

National Initiative III: Final Work Plan

Team: Advocate Lutheran General Team 1 – Teaching the Teachers
 Gravdal, Hyziak, Clemens, Belmonte

I.	Overall Goal for NI III/Elevator Speech	<i>Our team’s goal for National Initiative III was to utilize a necessary and relevant activity (the Annual Program Evaluation) to assess, educate, and evaluate our Program Directors and Associate Program Directors about Process Improvement Science, and PIS activities as Scholarly Projects.</i>
II.	Needs Statement	<i>This goal was important because 1)in order to teach residents and fellows, the program leadership must demonstrate competence, 2)the APE have been identified as an area for improvement, and 3) scholarly activities are a common citation for our GME programs.</i>
III.	Vision Statement	<i>In March of 2013, we will see the outcomes of our success by having presented our work at the Annual Research Day, by having quantitative and qualitative results, and by having the draft of a paper.</i>
IV.	Measures	<i>We determined the success of meeting our goal by measuring knowledge and Annual Program Evaluations. Our pre-and post-intervention measures were 1) survey via Survey Monkey prior to and following the educational sessions and 2)review of the APE for the 2 years prior to the intervention and the fall after the intervention. Response to our presentations, our poster and team reflection will provide measures.</i>
V.	Success factors	<i>The most successful component of our work was team collaboration, commitment to regular meetings, and accomplishing our tasks. We began with the end in mind with respect to IRB review/scholarly project.</i> <i>We were inspired by one another and the importance of the work.</i>
VI.	Barriers	<i>The largest barriers we encountered were 1)assistance in scheduling with the Medical Education Office, 2) buy-in (attendance) by the Program Directors and Associate Program Directors, 3) a small N, and 4) 6 month time span for intervention (too long). Also, we experienced PD and APD turnover during this time.</i> <i>We worked to overcome this by perseverance, the use of e-mail reminders and the use of Sharepoint as a document repository (with dubious success)</i>

VII.	Lessons Learned	<i>The single most important piece of advice to provide another team embarking on a similar initiative would be to get sponsorship from or participation with the DIO and Director of Medical Education and commitment from PD and APD. Narrow the time frame for your intervention.</i>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p><i>1. Positive unintended consequences were that team members were identified as subject experts and asked to present to residents</i></p> <p><i>2. Negative unintended consequences included the significant time commitment required for APE review by our volunteer reviewers and inability to get team members to the NI meetings.</i></p>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
XI.	Project Impact	<i>What changes have you observed in your residency program(s), or at your institution, based upon your work? The need for faculty development in this area is firmly established. The motivation may come more from resident curricula and enthusiasm than from faculty commitment and drive.</i>
XII.	Next Steps	<i>Describe next steps for your project, including plans for sustaining and spreading the changes made. We plan to link the development of faculty and resident curricula and to share curricula across residencies and fellowships.</i>

Process Improvement and the ACGME Annual Program Evaluation:



Teaching the Teachers

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Hypothesis/Goal

Education in and experience with process improvement tools will result in:

- 1) improved program director/associate program director knowledge, skills, and attitude about process improvement science (PIS) education in graduate medical education programs
- 2) higher quality in annual program evaluations

Background

The Process Improvement Science (PIS) is relatively new to healthcare. The concepts and tools of PIS have only recently been introduced to Medical Education. The need for instruction and incorporation at the graduate medical education level has been identified.

This study was designed to share knowledge and develop skills in PIS by having residency program directors and associate program directors use these concepts and tools to prepare the required ACGME Annual Program Evaluation (APE).

The purpose of this study was to assess the impact of an educational program for Program Directors and Associate Program Directors of the ACGME accredited programs at Advocate Lutheran General Hospital (ALGH) on both knowledge and attitudes as well as the quality of the APE.

Vision Statement

Teaching Residency and Fellowship leaders about PIS will improve their understanding knowledge, skills and attitudes toward applying PIS in program evaluation and curriculum.

Materials/Methods

The study was reviewed and determined to be exempt by the Advocate IRB.

