

Faculty Well-being in an Orthopaedic Department

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BACKGROUND

Physician well-being is an important topic in academic medicine throughout the country. While there is a large focus on trainees, faculty well-being is just equally important given the hierarchical system of medicine and the potential trickle-down effects of wellness. There has been a large turnover of physicians in recent years, with many retiring early or switching positions where well-being has likely been a contributing factor.

The annual ACGME survey administered to faculty involved with training programs is a reliable measure of well-being attitudes and concerns. At the University of Maryland Orthopaedic department, our scores over the past few years have been consistently below national averages. Of the 12 statements focused broadly on well-being, our department has low scores in three areas - Faculty support, Time available to think and reflect, and Burnout.

While the survey provides a baseline understanding of where we stand with well-being, it does not capture what factors are contributing to the low scores and how to improve them. In addition, the survey excludes key perspectives from clinical faculty who are part of the Orthopaedic department but do not teach Orthopaedic residents.

DESIGN

To better understand the driving factors for our low well-being scores and determine potential ways to improve, we facilitated a more detailed survey of all clinical faculty in the Orthopaedic department. We relied on the Stanford Medicine and WellMD Wellness survey, a well-being survey that has been recommended by the Association of American Medical Colleges (AAMC), which consists of five sections: Professional fulfillment; Burnout; Self-valuation/self-compassion; Sleep-related impairment; Impact of work on personal relationships.

Each section has statements about well-being graded on a Likert scale. The survey was distributed in early August to all Orthopaedic clinical faculty members and Orthopaedic residents, to obtain a baseline at the beginning of the new academic year. The survey was then sent out to all respondents in early November. Survey data was captured via REDCap. At the completion of the three-month follow-up, we held a focus group with residents to gather qualitative insights as a complement to the survey data.

RESULTS

- 46 faculty members and residents out of 66 total responded to the first survey (~70%). Of the 46, 32 responded to the 3-month follow-up survey (~70%, ~48% of total). (*Table 1*)
- In four of the five survey sections, there were no differences in well-being between residents and attendings over three months. In Burnout, residents had an average increase of 6.6 compared to an average decrease of -7.9 for attendings. (*Table 2*)
- For resident physicians, there were no differences in well-being at follow up or change in wellness between different PGY years. In general, PGY1s reported significantly greater sleep impairment than PGY5s. In addition, the more junior residents (mainly PGY2s) reported worse wellness than more senior residents, but this was not statistically significant.
- For attending physicians, there were no significant differences in well-being from baseline to 3-month follow-up. At baseline, there was a significant difference in self-valuation, sleep impairment, and impact on personal relationships. Multiple comparisons showed that attendings 7 to 15 years into practice reported significantly greater impact on personal relationships than attendings both 0 to 7 years or 15+ years into practice and significantly greater worse self valuation than 0-7 years only. In addition, faculty 15+ reported less self impairment than both 0-7 and 7-15 years (Table 3)

Table 1: Summary of Demographics

	Initial (n=46)	Follow up (n=32)
	N (%) or Mean (SD)	N (%) or Mean (SD)
Age	35.4 (9.3)	36.9 (8.1)
Position		
Resident	27 (58.7)	15 (46.9)
Attending	19 (41.3)	17 (53.1)
PGY level (resident only)		
1	4 (14.8)	1 (6.7)
2	5 (18.5)	3 (20.0)
3	6 (22.2)	2 (13.3)
4	6 (22.2)	4 (26.7)
5	6 (22.2)	5 (33.3)
Years in Practice (attending only)		
0 to 7	8 (42.1)	7 (41.2)
7 to 15	6 (31.6)	6 (35.3)
15+	5 (26.3)	4 (23.5)

Table 2: Summary of Initial and Follow up Wellness Survey Responses (N=32)

Wellness Survey Component	Initial Mean (SD)	Follow up Mean (SD)	Change Mean (SD)	P value
Professional Fulfillment	68.6 (18.7)	68.0 (18.2)	-0.6 (18.0)	0.72
Burnout	36.4 (17.1)	35.3 (14.6)	-1.1 (17.7)	0.65
Self-Valuation	52.9 (24.1)	53.6 (23.9)	0.7 (20.7)	0.89
Sleep Impairment	26.3 (15.7)	26.7 (18.3)	0.3 (17.0)	0.93
Impact on Personal Relationships	29.5 (26.2)	31.6 (20.9)	2.1 (17.7)	0.48
Scores normalized to 0-100 scale. Higher score on Profession Fulfillment and Self-Valuation indicates better "wellness"; higher score on Burnout, Sleep Impairment, and Impact on Personal Relationships indicates worse "wellness"				

Table 3: Summary of Attending Years in Practice

Wellness Survey Component	Initial (N=46)				Follow up (N=32)			
	0-7 years (N=8)	7-15 years (N=6)	15+ years (N=5)	P value	0-7 years (N=8)	7-15 years (N=6)	15+ years (N=5)	P value
Professional Fulfillment	66.4 (16.7)	66.1 (8.5)	81.9 (20.8)	0.23	70.5 (19.8)	68.2 (15.5)	82.8 (17.2)	0.39
Burnout	35.0 (19.0)	48.8 (14.1)	29.5 (26.0)	0.26	30 (17.1)	37.9 (12.8)	23.1 (13.4)	0.31
Self-Valuation*	63.3 (17.2)	28.1 (14.7)	57.5 (27.7)	0.001	69.6 (25.4)	42.4 (26.4)	45.3 (19.3)	0.16
Sleep Impairment**	27.6 (11.3)	36.9 (12.3)	9.3 (4.0)	0.004	22.4 (15.7)	32.1 (21.4)	13.3 (12.1)	0.25
Impact on Personal Relationships***	17.2 (9.9)	57.3 (30.2)	17.5 (23.1)	0.04	19.6 (15.1)	45.8 (24.6)	34.4 (18.8)	0.12

*On multiple comparisons, significant difference between 0-7 years and 7-15 years (p=0.004) at initial only

**On multiple comparisons, significant difference between 15+ years and both 0-7 (p=0.005) and 7-15 (0.008) at initial only

***On multiple comparisons, significant difference between 7-15 and both 0-7 (p=0.04) and 15+ (0.04) at initial only

DISCUSSION

For Orthopaedic residents, results were as expected, with more junior residents reporting poorer well-being compared to senior residents. In our focus group, several junior residents felt call burden was a key factor in decreasing their well-being. As a follow up, "wellness champions" of the resident class will explore potential plans to ease the impact of call burden, as well as reinstate events every few months that had been paused due to the pandemic.

For Orthopaedic faculty, results were largely in line with expectations. We attempted to conduct a focus group of faculty members, but due to scheduling conflicts we will plan to hold it during an upcoming faculty retreat. We have heard informal feedback from key stakeholders in the department that an area that likely contributes to poorer well-being is the call center/Epic inbox management for established patients.

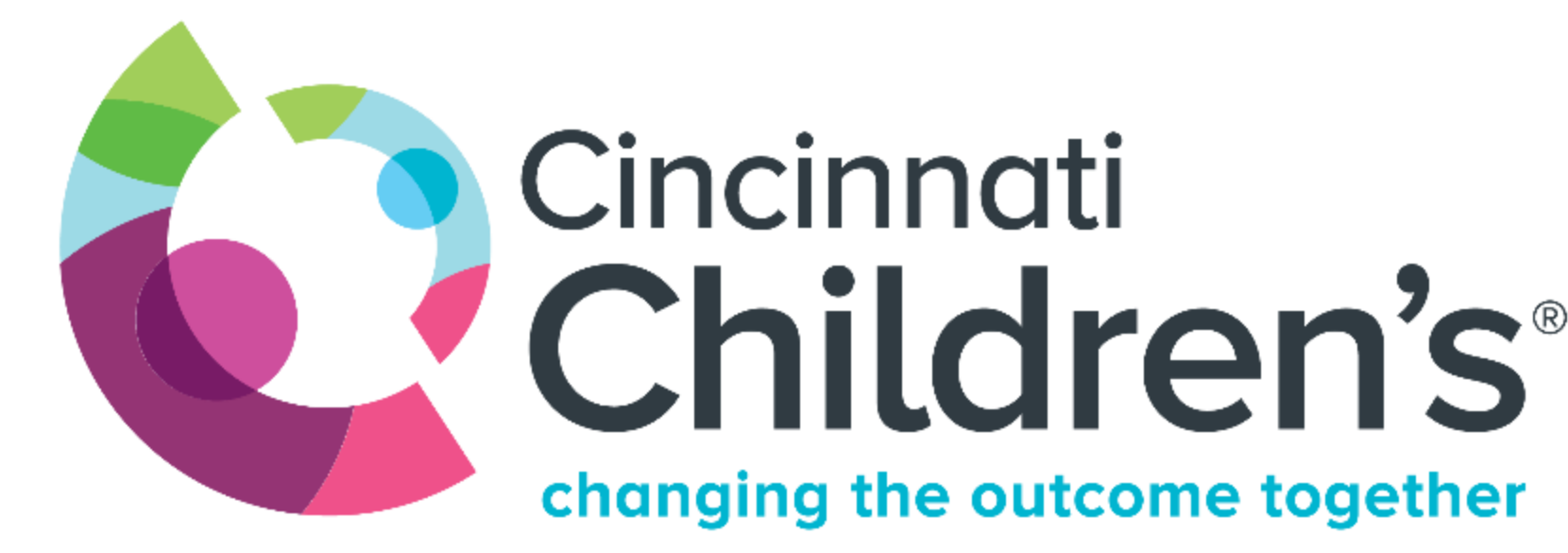
We did see an unexpected result of 7-15 year faculty reporting significantly greater sleep impairment, impact on personal relationships, and worse self valuation compared to other experience year cohorts. An initial hypothesis on the reason for poorer well-being amongst 7-15 year faculty members is that this timeline coincides with the average time towards promotion from Assistant to Associate Professor. We plan to focus on this cohort more specifically to better understand low scores as part of the focus groups in early 2023.

NEXT STEPS

A taskforce has been created to determine ways to triage messages about patients more appropriately, thereby decreasing the burden on faculty to address non-clinical or routine matters. Our future focus group will also try to better ascertain poorer well-being amongst faculty 7-15 years in practice, whether that be related to promotion or other factors.

In addition, we will track the ACGME faculty well-being scores over the next several years, to see if any changes that come about from these focus group meetings will lead to meaningful improvement in well-being.

What am I doing tomorrow? Improvement in timely release of pediatric rehabilitation outpatient trainee calendar



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Background

It is well documented that physician burnout, both for residents and attendings is high in today's age. Physician wellness and burnout are multifactorial, and many have attempted to elucidate factors that contribute. Specifically, many have looked at various aspects of physician scheduling and their impact on physician wellness. Lack of control of scheduling has been associated with lower measures of wellness¹ and has been reported to directly impact resident ability to access their own healthcare.² One aspect of this relates to timely knowledge of schedules in advance and programs to improve this have been suggested as one component to schedule reform.^{3,4}

Similar findings have been reported in employees outside healthcare as well. It has been found that schedule flexibility and schedule control are linked to employee satisfaction, and advance knowledge of schedules appears to impact employee turnover in lower income workers.^{5,6}

During the 2022 Program Evaluation Committee meeting for our pediatric rehabilitation fellowship program, the pediatric rehabilitation fellows voiced low satisfaction with the amount of time they receive their outpatient schedules prior to the start date for the block. This has also been brought up more informally as a concern in years prior, and we previously tried to informally implement changes with minimal success.

Given the impact that scheduling flexibility and advance notice seem to have on physician wellness, and the reports that we are often not providing the pediatric rehabilitation trainees their schedule with adequate advanced notice the goal of this QI project was to improve the timely release of trainee outpatient calendars.

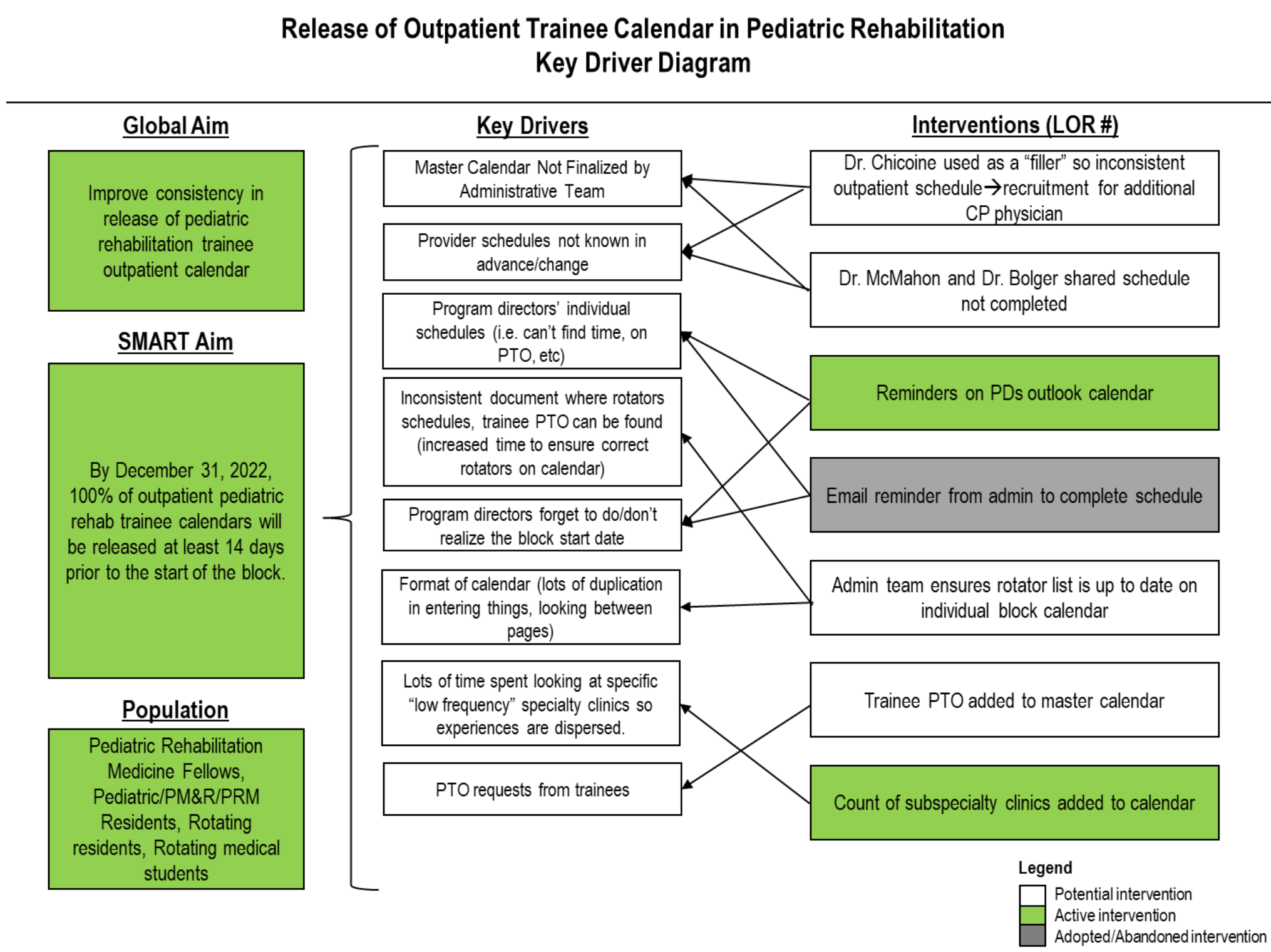
SMART Aim Statement

By December 31, 022, the division of pediatric rehabilitation at Cincinnati Children's hospital will release of the outpatient calendar to the pediatric rehabilitation trainees at least 14 days prior to the start of the block.

