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Improved Data Communication with Frontline Staff

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N670: Internship

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Abstract

Problem: Frequently, communication from the Quality Department (QD) needs to be filtered through several organizational layers without first-hand knowledge of what message was given to frontline staff. Current mechanisms of communication between the QD and front-line microsystem teams have barriers preventing them from being consistent and reliable.

Context: Research has found that collaborating with and supporting frontline staff was key to establishing a culture that supports change and a focus on safety. Establishing open communication and effective teamwork with individuals on the frontline leads to shared values within a team and better collaboration which drives performance improvement.

Interventions: For trended data such as performance and outcome metrics, one metric was posted each week showing both local and comparative data. A short summary of harm events anywhere in the hospital was posted as they occurred, on white boards, exclusive for this use.

Measures: Frontline staff in the med/surg unit chosen for this project were surveyed about their perceptions of data sharing related to their unit's performance, safety events on their unit, safety events outside of their unit, and their overall feeling of inclusion in hospital operations.

Results: The slight decrease in communication related to metrics from 4.1 to 3.9 shows the data postings were not effective in increasing the overall feeling of being informed in the frontline staff. The overall number of responses did increase from 7 in the pre project data to 13 in the post project data. The average number for how included staff felt in hospital operations increased from 2.4 to 3.5. These increases seem to contrast with the lack of increase in feelings of communication. It is possible that while the staff do not feel there is more data being communicated with them, the conversations about communication and what might work for them is being noticed.

Conclusions: Despite challenges in the department during the timeframe of this improvement project, some positive change was measured. Given the increases in participation with the survey and feelings of involvement, it would be a reasonable decision to continue information sharing. This would communicate to staff there is an ongoing reciprocal commitment to communication with them directly and involving them in hospital operations.

The Agency for Healthcare Research and Quality [AHRQ] (2021) states that focusing on microsystems is a successful strategy utilized by larger healthcare organizations. This means translating big picture plans down to the smallest functional levels in the organization and looking for processes and improvements there. Back in 2010, this was demonstrated by Schilling, et al. (2010) with their description of Kaiser Permanente's model for improvement and using driver diagrams (see Appendix A) to show the relationship of metrics in individual microsystems contributing to the larger organizational goals. This model is still currently used in Kaiser Permanente, a national integrated managed care organization. (IHI, 2016)

The microsystem that is the topic for this paper is the Quality Outcomes department of a 120-bed community hospital located within a large hospital system and regional network. This department consists of 5 employees and is one component of a larger department and mesosystem that includes Patient Safety, Risk, and Accreditation and Licensing. As seen in the microsystem assessment (see Appendix B), this is a small team that provides a voice and conduit to communicating the vast quantities of data moving through the organization and touches numerous other microsystems. This project aims to work on a small change to improve communication between the microsystems of the Quality Department (QD) and one pilot nursing unit and to evaluate findings for future implementation throughout the remaining nursing units in the hospital.

Problem Description

Frequently, communication from the QD needs to be filtered through several layers without first-hand knowledge of what message was given to frontline staff.

Current mechanisms of communication between the QD and front-line microsystem teams consist of staff huddles prior to the start of shifts, staff meetings, committee meetings, and

education days. Each one of these activities presents different barriers. For example, shift huddles are led by assistant managers, can only be 5 minutes long, staff may be distracted or not attend, and information can be forgotten or given as a bullet point with no context, analysis, or actionable discussion.

Staff meetings are no longer in person or regularly scheduled due to pandemic surges and these have never been attended by all staff as indicated by verbal report from unit managers. Nadkarni et al. (2021) identified the need to modify communication techniques due to the pandemic, but the remote technology these authors utilized as a solution is not available to the nursing frontline staff in this organization. For example, most frontline staff do not have business cell phones and, per self-reporting, do not regularly check their work email for reasons that are outside the bounds of this project.

Lastly, education/skills days are once a year. So, while these education days are mandatory, they are not a practical venue for ongoing performance updates or sharing details about an event that could immediately impact a desirable clinical, operational, or organizational change.

Gaps in Communication

Often information is shared with nursing leaders or by management along with the request that it be subsequently shared with their departments, only to discover later that staff are not aware of information that was anticipated to be shared. This can result in staff not having the same level of concern and/or understanding related to performance measures, improvement projects, outcomes, or a sense of urgency that organizational leaders do.

For instance, frontline employees may not hear or appreciate a small change that can be made in a process that would result in better clinical, operational, financial, or interpersonal

outcomes. As indicated by Malik et al. (2021) openness with information supports patient safety and influences the overall unit and organizational culture related to fostering shared understanding between professionals.

Another key facet of effective communication relates to anticipating and preventing a harm event or its reoccurrence. Employees performing the work may not be aware of the gaps found within a problematic process and therefore miss the opportunity to respond correctly. All these examples provide barriers when nurse leaders attempt to improve open communication and promote a culture of safety.

Baseline Data

To obtain measurable data for this quality improvement project, a baseline survey was produced in collaboration with the QD and nursing leadership (see Appendix C). During three staff meetings that covered all shifts, a clickable link to the survey was posted by a representative from the QD with the request for staff to complete the survey. There was only one response from this. The next day, QR codes were printed out and physically handed to staff on the unit with the messaging that they are being requested to complete a very short survey about how they feel about communication on their unit. The QR codes were also given to the manager with the request that they are handed out to all shifts over the weekend. This resulted in 7 more responses.

The results of this survey shown in Appendix D did show a disparity between the staff's feelings of information sharing from inside their department and other information from outside their department. With an average numerical score (1 being worst and 5 being best) of 3.5 for being well informed for events on their unit and dropping to 2.5 for events outside of their units.

Available Knowledge

Research was conducted related to the PICOT (population, intervention, comparison, outcome, timeframe) question: For frontline staff in a med/surg unit of a community hospital, does establishing a consistent method of communicating outcome, process, and harm event data increase the staff's knowledge of that data and their sense of inclusion in hospital operations as opposed to not changing from previous methods of communication?

Search terms included communication, data, information, frontline, nursing, inclusion, sharing, techniques, improving outcomes, and culture. Search results relating to communication within nursing units focused on intra-team communication and physician to RN communication. The search had to be expanded to look for publications that discuss communication between different microsystems within healthcare. (See Appendix E) Ultimately, a comparative study, two qualitative studies, a consensus paper, and two expert opinions were used.