The subjects were Program Directors and Associate Program Directors (N=18).

This was a pre- and post- study design.

A survey instrument developed by the investigators measured knowledge and attitudes pre and post intervention.

The APEs from 2010, 2011 (pre intervention) and 2012 (post intervention) were analyzed by trained, independent reviewers.

INTERVENTION: Four educational sessions were conducted between April and October 2012.

Topics covered included: APE purpose and process; Introduction to PIS; PIS related to the APE; PIS and scholarship in GME programs.

Survey Results

Related to knowledge and experience metrics for PDSA, fishbone and process mapping techniques subjects reported either an increase in using the tools or no knowledge.

This may be due to the fact that not all subjects completed the pre test and/or that not all subjects attended the educational sessions.

Annual Program Evaluation Results

- APE content and format of data provided varied
- In some cases, content copied and pasted year to year
- Little evidence of dynamic or process improvement in APE over 3 years
- No impact of the educational sessions on 2012 APEs
- Opportunities for improvement

Success Factors and Lessons Learned

PROCESS IMPROVEMENT KNOWLEDGE

- The need for education of Program Directors and faculty on PIS was confirmed.
- Variation in knowledge and skill level posed challenges in educational design.
- Scheduling the educational sessions was challenging.
- Attendance was spotty.

ANNUAL PROGRAM EVALUATION / PROJECT LESSONS

- Regular meetings were critical to moving the project forward
- Committed, highly functioning team with diverse perspectives and skills strengthened the project.
- Sharepoint site provided opportunities and challenges.

Conclusions

- Revise the Advocate System APE instructions and form
- Continue to work with the DIO, Program Directors and Program faculty on faculty development to develop PIS knowledge and skills
- *Ongoing assessment of PIS curriculum*
- *Increase value of APE through integration with performance reviews*

Bibliography

- 1- Unmet needs: teaching physicians to provide safe patient care. Report of the Lucian Leape Institute Roundtable on Reforming Medical Education. 2010. Accessed at www.npsf.org/download/LL1-Unmet-Needs-Report.pdf.
- 2- Coleman, MT et al. Introducing practice-based learning and improvement ACGME core competencies into a family medicine residency curriculum. Jt Comm J Qual Saf 2003; 29(5): 238-247.
- 3- Ogrinc G, et al. A framework for teaching medical students and residents about practice-based learning and improvement, synthesized from the literature. Acad Med 2003; 78:748-756.
- 4- Jenson HB, Dornier D, Hinchey K, et al. Integrating quality improvement and residency education: insights from the AIAMC National Initiative about the roles of the designated institutional official and program director. Acad Med. 2009;84:1749-1759
- 5- Speroff T and O'Connor GT. Study designs for PDSA quality improvement research. O Manage Health Care. 2004; 13(1):17-32.
- 6- Andolsek, KM, Nagler, A, and Weirerth, JL. Use of an Institutional Template for annual program evaluation and improvement: benefits for program participation and performance. JACGME 2010; 2(3):160-164.
- 7- Nadeau MT and Tysinger JW. The annual program review of effectiveness: a process improvement approach. Fam Med. 2012;44(1):32-8.

National Initiative III: Final Work Plan

Team: Advocate Lutheran General Hospital Team 2

I.	Overall Goal for NI III/Elevator Speech	<i>Our team's goal for National Initiative III was to develop a didactic program for family medicine residents that address quality improvement and patient safety.</i>
II.	Needs Statement	<i>This goal was important because we have recently achieved certification as a patient-centered medical home by the NCQA. We wanted to incorporate QI/PS into our processes to further improve our patient care.</i>
III.	Vision Statement	<i>In March of 2013, we will see the outcomes of our success by completion of our didactic curriculum and initiation of team projects.</i>
IV.	Measures	<i>We determined the success of meeting our goal by measuring the number of didactic sessions completed/planned and the number of projects we completed. Our pre-and post-intervention measures were 0 sessions before and 8 sessions after the NI3 program. We had 0 team projects before and 5 projects after the initiation of the NI3 program.</i>
V.	Success factors	<i>The most successful component of our work was involvement of office staff, FM residents, and faculty working together on each of the teams. We were inspired by the ability to collaborate and accomplish goals that were set when teams were formed.</i>
VI.	Barriers	<i>The largest barrier we encountered was lack of knowledge of QI processes as the teams began working on projects. We worked to overcome this by providing faculty and resident didactics.</i>
VII.	Lessons Learned	<i>The single most important piece of advice to provide another team embarking on a similar initiative would be to obtain buy-in by all parties involved. We also learned that it takes time for the didactic information to become incorporated into the measurement of team function.</i>

VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p><i>1. Positive unintended consequences were excitement to begin new projects using PDSA cycles to measure and improve team projects.</i></p> <p><i>2. Negative unintended consequences were not all of the teams used PDSA cycles or measured their outcomes as outlined by specific key quality characteristics.</i></p>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with "1" meaning nothing and "10" meaning everything), how much of what you set out to do was your team able to accomplish? 8</i></p> <p style="text-align: center;"><i>1 2 3 4 5 6 7 8 x 9 10</i></p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with "1" meaning not at all satisfied and "10" meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work? 9</i></p> <p style="text-align: center;"><i>1 2 3 4 5 6 7 8 9 x 10</i></p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <p><i>We have 2x/month QI team meetings. The didactics are now embedded in our practice management curriculum.</i></p>
XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p> <p><i>Our next steps are enhancing faculty development in QI and patient safety. We need to educate and involve PG1 residents in the didactics and projects. The original curriculum was designed for PG2 and PG3 residents and faculty.</i></p>



Overall Goal/Abstract

The Advocate Lutheran General Family Medicine Residency program's goal is the development of a curriculum on quality improvement and patient safety and the creation of a process for quality improvement project completion.

Background

Quality Improvement and patient safety are two interrelated subjects that are not routinely taught to residents and residency faculty. The Advocate Lutheran General Hospital residency program planned to integrate teaching of these two areas. This was accomplished by teaching QI through both didactics and hands on projects.

Vision Statement

We will measure our success by:

- A) The implementation of an ongoing lecture series on Quality Improvement and Patient Safety.
- B) The completion of QI projects targeting the patient centered medical home model

Materials/Methods

The program presented 8 topics on QI and patient safety to the residents. There was 1 faculty development session on the basics of QI. Faculty received on-line training on patient safety prior to this intervention. PG2 and PG3 residents reviewed the IHI on-line modules for using PDSA cycles. Concurrently, 5 teams (1 inpatient and 4 outpatient) were established to start projects that would improve care in their respective settings. The office teams met 2x/month for 1 ½ hours each to develop AIM statements and complete their projects.

Results (data gathered both quant & qual.)

Team Results

- 1) Geriatric Wellness – increased annual wellness visits.
- 2) Patient Satisfaction – performed an office time study.
- 3) Immunizations – created a refusal to vaccinate form.
- 4) Inpatient – readmission reduction study (ongoing)
- 5) CAD Team – Developed group visits.

Success Factors and Lessons Learned (Discussion)

- 1) Involved Family Medicine residents in QI projects.
- 2) Projects Utilized timely didactic information.
- 3) Projects required regularly scheduled times for successful completion.

Barriers Encountered/Limitations-

Not all QI team members had QI training (specifically office staff).

Some groups did not initially choose measurable outcomes.

Faculty training lagged behind that of residents.

Conclusions

The residency program learned the steps used in QI processes by participation in projects while having didactic sessions that preceded the projects. Project content was discussed by family medicine residents during these didactic sessions. Projects planned for 2013 are different than the one's for 2012. Outcome measurement of the relative success of each team's project will be expected for the 2013 projects.

Bibliography

Lloyd, Robert. Quality Health care a guide to developing and using indicators. 2004

Lloyd, Robert, Carey, Raymond. Measuring quality improvement in health care.