Methods

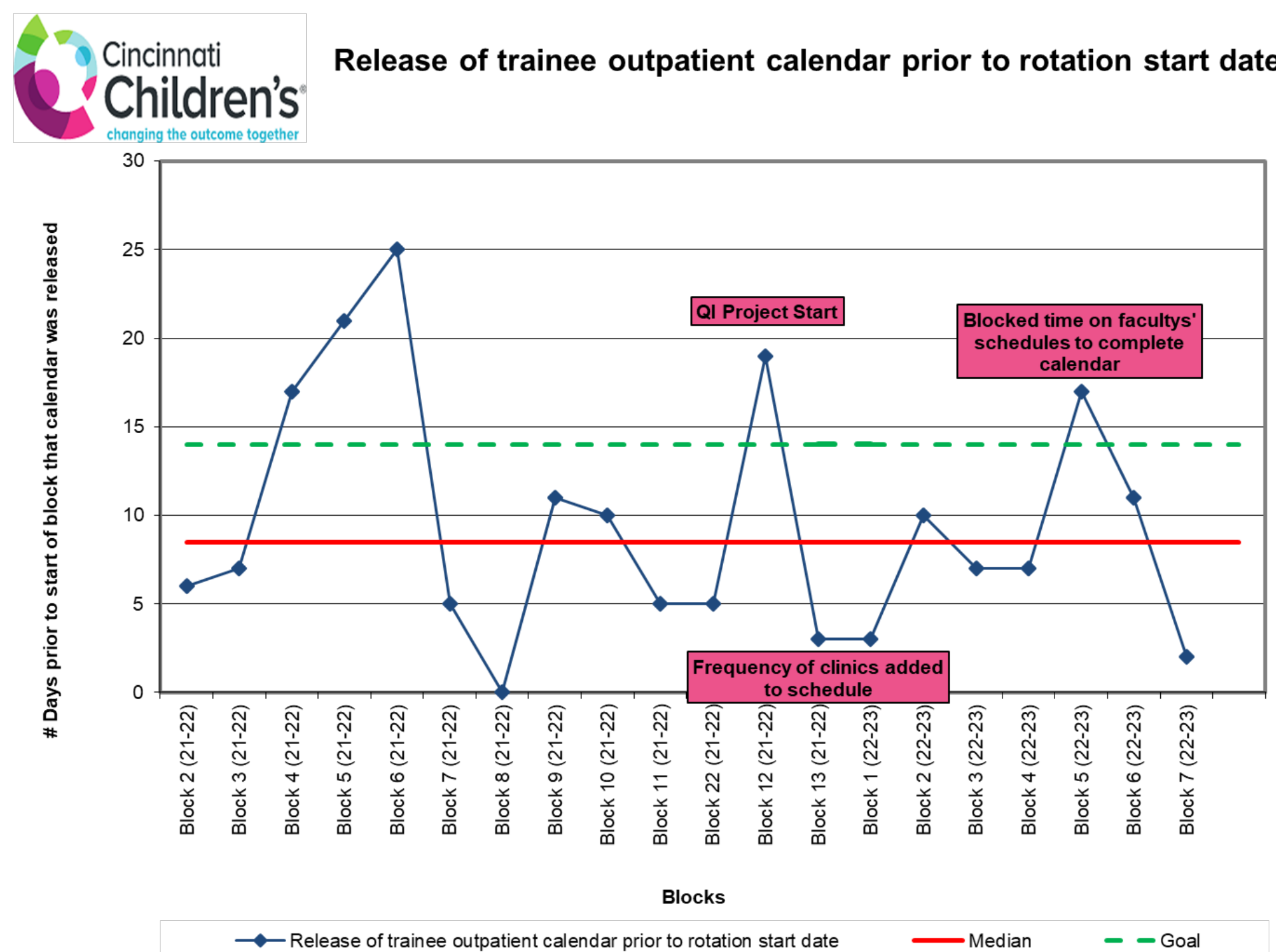
Working Group Members: Given that there are multiple steps as well as multiple people involved in the outpatient calendar prior to its official release, a working group with input from the physician and business side was convened. Members included the pediatric rehabilitation residency program director/medical student clerkship director, the pediatric rehabilitation medicine fellowship associate program director involved in scheduling, the CCHMC pediatric rehab business director, and the CCHMC pediatric rehab senior administrative assistant/business manager.

Meetings: An initial meeting was convened with all working group members to discuss pros and cons of the current outpatient calendar process. As part of this discussion, each member reported on the specific steps in which they are involved in the outpatient calendar maintenance and their current approach. Finally key drivers impacting the process were discussed and expanded upon. Following the initial meetings, working group members connected via email three additional times during the QI project. During these discussion, updates to the calendar process were discussed and upcoming tests of change were agreed upon.



Results

- The QI project spanned 8 total blocks of time from June 2022 to December 2022)
- Review of baseline data revealed wide variability in the release of the trainee calendar (Min 5 days, Max 25 days release prior to start date; Average 11.9 \pm 7.3 days)
- Two tests of change were formally implemented during the project
 - Number of low frequency clinics added to calendar template each month
 - Time was blocked on each faculty's schedule approximately 3 weeks prior to the start of each block to complete the schedule
- Variability in the release of the calendar persisted and the overall average worsened despite the ongoing QI project (Min 2 days, Max 17 days, Average 7.5 \pm 5.7 days)



Discussion

- As expected, release of trainee calendar was quite variable prior to QI project due to a multitude of factors. Factors in which the study team had the most control were chosen as initial tests of change for the project.
- Despite improved time to finalize calendar, addition of subspecialty clinic counts, and blocking time on the schedules for the two faculty who place rotators on the calendar, the time between release of the calendar and start date of the block worsened.
- By focusing on tests of change the study team had control over, it is possible that factors with the most potential impact were not chosen.

Discussion (cont.)

- Qualitative feedback from the two faculty in charge of the calendar revealed that despite blocking time on their calendars, they often would get busy doing other things and "ignore" the official time. However, both faculty agreed that knowledge of block start date was improved from previous years and was no longer a factor.
- Additional qualitative feedback revealed that a large barrier to completing the calendar was confirming the schedules for rotating residents/fellows from outside the division as well as all rotators not being added on to the master calendar prior to faculty's dedicated block of time to work on this.
- When evaluating key drivers in a QI project, it is important to not only think about the ones in your control, but also evaluate their contribution to your overall SMART Aim and thus ability to implement successful tests of change

Conclusion

The process of releasing the CCHMC Division of Pediatric Rehabilitation calendar is complex and impacted by a multitude of factors specific to faculty, trainees, and the administrative team. While we did not improve the timely release of the calendar during the timeframe, it is imperative to continue with a multidisciplinary approach for this process.

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PLAN

Find the problem

The current high volume of EPIC Secure Chats (ESCs) negatively impacts clinical staff productivity

Organize a team

Executive Sponsor: Hospital President

Administrative Champion: IRF Director

Team Leader: Therapy Supervisor

Project Champion: Medical Director

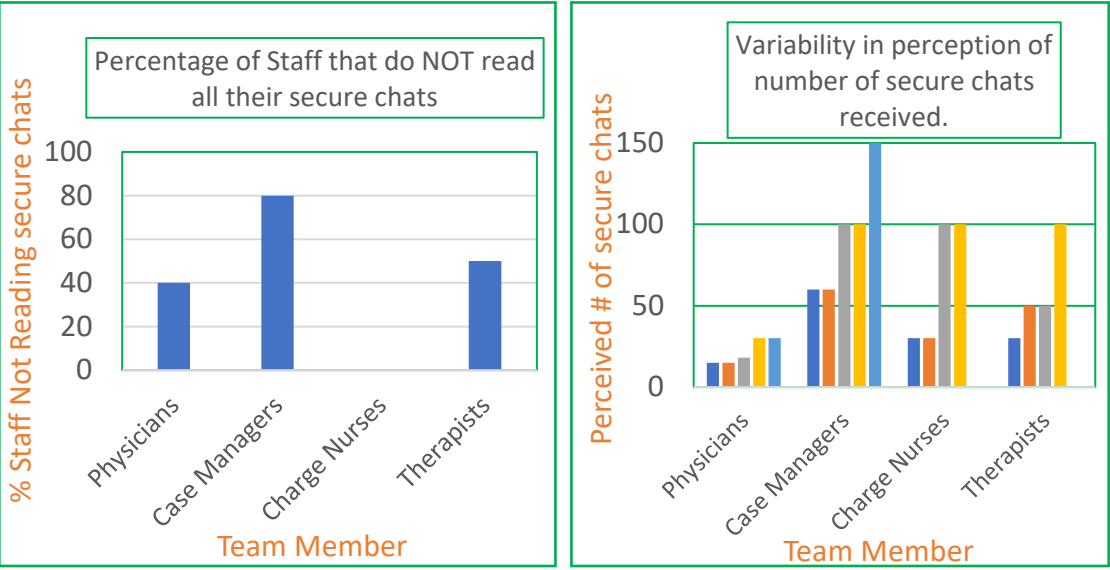
Clarify current state

- 1. Staff perception of ESCs was obtained via a 3-question survey. Survey results revealed: staff felt ESCs was utilized too frequently, not all staff members read their secure chats and some felt it kept them from attending to other duties.
- 2. Created an EPIC report to identify number of ESCs each team member sent/received

Understand the problem: Project Champion had one on one interviews with all surveyed staff members. It became evident all utilized ESCs and felt they were useful, but they also found ESCs were disruptive to clinical and administrative duties.

Select an intervention: Decrease the number of ESCs by 50% via implementing a daily standardized 5-minute huddle including the attending physician, case manager, charge nurse and therapist.

Secure Chats: Friends or Foes?



STUDY

- Survey results did not change post intervention.
- EPIC report data did not change post intervention.
- EPIC report only gave information on number of patients that were discussed not number of chats sent/received; therefore, it was difficult to objectively quantify burden of secure chats staff members sent/received.
- It's hard to quantity volume of ESCs due to lack of specificity in unit of "one EPIC secure chat".
- Project Champion met with each team one on one to discuss their thoughts on huddle & to identify what the team member felt would help decrease number of ESCs .
- Goal of Decreasing number of secure chats is synonymous with goal of improving communication, which is a much larger task.
- There is a complex relationship with ESCs. While team members felt they received too many, ESCs were disruptive and ESCs kept them from other work, staff stressed the utility of & dependency on ESCs.
- It became clear that, some staff were fearful ESCs would be eliminated because of this project, creating the potential of response bias.
- The implemented intervention was proposed by project champion not frontline staff.

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External Mentor: Dr. Michael Mallow M.D.
Internal Mentor: Julie Goldsmith M.H.A.

ACT

- Go back to the drawing board.
 - Reframe the goal: improve communication via team members through ESCs. To decrease the number of ECS, you must improve team communication. Our results suggest, ESCs were not the issue but lack of effective team communication was. ESCs were potentially being used as a crutch in a setting that needed improved communication. Also, a goal of decreasing ESCs by 50% is arbitrary at this point. More investigation is needed to identify ideal number of daily ESCs.
1. New solutions have been proposed by front line staff, which we have started to implement:
 1. Reorganize entire team: PT/PTA/OT/OTA/SLP/Attending Physician/Case Manager serve as 1 team. We are creating five different teams to cover 50 inpatient rehabilitation beds. This will help foster team dynamics and camaraderie organically.
 2. Educate Nursing & Therapy staff during staff meeting on ESC etiquette (i.e. do not send one chat only to say "thank you")
 3. Nurse& therapy educators to work with nursing & therapy to identify clinically appropriate ESC content (i.e. new neurological change is not appropriate for ESC).
 4. Case Manager create one running note for each patient, for entirety of their inpatient rehabilitation stay. This will help therapy/physician/nursing to have one document to reference regarding discharge planning.
 5. Work with EPIC to create a report that is more specific in identifying number of ESCs received not number of patients discussed via ESCs.
 6. Work with EPIC to optimize the ESC Screen: increase font size to better read, allow users to group ESCs by either sender name or patient name, utilize a search function on the screen.

DO

- Initiated a daily standardized Huddle Led by Case Management (CM) lasting 5 minutes per physician team.

Standardizing the Discharge Process in the Spinal Cord Injury Unit at the Michael E. DeBakey VA Medical Center (MEDVAMC)

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ABSTRACT

Objectives: Evaluate, standardize, and streamline discharge processes in the SCI care line at MEDVAMC

Design: Process improvement project

Setting: VA hospital

Participants: Stakeholders, including interdisciplinary members of the SCI team

Interventions: Standardization of SCI discharge workflow through iterative discussion with main stakeholders. Creation of SCI discharge checklists for each discipline in the care team

Main Outcome Measures: Discharge processes knowledge and satisfaction pre- and post-surveys

Results: Knowledge and satisfaction with SCI discharge processes at MEDVAMC improved after processes were standardized among the inpatient teams and SCI discharge checklists were implemented.

Conclusions: Incorporating interdisciplinary stakeholder feedback to create more standardized and streamlined discharge processes in the SCI care line led to greater familiarity and satisfaction with discharge processes among SCI care team members. Additionally, the creation of SCI discharge checklists provided infrastructure and decision support that relied less on individual care team members' memory and are therefore less prone to error

INTRODUCTION

Discharge from the spinal cord injury (SCI) care line at the Michael E. DeBakey VA Medical Center (MEDVAMC) is highly complex due to a medically and socially complex patient population with diverse needs across the spectrum of SCI care (acute rehabilitation to management of chronic complications of SCI). MEDVAMC is a referral center for SCI, serving veterans from spoke sites across 7 states, adding to discharge complexity.

PLAN

An interdisciplinary task force comprised of physicians, physician associates, case management, nursing, social work, therapists, nursing, and psychology was convened to gather feedback on current practices, create a shared practice standard for what discharge processes ought to be, and perform knowledge assessment of providers on discharge practice standards prior to intervention. Challenges noted during discharge planning process:

- Workflows were not standardized across three inpatient services
- Absence of easily accessible shared repository of status updates for necessary discharge and follow-up items
- Limited decision support tools built into electronic medical record
- Deficiencies noted in key elements of discharge summary template (e.g., missing physical exam)
- Infrequent discharges (1-2/month) leading to trainees who had limited experience with discharges often responsible for the most work

A detailed discharge checklist had previously been created but had fallen into disuse due to staff turnover and limited dissemination (stored in shared drive but not in electronic medical record).

DO

Discharge work-flow was standardized, and the existing discharge checklist was revised, incorporating feedback from task force members, other SCI care line members, and staff at SCI spoke sites in neighboring states.

Revised discharge checklists featured specific instructions geared towards users with relatively little experience in discharges and ensured tasks were assigned to disciplines reflecting current practice among SCI team members. Revised checklists were incorporated into existing documentation in the medical record (previously stored on a shared drive that team members had difficulty locating).

Created a revised discharge summary template which included previously noted deficiencies in prior discharge summary template.

Updated work-flows, discharge checklists, and discharge summary template were widely disseminated among SCI team members.

STUDY

VA SCI Discharge Processes – Knowledge and Satisfaction Pre-Survey:

- 9/25 (36%) respondents rated discharge processes as “not at all clear” or “not so clear”, 8/25 (32%) respondents rated discharge processes as “somewhat clear”
- 11/25 (44%) strongly disagreed or disagreed with the statement “The process of discharging a patient is standardized across inpatient SCI services”, 10/25(40%) respondents neither agreed nor disagreed
- 12/25 (48%) respondents found it “very difficult” or “difficult” to locate information regarding the status of required items for discharge in the medical record. 7/25 (28%) respondents found it “neither easy nor difficult”
- 7/25 (28%) respondents were “very dissatisfied” or “dissatisfied” with the current discharge process. 12/25 (48%) respondents were “neither satisfied or dissatisfied”
- 17/25 (68%) respondents were unaware there was a discharge checklist

VA SCI Discharge Processes – Knowledge and Satisfaction Post-Survey:

- 19/37 (51%) respondents rated discharge processes as “extremely clear” or “very clear”, 12/37 (32%) respondents rated discharge processes as “somewhat clear”
- 24/37 (65%) strongly agreed or agreed with the statement “The process of discharging a patient is standardized across inpatient SCI services”
- 18/37 (49%) respondents found it “very easy” or “easy” to locate information regarding the status of required items for discharge in the medical record. 11/37 (30%) respondents found it “neither easy nor difficult”
- 22/37 (59%) respondents were “very satisfied” or “satisfied” with the current discharge process. 13/37(35%) respondents were “neither satisfied or dissatisfied”
- 23/37 (62%) respondents were aware there was a discharge checklist