This research supports an open flow of communication starting with defining which information is important at a microsystem level for them to support the overall macrosystem (Schilling, et al., 2010). The AHRQ (2021), Institute for Healthcare Improvement [IHI] (2022), Manley & Jackson (2019), and Brown (2020), all reinforce the importance of open communication and information sharing with staff within the microsystem and its role in successful improvement projects involving frontline staff. The overall result of this open communication is frontline staff that are knowledgeable enough to participate in improvement projects, shared leadership, and feel included enough to want to be involved.

Malik et al. (2021) narrow the focus of information sharing to a systems approach where patient events and systems issues are shared as opposed to individual issues. This fits inside the

AHRQ (2021) and IHI (2022) improvement processes where the focus is on systems and not individuals.

Lastly, Nadkarni et al. (2021) acknowledge some of the struggles with communication related to COVID-19. These changes are related directly to some of the challenges this project plans to overcome.

Rationale

For this quality improvement project, the IHI Model for Improvement (IHI, 2022) was used. The steps in this model are:

- Forming a team
- Setting aims
- Establishing measures
- Selecting changes
- Testing changes
- Implementing changes
- Spreading changes

This framework for improvement was chosen because there was not a clear process that needed to be implemented. A project charter was developed to outline the overall goals and definitions to be used in the project. (see Appendix F) The team discussed communication techniques and compared them against the goals of the project and their knowledge of the staff on the unit. Then the team came to a consensus of one of the options to try through the Plan, Do, Study, Act model (IHI, 2022). Ultimately, when a communication model is found that meets the outcome goals of the project, the model will be spread through the rest of the nursing units in the hospital.

Project Aim

By June 1, 2022, as a result of improved communication related to outcome measures, process measures, and patient harm events, the outcome of front-line staff surveys in the med/surg unit will increase in the number of positive responses related to perceptions of unit performance and information transparency in 50% of surveyed staff.

Context

Patterns in the QD work are based on data availability (see Appendix B). Monthly reports tend to be used for performance reporting. These would include data that is averaged over time to provide more consistent and trended data. More frequent reports tend to be used for driving improvement by looking for gaps in performance or actual harm events. Some of these reports related to patient safety are run daily and are useful for providing as close to real-time feedback as possible to the front-line staff to implement safe practices and a culture of continuous learning and improvement (IHI, 2016; IHI, 2022). For example, these data often reflect process measures that have been linked to patient outcomes such as mobility performance and oral hygiene compliance as preventative measures for healthcare-acquired pneumonia.

Performance Improvement Tools

For this project, several tools were used to gauge unit readiness for change including a microsystem assessment using the 5 P's approach (Appendix B); and a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis (Appendix G).

Both the microsystem assessment (see Appendix B) and the Strengths, Weaknesses, Opportunities, and Threats (SWOT) assessment (see Appendix G), revealed that the strength of the team lies with the staff of the QD and the unit champions from the nursing unit. The microsystem assessment results also indicated the QD regularly works with data and as standard

best practices and usual communication processes, the QD supplies the nursing unit with information to share on a consistent and continual basis.

SWOT

The SWOT analysis revealed possible difficulties in all frontline staff accepting a new process. Therefore, a core group of unit champions that are focused on improvement projects and consistency in follow through with an effective change in communication techniques will be important to ultimately improve staff perceptions of inclusion related to more predictable data sharing.

ROI

The return on investment (ROI) with this project will be measured over the long term by the increased involvement of frontline staff in improvement projects on their units. This engagement should lead to improved patient and organizational outcomes. As noted by Perlo et al. (2017), some of these benefits can include reduced medical errors, increased patient care experience scores, higher productivity, and a decreased turnover rate.

Manley & Jackson (2019) found that collaborating with and supporting frontline staff was key to establishing a culture that supports change and a focus on safety. In their analysis of looking at the microsystem approach to performance improvement, establishing open communication and effective teamwork with individuals on the frontline leads to shared values within a team and better collaboration which drives performance not only at the micro-level but also the meso-level as well.

Intervention

Using the IHI (2022) Model for Improvement, a team was formed for the project. In this case an existing team within the hospital's shared leadership model was chosen. The team

consisted of frontline staff from the project department and their manager. An existing team was chosen due to the difficulty in communicating with and gathering frontline staff outside of work hours for projects. The project began with the team discussing possible changes in communication techniques and then started small tests of change. Initially, members of the team suggested communication methods that were or had already been in place. Through discussion, the barriers that were identified with each option before the start of the project were also identified by the group.

Tests of change

The work group's recommendation was made to use technology as most staff are used to interacting with electronic media in their daily lives and the data would stand out from all the printed information on the nursing unit. One idea was a news headline type ticker with performance and outcome metrics data at the bottom of an electronic census board mounted in the nursing station. Another idea was to change the computer screen savers to display this same data as this had been done once before through the entire hospital with reminders for hand hygiene. These ideas were taken to the leadership of Information Technology. For different technical reasons, neither of these suggestions were feasible.

The team then met again in the nursing unit to review physical space where information is and could be shared regularly. It was decided that whatever option was chosen, the data couldn't simply be posted next to other papers and left in place. The team felt that even if the data were updated and changed, staff wouldn't notice the change. Ultimately two different tests of change were agreed upon for trial.

Process and Outcome Data

For trended data such as performance and outcome metrics, one metric would be posted at a time and two graphs would be used for each metric. It was decided to post only one metric at a time so the graphs would be simple and large to make them easy to read and attract attention with the large size of the graphs. A different metric would be posted each week, so the staff starts to see the introduction of new information. One graph would be the hospital's or department's trended performance over time. The other graph would be the same metric with ranking data showing where the hospital was performing in relation to the other hospitals in the system. This was requested so it can either be used by the unit champions as a point of pride in the case of good performance or a challenge in the case of incremental or suboptimal performance. A space outside of the public's view was used because data from other hospitals were included.

Harm Event Information

As harm events should become less frequent, the decision was made to reserve a space for posting and highlighting them. Because of the potentially sensitive nature of this information, again a space out of the public view in a breakroom was chosen. To make the posting of a new event apparent to the staff, whiteboards were ordered to be mounted on the wall and reserved only for these events. When a harm event occurs anywhere in the hospital, a short summary will be generated by the QD and posted on the whiteboard on a bright florescent coloured paper to draw attention to the posting.

Study of the Intervention

During the process of trialing the two communication techniques, the changes were shared both by the frontline team members and QD staff at various venues to request feedback.

