean and quality improvement*.

[White paper]. Institute for Healthcare Improvement.

<http://www.ihl.org/resources/Pages/IHIWhitePapers/ComparingLeanandQualityImprovement.aspx>

Appendix E

IHI Sustainability Framework



Adapted from: Scoville, R., Little, K., Rakover, J., Luther K., & Mate, K. (2016). *Sustaining improvement*. [White paper]. Institute for Healthcare Improvement.

<http://www.ihl.org/resources/Pages/IHIWhitePapers/Sustaining-Improvement.aspx>

## Appendix F

### Recruitment Email

Dear Director,

[This project aims to leverage the Institute for Healthcare Improvement (IHI) sustainability framework for high-performance management and local HEROES groups to improve progressive mobility in the med-surg units.

Would you please forward the following information in regard to the participation, expectations, and the survey to your nurse leaders in med-surg? Please cut and paste the email below and send to all nurse managers and assistant nurse managers in med-surg units. The survey will be open for participants responses from (date until date). The intent of this email is to provide written consent to the nurse leaders in med-surg and verbal scripting to inform frontline staff for participation in this DNP Project. Email not intended for participates not specified above.

---

Email Subject: Sustainability Framework to Improve Mobility Pre-Survey

Email Body:

Dear Nurse Leaders,

You are invited to participate in a quality improvement project. The purpose of this project is to apply a sustainability framework to improve mobility in med-surg units at this hospital. Regionally and locally progressive mobility is a part of the standard of care. Your participation in the project consists of attending an educational session, taking the IHI Facility Assessment Readiness tool survey (before and after implementation), and project planning for interventions related to leadership adherence. You will also be required to communicate the start of project to staff. See attachment for verbal communication (Nurse Leader Scripting for Frontline Staff Information) pertaining to frontline staff concerning this project.

Your participation in this project will take approximately 12 weeks. The IHI Facility Assessment Readiness tool survey will take approximately 10 minutes to complete. Your participation in the project and the data collected will remain confidential and will be de-identified to maintain anonymity. Though taking part of the project is mandated, the outcome of the analysis will have no bearing on your employment status, or performance evaluation. At the conclusion of the project, the data will be completely de-identified, and the de-identified data could be used for future projects.

Questions about this project may be directed to me, DeAndre Turner (DNP Student) at 510-506-0974; Dr. Sokonie Reed (DNP Project Chair) at [sfreeman@fsmail.bradley.edu](mailto:sfreeman@fsmail.bradley.edu) or Dr. Ginny Riggall (DNP Practice Mentor) at 510-410-8500. Your submission of the survey means that you have read and understand the information presented and have decided to participate. Your submission also means that all of your questions have been answered to your satisfaction. If you think of any additional questions, you should contact the project leaders(s).

To take the survey, please click on this link:

[IHI Facility Assessment Readiness Tool \(Pre-Survey\)](#)

For more information about this project, please contact DeAndre (Dre) Turner at

[DeAndre.E.Turner@kp.org](mailto:DeAndre.E.Turner@kp.org)

*Note.* Recruitment email created by author for recruiting participants.

## Appendix G

### Nurse Leader Scripting

#### Nurse Leader Scripting

DNP Project: Leveraging a Sustainability Framework for Progressive Mobility in Acute Care Settings

**What:**

- Our unit will be participating in a DNP Project to improve mobility in our unit for the next 12 weeks

**Why:**

- The mobility data shows that we are still under target for average maximum mobility target of 4.8 in med-surg units

**When:**

- The DNP Project will begin February 14, 2022 through May 9, 2022

**What to Expect:**

- The Nurse leaders will be focused on the daily mobility report and may be consulting with the team concerning mobility
- Nurse leaders will review average maximum mobility performance (monthly)
- Project progress will be communicated in local HEROES groups, staff meetings, and huddles

**What Changes:**

- No changes to staff workflows concerning mobility
- Continue using mobility protocol as ordered

**Benefits of the project:**

- Increase patient mobility performance and increase team approach with leadership support to address barriers to mobility
- Potential to reduce falls in the unit
- Return patient's to their functional baseline upon discharge

**Resources or additional questions concerning the project contact:**

DeAndre (Dre) Turner

Clinical Practice Consultant/DNP Student

[DeAndre.E.Turner@kp.org](mailto:DeAndre.E.Turner@kp.org)

510-506-0974

*Note.* Nurse leader scripting for staff awareness of project.