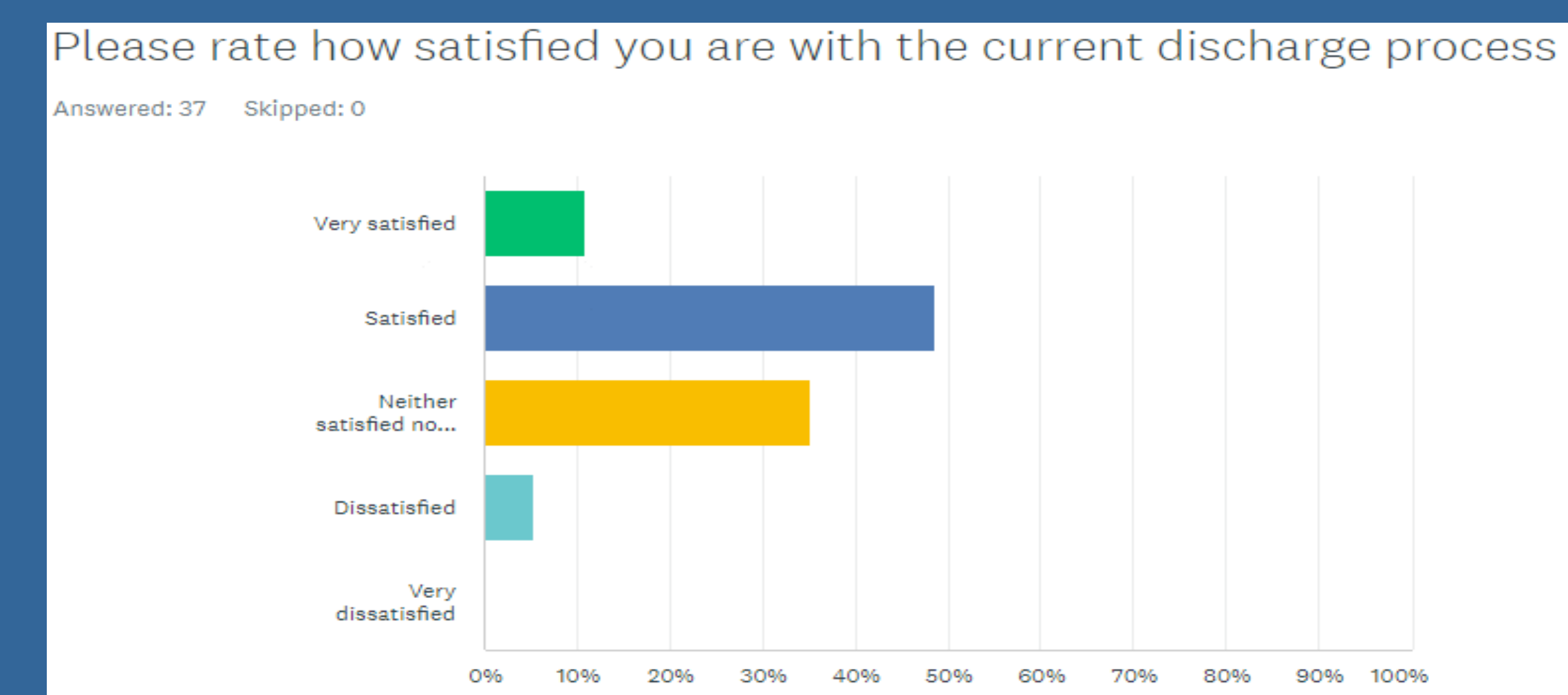
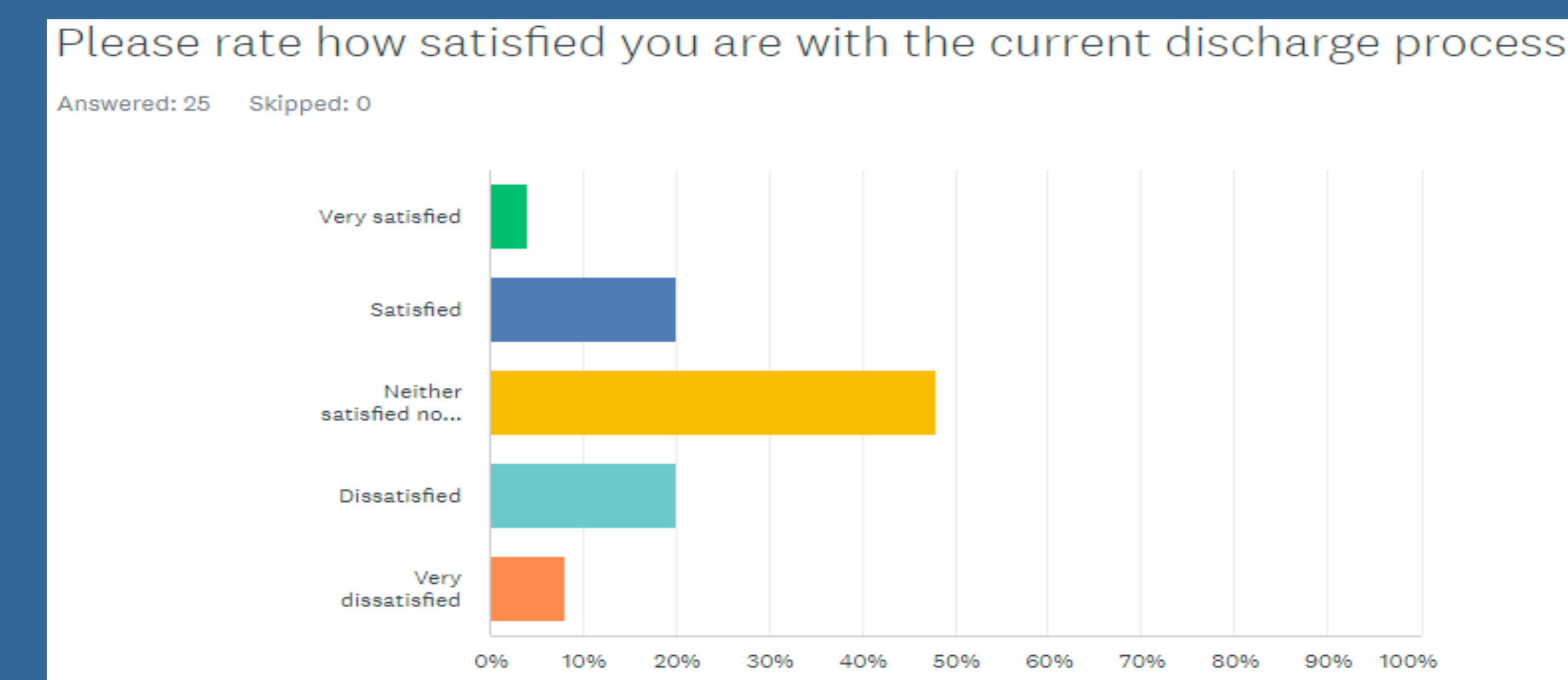


Figure 2. Satisfaction with discharge processes pre- and post-intervention

ACT

The SCI Discharge Processes PIP improved interdisciplinary team member knowledge and satisfaction of discharge processes within the VA. Future directions of this work include:

- Continuing to refine SCI discharge workflows and checklists as needed and encourage adoption among care team members.
- Monitoring impact on outcomes such as length of stay, percentage of rehab patients with both initial and discharge family team meetings, compliance with life-sustaining treatment documentation, percentage of patients with post-discharge follow-up, satisfaction with outpatient and spoke site providers with quality and consistency of discharge hand-off
- Developing additional discharge support tools, including a discharge order set

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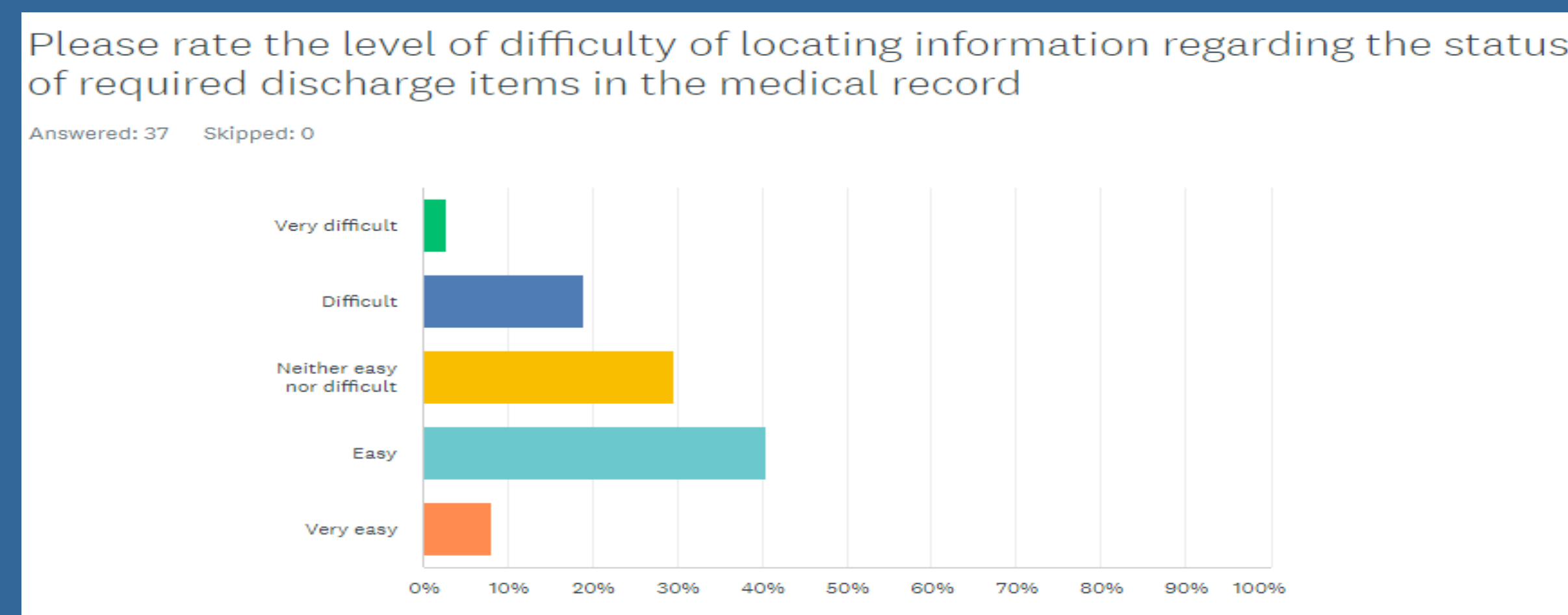
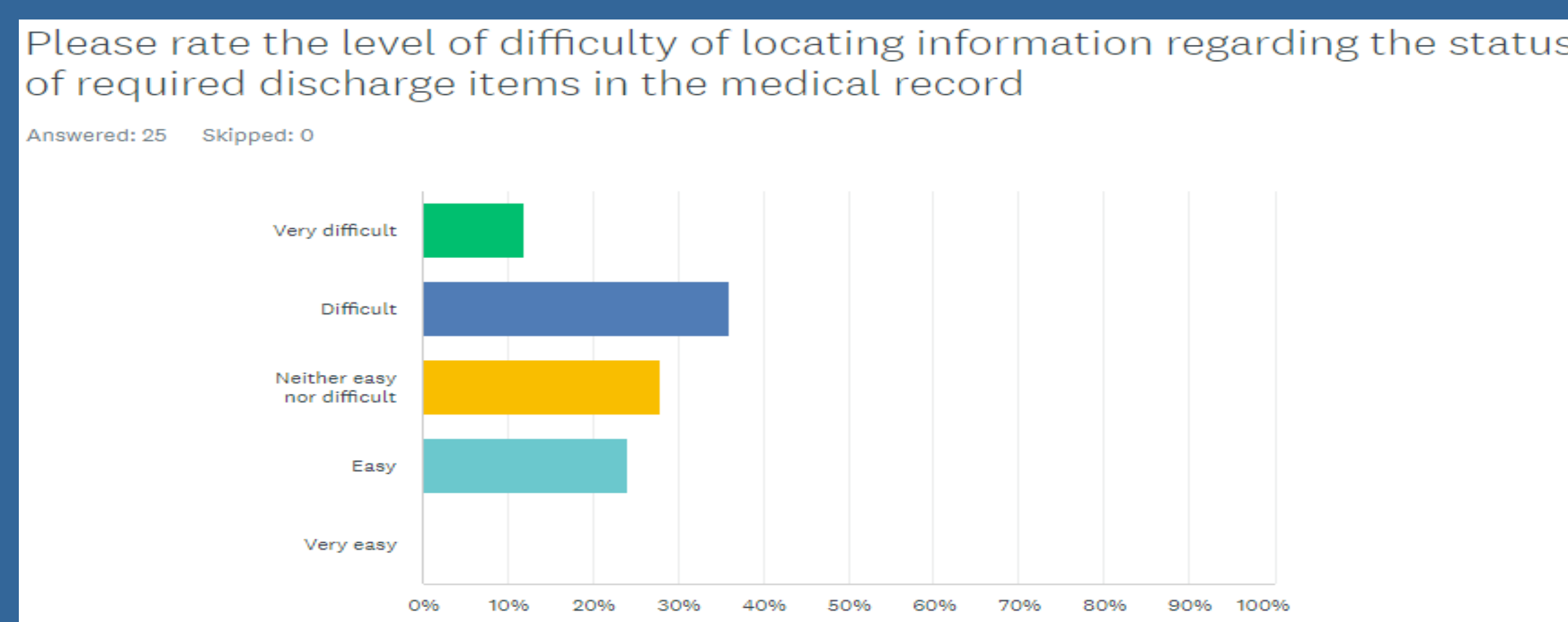


Figure 1. Difficulty of locating discharge status updates in medical record pre- and post-intervention

Using the EHR to Improve Provider Wellbeing

Ashlee Jaffe, MD, MEd

BACKGROUND

An institution-wide provider survey identified our division as an outlier for negative interaction with our EHR (EPIC). Our division's EHR helpfulness scores were significantly below the hospital wide average (Figure 1) and negative experiences with EHR significantly above hospital wide average (Figure 3). Baseline data also reflected providers feeling the amount of work that must be done in the EHR per patient as being excessive and having to spend too much time completing tasks that could be done by other team members (Figure 4). Our division participated in a Department of Pediatric EPIC Optimization SPRINT¹ in May 2020, however there is still a varying degree of comfort and efficiency using EPIC in our division. The goal of this project is to improve provider wellbeing by decreasing the negative perception of the EMR by making modifications at a division level.

INTERVENTIONS

Survey data and EPIC Signal data will inform suggested changes. All documentation changes will be run past stakeholders to ensure we are still meeting billing, compliance, research registry, and educational stakeholders' needs. Benchmarking both within the institution and nationally (via EPIC Userweb & EPIC Signal) will be used to help identify potential areas for improvement.

A provider survey will be utilized to better understand better each provider's individual EPIC challenges to determine which components of the system are causing undue burden and are able to be modified to better meet user needs. A provider meeting will be held to solicit qualitative input to the project. Improvements will be built and implemented based on provider input. New billing guidelines will also help inform documentation changes. Signal data from EPIC along with provider survey data will be used to obtain baseline and follow up data on pertinent metrics. Annual Department of Pediatrics survey data will be reviewed upon completion of the project to further determine if improvements have been made.

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SMART Aim

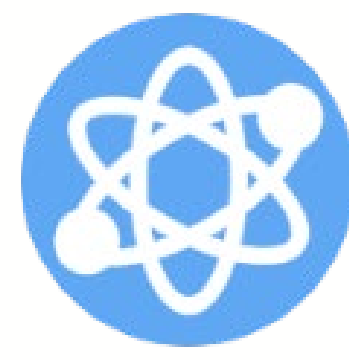
The aim of this project is to improve divisional “negative experiences with EHR” scores by 20% on the annual Department of Pediatrics provider survey EHR scores from an average of 6.31 to 5.05 by May 1st, 2023.



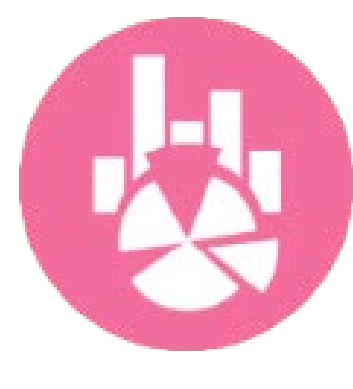
Reduce Unnecessary Care



Reduce Disparities in Care



Research & Innovation



Clinical & Operational Excellence

OUTCOMES

Documentation length was identified as both an outlier on EPIC Signal data and was felt to correlate with “the amount of work I have to do per patient is excessive”.

Documentation length for providers in the Division of Pediatric Rehabilitation Medicine was in December 2022 on average 8.3k characters in outpatient and 9.5k characters in inpatient, which is in the bottom 10% of providers at our institution.

- One inpatient provider averages 16k characters per note while another averages 6k characters per note.
- One outpatient provider averages 16k characters per note, while another averages 7.1k characters per note.

Review of sample notes from each provider helped identify areas where documentation was significantly in excess of similar providers and fed back to those with higher character counts in their notes. Time in notes (both signal data and provider survey data/perceptions) will be used to guide individualized improvement strategies.

EPIC Signal data will be audited monthly following the intervention, with continuous feeding back of data to providers. Provider baseline and follow up survey data will be used to track improvements over time.

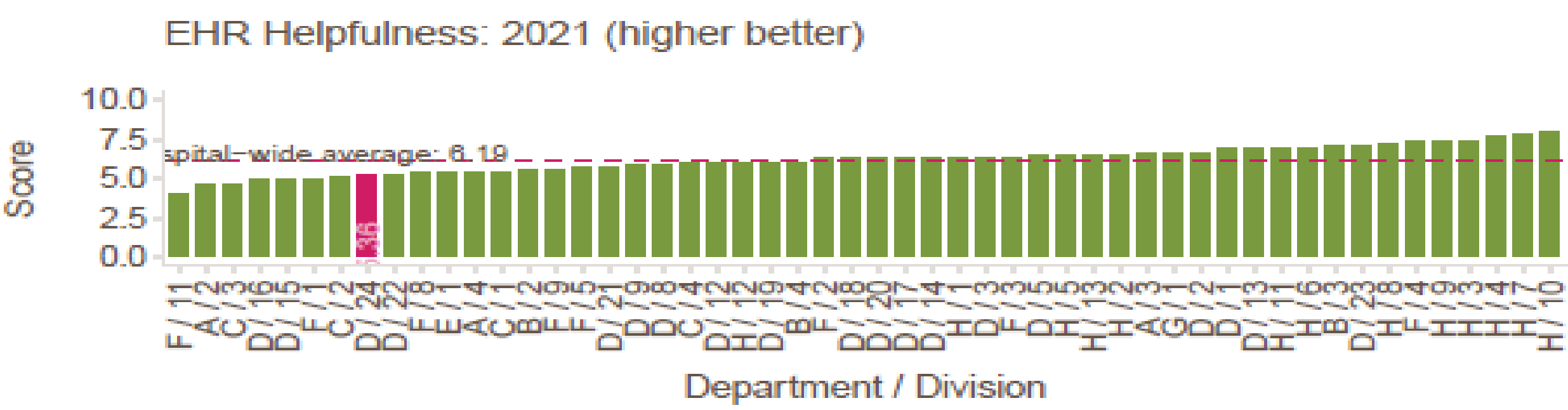


Figure 1: Distribution of divisional scores, EHR helpfulness

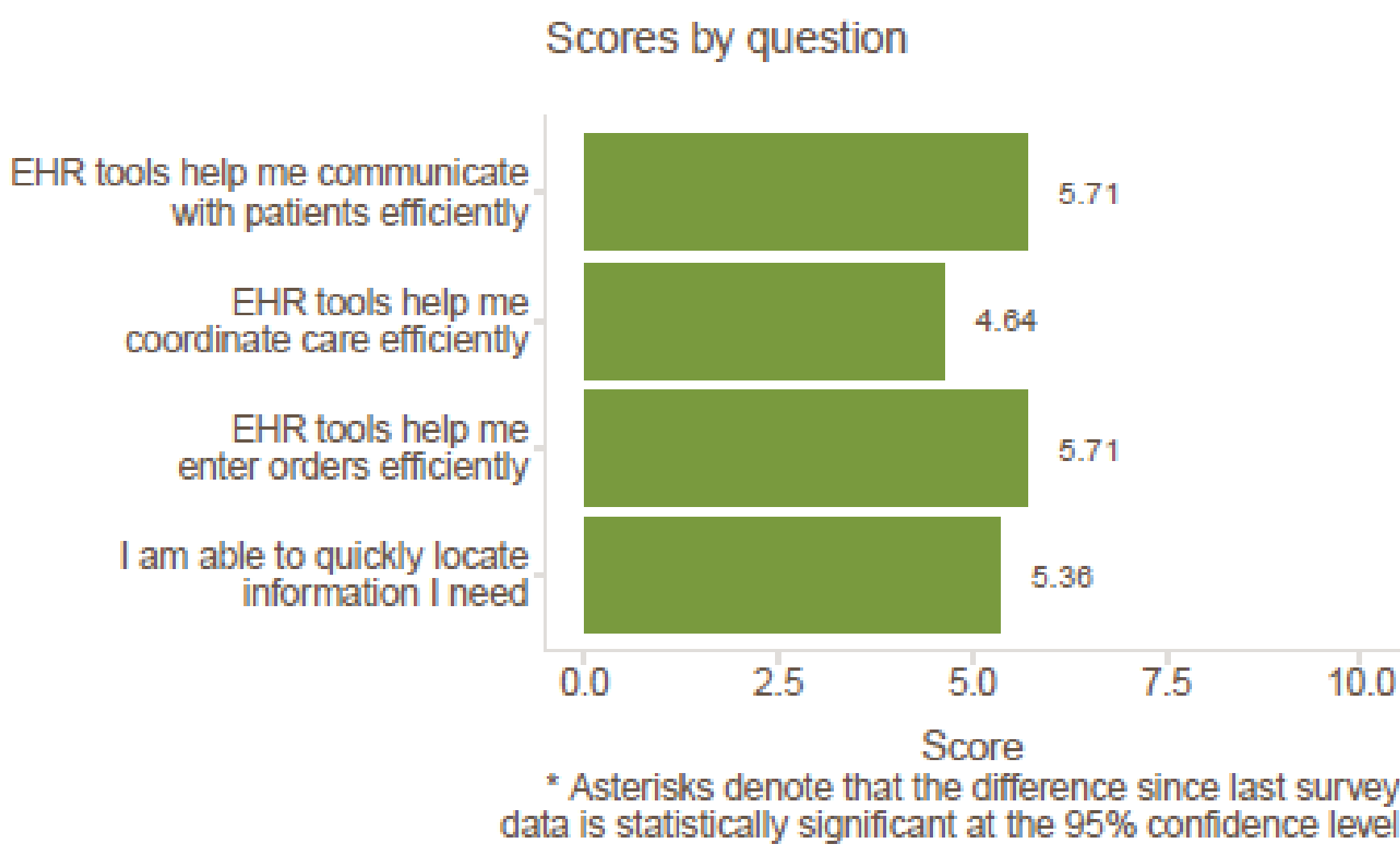


Figure 2: EHR Helpfulness (higher is better)