Other frontline staff were asked if they were aware of the postings, if they found them informative, and if they had any suggestions to improve the process.

Near the end of the project and before the decision to make the process changes permanent and move onto the spreading phase (IHI, 2022), the same survey (that was sent out to gather data before the changes) was sent out again and the results analyzed.

Ethical Considerations

This project has been approved as a quality improvement project by faculty using QI review guidelines and does not require IRB approval. This project also complies with the Code of Ethics for Nursing (ANA, 2015). Specifically, section 3.2 is related to participation in research. No part of this project relates directly to the care provided or involves patients in any manner. This improvement project is also supported by section 3.4 (ANA, 2015, p.10) which states that "Nurses must participate in the development, implementation, and review of and adherence to policies that promote patient health and safety, reduce errors and waste, and establish and sustain a culture of safety."

This improvement project also aligns with the Jesuit values espoused by the University of San Francisco (2022; https://myusf.usfca.edu/mission-council/living-mission). It supports the individual intellectual growth and "cura personalis" of the frontline staff through striving to educate all staff in the department. Sharing information specifically with frontline staff facilitates their independent knowledge of performance and risk events so that they may then utilize that information in their personal decision making. This is one step in fostering self-accountability and ownership of one's personal practice. The healthcare environment also naturally leads to the Jesuit value of People for Others. At the end of all this work are individuals devoting their

education, time, and themselves to care for others. This improvement project aims to support that work and help those individuals be more involved and invested in their own practice.

Outcome Measure Results

To obtain data to assess if the tests of change have been effective, the same poll that was used for the baseline data a baseline survey (see Appendix C) was sent to staff. Because of the lack of engagement during staff meetings, the technique of handing out a QR code to all staff over the course of several days was used exclusively. These results were again averaged for each question and then compared to the baseline data. There was a total of 13 responses for this survey.

As seen in Appendix H, the average score was 4.1 for being well informed for events on their unit and dropped to 2.5 for events outside of their units. Again, this shows a disparity between common knowledge in the staff between events that happen on their own units opposed to those on other units.

Summary

The pre and post intervention data were compared for four metrics. The overall number of staff responses, the percentage of staff that felt they were well informed of performance metrics, the gap between being informed of events in their own department as opposed to other departments, and feelings of involvement in overall hospital operations.

The slight decrease in overall communication related to performance within the department from 4.1 to 3.9 shows the data postings were not effective in increasing the overall feeling of being informed in the frontline staff. These postings were visible to the staff and served as a conversation starter between the staff and the project team. But the survey results show this did not result in the staff feeling there was an increase in communication related to

performance data. The consistent gap between data from within the department to that from other departments is not a surprise given the short period of time risk events were posted on the unit prior to collecting project end data. If the white boards had been available much sooner, it is not unreasonable to expect there might have been improvement in this metric as staff seemed favorable to the idea.

The overall number of responses did increase from 7 in the pre data to 13 in the post data. This increase seems appropriate due to staff being aware there was an improvement project focused on their unit and understanding the reason for the survey as opposed to there being little context for it during the pre-project data collection. The average number for how included staff felt in hospital operations also increased from 2.4 to 3.5. These increases seem to contrast with the lack of increase in feelings of communication. It is possible that while the staff do not feel there is more data being communicated with them, the conversations about communication and what might work for them is being noticed.

There were other factors that can be presumed to have an influence on the overall outcome of this project. First was overall hospital operations. While COVID-19 did not experience a major surge during the span of the project, the hospital maintained a census as much as 45% above normal pre-COVID levels. This resulted in staffing issues, focus being pulled away from all improvement projects, and meetings being cancelled to focus on patient care. Another struggle, the main problem that triggered this project, was the lack of a consistent and thorough communication method with the frontline staff. Communication with the staff members on the project team was either through prescheduled meetings or random encounters in the department. This was also true for communication with the rest of the department. While casual conversations with staff on the floor did allow for individual perspective and opinions to

be shared, it did not allow for a wide-spread and consistent message to be shared. These barriers did limit the speed and extent of improvement. However, the increase in scoring of knowledge of harm events within in their own department from 3.5 to 4.1 does show promise. The white board for risk events was more prominently displayed and one of the events shared did happen on the test unit.

Conclusions

Despite the struggles in the department during the timeframe of this improvement project, some positive change was measured. Given the increases in participation and feelings of involvement, it would be a reasonable decision to continue information sharing. This would communicate to staff there is an ongoing commitment to improving communication with them directly and involving them in hospital operations. Maintaining these methods of communication also allows the postings to be used for informal conversations with project team members, but also for more formal conversations when department staff meetings can occur with more consistency and more staff participating when census issues are addressed. This struggle with gaining traction with staff is reflected by Harter's (2022) report of a Gallup study showing an overall decline in employee engagement from 2021 to 2022 with the largest drop in healthcare workers. United States Surgeon General Dr. Vivek Murthy (2022) echoes this message in his latest Advisory with a description of a healthcare system where workers were suffering from record levels of burnout even prior to COVID-19 and the situation is worse now.

Another validation of the project came from a senior leader in the hospital whose role also covers another hospital in the system. They were impressed with the simple way safety events were summarized to be shared with staff and planned to take that to the QD at the other facility for consideration to be adopted as a new practice.

In addition to continuing the practice changes implemented in this improvement project, next steps would also include discussing spread to the other nursing departments in the hospital. This would increase the consistency with information sharing with all frontline nursing staff and establish a base level of knowledge across the board. Nurse leaders and quality teams are encouraged to test new communication approaches that maximize frontline connections to improve system outcomes and patient safety.