## Appendix H

### IHI Facility Readiness Assessment Tool (C)

#### IHI Facility Assessment Readiness Tool (Pre and Post Survey)

1. What unit do you lead? (Check all that units you spend more than 50% of your time on weekly) \*

##### Demographics

- 1 North
- 1 South
- 2 South

2. The responsibility for creating accountable systems is assigned to an executive sponsor/leader point person for tracking, reviewing and reporting performance in a structured format to the leadership \*

##### Facility Sustainability Assessment Checklist - Supportive Management Structure

- Yes
- No

3. The importance of initiative as well as the aims and expectations are integrated in the regular communication to leaders and staff during leadership rounding and huddles in the units. \*

##### Facility Sustainability Assessment Checklist - Supportive Management Structure

- Yes
- No

4. Success is recognized and celebrated by the leadership. \*

##### Facility Sustainability Assessment Checklist - Supportive Management Structure

- Yes
- No

5. Standardized tools, kits, protocols, bundles, etc., are developed to ensure consistency and managers are accountable for their use - Compliance should be observed and measured and reported to the leaders routinely. \*

##### Facility Sustainability Assessment Checklist - Developed Structures to "Foolproof" Change

- Yes
- No

6. Best practices are routinely identified, documented and shared for spread. \* Facility Sustainability Assessment Checklist - Developed Structures to "Foolproof" Change

- Yes
- No

7. The hospital uses the data being generated to measure performance and being shared at all levels — from leadership to frontline. \*

Facility Sustainability Assessment Checklist - Created Robust, Transparent Feedback Systems

- Yes
- No

8. The hospital publicly displays improvement data on all improvement interventions, noting performance as measured against aims articulated by leadership. \*

Facility Sustainability Assessment Checklist - Created Robust, Transparent Feedback Systems

- Yes
- No

9. Unit, department and other team huddles are used to communicate expectations and issues. \*

Facility Sustainability Assessment Checklist - Created Robust, Transparent Feedback Systems

- Yes
- No

10. Issues or barriers identified at huddles are escalated to managers then communicated to accountable leaders. \*

Facility Sustainability Assessment Checklist - Created Robust, Transparent Feedback Systems

- Yes
- No

11. Tools to map the process that has been improved (e.g., flow charts) are routinely shared with teams allowing for shared analysis of systems as sustainability work proceeds. \*

Facility Sustainability Assessment Checklist - A Shared Sense of the Systems to be Improved

- Yes
- No

12. Stakeholders and frontline teams are given opportunity to express concerns about the improvement process, and to share ideas for improvement. \*

Facility Sustainability Assessment Checklist - A Shared Sense of the Systems to be Improved

- Yes
- No

13. Everyone in the organization is clear on the sustainability of performance improvement activity and can explain their role in it. \*



Facility Sustainability Assessment Checklist - There is a Culture of Improvement and a Deeply Engaged Staff

- Yes
- No

14. Staff view quality improvement work as part of their job, and they believe that they have a stake in continually enhancing their performance in any given intervention area. \*

Facility Sustainability Assessment Checklist - There is a Culture of Improvement and a Deeply Engaged Staff

- Yes
- No

15. Managers include involvement and supporting ongoing improvement work during on-boarding of new staff members. \*

Facility Sustainability Assessment Checklist - There is a Culture of Improvement and a Deeply Engaged Staff

- Yes
- No

16. Managers closely consider the composition and skill base of participating teams, working to enhance confidence and core competencies. \*

Facility Sustainability Assessment Checklist - Formal Capacity Building Programs are Supported

- Yes
- No

17. Every stakeholder in the organization is introduced to the content of any new improvement intervention and provided ongoing training in quality improvement methods. \*

Facility Sustainability Assessment Checklist - Formal Capacity Building Programs are Supported

- Yes
- No

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Adapted from: Institute for Healthcare Improvement. (2008). *Five million lives campaign*.