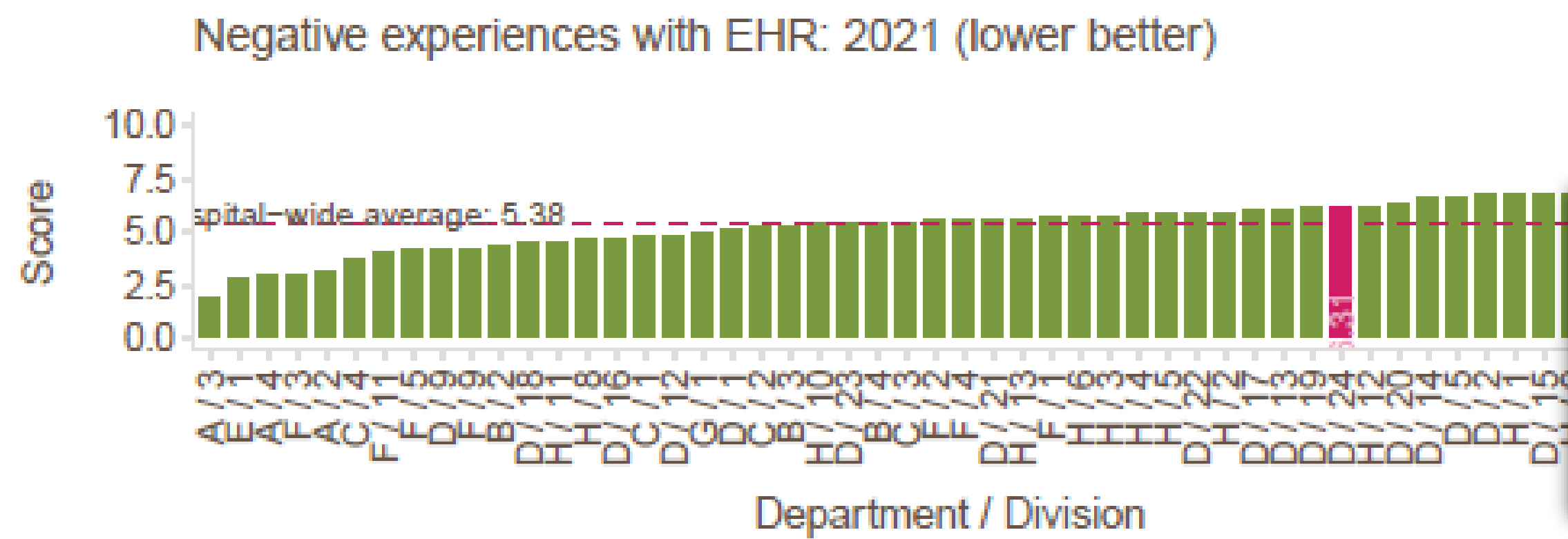


Figure 3: Distribution of divisional scores, Negative Experiences with EHR

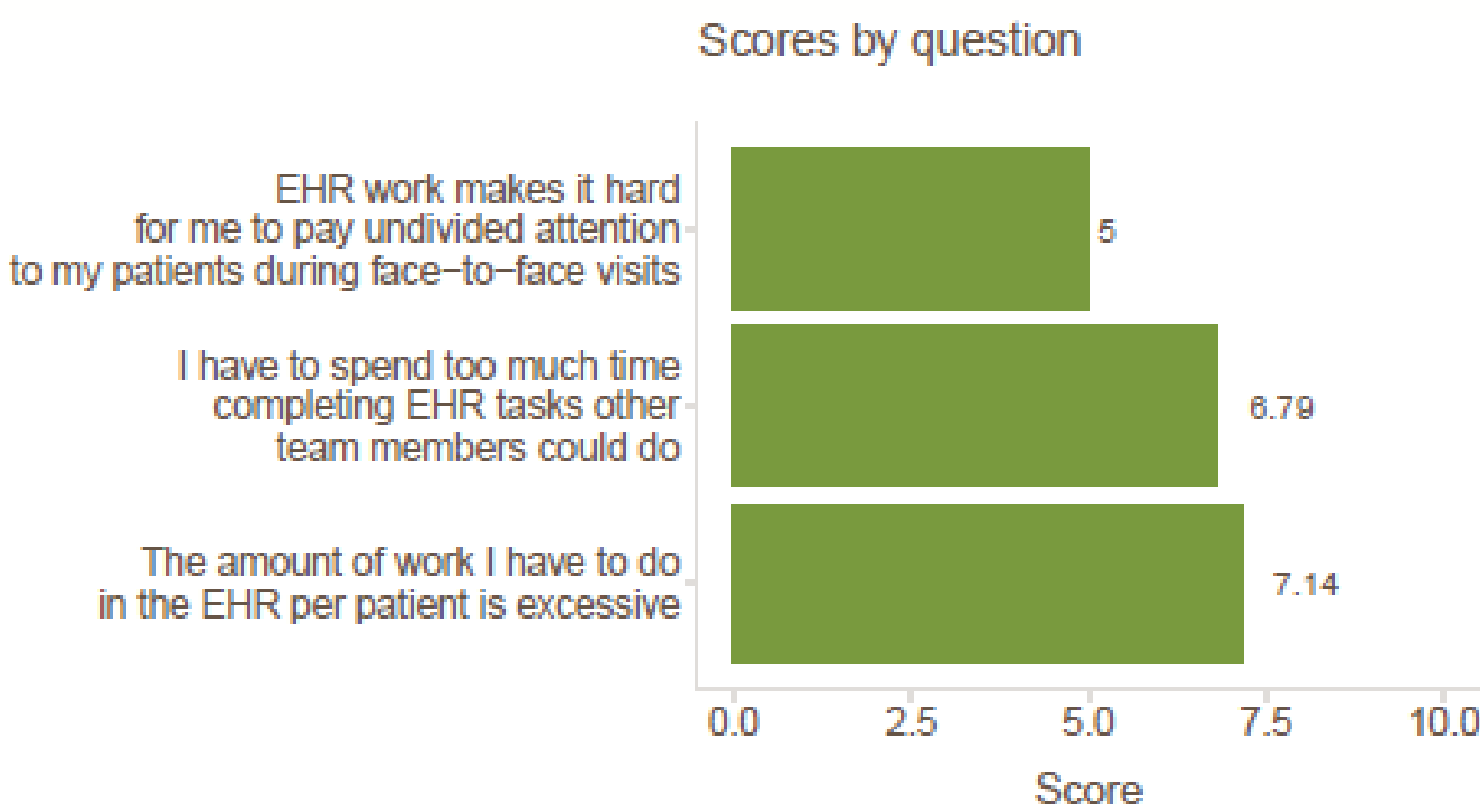


Figure 4: Negative Experiences with EHR (lower is better)

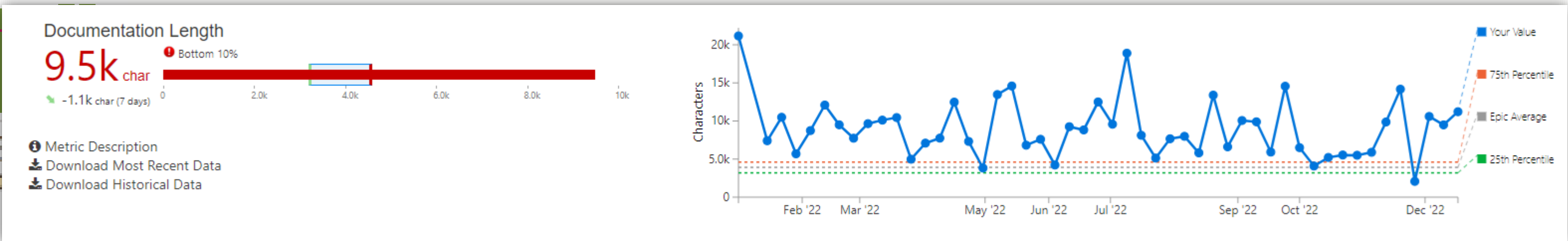


Figure 5: Sample Signal data used to track character counts over time

IMPACT

Upon completion of this project, it is anticipated that the provider survey data captured in May 2023 by the Department of Pediatrics pertaining to EHR interactions will improve.

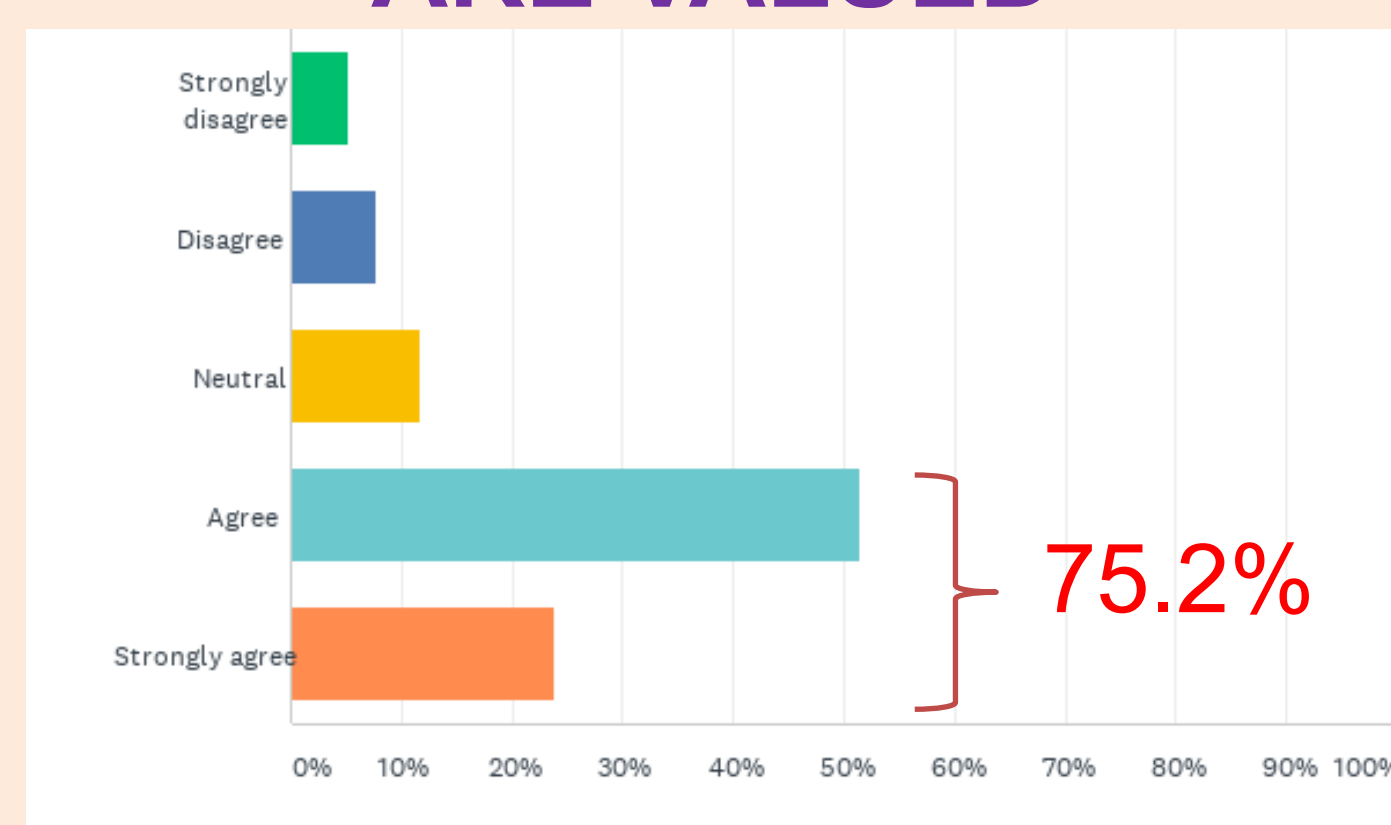
PLAN

PROBLEM STATEMENT

Employee satisfaction with organizational diversity, equity and inclusion (DEI) initiatives

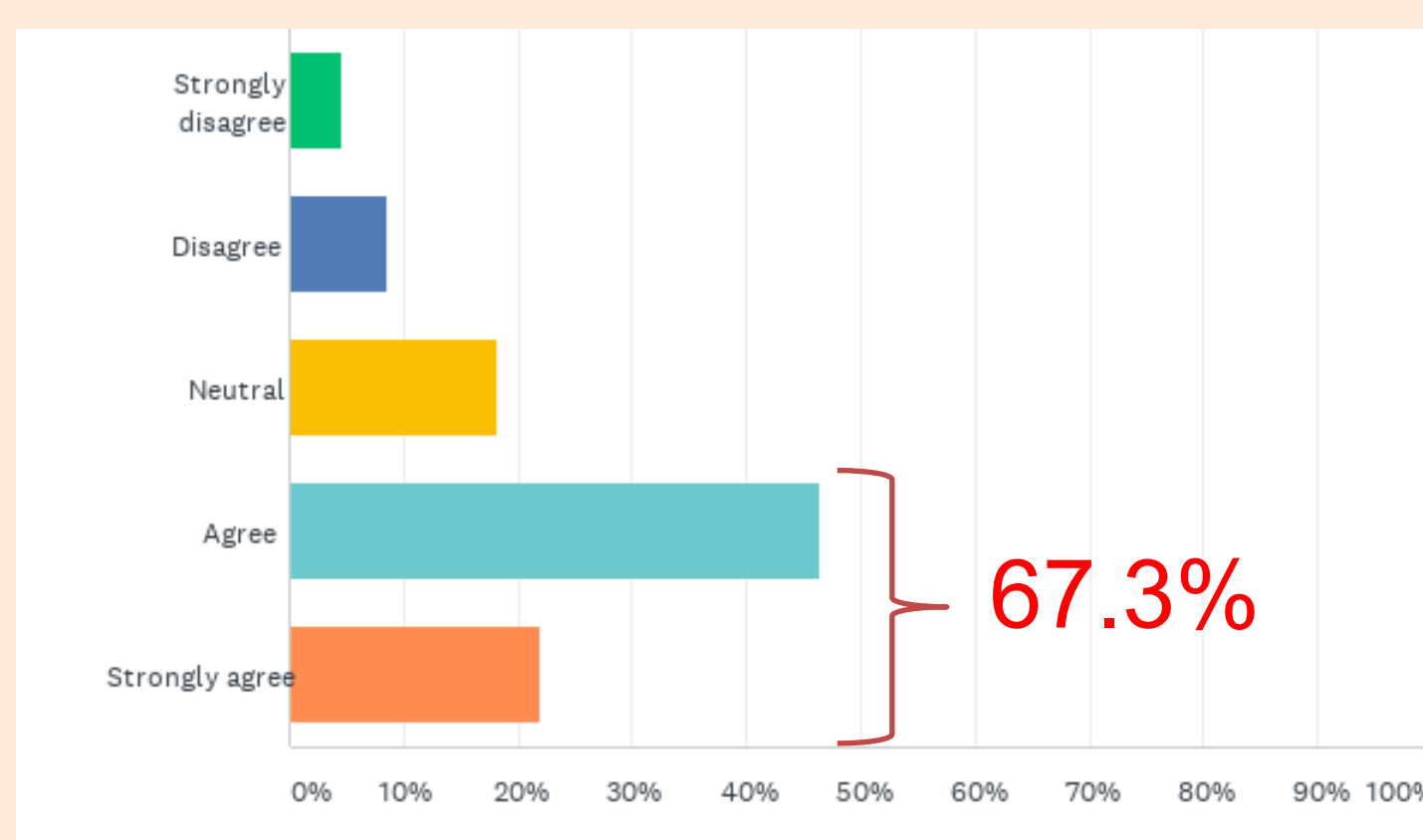
- Healthcare organizations are working to provide environments that are diverse, equitable and inclusive to staff and patients from all backgrounds
- Our organization is aiming to foster such an environment
- A survey of employees showed that 75.2% agree or strongly agree that individuals from all backgrounds are valued at our institution