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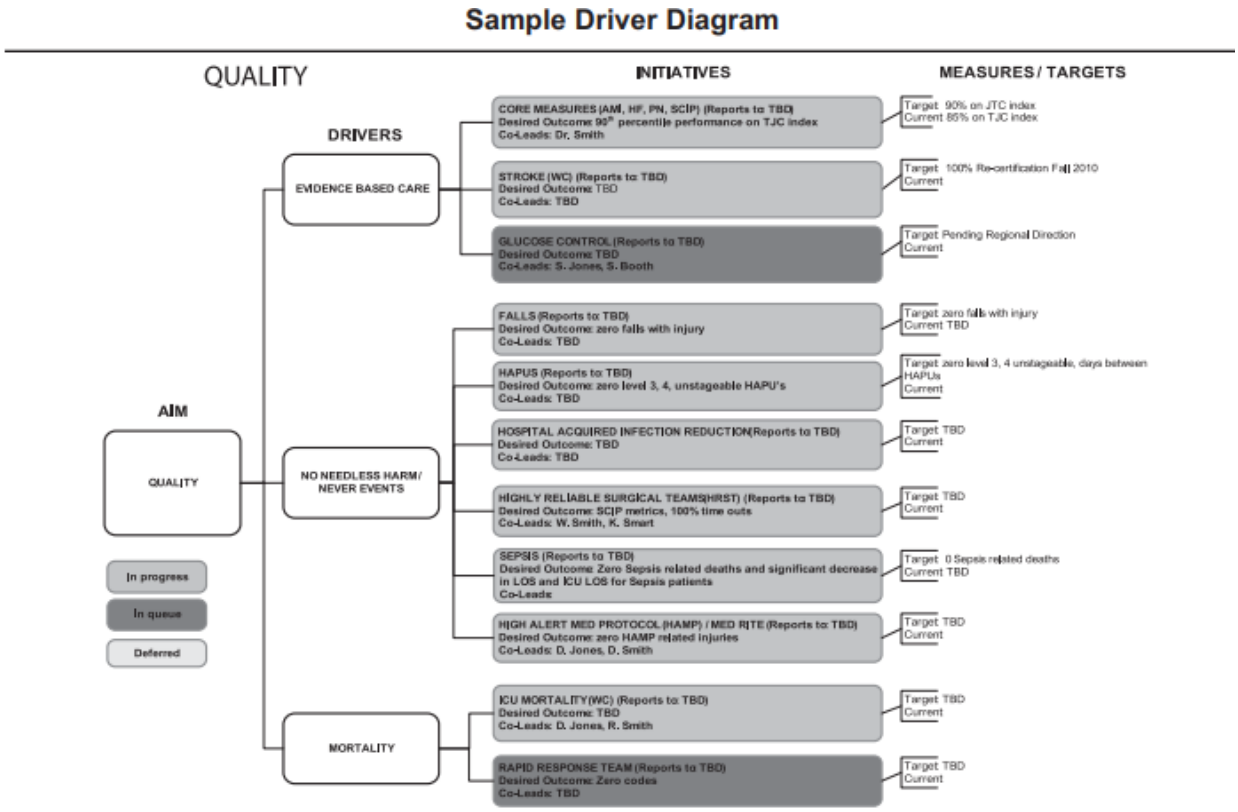
Appendix A

Figure 1 Sample driver diagram from Kaiser



Appendix B

Table 1 Quality Department Profile

Supporting Microsystem Profile

A. Purpose: Why does your microsystem exist? Through the use of data, provide performance data, analysis, and drive PI for other functional departments in the hospital

Name of Service: Quality	Site Contact:	Date:
Service Manager:	Service Lead:	

B. Know Your Customers: Take a close look into your microsystem; create a "high-level" picture of the Customers that you serve. Who are they? What resources do they use/request? How do customers view the services they receive?

Est. Distribution of workload	**%**
Source- PCS	30
Source- CME	15
Source- C&P	20
Source- OR	15
Source- Leadership	20
Est. # of work requests in last month	
Top Payors	

List Your Top 10 Work type requests		**Top requesting Customers**
1. Performance	6.	PCS
2. Data	7.	Leadership
3. Monitoring	8.	
4.	9.	
5.	10.	

Customers who are frequent users of your service and their reasons for interacting with your microsystem	**Other services you interact with regularly as part of your normal work processes.**
	Dept chiefs
	Region
Usual requests are for performance data to be used in reports or requested explanations of performance or metrics by leadership	

Customer Satisfaction Scores	% Excellent
Experience via phone	100
Length of time to get complete work	100
Accuracy of work	100
Satisfaction with personal manner	100
Satisfaction with work product	100

Work load distribution: Do these numbers change by season? (Y/N)	**#**	**Y/N**
Work load in a day		
Work load in last week		
Work load in last month		
Other		

****Complete "Through the Eyes of Your Customer***

C. Know Your Professionals: Use the following template to create a comprehensive picture of your microsystem. Who does what and when? Is the right person doing the right activity? Are roles being optimized? Are all roles who contribute to the patient experience listed? What hours are you open for business? What is the morale of your staff?

Current Staff	**FTEs**	**Role/Function**
Enter names below totals (Use separate sheet if needed)		
Microsystem Total	7	
Title: Director	1	Oversee department – report to leadership – drive PI
Title: RN Consultant	2	Analyze/report data, work directly with customers
Title: Specialists	2	Department support, CME support
Title: C&P Specialist	1	C&P process
Title:		
Managers: C&P	1	Oversee C&P process
Other:		

Days of Operation	**Hours of Operation**
Monday	7 |5
Tuesday	7 |5
Wednesday	7 |5
Thursday	7 |5
Friday	7 |5
Saturday	|
Sunday	|

Which activities are you involved in? Check all that apply.	
x Electronic Work Request	x E-Mail (with customers)
x Data Management	❑ Website
x Certification	❑ Other-
x Regularly attend clinical microsystem meetings you are supporting	❑ Other-
X Leadership meets regularly with clinical microsystems being supported	

Work Type	**Cycle Time**	**Comment**

routine	monthly		Do you use a Float Pool?	❑ Yes x No
Special request	hours	Pride in response time	Do you use On-Call?	❑ Yes x No
Staff Satisfaction Scores		**%**	Do you use Per Diems?	❑ Yes x No
How stressful is this microsystem?	% Very stressed	0		
Would you recommend it as a good place to work?	% Strongly Agree	100		

***Each staff member should complete the Personal Skills Assessment and "The Activity Survey"**

D. Know Your Processes: How do things get done in the microsystem? Who does what? What are the step-by-step processes? How long does it take to complete the work here, are the delays? What are the "between" microsystems hand-offs? Have you discussed a shared purpose with clinical microsystems and other supporting microsystems?