*Getting started kit: Sustainability and spread*. [White paper].

<http://www.ihl.org/education/IHIOpenSchool/Courses/Documents/CourseraDocuments/1>

3\_SpreadSustainabilityHowToGuidev14[1].pdf

Appendix I

Example of Daily Mobility Report

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
	Hospital Admission	Hospital Discharge	Start Time on Unit	End Time on Unit	Hours on unit	exclusion	boots expected	(Pt in this unit) Highest Achieved Activity	(Pt in this unit) Highest Achieved Score	(Pt in this unit) 2nd Highest Achieved Score	(Pt in this unit) 2nd Highest Achieved Score	(Pt in any unit) Highest Achieved Score	(Pt in any unit) Highest Achieved Score	(Pt in any unit) Highest Achieved Score	(Pt in any unit) Highest Achieved Score
								Date	Date	Date	Date	Date 1	Date 2	Date 3	Date 4
1															
2	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			2 up to commode	3 up to commode	3	0	N/A	N/A	N/A	N/A
3	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			2 101-200 feet	7 1-20 feet	4	3	7	5	0	0
4	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 15:30:00	15.5			1 21-50 feet	5 21-50 feet	5	7	N/A	N/A	N/A	N/A
5	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			2 101-200 feet	7 21-50 feet	5	7	5	N/A	N/A	N/A
6	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 19:03:00	19.1			2 motion performed	1 motion performed	1	4	4	4	4	4
7	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			2 21-50 feet	5 21-50 feet	5	N/A	N/A	N/A	N/A	N/A
8	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			2 Sitting in Chair	3 Sitting in Chair	3	1	1	4	3	3
9	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 12:06:00	12.1	Comfort		2 care	N/A	N/A	2	0	0	0	0
10	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			2 21-50 feet	5 21-50 feet	5	N/A	N/A	N/A	N/A	N/A
11	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			2 1-20 feet	4 up to commode	3	N/A	N/A	N/A	N/A	N/A
12	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			2 1-20 feet	4 1-20 feet	4	5	6	N/A	N/A	N/A
13	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 15:55:00	15.9			AROM (active range of motion) performed	1	N/A	7	5	5	5	5
14	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 16:52:00	16.9			1 101-200 feet	7 21-50 feet	5	7	5	N/A	N/A	N/A
15	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			sitting, edge of bed/dangle	AROM (active range of motion) and PROM (passive range of motion)	2 performed	1	1	N/A	N/A	N/A
16	01-Jan-18 07:48:00		19-May-18 05:39:00	19-May-18 23:59:59	18.3			2 performed	1 resting in bed	0	N/A	N/A	N/A	N/A	N/A
17	01-Jan-18 07:48:00		19-May-18 20:57:00	19-May-18 23:59:59	3.0			0 21-50 feet	5	N/A	N/A	N/A	N/A	N/A	N/A
18	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			2 21-50 feet	5 21-50 feet	5	7	7	7	7	7
19	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			2 51-100 feet	6 21-50 feet	5	7	6	5	N/A	N/A
20	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			2 up to commode	3 Sitting in Chair	3	N/A	N/A	N/A	N/A	N/A
21	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			2 1-20 feet	4 motion performed	1	3	N/A	N/A	N/A	N/A
22	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 14:00:00	14.0			1 Sitting in Chair	3	N/A	2	0	0	0	0
23	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 17:30:00	17.5			2 Over 200 feet	7 21-50 feet	5	7	7	7	7	N/A
24	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			2 1-20 feet	4 Sitting in Chair	3	4	4	5	5	5
25	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			2 resting in bed	0 ROM (range of motion)	0	5	5	3	4	4
26	01-Jan-18 07:48:00		19-May-18 12:57:00	19-May-18 23:59:59	11.0			1 21-50 feet	5 21-50 feet	5	5	5	1	0	0
27	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 18:48:00	18.8			2 Over 200 feet	7 Over 200 feet	7	7	7	7	7	7
28	01-Jan-18 07:48:00		19-May-18 00:00:00	19-May-18 23:59:59	24.0			2 Over 200 feet	7 21-50 feet	5	6	7	7	7	7

Note. Daily mobility report created by data analytics to support mobility.