EMPLOYEES FROM ALL BACKGROUNDS ARE VALUED



- However, only 67.3% are strongly satisfied or satisfied with current DEI Initiatives in our institution

I AM SATISFIED WITH CURRENT DEI INITIATIVES IN OUR HOSPITAL



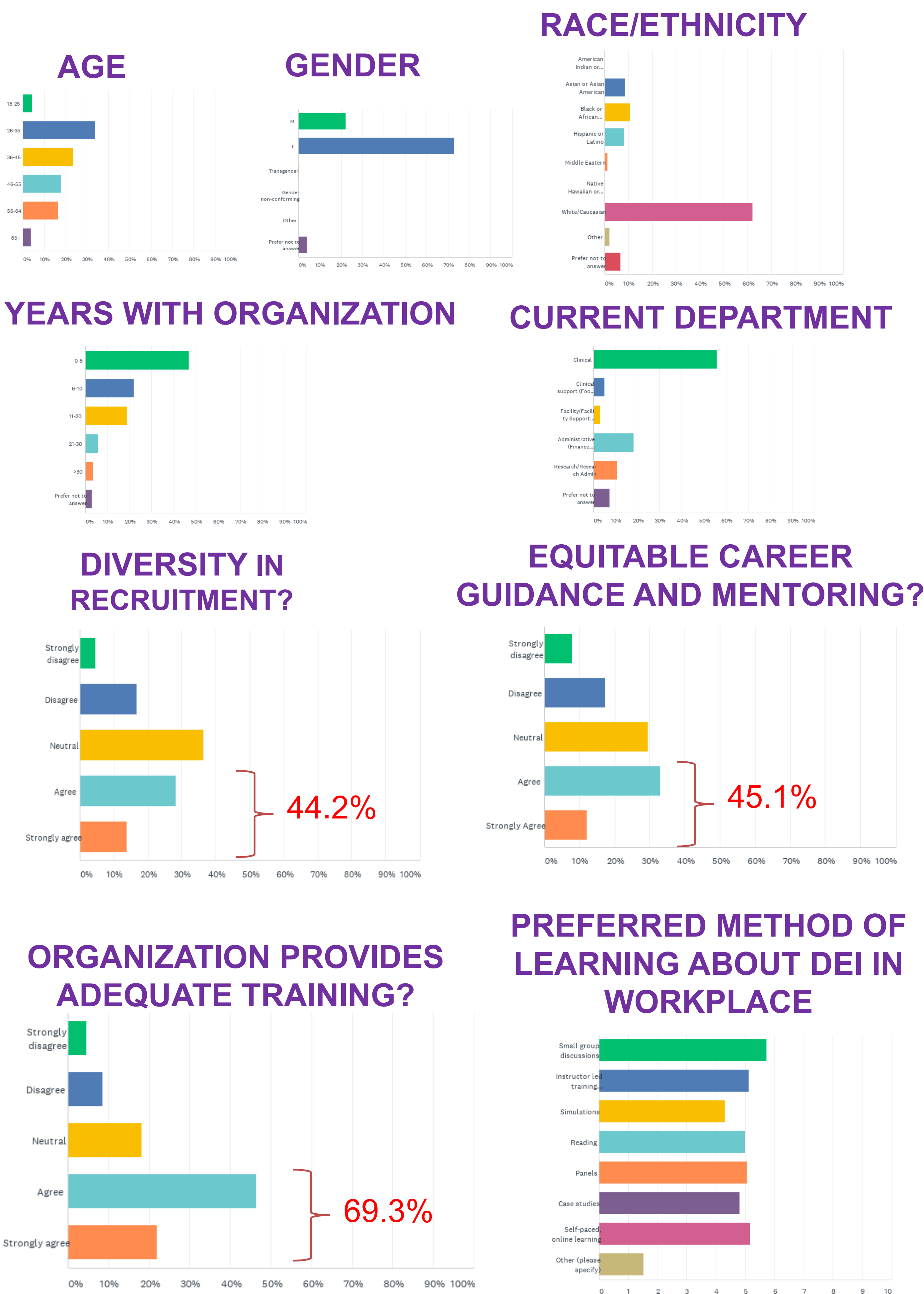
OPPORTUNITY STATEMENT

To improve staff satisfaction in DEI initiatives by the organization to at least 75%

PART 1: Root cause analysis consisting of a survey/focus group to identify the current state and areas of opportunity to improve diversity, equity and inclusion

ROOT CAUSE

- REDCAP survey sent to all employees, completed by n=668 (64% response rate)



DEI IN THE WORKPLACE MEANS TO YOU...

ability may regardless improve need fairness staff based one place welcomed everyone equal way treated equally everyone treated think roles minority best equality accepted equitable levels different equal disability included DEI experiences representation valued races genders feel learn support promote See making organization job patients represented opportunities helping workplace means everyone employees workforce people Ensuring means life respect see people everyone fair work respectful individuals given diversity actions treat look backgrounds work place equal opportunity treated respect culture growth etc actively provided areas diverse important understanding embracing gender sexual orientation able positions every others issues perspectives employees feel person people different backgrounds group heard team resources differences achieve care departments Variety increasing community hiring

TOP 2 DOMAINS YOU FEEL WE NEED TRAINING...

give also unconscious bias discrimination managers everyone behavior mentoring respect people color opportunities issues learning recruitment n manage racial Promoting different ones leadership religion diversity equity inclusion discussions especially means think used staff something treated gender identity diverse handle etc help bias resources communication talking cultural awareness hiring ask implicit bias sure people others patients sensitivity training seen employees healthcare Understanding comments diversity interactions know clinical better male gender coworkers workplace benefit support inclusive language backgrounds heard disability working experience recognize department may management including address make education transgender need looks language many SRAIab Cultural competence populations training regarding organization appropriate inequity feel involved impacts individuals outside regarding groups

DO

- Multiple opportunities for optimization**
 - Formation of our first DEI Council and Education Committee
- Need multi-faceted training in DEI**
 - Expert (outside) lecturers, small groups, case studies, town halls/forums created
 - Simulations with feedback
- Hiring practices**
 - Review of current HR hiring practices
 - Provide outreach to HBCUs, local schools and colleges
 - Engagement in local communities for hiring
- Career guidance and mentoring program**
 - New program provides guidance to employees on how to grow within organization
 - Opportunities to also change career paths
- New policies regarding discriminatory behavior**
 - All managers receiving training on reporting and handing of cases of discrimination
 - Specific policies for patients and families who engage in discriminatory or offensive behavior
 - All policies posted throughout the hospital
- Health equity task force**
 - To provide an inclusive environment for patients and families and maintain access to care from diverse Chicagoland communities
 - Provision and training for staff in culturally appropriate care

STUDY

- PART 2: Employees will be re-surveyed at 12- and 24-months**
- Diverse feedback will be sought in future surveys
- We will also track engagement in the training activities and mentoring programs above
- Feedback will be used for developing future programs
- HR will also keep track of the diversity of the work force in different departments in the hospital

ACT

- Our actions will be based on the follow-up survey following implementation of the plan/solutions above
- It will improve employee satisfaction and understanding of the DEI principles creating a more inclusive environment
- We will serially re-evaluate the programming on a yearly basis to examine the effectiveness

Improving Departmental Mentorship through Peer Mentorship

Cherry Junn, MD
Internal Mentor: Dawn Ehde, PhD and Janna Friedly, MD
External Mentor: Sarah Eickmeyer, MD



Background

Mentorship’s positive effect on productivity, personal development, and self-confidence has been identified in academic medicine¹. On the other hand, a lack of mentorship has been strongly associated with faculty’s intent to leave². Mentorship also has been found to be vitally important for junior faculty, women, and minorities². Despite the importance, the majority of faculty at US medical schools report mentorship to be infrequent or inadequate^{1,3}. A survey of UW Department of Rehabilitation Medicine faculty found that 14% never met with their assigned mentor over the academic year. In a subsequent survey 2 years later, the problem worsened - 67% of faculty never met with their mentors over the academic year. Additionally, only 44% of faculty rated their mentorship satisfaction to be “somewhat satisfied” or “very satisfied.”

Peer mentorship, where a group of faculty in similar ranks work collaboratively to mentor each other, has been proposed as an alternative to the traditional dyadic model to address the lack of mentoring⁴.

AIM 1 statement: Increase faculty mentorship meeting frequency from 33% to 75% through peer mentorship participation over 4 months.

AIM 2 statement: Increase faculty’s mentorship satisfaction from 44% to 75% satisfied over 4 months.

Tree Diagram



Methods

Participants: PM&R faculty in clinician-educator track at University of Washington

Peer Mentorship Structure:

- Agenda created from the mentee self-assessment
- Group met monthly for one hour virtually
- Session topics: work group sessions on teaching portfolio preparation and teaching philosophy writing, as well as presentations on departmental finances and improving feedback to trainees

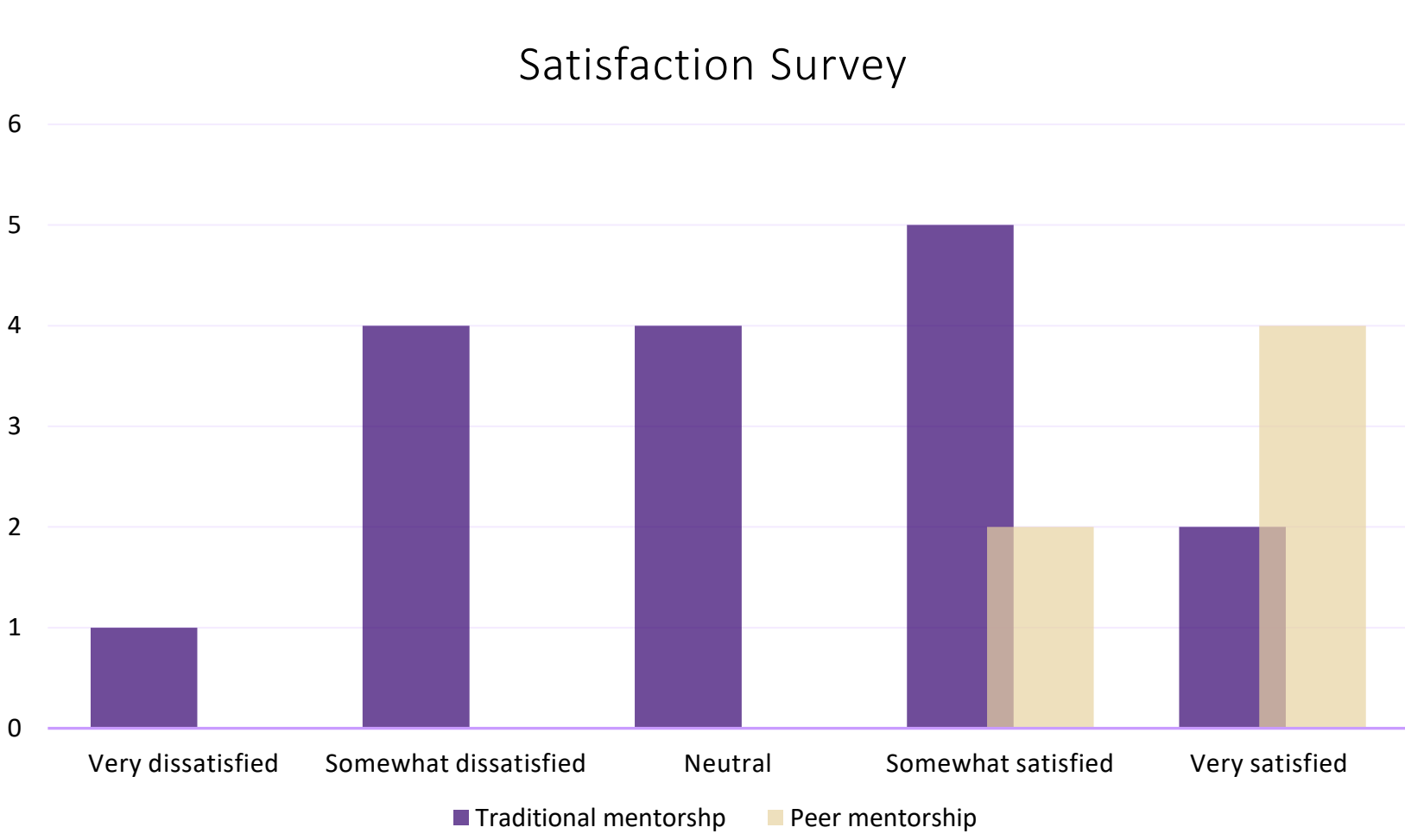
Outcome Measures:

- Survey: satisfaction with the assigned departmental mentor and peer mentorship group
- Peer mentorship group attendance

Results

- 18 faculty completed a survey on traditional dyadic mentorship satisfaction
- 9 faculty participated in the peer mentorship group
- Areas of improvement identified in mentee assessment included:
 - Turning work into academic scholarship
 - Finding funding opportunities
 - Understanding statistical analysis
 - IRB submission and process
- Each peer mentorship group faculty attended at least one session. Attendance ranged from 55-75% per session with overall average of 63%
- All the faculty participating in peer mentorship rated their satisfaction to be somewhat to very satisfied

Results



Discussion

Nine faculty members in a clinician-educator track participated in the peer mentoring to achieve the SMART Aims. Intervention was directed at creating the most meaningful curriculum based the group’s need to improve participation and satisfaction. All members of the group attended at least one session, thereby increasing mentorship participation to be above initial goal of 75%. The group’s satisfaction with mentorship also improved to 100% positive compared to 44% positive for the overall department.

Future directions:

- Create a peer mentorship development program to launch additional groups
- Evaluate success of peer mentorship through faculty’s productivity via publication, retention rate, and sense of belonging

References:
1. Sambunjak D, Straus SE, Marušić A. Mentoring in academic medicine: a systematic review. JAMA. 2006 Sep 6;296(9):1103-15.
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4. Varkey P, Jatoti A, Williams A, Mayer A, Ko M, Files J, Blair J, Hayes S. The positive impact of a facilitated peer mentoring program on academic skills of women faculty. BMC medical education. 2012 Dec;12(1):1-8.

Aiming high to meet the mark: Improving patient outcomes through interdisciplinary goal setting

Sheryl Katta-Charles, MD

Introduction

Background: Until recently, Inpatient Rehabilitation Facilities used the Functional Independence Measure (TM) to measure function. In 2018, the Centers for Medicare and Medicaid Services (CMS) began using GG as the standardized assessment for post-acute care settings. Section GG documents prior and current levels of functioning in the domains of self-care and mobility. The publicly-facing data is often interpreted to reflect the quality of care and are tied to hospital reimbursement and incentives. Therefore, rehabilitation hospitals need to ensure that these measures are valid and optimal.

Statement of need: Rehabilitation Hospital of Indiana (RHI)'s mobility and self-care change/discharge scores are below the region's.

Data to support the problem: UDS. See graph 1.

Materials and Methods

Identify the root cause:

- After data collection was standardized and accuracy was established, multidisciplinary program meetings were convened. A root cause analysis was conducted.
- Clinical teams felt that the lack of information about CMS expected goals sometimes resulted in **setting and achieving lower goals.**

Identify a solution:

- Team members felt that **reviewing CMS expectations and comparing therapist-set goals** may help with appropriate goal setting.
- A UDS-generated spider graph (See Figure 1) for each patient was projected on a screen during the team conference. A PPS coordinator generated, presented, and facilitated the review and analysis of spider graphs in each team conference.
- When clinically appropriate, therapy goals were upgraded in team conferences based on CMG expected information.
- If CMS-expected goals were inappropriate, clinical reasons were discussed and documented.
- Process change was implemented at the end of quarter 2.

Summary

By reviewing expectations in team conferences, the treating team set higher goals and achieved them.