IHI Quality Modules

National Initiative III: Final Work Plan

Team: Akron General Medical Center

I.	Overall Goal for NI III/Elevator Speech	<i>Our team's goal for National Initiative III was to create and implement a Faculty Development Program that reinforces professionalism in the residents' continuity clinic.</i>
II.	Needs Statement	<i>This goal was important because the main focus of feedback in the continuity clinic has been addressing medical knowledge and patient care. Professionalism tends to be addressed only when there is a problem. There needs to be feedback addressing all of the core competencies.</i>
III.	Vision Statement	<i>In March of 2013, we will see the outcomes of our success by the integration of professionalism feedback into the residents' continuity clinic by the supervising faculty.</i>
IV.	Measures	<i>We determined the success of meeting our goal by measuring resident and faculty satisfaction.</i> <i>Our pre-and post-intervention measures were a pre & post survey of residents and faculty identifying deficiencies and comfort level providing feedback and a series of educational session; small group meetings, role play, videotaping and lecture.</i>
V.	Success factors	<i>The most successful component of our work was getting buy in from the faculty supporting our need for change.</i> <i>We were inspired by some of the faculty's self-awareness and areas they embraced to change their own behavior.</i>
VI.	Barriers	<i>The largest barrier we encountered was getting the faculty together at one time for the educational sessions.</i> <i>We worked to overcome this by scheduling multiple sessions to include as many faculty as possible. When that wasn't possible, NI 3 team members met individually with faculty.</i>
VII.	Lessons Learned	<i>The single most important piece of advice to provide another team embarking on a similar initiative would be to conduct a detailed needs assessment to determine an accurate level of intervention by meeting with your focus group early on in the process.</i>

VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p>1. <i>Positive unintended consequences were the faculty's acceptance of the various educational interventions, i.e. role play, videotaping and the desire for future interventions.</i></p> <p>2. <i>Negative unintended consequences were the discovery that there was no standardized process in place to provide a better foundation for our faculty development initiative.</i></p>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with "1" meaning nothing and "10" meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p>1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with "1" meaning not at all satisfied and "10" meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p>1 2 3 4 5 6 7 8 9 10</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <p>A faculty retreat has been scheduled to discuss the implementation of a formalized process for providing feedback.</p>
XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p> <p><i>Work with faculty at the upcoming faculty retreat to provide needed direction for creating structured feedback process with residency-wide implementation July 2013.</i></p>

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Background

- The American Board of Internal Medicine (ABIM) describes professionalism as “involving attitudes and behaviors that place patient interest above physician self-interest.”
- In an attempt to better standardize the teaching of professionalism, the ABIM and Accreditation Council for Graduate Medical Education established competency-based training milestones for Internal Medicine residency programs.
- These milestones were designed to guide curriculum development, assessment strategies, and standardize evaluation methods, and have been used for the purpose of faculty development in previous studies and were successful in helping residents reach core competencies.

Objective

Professionalism milestones served as the basis for a faculty development program centered on providing education and feedback to PGY1 residents (interns) on their own professionalism behaviors during preceptor-resident sessions in the Internal Medicine continuity clinic.

Rationale

A faculty development course including reflective experiences of videotaped feedback sessions with interns should assist faculty members with skill development with respect to teaching and providing feedback on professionalism milestones to interns.

Figure 1

1. Pre/Post-Intervention Faculty Survey and 6-month Intern Surveys assessed level of understanding and comfort of select 12-month professionalism milestones under the following subheadings using a Likert Scale:

- “adhere to basic ethical principles”
- “provide timely, constructive feedback to colleagues”
- “maintain accessibility”
- “demonstrate personal accountability”

Methods

- Eight core Internal Medicine teaching faculty completed a pre-intervention survey regarding level of understanding and comfort in providing feedback on 12-month professionalism milestones
- Current pre-intervention 6-month interns (n=10) rated their understanding of the same milestones, which indirectly assessed effectiveness of faculty teaching and feedback.
- A follow-up exercise allowed faculty to describe how they would address professionalism issues in a hypothetical situation in order to identify specific areas of focused education.
- The faculty development program included interpersonal communication education, role-plays of difficult situations and pocket resources, as well as direct feedback on videotaped feedback sessions with residents.
- At the end of the intervention period, participating faculty completed a post-intervention survey.
- The current post-intervention 6-month interns completed a follow-up assessment similar to the assessment completed by the pre-intervention 6-month interns.