Appendix J

Project Educational Introduction Deck

The image displays a 4x4 grid of 16 presentation slides, numbered 1 through 16. The slides are as follows:

- Slide 1:** Title slide: "Leveraging a Sustainability Framework to Progressive Mobility". Presenter: Deidre Turner, DNP Student Bradley University.
- Slide 2:** "Exclusive (DNP) Turner Clinical Practice Consultant". Includes a photo of Deidre Turner and a list of roles: Nurse Director, Clinical Practice Consultant, Mobility Leadership, Quality and Performance Improvement, and an IHI Fellow position.
- Slide 3:** "Disclosures": States that the DNP Project or DNP student has no financial or commercial conflicts of interests.
- Slide 4:** "Agenda": Lists Introduction, Gaps in Practice, Project Purpose and Objectives, Project Design, Ethical Considerations, and Project Timeline.
- Slide 5:** "Applying a Sustainability Framework to Mobility in Med-Surg". Discusses how a support system tool change can be beneficial for improving quality and patient outcomes.
- Slide 6:** "Situation": "Mobility or mobility performance". Includes two line graphs showing trends over time.
- Slide 7:** "Background": "Gaps in Practice". Lists: Pandemic, Inconsistent Care Delivery between frontline teams, leaders, and competing unit priorities, Integration into standard work and daily practice, Coordinated leadership support for consistent focus and learnings on patient mobility, and Fear of increased falls.
- Slide 8:** "Assessment": "Falls and pressure injuries with decreased mobility performance". Includes two line graphs showing trends over time.
- Slide 9:** "Assessment": "Financial Impact". Lists: Falls average cost = \$13,316; 43 Falls (Jan - Dec 20) = Total Cost = \$572,388; Average Length of Stay cost in Med-Surg = \$2,509; 2.29 days (2020) = Total Cost = \$5,745.61.
- Slide 10:** "Recommendations": "Clinical Questions". Lists: Population - Small urban hospitals, Med-Surg/Telemetry units (unit leaders), Intervention - Apply a sustainability framework to progressive mobility, Comparison - Compared with no sustainability framework, Outcome - Affect achievement and sustainability of mobility performance, Time - by the end of Quarter One 2022.
- Slide 11:** "Recommendations": "Project Purpose/Objective". Lists: Leverage the IHI sustainability framework and local HEROES group to improve progressive mobility in the Med-Surg/Telemetry units.
- Slide 12:** "Recommendations": "Project Design - Quality Improvement". Lists: Model of improvement, SMART Objectives, and a list of 3 SMART objectives.
- Slide 13:** "Recommendations": "Next Steps". Lists: Form Project Team, Data Measurement/Tools, and Leadership Adherence to interventions.
- Slide 14:** "Ethical Considerations". Lists: Participation of nurse leaders and frontline staff is mandatory, Nurse leaders have a right not to participate, Participants will benefit from project, and The project does not include any special or vulnerable populations.
- Slide 15:** "Project Timeline". Includes a Gantt chart showing milestones from 1/2022 to 4/2022.
- Slide 16:** "References". Lists several academic and organizational references. Includes a section for "Additional Documents" with icons for Word, PowerPoint, and Excel files.

Note. Project educational introduction deck created by author for participants.