Intervention: Reviewed UDS-generated spider graph in team conference and updated patient goals as appropriate starting Q3

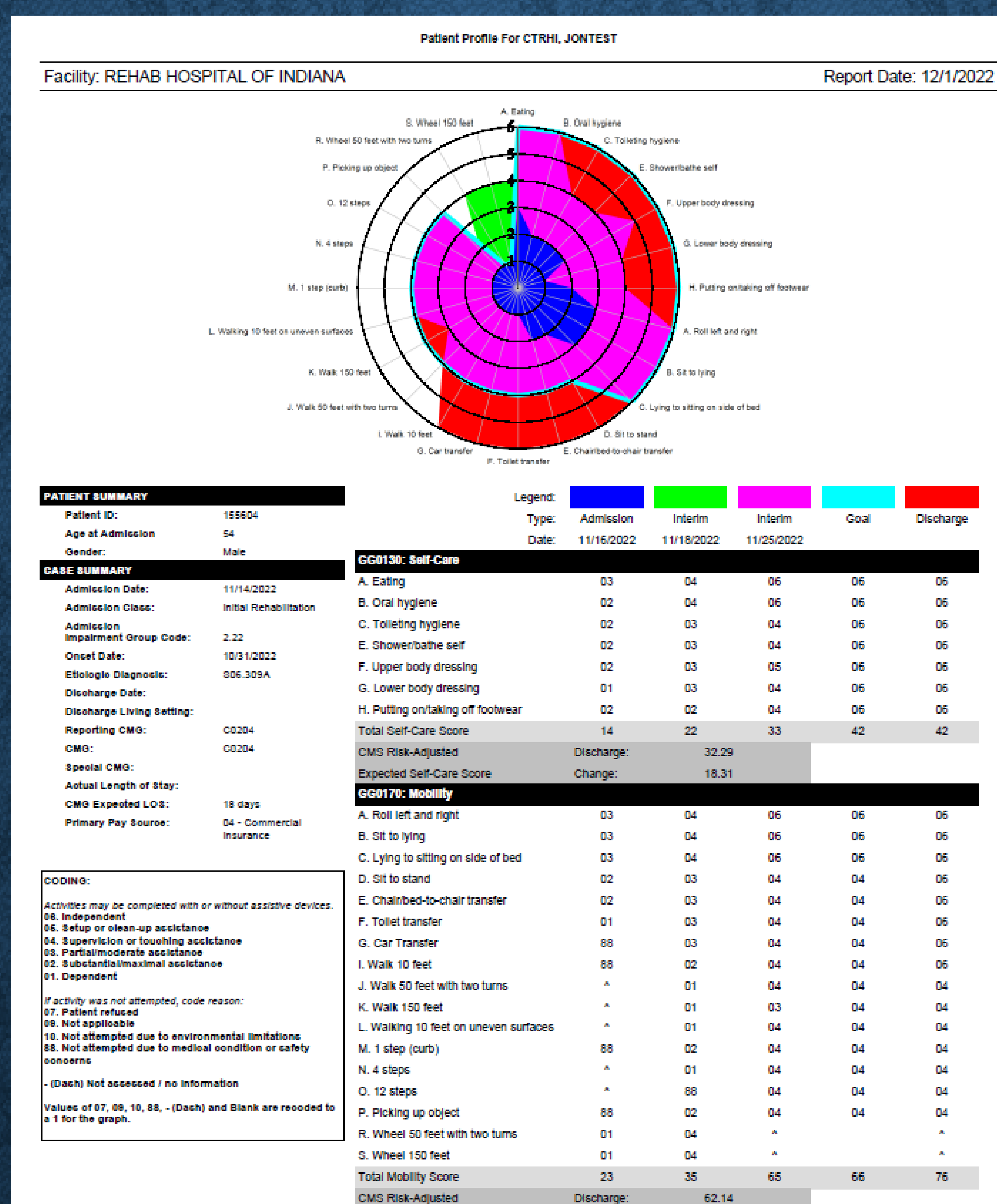


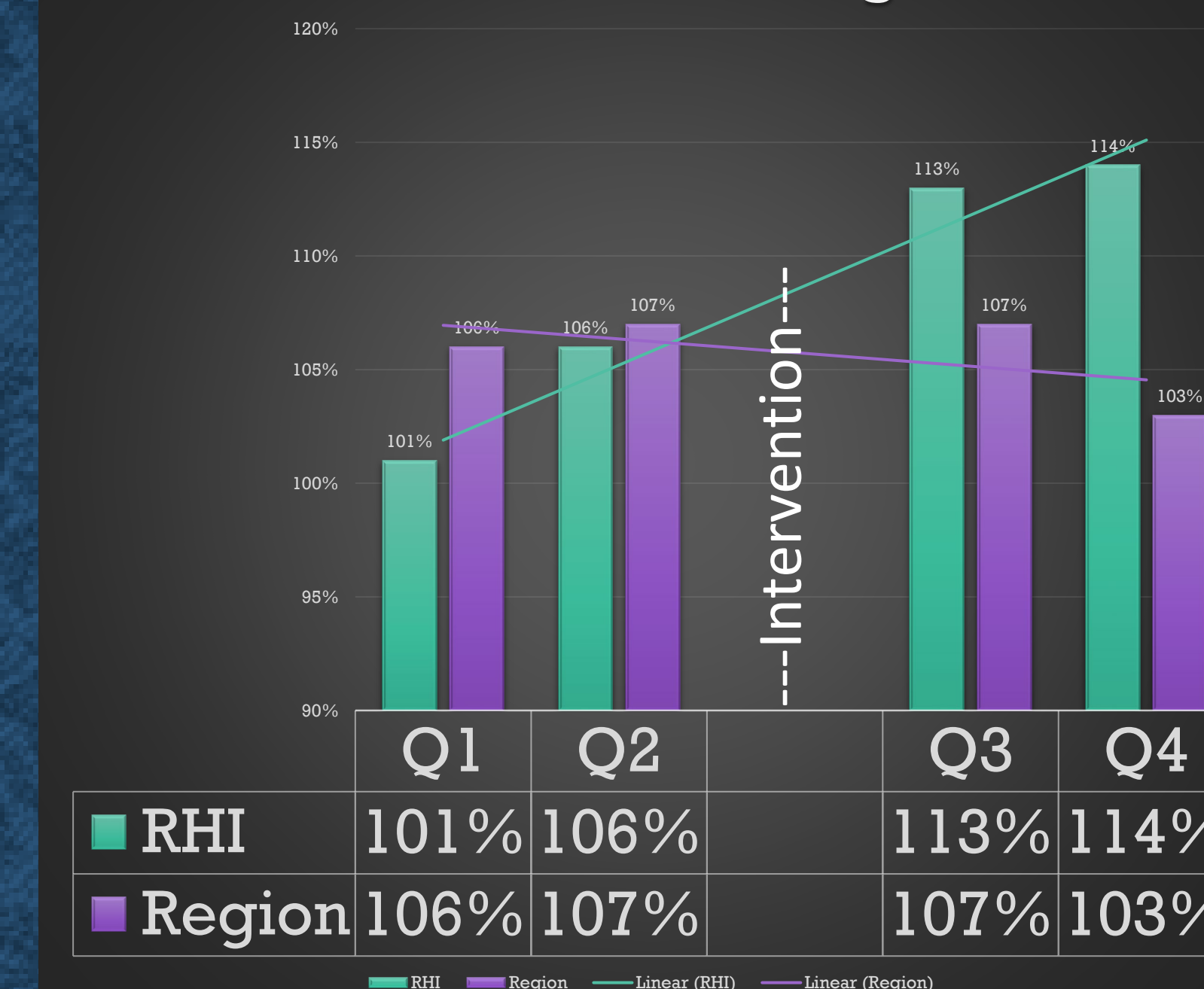
Figure 1. Sample spider graph

Measures

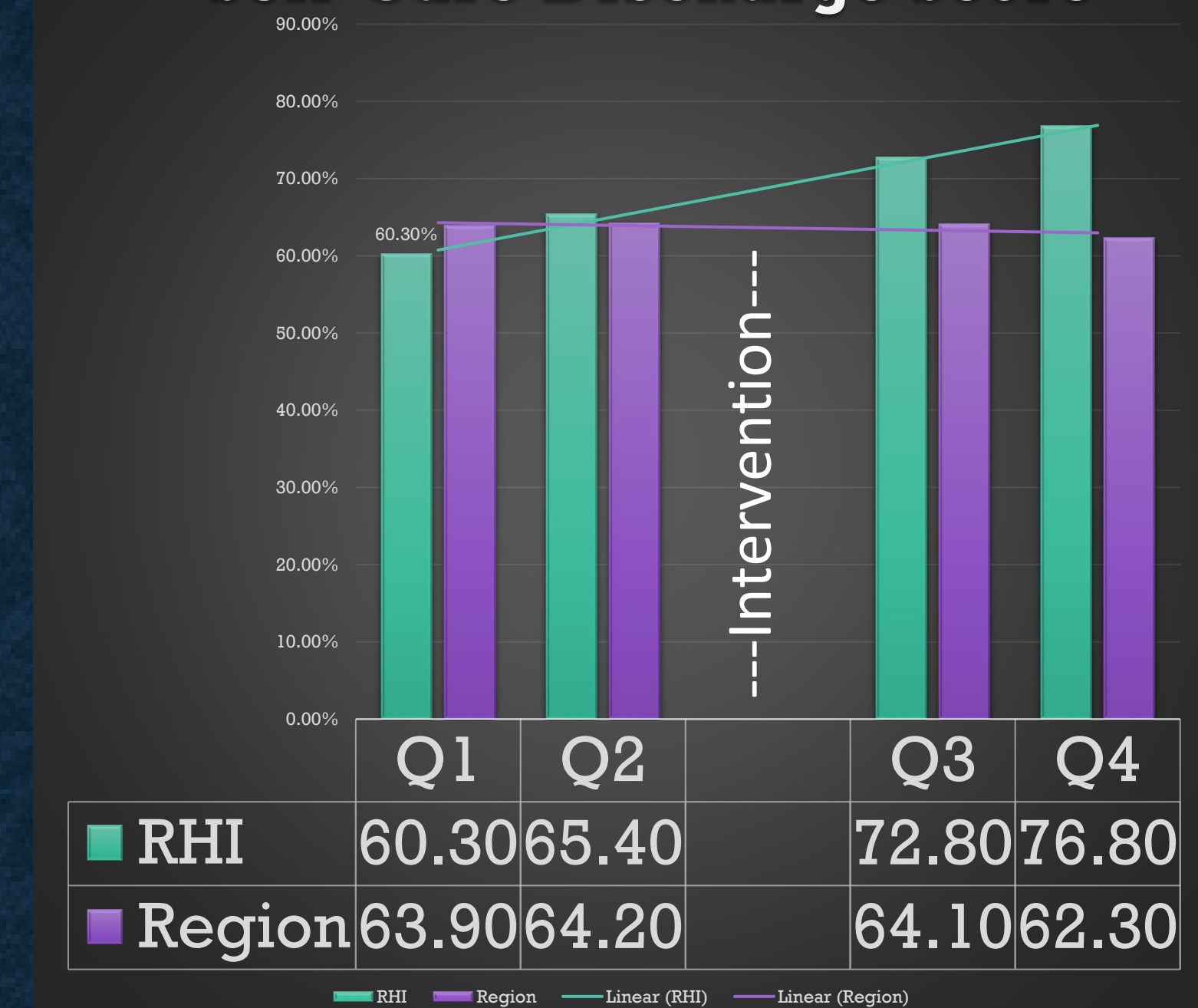
- Change score is presented as a percentage of the facility's average point-change and average CMS expected point-change.
- Discharge score is the average facility score divided by CMS's expected average score. UDS reports the percentage of our patients that met or exceeded the CMS expected discharge score.

Results

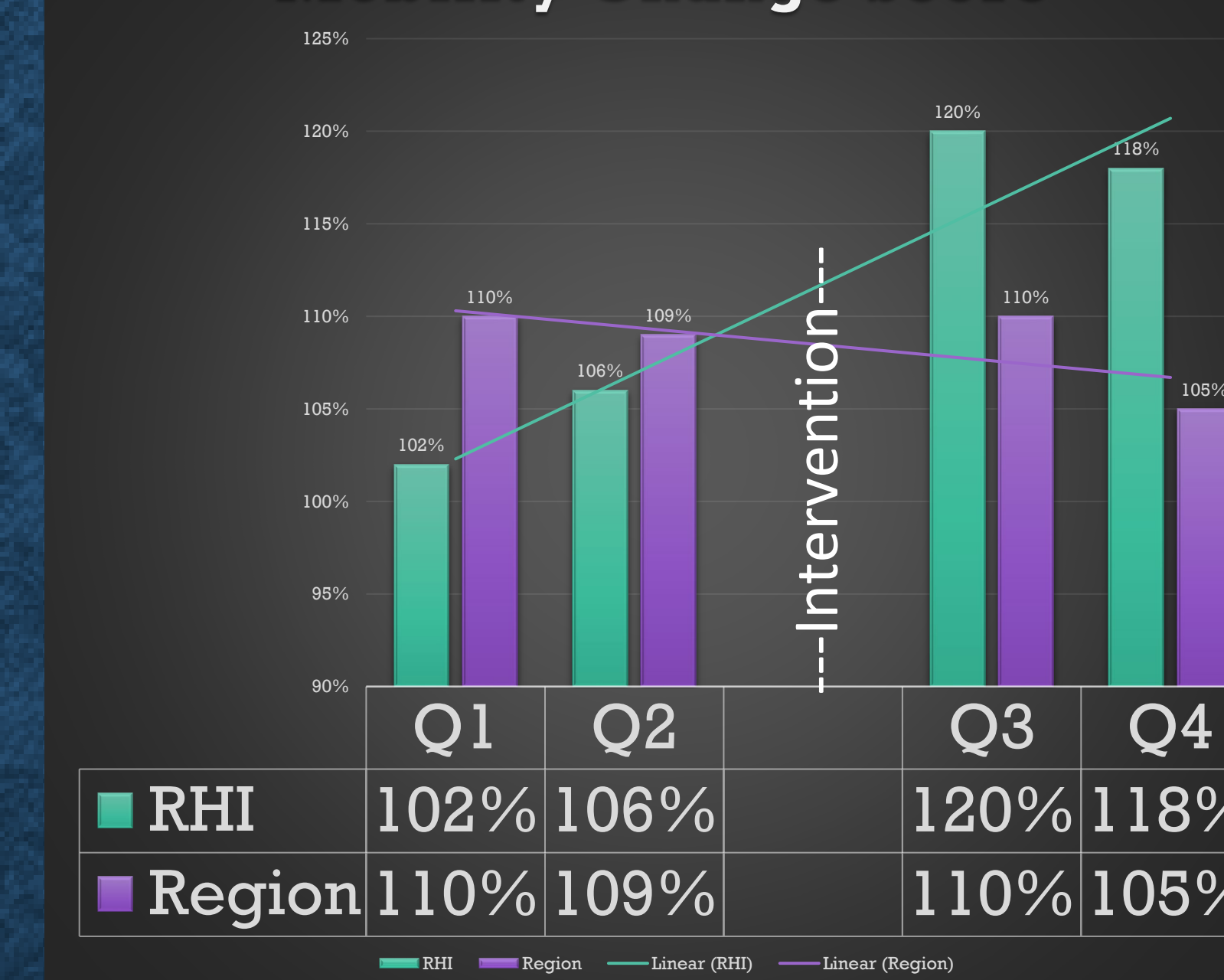
Self-Care Change



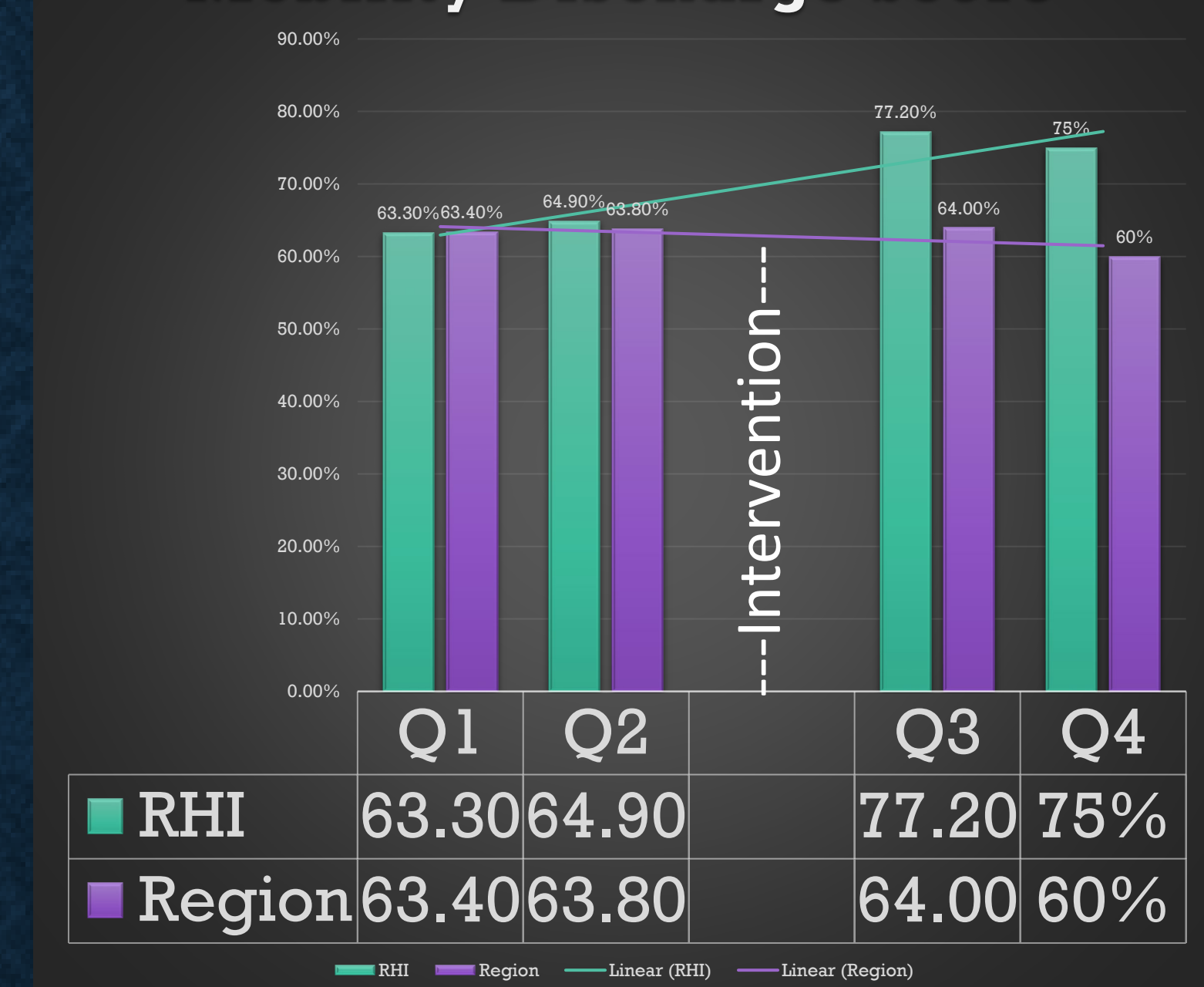
Self-Care Discharge Score



Mobility Change Score



Mobility Discharge Score



Results Summary:

- Q3:
 - RHI patients achieved a 113% change in Self-Care (10.5-point expected; 11.9 actual and achieved a 120% change in Mobility.
 - 72.8% & 77.20% of RHI patients met or exceeded the expected average discharge Self-Care score & Mobility discharge scores, respectively.
- Trends were maintained in Q4

Conclusions

Reviewing UDS-generated data during team conferences is an easy-to-implement, inexpensive, and effective way to optimize goals and in turn patient outcomes. We anticipate continuing to utilize this process and will continue to monitor our progress.