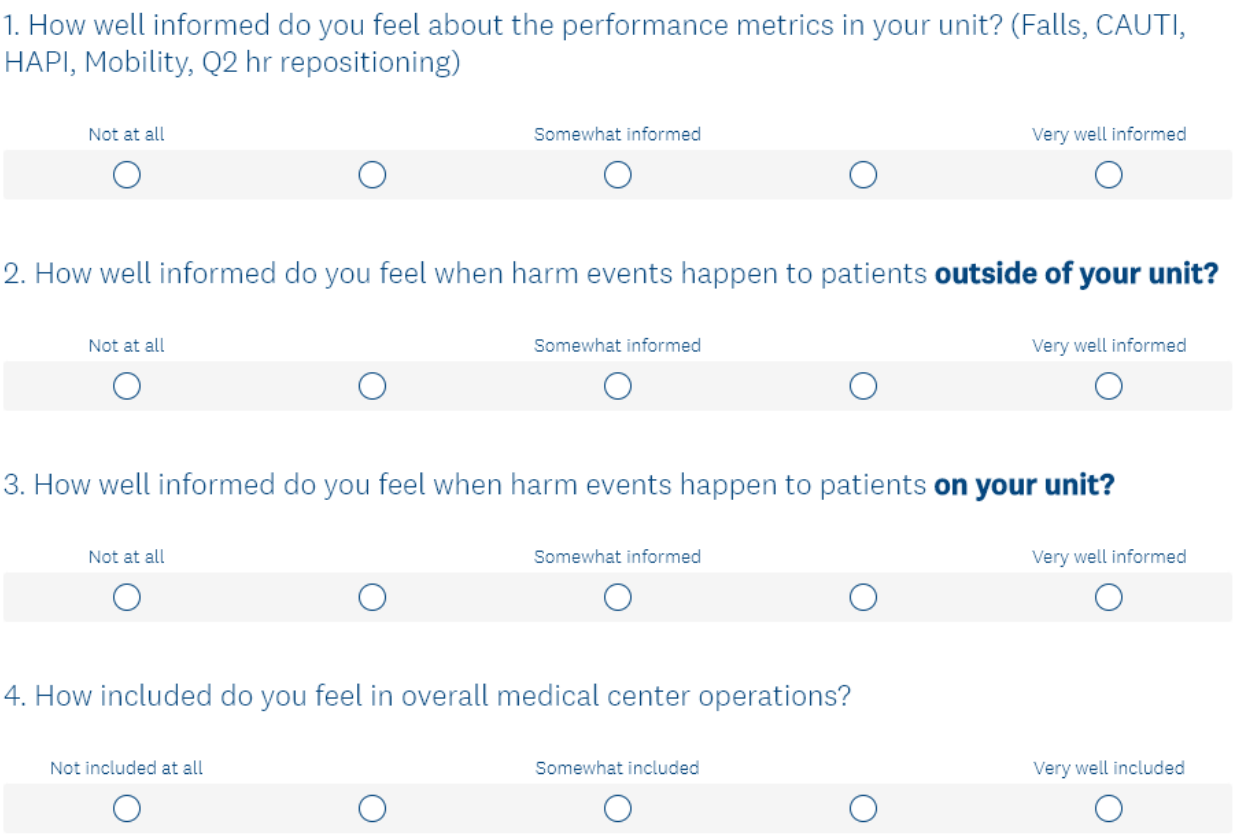
1. **Track cycle time from work requested, work assigned, work completed, final product sent to customer.**
2. **Complete the Core and Supporting Process Assessment Tool**

E. Know Your Patterns: What patterns are present but not acknowledged in your microsystem? What is the leadership and social pattern? How often does the microsystem meet to discuss processes? Are customers involved? What are your results and outcomes?

• Does every member of the microsystem meet regularly as a team? Y	• Do the members of the microsystem regularly review and discuss errors, safety and reliability issues? Yes	• What have you successfully changed?
		• What are you most proud of?
• How frequently? Weekly		• What is your financial picture?
• What is the most significant pattern of variation? Errors, gaps in the process		***Complete "Metrics that Matter"**

Appendix C

Figure 2 Survey for Data Collection

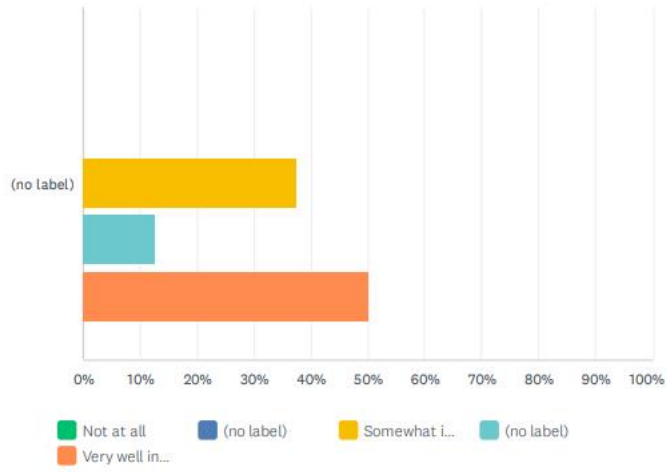


Appendix D

Figure 3 Pre Project Survey Results

Q1 How well informed do you feel about the performance metrics in your unit? (Falls, CAUTI, HAPI, Mobility, Q2 hr repositioning)

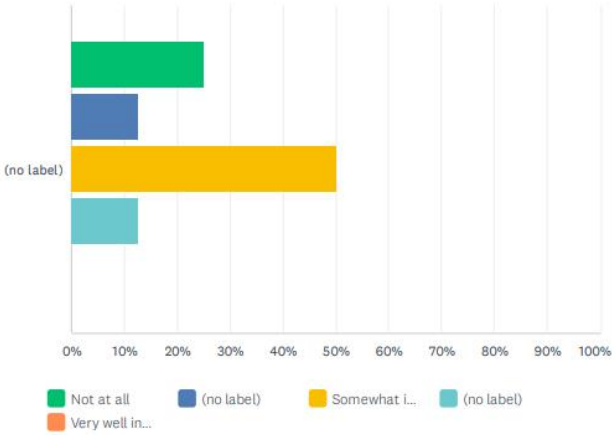
Answered: 8 Skipped: 0



	NOT AT ALL	(NO LABEL)	SOMEWHAT INFORMED	(NO LABEL)	VERY WELL INFORMED	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	0.00% 0	37.50% 3	12.50% 1	50.00% 4	8	4.13

Q2 How well informed do you feel when harm events happen to patients outside of your unit?