Appendix K

Data Collection Excel Sheet

Medical Center:			
Sustainability Element	Yes	No	Demonstration
Supportive Management Structure			The responsibility for creating accountable systems is assigned to an executive sponsor/leader point person for tracking, reviewing and reporting performance in a structured format to the leadership
			The importance of initiative as well as the aims and expectations are integrated in the regular communication to leaders and staff during leadership rounding and huddles in the units.
			Success is recognized and celebrated by the leadership
Developed Structures to "Foolproof" Change			Standardized tools, kits, protocols, bundles, etc., are developed to ensure consistency and managers are accountable for their use
			Compliance should be observed and measured and reported to the leaders routinely
			Best practices are routinely identified, documented and shared for spread
Created Robust, Transparent Feedback Systems			The hospital uses the data being generated to measure performance and being shared at all levels – from leadership to frontline
			The hospital publicly displays improvement data on all improvement interventions, noting performance as measured against aims articulated by leadership.
			Unit, department and other team huddles are used to communicate expectations and issues
Shared Sense of the Systems to be Improved			Issues or barriers identified at huddles are escalated to managers then communicated to accountable leaders
			Tools to map the process that has been improved (e.g., flow charts) are routinely shared with teams allowing for shared analysis of systems as sustainability work proceeds.
			Stakeholders and frontline teams are given opportunity to express concerns about the improvement process, and to share ideas for improvement.
There is a Culture of Improvement and a Deeply Engaged Staff			Everyone in the organization is clear on the sustainability of performance improvement activity and can explain their role in it.
			Staff view quality improvement work as part of their job and they believe that they have a stake in continually enhancing their performance in any given intervention area.
			Managers include involvement and supporting ongoing improvement work during on-boarding of new staff members.
Formal Capacity Building Programs are Supported			Managers closely consider the composition and skill base of participating teams, working to enhance confidence and core competencies.
			Every stakeholder in the organization is introduced to the content of any new improvement intervention and provided ongoing training in quality improvement methods.

1									
2	<b>Month</b>	<b>Average Maximum Mobility</b>							
3	Jan-20	4.1							
4	Feb-20	4.2							
5	Mar-20	3.7							
6	Apr-20	3.8							
7	May-20	4.2							
8	Jun-20	4.3							
9	Jul-20	4							
10	Aug-20	4.1							
11	Sep-20	4.1							
12	Oct-20	4.3							
13	Nov-20	4							
14	Dec-20	3.6							
15	Jan-21	3.7							
16	Feb-21	4.2							
17	Mar-21	4.7							
18	Apr-21	4.6							
19	May-21	4.2							
20	Jun-21	4.6							
21	Jul-21	4.5							
22	Aug-21	4.3							
23	Sep-21	4.3							
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
		IHI Facility Assessment Survey	<b>Average Maximum Mobility</b>	Barriers to Mobility (Themes)					

1	Time	Barriers			
2	Week 1				
3	Week 2				
4	Week 3				
5	Week 4				
6	Week 5				
7	Week 6				
8	Week 7				
9	Week 8				
10	Week 9				
11	Week 10				
12	Week 11				
13	Week 12				
14					
15					
16					
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30					
31					
32					
33					
34					

*Note.* Microsoft Excel spreadsheet created by author for data collection.