Acknowledgments

Congrats to Jennifer Harder, MOT OTR/L, Christian Lauletta OTR, and Emilea Ridener, MS, OTR, CBIS, for a job well done. Thanks to Flora Hammond, MD, and Thomas Watanabe, MD, for your mentorship.

“The greater danger for most of us lies not in setting our aim too high and falling short; but in setting our aim too low and achieving our mark.” Michelangelo

Development of a Faculty-Faculty Mentoring Program

Assessment of intrinsic motivators for academic medicine faculty and utilization of those values to promote connection to departmental initiatives and development of a formal faculty-faculty mentoring program.

Bradford Landry, DO; Internal Mentor: Adam Stein, MD; External Mentor: Miguel Escalon, MD

Background

Intrinsic motivators such as sense of calling, career satisfaction, personally rewarding hours per day, and meaningful long-term relationships with patients have been associated with overall physician well-being, while extrinsic factors such as salary and work environment have not been associated with meaning or commitment¹.

As expectations for academic physicians' time is increasingly spread thin between teaching, clinical productivity, and research, it becomes more difficult to ensure adequate faculty engagement in departmental requirements and initiatives^{2,3}.

The question raised in our department and presumably many others was whether there may be a better way to understand faculty member's intrinsic motivators? In turn, can we utilize an appreciation of those values to promote connection to departmental goals and improve faculty interest and participation in various efforts?

If we can more accurately understand our faculties intrinsic motivators then we should be able to better design projects, assign duties, and accomplish departmental initiatives through strong commitment and implementation.

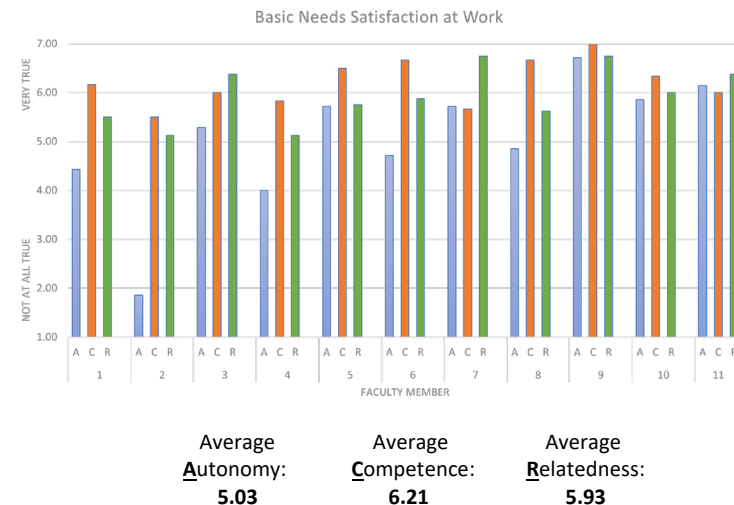
Goals

- 1) A more thorough understanding of faculty's intrinsic motivation could enable improved application of resources and personnel to accomplish departmental objectives
- 2) By using the results of the surveys, we will be able to better utilize faculty resources to align with individuals' personal goals and establish a substantial and effective faculty mentoring program

Methods

- 1) Assessment of intrinsic motivators of 11 faculty respondents:
 - Basic Psychological Need Satisfaction at Work Scale⁶
 - Open-ended survey questions:
 - 1) What are the most important factors that would motivate you to take on a new teaching or mentoring role in the department?
 - 2) What factors are most likely to steer you away from taking on a new teaching or mentoring role?
 - 3) What are your primary clinical, research, or administrative areas of interest for which you would either see yourself as a mentor, or be interested in having more mentorship in?
- 2) Solicited interest from faculty
- 3) Matching mentors and mentees based on clinical, research, or administrative related goals
- 4) Set goals and schedules for the meetings
- 5) Assess the progress of the mentor/mentee relationships and assess the utility of the program monthly
- 6) Success defined as the number of meetings and the progress of goals set according to the mentoring survey

Results



Survey results

Personal Motivators:

- Personal connection
- Sharing knowledge
- Compensation

Personal Deterrents:

- Time constraints
- Productivity
- Financial

Discussion

Responses from faculty highlighted the dichotomy between the personal desire to serve as a mentor based on internal drive to give back to others, share knowledge, and progress departmental initiatives, in contrast to the limiting nature of time constraints and financial pressure related to productivity.

The plan is to continue soliciting participants and to proceed with making connections between mentors and mentees as more interest and understanding of the program is elicited. Expanding to another program in the region is also being considered.

Limitations:

- *Uncertainty about goals of mentoring program, as faculty had to be reminded multiple times that this was not a mentoring program for residents*
- *Those willing to respond to the survey may be biased toward the benefits of a mentoring program*

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1. Tak HJ, Curlin FA, Yoon JD. Association of Intrinsic Motivating Factors and Markers of Physician Well-Being: A National Physician Survey. *J Gen Intern Med.* 2017;32(7):739-746.
2. Fernet, C., Guay, F., & Senécal, C. (2004). Adjusting to job demands: The role of work self-determination and job control in predicting burnout. *Journal of vocational behavior*, 65(1), 39-56.
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6. Van den Broeck, Anja & Vansteenkiste, Maarten & De Witte, Hans & Soenens, Bart & Lens, Willy. (2010). Capturing autonomy, competence, and relatedness at work: Construction and initial validation of the Work-Related Basic Need Satisfaction Scale. 83. 1-22.
Basic Needs Satisfaction at Work Scale:
https://depts.washington.edu/fammed/wp-content/uploads/2019/09/SDT_needs_work.pdf



Assessing Professional Fulfillment and Burnout Amongst Core Faculty in an Academic Physical Medicine and Rehabilitation Residency Program

LOMA LINDA
UNIVERSITY
HEALTH

Samuel J. Lee MD | Internal Mentors: Justin Hata MD¹, Barbara Hernandez PhD¹, Naomi Schwenke PhD¹ | External Mentor: Amanda Harrington MD²
¹Loma Linda University ²University of Pittsburgh

BACKGROUND

Physician wellness, professional fulfillment, and burnout are major concerns in medicine today. In 2019, 50.7% of ABPMR diplomates fulfilled the definition of burnout.¹ The core faculty in the Physical Medicine and Rehabilitation Residency Program at Loma Linda University were not immune to this phenomenon. Surveys for two consecutive academic years spanning 2020 – 2022 demonstrated burnout and lack of professional fulfillment amongst core faculty members, as measured by the Professional Fulfillment Index². The survey results showed as high as 6 of 8 core faculty scoring as professionally unfulfilled and 2 of 8 experiencing burnout.

PLAN

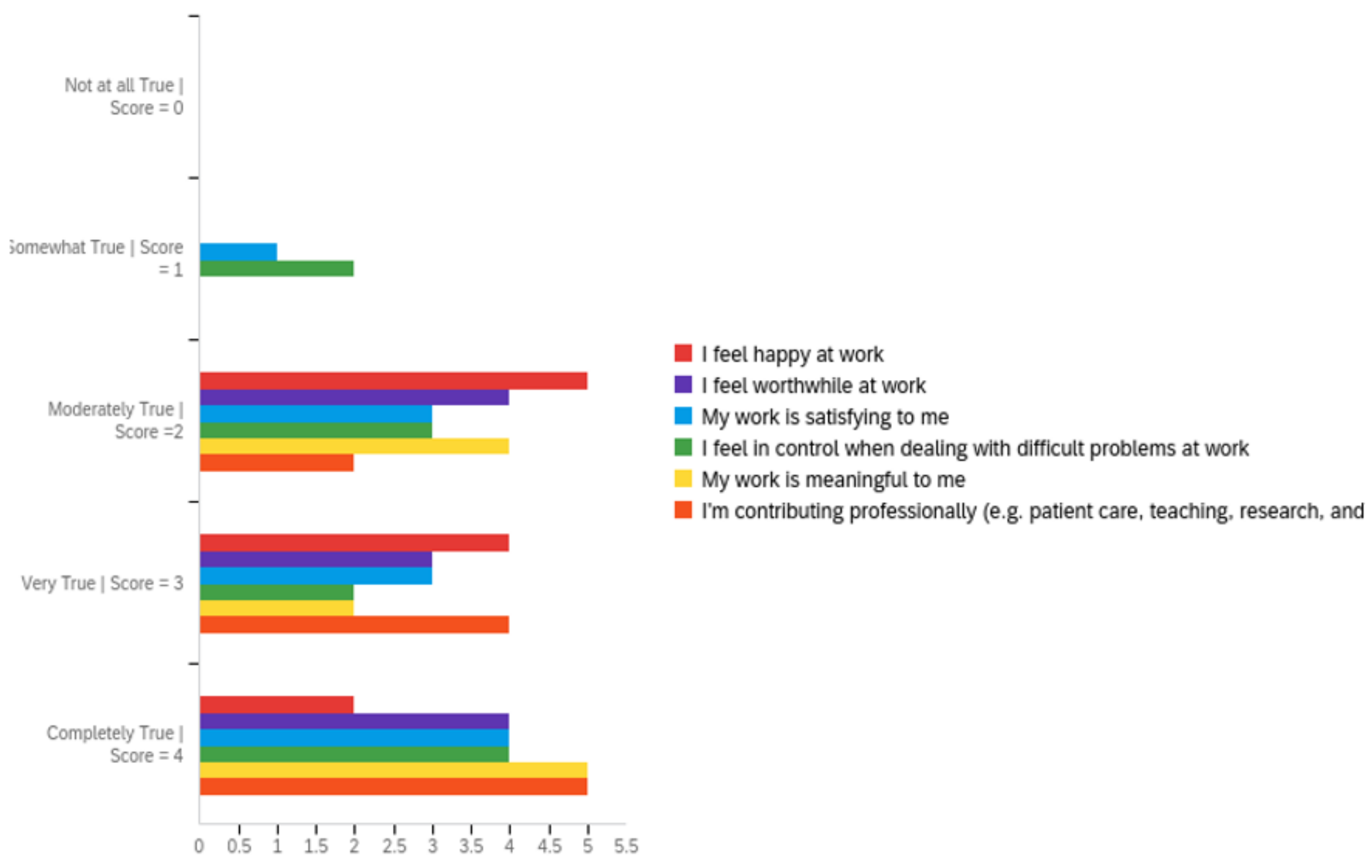
Determine factors that are leading to burnout and professional unfulfillment in core faculty members and identify areas that can be addressed.

DO

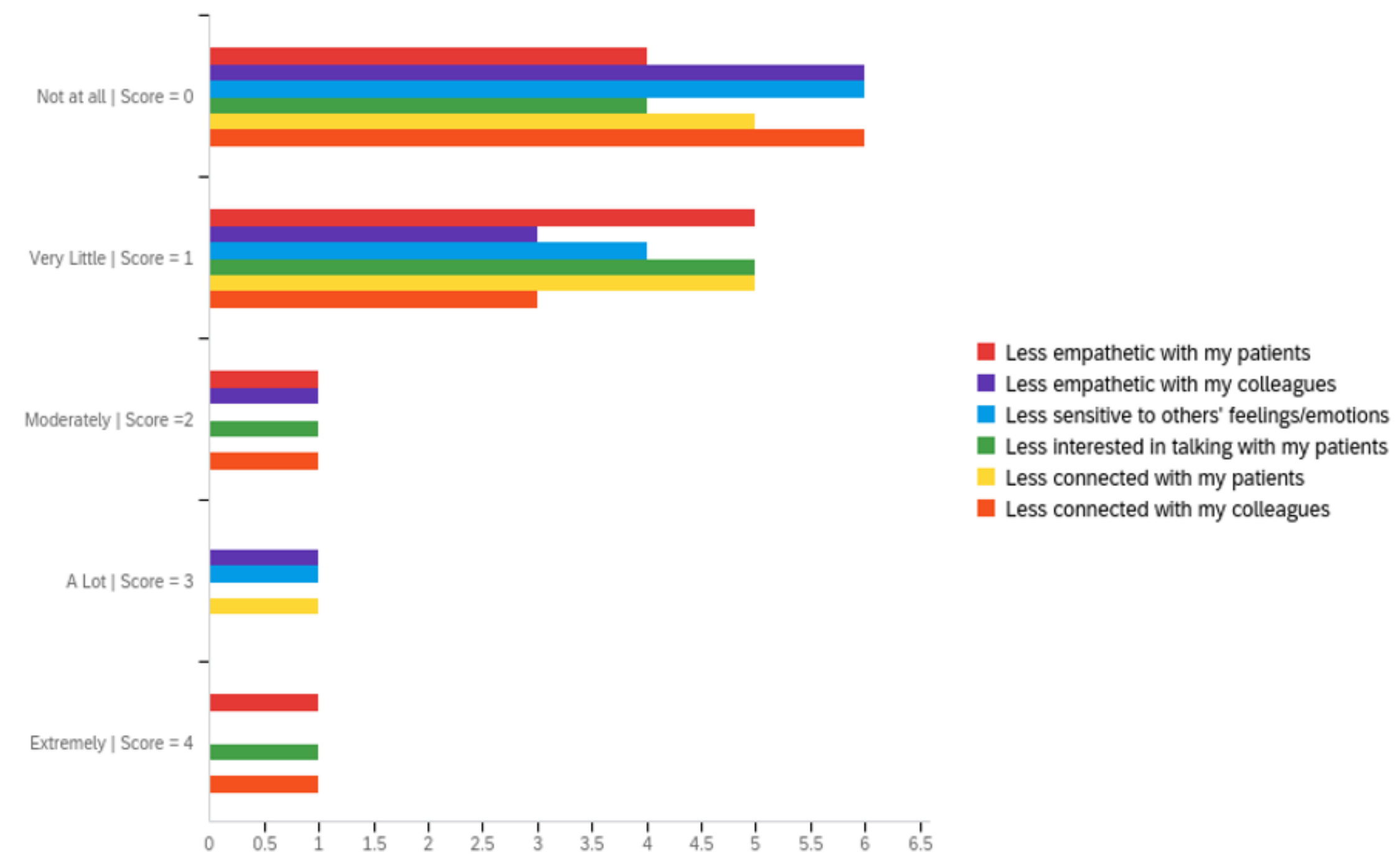
Utilizing the Professional Fulfillment Index as the primary measurement with additional questions based on the AMA 6 factors tied to burnout³, core faculty members of the Loma Linda University PM&R residency program at each affiliated site (LLU, VA, Kaiser) were asked to complete a survey via Qualtrics from August – September 2022.

STUDY

Q1 - How true do you feel the following statements are about you at work during the past two weeks?

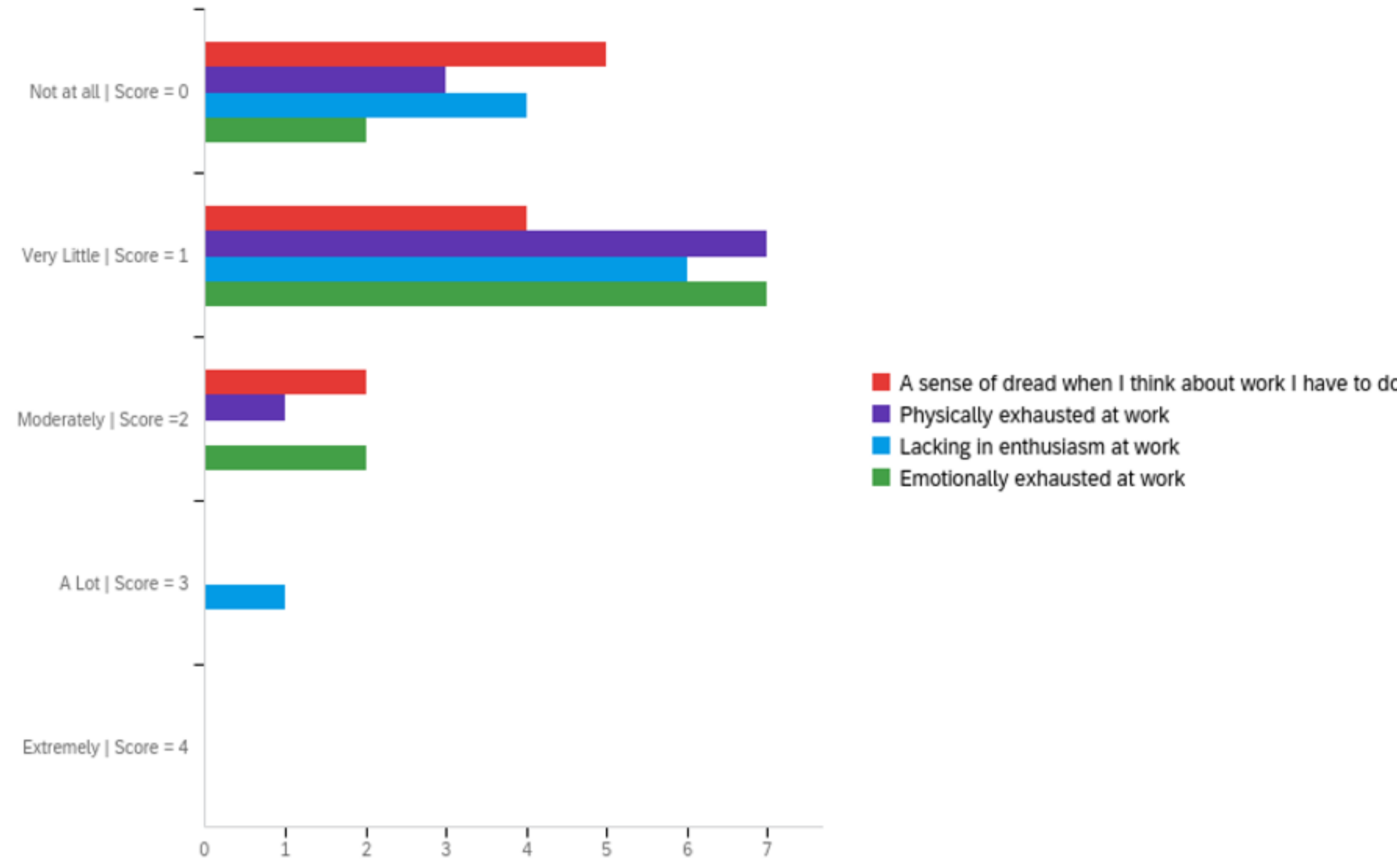


Q3 - To what degree have you experienced the following? During the past two weeks my job has contributed to me feeling...