Results

- Average ratings between the pre- and post-intervention faculty survey fell approximately 0.25% and 0.50% on all measures of understanding, but increased slightly on measures of comfort.
- Average ratings between the pre- and post-intervention 6-month intern survey generally increased between 0.25% and 0.50% for measures of comfort and understanding.

Success Factors

- Faculty role-play exercise on providing feedback to various types of learners brought faculty out of their comfort zone and raised awareness of how they handle residents that process feedback differently.
- Video-taping actual feedback sessions raised faculty awareness of their own teaching style, as well as habits that affect how their message is perceived.

Barriers Encountered/Limitations-

- Core Internal Medicine faculty rated themselves as above average on the preliminary assessment of understanding and comfort with providing feedback on professionalism milestones.
 - 6-month interns rated their understanding of professionalism milestones as average to below-average.
 - Follow-up faculty comments were consistent with explaining the average rating decrease in understanding of professionalism milestones as the result of an initial sense of overconfidence.
- It was discovered that there was no standardized method of observation and providing feedback to the PGY1 residents based on that observation.
 - Opportunity to work with faculty to develop a tool to standardize the observation and feedback process.
 - Work towards developing the observation and feedback tool has started with plans for the tool to be in place before the start of the next academic year.
- Faculty did not view the preceptor/resident setting in the continuity clinic as ideal for giving feedback on professionalism as they felt that situations requiring professionalism intervention should be separate from mentoring on clinical management.
 - Opportunity to provide faculty with additional education regarding their roles as preceptor and core teaching faculty. Specifically, changing the faculty understanding to accept the continuity clinic as the best setting to provide feedback on professionalism.
 - Educational in-service will be prepared and reviewed with core teaching faculty prior to the start of the next academic year, and all new faculty upon hire.

Conclusions

- The comprehensive faculty intervention was perceived as helpful in teaching the faculty to focus on behaviors that change the context of overall feedback delivery.
- The faculty development exercise was meant to focus on the role of core teaching faculty in providing feedback on resident professionalism; however, it was discovered that the system in place was not conducive to implementing such a program without modification and the introduction of resources.

Bibliography

1. Marco C. Medical professionalism in medical education
2. Taylor C, Farver C, Stoller JK. Perspective: can emotional intelligence training serve as an alternative approach to teaching professionalism to residents? Acad Med. 2011;86:1551-1554.
3. Green ML, Aagaard EM, Caverzagie KJ, Chick DA, Holmboe E, Kane G, Smith CD, Iobst W. Charting the road to competence: developmental milestones for internal medicine residency training. Journal of Graduate Medical Education. September 2009;5-16.
4. Peccoraro L, Karani R, Coplit L, Korenstein D. Pocket card and dedicated feedback session to improve feedback to ward residents: a randomized trial. Journal of Hospital Medicine 2012;7:35-40.
5. Stark R, Korenstein D, Karani R. Impact of a 360-degree professionalism assessment on faculty comfort skills in feedback delivery. J Gen Intern Med 23(7):969-72.