### Appendix L

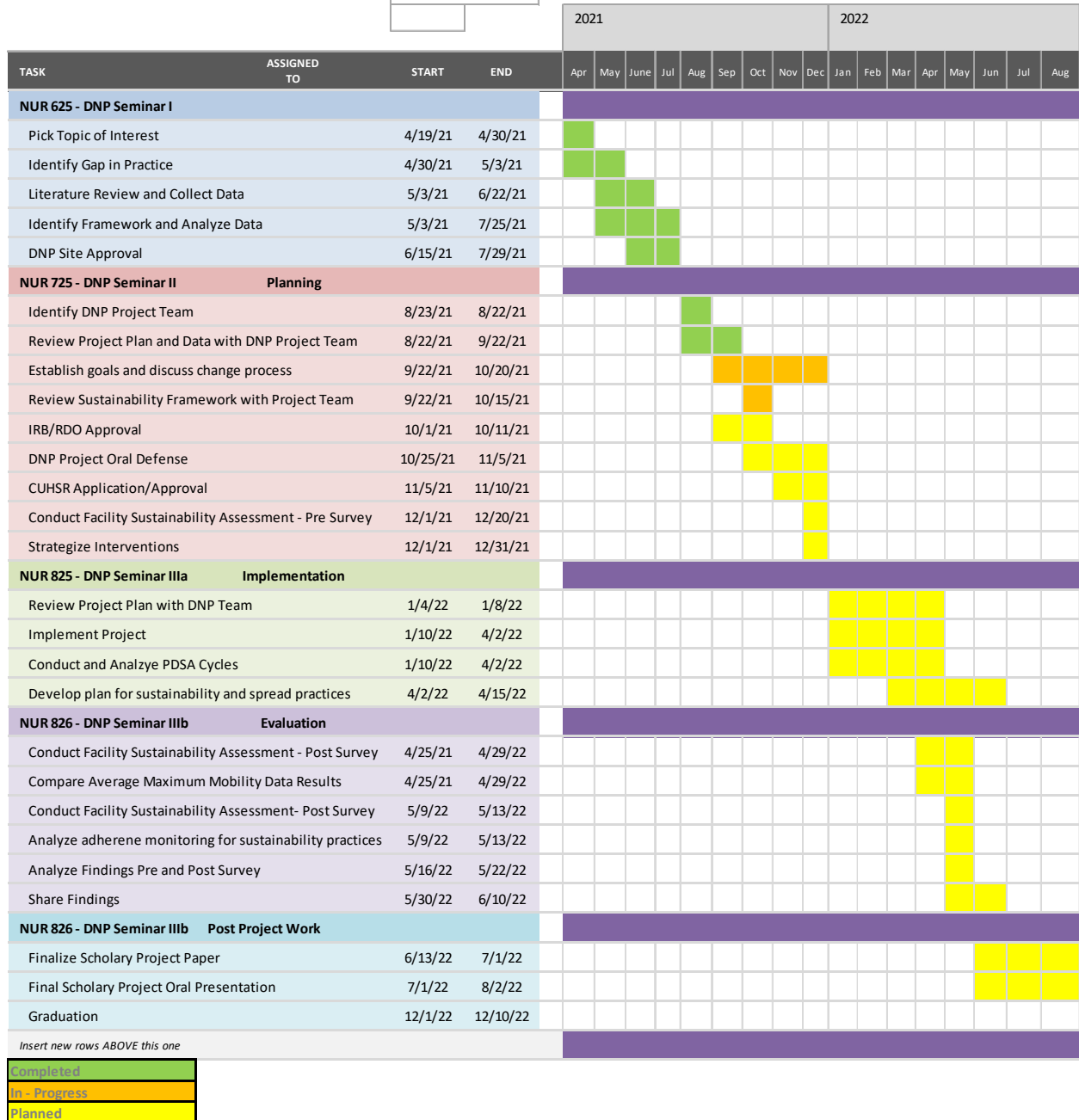
### GANTT Chart

#### Leveraging a Sustainability Framework for Progressive Mobility in Acute Care Settings

DNP Project

DeAndre Turner

Mon, 4/19/2021
Tue, 8/9/2022



*Insert new rows ABOVE this one*

Completed
In-Progress
Planned

Note. GANTT chart created by author for project planning.

## Appendix M

### Project Site Research Determination Outcome Letter

**Date:** October 11, 2021  
**Subject:** RDO KPNC 21 - 141  
**Title:** Leveraging a Sustainability Framework for Progressive Mobility in Acute Care Settings

Dear Dr. Riggall:

The Research Determination Committee for the Kaiser Permanente Northern California region has reviewed the documents submitted for the above referenced project to be used by DeAndre Turner for his DNP program project. The project does not meet the regulatory definition of research involving human subjects as noted here:

#### **Not Research**

The activity does not meet the regulatory definition of research per 45 CFR 46.102(d): Research means a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge.