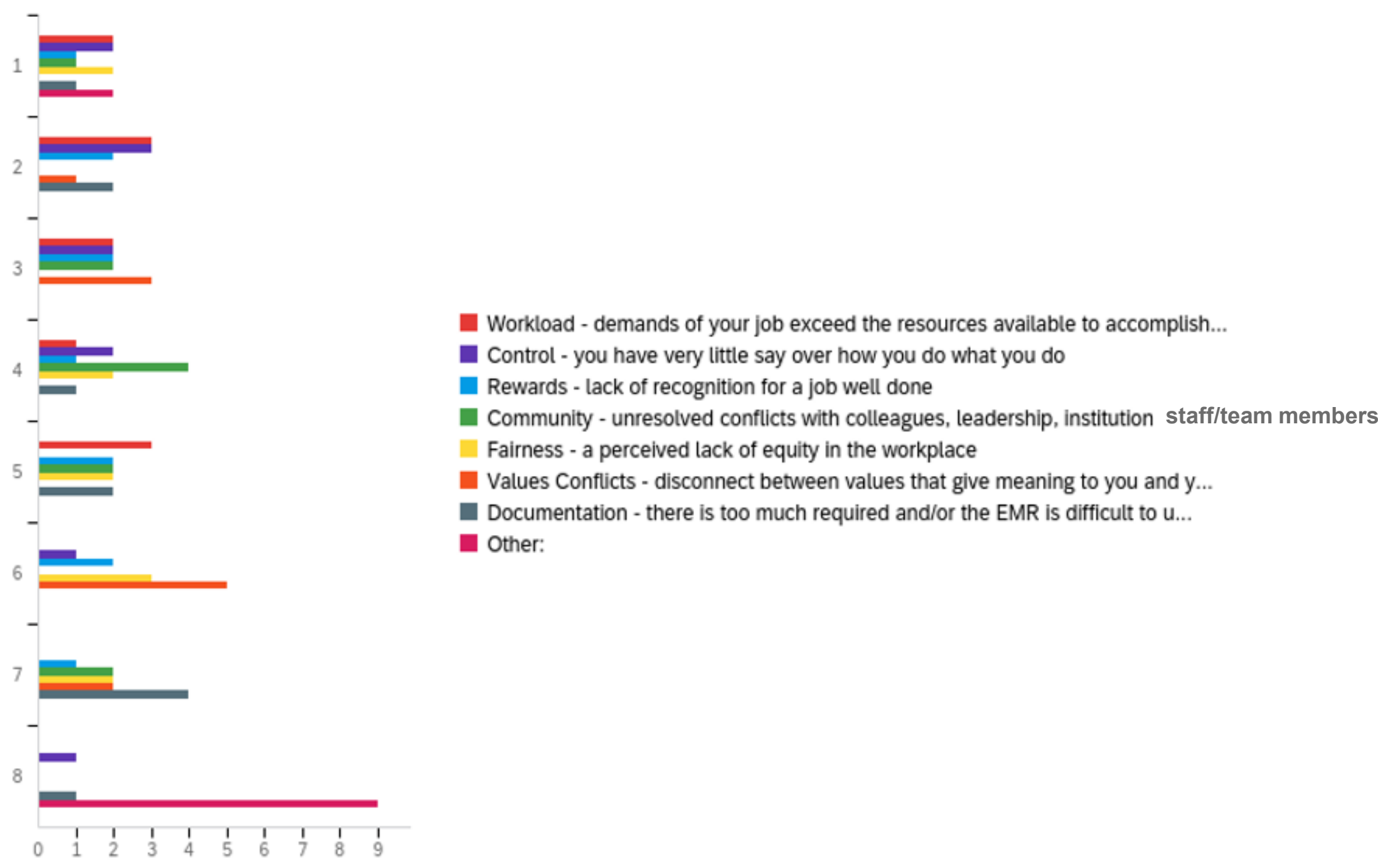


How do the above factors affect your teaching of residents?	How do the above factors affect your patient care?	What will help improve your wellness at work?
It does not	It does not	I am not sure
Limited impact	Moderate impact	Overall wellness is excellent at work
Not at all. I do not let personal issues interfere with my workplace responsibilities.	Not at all. I do not let personal issues interfere with my greatest responsibility of taking care of patients.	not applicable
somewhat. The less satisfied you are in your job the less effort you would want to expend.	somewhat. The less satisfied you are in your job the less effort you would want to expend.	I guess if there is any way to improve control.
Harder to devote extra energy to motivate an individual if they are not demonstrating self-motivation (not a blanket statement of all residents/students)	Decreased trust that patients will consistently have the care they need from all teams/specialties	
Would make it tougher to teach well when too busy, residents give me negative reviews that I don't teach enough	Patient care would worsen feel less connected with pts if too busy, and less connected to work colleagues	Positivity hiring another to help with outpt/inpatient
does not	does not	
time for teaching and the time that i have free do not always coordinate well	mostly the lack of empathy/caring...basically, it just comes down to "get the job done"	working in teams, rather than individually
None	Less empathetic/less time spent	
So far it doesn't	So far it hasn't	Ability or the sense that I have control over things instead of having to follow a bunch of algorithms designed to decrease monetary cost.

Q2 - To what degree have you experienced the following? During the past two weeks I have felt...



Q5 - With #1 being the factor which most negatively affects your wellness. Please rank in order the following factors and their affect on your wellness. List adapted from the AMA



	VA		LLU/Other
Faculty 1	Professionally Unfulfilled	Faculty 5	Professionally Unfulfilled
Faculty 2		Faculty 6	
Faculty 3		Faculty 7	
Faculty 4	Professionally Unfulfilled	Faculty 8	
Faculty 11*	Professionally Unfulfilled	Faculty 9	Professionally Unfulfilled
*likely duplicate entry			Burnout
		Faculty 10	Professionally Unfulfilled

AMA 6 Drivers of Burnout (modified)	
Workload	demands of your job exceed the resources available to accomplish it
Control	you have very little say over how you do what you do
Rewards	lack of recognition for a job well done
Community	unresolved conflicts with colleagues, leadership, institution, staff/team members
Fairness	a perceived lack of equity in the workplace
Values Conflict	disconnect between values that give meaning to you and your day-to-day work
Documentation	there is too much required and/or the EMR is difficult to use
Other	

- The Professional Fulfillment Index identified 5 of 10 core faculty as “professionally unfulfilled” and 1 of 10 as experiencing burnout. *Note, one entry was deemed a duplicate and not counted.*
- Top 3 AMA burnout factors negatively affecting wellness were VA: Workload, Control, Other | LLU/Other: Fairness, Rewards, Workload
- Faculty generally acknowledged that wellness affects teaching and patient care

ACT

- Meetings held with leadership from LLU and VA, discussed findings, secured commitment to improving identified burnout factors
- Presented findings to core faculty and summarized meetings with respective leadership
- Held a group discussion with core faculty moderated by LLU Physician Vitality staff member to explore findings, seek first-steps towards solutions to address wellness concerns

DISCUSSION/ NEXT STEPS

Several burnout factors were identified as top concerns with core faculty. Group discussion moderated by Physician Vitality provided insight and identification for 1:1 wellness check-ins by leadership. Follow up meetings with leadership are needed to reiterate wellness concerns and consider implementation of progress tracking (e.g. Stoplight Method) to bring transparency and acknowledgement of issues being addressed. Additional moderated group discussion(s) to revisit concerns and provide more feedback. A follow up survey to core faculty is planned for Fall 2023.

Sources

- Burnout in Diplomates of the American Board of Physical Medicine and Rehabilitation—Prevalence and Potential Drivers: A Prospective Cross-Sectional Survey <https://doi.org/10.1016/j.pmrj.2018.07.013>
- A Brief Instrument to Assess Both Burnout and Professional Fulfillment in Physicians: Reliability and Validity, Including Correlation with Self-Reported Medical Errors, in a Sample of Resident and Practicing Physicians Mickey Trockel1 & Bryan Bohman1 & Emi Lesure2 & Maryam S. Hamidi <https://doi.org/10.1007/s40596-017-0849-3>
- AMA 6 Drivers of Burnout <https://www.ama-assn.org/practice-management/physician-health/measure-act-these-6-factors-tied-physician-burnout>

Project Scope

The University of Michigan Department of Physical Medicine and Rehabilitation currently houses 43 full time and part time physicians who provide clinical care over six clinical sites. Previously all patient messages received via patient portal or phone call have been triaged by a single nurse with multiple years of experience within the department. The nurse was able to conceptually grow with the department as the patient diversity increased allowing experience to dictate what was deemed pertinent patient reported data as well as urgency of the patient’s complaint. With the continued expansion of the patient populations within the physical medicine and rehabilitation department there is a growing discontent with our current patient messaging triage system due to miscommunication regarding urgency of a patient’s complaint as well as what was deemed appropriate pertinent information. As a result, there has been an increase in patient related phone calls and online portal messages requiring multiple correspondences to obtain appropriate information which increases the time demand on the physicians, decreases the nurse’s efficiency, and most importantly delays care decisions for patients.

Goals

- 1.Create nursing triage protocols for the MSK/Sports service line focusing on patient reported new complaints, urgent concerns, complications (medicine and/or procedure), scheduling requests, out of office/on call covering.
- 2.Improve delineation of urgent patient concerns requiring immediate evaluation and/or emergency room services.
- 3.Decrease the volume of Nursing and medical assistant to physician repeat correspondence for a patient raised concern

The Plan

“Things don’t always go as planned. When things change, make them apart of the plan.”

Project Creep/Risk

- Expansion to all service lines.
- Transition of project to procedure related care and on call responsibilities
- Division of tasks between nursing and medical assistants
- Inclusion of our sperate ACU locations which have joint nursing teams as part of the Comprehensive Musculoskeletal Care Centers (CMC)
- Turn over in medical assistant and nursing staff
- Transitions in leadership
- Faculty Division involvement/lack of involvement
- Transition of on call responsibilities

Successes

Vacation Messaging
And
On Call Physician Identification

Future Considerations

- 1. Where do messages go and how are they triaged?
- 2. Identifying suboptimal protocols as viewed by patient and faculty
- 3. Message consistency
- 4. Messaging expectations

Message Volume (Primary ACU)

Message	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Advice	1,597	1,625	2,069	1,713	1,663	1,735	1,596	2,118	1,773	1,678	1,404	1,608	20,579
Calls	1,344	1,261	1,553	1,231	1,297	1,060	1,031	1,195	1,195	1,150	1,079	955	14,351
Rx	912	834	969	927	964	1,011	880	937	850	833	852	937	10,906
Rx Response	18	26	40	27	22	22	21	29	14	19	30	29	297
Totals	3,871	3,746	4,631	3,898	3,946	3,828	3,528	4,279	3,832	3,680	3,365	3,529	46,133

Background/Administrative Need

The PM&R Department at University Hospital has 4 musculoskeletal physiatrists. Our clinics have historically had a high no-show rate leading to inefficient scheduling and over-utilization of limited personnel and resources.

Currently, appointments are scheduled via phone or in-person, and all patients receive up to 4 robocalls starting 2 days prior to an appointment. New patients receive an additional phone call from our patient navigator during these 2 days.

Automated text messaging is currently utilized in many healthcare settings and may be a more efficient and effective alternative to reminder phone calls. Calls may no longer be best practice in the modern day, as many patients do not answer calls from unfamiliar numbers nor check voicemails consistently. Alternatively, text messages can be screened and viewed easily.

Desired Outcomes

1. Implementation of a cost-effective method to send automated reminder text messages to patients
2. Optimized texting protocol to account for frequency, language barriers, and ease-of-use for the sender
3. Improved show rates in hospital clinics for patients receiving texts and calls compared to robocalls alone

Results

BASELINE DATA APRIL-SEPTEMBER 2022

	Total Scheduled	Patients Seen	No Shows	Show Rate	No Show Rate
Luo	939	632	307	67%	33%
-> New	272	142	130	52%	48%
-> F/U	667	490	177	73%	27%
Others/Control	806	494	312	61%	39%
-> New	353	175	178	50%	50%
-> F/U	453	319	134	70%	30%

POST- INTERVENTION DATA OCTOBER-NOVEMBER 2022

	Total Scheduled	Patients Seen	No Shows	Show Rate	No Show Rate
Luo	228	165	63	72%	28%
-> New	41	21	20	52%	48%
-> F/U	187	144	43	77%	23%
Others/Control	233	155	78	67%	33%
-> New	90	49	41	54%	46%
-> F/U	143	106	37	74%	26%

Methods and Implementation

METHODS

We obtained baseline data regarding patient volume and number of no-shows from April-September 2022 then data from the 2 months of the intervention from October-November 2022.

We decided to have 2 groups, an intervention group (my patients) versus a control group of the patients of the 3 other physicians. The volume of patients in these two groups was roughly equivalent.

Intervention group patients received text messages from an assigned phone number from **ClickSend.com**, 1 week, then 1 day prior to each appointment.

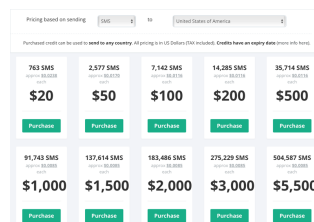
All patients in both groups continued to receive the usual phone calls.

SPECIAL CONSIDERATIONS

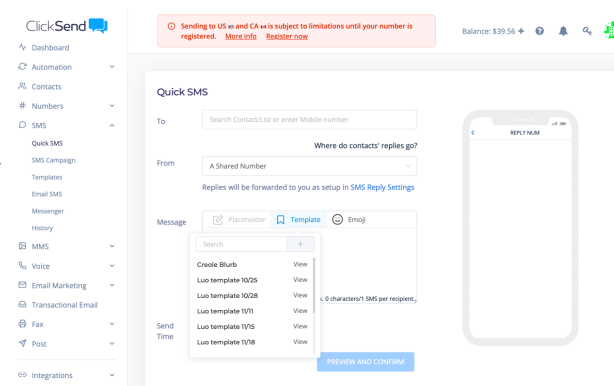
Translation into Spanish, Haitian Creole, and Portuguese was provided with the texts given that these are the top three non-English spoken languages for our patients.

Messages included the date and location of the appointment but not the exact time to allow for group messaging; the cell numbers for each day's patients had to be collated from each individual patient's Epic account.

Total cost of the project: \$61 dollars



Pricing based on sending	100	250	500	1000	2500
763 SMS (10/25/2022)	\$20	\$50	\$100	\$200	\$500
2,577 SMS (10/25/2022)					
7,142 SMS (10/25/2022)					
14,285 SMS (10/25/2022)					
35,714 SMS (10/25/2022)					
91,743 SMS (10/25/2022)					
137,614 SMS (10/25/2022)					
183,485 SMS (10/25/2022)					
275,229 SMS (10/25/2022)					
504,367 SMS (10/25/2022)					



REMINDER: Your appointment with Dr. Luo (Physical Medicine) is on 11/29/22 at University Hospital at 90 Bergen St. Suite 3300 in Newark, NJ. First go to suite 2400 to register. If EHealth, Dr. Luo will call or send a link. Please do not reply to this message.

Analysis

1. Baseline show rate prior to intervention was 61% (Control) and 67% (Intervention)
2. Show rates improved in both groups to 67% (Control) and 72% (Intervention)
3. For the intervention group, show rate for new patients did not change and stayed at 52% while follow up show rate increased by 4%, accounting for the entire increase.
4. For the control group the show rates did increase by 4% for new patients and follow-ups as well.
5. The sample size for the 2 months compared to the 6-month baseline was 24% for the intervention group and 29% for the control group.
6. Every patient was asked whether texts were received. All confirmed receipt. Many preferred text over calls.

Discussion

These preliminary data showed an improvement in overall show rate post-intervention, although not significantly different from the control group. Further study is needed, especially since the intervention group much preferred this method of communication for reminder. It is not clear why the control group also experienced a higher show rate. It is possible that a greater difference can be seen if certain factors are considered. These include the limited duration of the intervention, the smaller sample size for both groups compared to the 6-month baseline, as well as the timing of the year (the holiday season, weather, and other variables during the intervention).

Acknowledgements

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