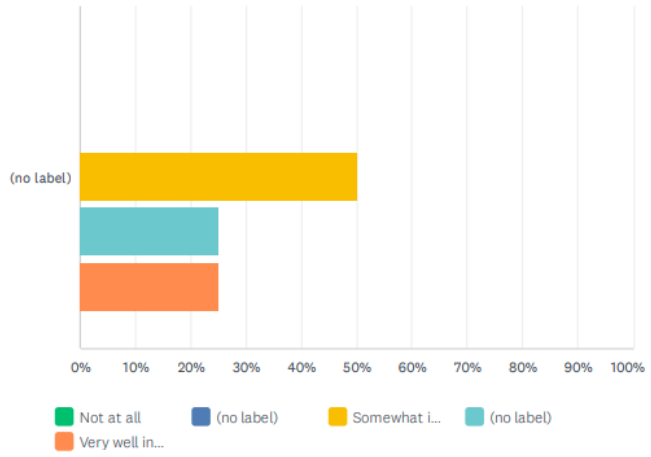
Answered: 8 Skipped: 0



	NOT AT ALL	(NO LABEL)	SOMEWHAT INFORMED	(NO LABEL)	VERY WELL INFORMED	TOTAL	WEIGHTED AVERAGE
(no label)	25.00% 2	12.50% 1	50.00% 4	12.50% 1	0.00% 0	8	2.50

Q3 How well informed do you feel when harm events happen to patients on your unit?

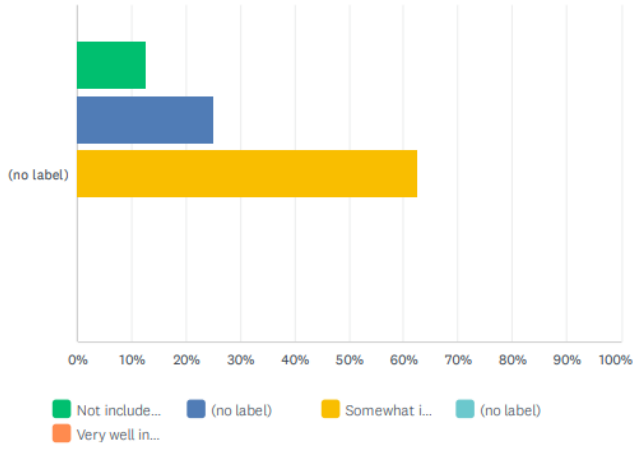
Answered: 8 Skipped: 0



	NOT AT ALL	(NO LABEL)	SOMEWHAT INFORMED	(NO LABEL)	VERY WELL INFORMED	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	0.00% 0	50.00% 4	25.00% 2	25.00% 2	8	3.75

Q4 How included do you feel in overall medical center operations?

Answered: 8 Skipped: 0



	NOT INCLUDED AT ALL	(NO LABEL)	SOMEWHAT INCLUDED	(NO LABEL)	VERY WELL INCLUDED	TOTAL	WEIGHTED AVERAGE
(no label)	12.50% 1	25.00% 2	62.50% 5	0.00% 0	0.00% 0	8	2.50

Appendix E

Table 2 Research Evaluation Table

Study	Design	Sample	Outcome/Feasibility	Evidence rating
Agency for Healthcare Research and Quality. (2021). *Ways to approach the quality improvement process.* AHRQ. https://www.ahrq.gov/cahps/quality-improvement/improvement-guide/4-approach-qi-process/index.html	Consensus guideline	none	Provides guidelines for initiating improvement projects, deciding metrics, and communication.	IV A
Brown, A. (2020). Communication and leadership in healthcare quality governance. *Journal of Health Organization & Management, 34*(2), 144–161. https://doi.org/10.1108/JHOM-07-2019-0194	Comparative case study	Eight hospitals	This study reinforces the importance of open communication in relation to leadership and governing. This is applicable to the current project as the institution is focused on shared leadership including font-line staff.	III A/B
Kennedy, D., Anastos, C., Genau, M. (2019). Improving healthcare service quality through performance management. *Leadership in Health Services,* (1751-1879), 32(3), 477–492. https://doi.org/10.1108/LHS-02-2019-0006	Qualitative employee study	31 employees	The outcome of the study showed preference of the staff to public sharing of information in a summary and easy to read format.	III A/B
Malik R., Buljac-Samardžić M., Amajjar I., Hilders, C., Scheele, F.(2021). Open organizational culture: what does it entail? Healthcare stakeholders reaching consensus by means of a Delphi technique. *BMJ Open*, 11:e045515. doi: 10.1136/bmjopen-2020-045515	Consensus paper	11 professionals	Supports treating patient events as system vs individual issues. This will be incorporated to support sharing of safety events with staff. A systems approach encourages staff to	IV A

			speak up related to safety issues.	
Manley, K., & Jackson, C. (2019). Microsystems culture change: a refined theory for developing person-centred, safe and effective workplaces based on strategies that embed a safety culture. *International Practice Development Journal*, 9(2), 1–21. https://doi.org/10.19043/ipdj.92.004	Qualitative study	10 teams	This study concluded that inclusiveness, collaboration, and supporting front-line teams is key to creating a culture of safety.	III A/B
Nadkarni, A., Levy-Carrick, N. C., Kroll, D. S., Gitlin, D., & Silbersweig, D. (2021). Communication and transparency as a means to strengthening workplace culture during COVID-19. *NAM Perspectives*, 10.31478/202103a. https://doi.org/10.31478/202103a	Expert opinion	none	The experiences of the authors reflected the efforts to continue communication in a personal manner in the setting of COVID-19 restrictions. These approached included online meetings, online huddles and staff meetings, and live chat for increased interaction.	V B
Schilling, L., Chase, A., Kehrli, S., Liu, A., Stiefel, M., Brentari, R.(2010). Kaiser Permanente's performance improvement system, Part 1: From benchmarking to executing on strategic priorities. *The Joint Commission Journal on Quality and Patient Safety*, 36(11), 484-AP5. https://doi.org/10.1016/S1553-7250(10)36072-7.	Expert opinion	none	This paper provides a framework for process improvement including teams, mapping out what metric drive performance, and culture.	V A

Appendix F

Table 3 Project Charter

Project Charter: Frontline Communication

Global Aim: To establish regular communication with front line staff related to quality performance metrics and risk events that occur in the hospital.

Specific Aim: By June 1, 2022, as a result of increased communication, the outcome of front-line staff surveys in the med/surg unit will show an increase in positive responses related to perceptions of unit performance and information transparency in 50% of surveyed staff.