This determination is based on the information provided. If the scope or nature of the project changes in a manner that could impact this review, please resubmit for a new determination. The word “research” should not appear in any posters or publications resulting from this project. Further, if publications, presentations or posters are generated from this project the following wording must be used to reference to the project research determination outcome:

*“The Research Determination Committee for the Kaiser Permanente Northern California region has determined the project does not meet the regulatory definition of research involving human subjects per 45 CFR 46.102(d)”*

You are expected, however, to implement your study or project in a manner congruent with accepted professional standards and ethical guidelines as described in the Belmont Report (<http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.html>).

Additionally, you are responsible for keeping a copy of this determination letter in your project files as it may be necessary to demonstrate that your project was properly reviewed.

Provide this approval letter to the Physician in Charge (PIC), your Area Manager, and Chief of Service, to determine whether additional approvals are needed.

Sincerely,

The Research Determination Committee  
KPNC-RDO@kp.org

*Note.* Research Determination Outcome letter issued by project site.



## Appendix N

### CUHSR Approval



DATE: 17 FEB 2022

TO: DeAndre Turner, Sokonie Reed  
 FROM: Bradley University Committee on the Use of Human Subjects in Research  
 STUDY TITLE: **Leveraging a Sustainability Framework for Progressive Mobility in Acute Care Settings**  
 CUHSR #: 010-22-Q  
 SUBMISSION TYPE: Initial Review  
 ACTION: Approved  
 APPROVAL DATE: 17 FEB 2022  
 REVIEW TYPE: Quality Assurance

Thank you for the opportunity to review the above referenced proposal. The Bradley University Committee on the Use of Human Subject in Research has determined the proposal to be NOT HUMAN SUBJECTS RESEACH thus exempt from IRB review according to federal regulations.

The study has been found to be not human subject research pursuant to 45 CFR 46.102(i), not meeting the federal definition of research (not contributing to generalizable knowledge). Please note that it is unlawful to refer to your study as research.

Your study does meet general ethical requirements for human subject studies as follows:

1. Ethics training of project personal is documented.
2. The project involves no more than minimal risk and does not involve vulnerable population.
3. There is a consent process that:
  - Discloses the procedures
  - Discloses that some participation is mandated and some voluntary
  - Allows participants to withdraw
  - Discloses the name and contact information of the investigator
  - Provides a statement of agreement
4. Adequate provisions are made for the maintenance of privacy and protection of data.
5. Your study is exempt for HIPAA regulations in that the covered entity will de-identify the health information used in your study pursuant to 45 CFR 164.502 (d).

Please submit a final status report when the study is completed. A form can be found on our website at <https://www.bradley.edu/academic/cio/osp/studies/cuhsr/forms/>. Please retain study records for three years from the conclusion of your study. Be aware that some professional standards may require the retention of records for longer than three years. If this study is regulated by the HIPAA privacy rule, retain the research records for at least 6 years.

Be aware that any future changes to the protocol must first be approved by the Committee on the Use of Human Subjects in Research (CUHSR) prior to implementation and that substantial changes may result in the need for further review. These changes include the addition of study personnel. Please submit a Request for Minor Modification of a Current Protocol form found at the CUHSR website at <https://www.bradley.edu/academic/cio/osp/studies/cuhsr/forms/> should a need for a change arise. A list of the types of modifications can be found on this form.

While no untoward effects are anticipated, should they arise, please report any untoward effects to CUHSR immediately.

This email will serve as your written notice that the study is approved unless a more formal letter is needed. You can request a formal letter from the CUHSR secretary in the Office of Sponsored Programs.

Karin Smith DNP, RN, NEA-BC, CENP, CCRN-K  
 CUHSR Associate Chair

Committee on the Use of Human Subjects in Research – 100 Kauffman  
 1501 W Bradley Ave.  
 Peoria, IL 61625

*Note.* CUHSR approval from Bradley University for project implementation.