Background:

Often information is shared with nursing leaders along with the request that it be shared with departments, only to discover later that staff are not aware of what was to be shared. This can result in staff not having the same concerns related to performance areas as leaders do. Or not hearing about a small change that can be made in a process that would result in better outcomes. As pointed out by Malik et al. (2021) openness with information is helpful with patient safety, it also has an influence in the overall culture related to a shared understanding between professional. And the sharing of events leading up to a harm event can't help in preventing a reoccurrence if the people doing the work aren't aware of the gaps found in the process. All these examples provide barriers when trying to improve performance.

Sponsors

Clinical Education Practice and Informatics Director	
Administrative & Clinical Adult Services Director	
Chief Nursing Officer	

Goals

To establish a communication process the meets the following criteria:

1. Allows for sharing of process metrics for the unit or hospital
2. Has a short lead time so that patient safety events can be shared in a timely manner
3. Is available to the greatest number of staff
4. Considers what information will be visible to the public visiting the unit

Measures

Measure	Data Source	Target
Outcome		
How well informed do you feel about the performance metrics in your unit?	Survey	Increase in 50% of respondents
How well informed do you feel when harm events happen to patients outside of your unit?	Survey	Increase in 50% of respondents
How well informed do you feel when harm events happen to patients on your unit?	Survey	Increase in 50% of respondents
How included do you feel in overall medical center operations?	Survey	Increase in 50% of respondents
Balancing		
No postings left up for over a week	Visual inspections	<1/month

Team

Project lead	
Unit Manager	
Front line RN	
Front line RN	
Front line RN	
Front line RN	
Quality RN	
Quality RN	

References

Malik R., Buljac-Samardžić M., Amajjar I., Hilders, C., Scheele, F.(2021). Open organizational culture: what does it entail? Healthcare stakeholders reaching consensus by means of a Delphi technique *BMJ Open*;11:e045515. doi: 10.1136/bmjopen-2020-045515

Measurement Strategy

Background (Global Aim) To standardize communication to frontline staff of quality data and patient safety events.

Population Criteria: Staff assigned to the general med/surg unit of a community hospital.

Data Collection Method: Data will be obtained from online surveys filled out by volunteers from front line staff. Baseline data was collected prior to the first test of change. Follow-up data will be collect using the same survey after the process has been in place for 10 weeks.

Data Definitions

Data Element	Definition
Quality metric	Data directly related to patient care that is reported on a hospital dashboard. (fall rate, HAPI rate, average mobility scores, etc.)

Scores for survey questions	1-5 1 – Not at all 3 – Somewhat informed/included 5 – Very well informed/included
Frontline staff	Staff that are regularly assigned to the med/surg unit and provide direct patient care.
Patient harm events	Events that have caused harm or are a near miss for causing harm to a patient within the hospital. (Fall, healthcare-acquired pneumonia, healthcare-acquired pressure injury, catheter associated UTI, etc)

Appendix G

Table 4 SWOT Analysis

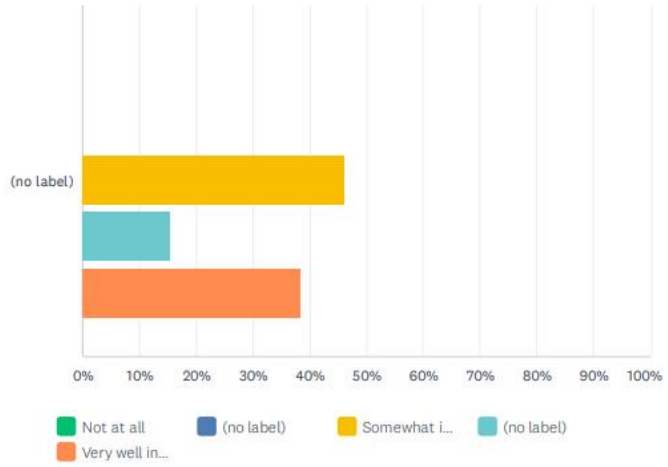
Strengths	Weaknesses
• Strong Quality staff • Data for everything • Comparison data • Desire to improve • Unit champions • Leadership support	• Easy staff communication • No work email use • No mandatory staff meetings • Too much information posted • Too much data • Staff are overloaded • Nothing is consistent
Opportunities	**Threats**
• Staff are interested when relevant information is shared • Multiple venues to communicate plan and get feedback • Staff will notice follow through	• Resistant staff • Competing priorities • What information is confidential

Appendix H

Figure 4 Post Project Survey Results

Q1 How well informed do you feel about the performance metrics in your unit? (Falls, CAUTI, HAPI, Mobility, Q2 hr repositioning)

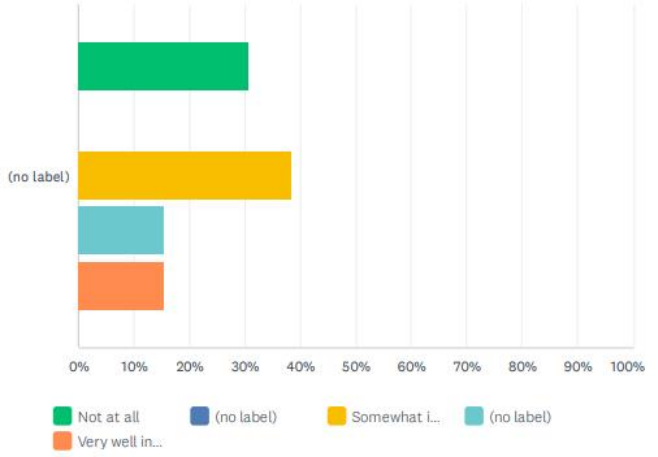
Answered: 13 Skipped: 0



	NOT AT ALL	(NO LABEL)	SOMEWHAT INFORMED	(NO LABEL)	VERY WELL INFORMED	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	0.00% 0	46.15% 6	15.38% 2	38.46% 5	13	3.92

Q2 How well informed do you feel when harm events happen to patients outside of your unit?

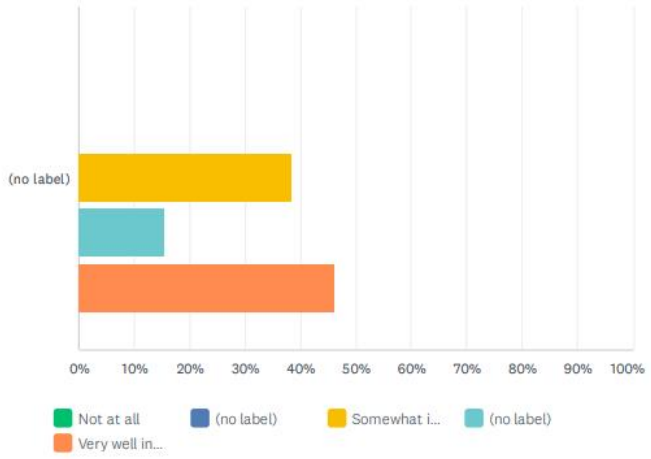
Answered: 13 Skipped: 0



	NOT AT ALL	(NO LABEL)	SOMEWHAT INFORMED	(NO LABEL)	VERY WELL INFORMED	TOTAL	WEIGHTED AVERAGE
(no label)	30.77% 4	0.00% 0	38.46% 5	15.38% 2	15.38% 2	13	2.85

Q3 How well informed do you feel when harm events happen to patients on your unit?

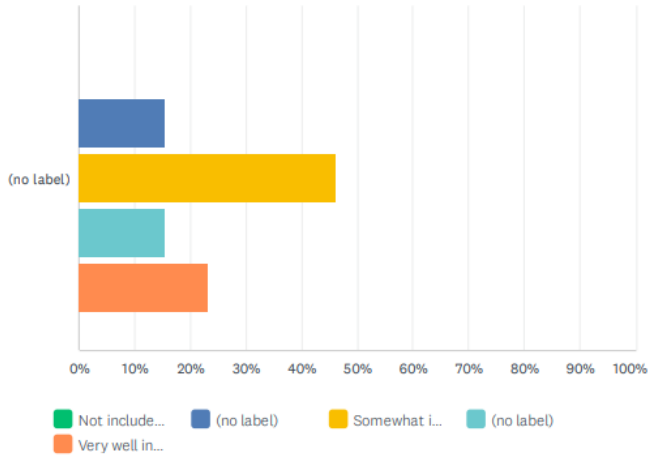
Answered: 13 Skipped: 0



	NOT AT ALL	(NO LABEL)	SOMEWHAT INFORMED	(NO LABEL)	VERY WELL INFORMED	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	0.00% 0	38.46% 5	15.38% 2	46.15% 6	13	4.08

Q4 How included do you feel in overall medical center operations?

Answered: 13 Skipped: 0



	NOT INCLUDED AT ALL	(NO LABEL)	SOMEWHAT INCLUDED	(NO LABEL)	VERY WELL INCLUDED	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	15.38% 2	46.15% 6	15.38% 2	23.08% 3	13	3.46

Appendix I

CNL Project: Statement of Non-Research Determination Form

Student Name: David Sprecher

Title of Project: Improved Frontline Communication

Brief Description of Project:

A) Aim Statement: By June 1, 2022, as a result of increased communication, the outcome of front-line staff surveys in the med/surg unit will show an increase in positive responses related to perceptions of unit performance and information transparency.

B) Description of Intervention: Unit or hospital lever performance data will be posted in an area reserved for the information in the break room. The posting will include trended data as well as data comparing performance against other hospitals. A summary of a patient safety event will be posted in a separate area in bright coloured paper as soon as it is reported to hospital leadership. All of these postings will be removed after 1 week.

C) How will this intervention change practice? Frontline staff will have more context to understand why leaders are asking them to improve in specific areas of practice or have confirmation that their efforts have had a positive impact on practice. Sharing safety events will allow frontline staff to assess their own practice and physical space for the risks involved in the case. Removal of postings in a week will avoid the "wallpaper" effect where staff no longer look at new information because they assume it's the old information.

D) Outcome measurements: 50% of surveyed staff will show an increase in positive responses related to perceptions of unit performance and information transparency.

To qualify as an Evidence-based Change in Practice Project, rather than a Research Project, the criteria outlined in federal guidelines will be used: (http://answers.hhs.gov/ohrp/categories/1569)

X This project meets the guidelines for an Evidence-based Change in Practice Project as outlined in the Project Checklist (attached). Student may proceed with implementation.

☐This project involves research with human subjects and must be submitted for IRB approval before project activity can commence.

Comments:

EVIDENCE-BASED CHANGE OF PRACTICE PROJECT CHECKLIST *

Instructions: Answer YES or NO to each of the following statements:

Project Title: Frontline Communication	**YES**	**NO**
The aim of the project is to improve the process or delivery of care with established/ accepted standards, or to implement evidence-based change. There is no intention of using the data for research purposes.	**x**	
The specific aim is to improve performance on a specific service or program and **is a part of usual care**. ALL participants will receive standard of care.	**x**	
The project is **NOT** designed to follow a research design, e.g., hypothesis testing or group comparison, randomization, control groups, prospective comparison groups, cross-sectional, case control). The project does **NOT** follow a protocol that overrides clinical decision-making.	**x**	
The project involves implementation of established and tested quality standards and/or systematic monitoring, assessment or evaluation of the organization to ensure that existing quality standards are being met. The project does **NOT** develop paradigms or untested methods or new untested standards.	**x**	
The project involves implementation of care practices and interventions that are consensus-based or evidence-based. The project does **NOT** seek to test an intervention that is beyond current science and experience.	**x**	
The project is conducted by staff where the project will take place and involves staff who are working at an agency that has an agreement with USF SONHP.	**x**	
The project has **NO** funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.	**x**	
The agency or clinical practice unit agrees that this is a project that will be implemented to improve the process or delivery of care, i.e., **not** a personal research project that is dependent upon the voluntary participation of colleagues, students and/ or patients.	**x**	
If there is an intent to, or possibility of publishing your work, you and supervising faculty and the agency oversight committee are comfortable with the following statement in your methods section: *"This project was undertaken as an Evidence-*	**x**	

based change of practice project at Kaiser South San Francisco hospital or agency and as such was not formally supervised by the Institutional Review Board."		

ANSWER KEY: If the answer to **ALL** of these items is yes, the project can be considered an Evidence-based activity that does NOT meet the definition of research. **IRB review is not required. Keep a copy of this checklist in your files.** If the answer to ANY of these questions is **NO**, you must submit for IRB approval.

*Adapted with permission of Elizabeth L. Hohmann, MD, Director and Chair, Partners Human Research Committee, Partners Health System, Boston, MA.

STUDENT NAME (Please print): David Sprecher

_____

Signature of Student: David Sprecher_____DATE__4/4/22___

SUPERVISING FACULTY MEMBER NAME (Please print):

Signature of Supervising Faculty Member

Catherine Coleman **DATE__4/6/22 approx**