Appendix O

Project Site Administrator Approval Letter

**BRADLEY University** Department of Nursing  
**Doctor of Nursing Practice Program**  
**DNP Project Site Administrator Approval Form**

*To be completed by student:*

**Name of Student:** DeAndre Turner

**Proposed DNP Project Title:** Apply Sustainability Framework for Mobility

**Overview of Needs Assessment (current state, how project could address findings, and potential project impact):** The facility's Med-Surg Average Maximum Mobility is 4.1 for the past 12-month rolling period, Jun 2020 to May 2021 which is lower than the regional target of 4.8. Currently there are inconsistencies between frontline line teams and leadership styles in operationalizing and framing unit priorities. The objective is to apply a sustainability framework and methodologies to improve Average Maximum Mobility to the target of 4.8 while decreasing harm such as falls in Med-Surg.

**Clinical Question:** (P) In a small urban hospital, Med-Surg units, (I) how does a sustainability framework applied to improve progressive mobility (C) Compared to no sustainability framework (O) Affect the achievement and sustainability of mobility performance (T) by end of quarter one 2022.

**Project Purpose and Objectives:** Leverage the IHI sustainability for high-performance management framework and local HEROES group to improve progressive mobility in the Med-Surg units.

**Projected Timeline of Project:** Jan 2022 - April 2022

**Student Signature:** [Signature] **Date:** 7/13/2021

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**Site name:** Kaiser Permanente Fremont Medical Center

**Site address:** 39400 Paseo Padre Pkwy, Fremont, CA, 94538

**Site administrator's Title:** Chief Nurse Officer/Chief Operating Officer

*To be completed by site administrator:*

Will an affiliation agreement be required? Yes  No

Please verify by checking a box below:

I support the implementation of this project at this site.

I support the implementation of this project at this site with the following modifications:

\_\_\_\_\_

I do not support the implementation of this project at this site.

**Site Administrator:** Karen Tejcka / [Signature] / 7/13/2021

Printed Name Signature Date

**Contact info:** karen.d.tejcka@kp.org

Note. Signed Project Site Administrator Approval Form.

## Appendix P

### Senior Leadership Support

RE: Request: Support of IRB - Leveraging a Sustainability Framework for Progressive Mobility in Acute Care Settings

● Natisa L Dill  
 To ● Melanie Parker; ○ DeAndre E. Turner; ● Joelle R Coghe  
 Cc ● Virginia K Riggall  
 Retention Policy 90 Day Inbox Mail Deletion (90 days)

Expires 1/6/2022

**From:** Melanie Parker <[Melanie.Parker@kp.org](mailto:Melanie.Parker@kp.org)>  
**Sent:** Friday, October 8, 2021 11:30 AM  
**To:** DeAndre E. Turner <[DeAndre.E.Turner@kp.org](mailto:DeAndre.E.Turner@kp.org)>; Joelle R Coghe <[Joelle.R.Coghe@kp.org](mailto:Joelle.R.Coghe@kp.org)>  
**Cc:** Virginia K Riggall <[Virginia.K.Riggall@kp.org](mailto:Virginia.K.Riggall@kp.org)>; Natisa L Dill <[Natisa.L.Dill@kp.org](mailto:Natisa.L.Dill@kp.org)>  
**Subject:** RE: Request: Support of IRB - Leveraging a Sustainability Framework for Progressive Mobility in Acute Care Settings

Hi Dre,  
 Steve has reviewed your reques and he supports submission of your IRB application. Good news!  
 Have a great weekend,  
 Mel

**Mel Parker, MD**  
 TPMG Medical Director of Risk & Patient Safety

**Kaiser Permanente**  
 NCAL Risk & Patient Safety  
 1800 Harrison St., 17th Floor  
 Oakland, California 94612  
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 (510) 987-2946 Tie-line 8/427 (Assistant – Joelle Coghe)  
[Melanie.Parker@kp.org](mailto:Melanie.Parker@kp.org)

NCAL Risk Website: [http://spnat.kp.org:81/california/ncqrs/risk\\_management/index.html](http://spnat.kp.org:81/california/ncqrs/risk_management/index.html)  
 NCAL Patient Safety Website: [http://spnat.kp.org:81/california/ncqrs/patient\\_safety/index.html](http://spnat.kp.org:81/california/ncqrs/patient_safety/index.html)



*Note.* Senior leadership approval of DNP project support.