National Initiative III: Final Work Plan

Team: Aurora Health Care

I.	Overall Goal for NI III/Elevator Speech	<ul style="list-style-type: none"> • <i>Our team’s goal for National Initiative III was to improve the quality metrics and patient experience at our resident clinics.</i>
II.	Needs Statement	<ul style="list-style-type: none"> • <i>Our #1 care management priority is to assure that patients receive a better care experience at AHC than they can get anywhere else - as measured by clinical quality, patient satisfaction, and caregiver engagement.</i> • <i>Resident clinical training sites must meet these care management standards for patients and as practice models for future physician workforce. .</i> • <i>Currently, our resident clinics’ metrics lag behind other system clinics and do not meet system expectations.</i> • <i>TeamSTEPPS was identified as a strategy to address this need.</i>
III.	Vision Statement	<ul style="list-style-type: none"> • <i>Our resident clinics will serve as the model for outstanding patient care through upward trending care management scores beginning March 2013 and full engagement and adoption of TeamSTEPPS.</i>
IV.	Measures	<p><i>We are evaluating the success of meeting our goal by measuring our baseline/pre and post intervention:</i></p> <ul style="list-style-type: none"> • <i>Resident clinic caregivers commitment to change delta</i> • <i>Resident clinic caregivers team-related behaviors (using selected items from TeamSTEPPS form)</i> • <i>Resident clinic leadership and caregivers engagement in on-going team/communication training</i> • <i>AHC Quality and patient experience metrics</i>
V.	Success factors	<ul style="list-style-type: none"> • <i>Engagement and ownership of “team” by the clinic caregivers from physicians and chief resident to front office staff</i> • <i>Active support and coaching from key AHC offices (e.g., Education/Academic Affairs; Human Resources/Leadership Development)</i> • <i>Alignment of AHC System priorities and metrics with TeamSTEPPS and ACGME NAS/CLER</i>
VI.	Barriers	<ul style="list-style-type: none"> • <i>The largest barrier we encountered was the tension between “today’s work” and culture change process</i> • <i>We worked to overcome this by imbedding training and reinforcement into regularly scheduled activities</i> • <i>Continuation at existing sites, selection of next sites and secession planning (e.g., resident champions/other staff transition to new roles)</i>
VII.	Lessons Learned	<ul style="list-style-type: none"> • <i>The single most important piece of advice to provide another team embarking on a similar initiative would be to involve key stakeholders from day one (C-Suite, management, faculty, residents, office staff)</i> • <i>Be patient yet persistent with timelines.</i>

VIII.	<p style="text-align: center;">Unintended Consequences</p>	<ul style="list-style-type: none"> • <i>Positive consequence was that medical education was tasked with leading team culture change across Aurora System.</i>
IX.	<p style="text-align: center;">Expectations Versus Results</p>	<p><i>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p>1 2 3 4 5 6 7 8 9 10</p>
X.	<p style="text-align: center;">Satisfaction</p>	<p><i>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p>1 2 3 4 5 6 7 8 9 10</p>
XI.	<p style="text-align: center;">Project Impact</p> <p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p>	<ul style="list-style-type: none"> • <i>Awareness of TeamSTEPPS more broadly in Aurora.</i> • <i>Engagement of clinic frontline staff in using TeamSTEPPS tools.</i>
XII.	<p style="text-align: center;">Next Steps</p> <p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p>	<ul style="list-style-type: none"> • Phase 1: <i>Pilot sites have engaged and own implementing and sustaining TeamSTEPPS</i> • Phase 2: <i>New pilot sites are identified and training is being calendared</i> • Phase 3: <i>Sites outside of Medical Education Clinics are being identified and engaged.</i>

Team Competency: A Key Element for Excellence in the Patient Experience

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Overall Goal/Abstract

Quality metrics and patient experience data (CGCAPS) in our resident clinics lag behind those of ambulatory clinics elsewhere in Aurora Health Care (AHC)

HYPOTHESIS: Implementation of TeamSTEPPS training for all site caregivers will result in improved patient experience metrics and caregiver satisfaction

Background

AURORA HEALTH CARE AND MEDICAL EDUCATION

- Private, not-for-profit integrated health care provider, serving 31 counties and 90 communities
- 30,000 employees including more than 1,500 employed physicians
- 152 Graduate Medical Education positions (Family Medicine-30, Internal Medicine-39, Radiology-20, Cardiology-25, GI-3, Geriatrics-2, OB/GYN-5)
- TEAM functioning is a critical factor in patient experience scores
- ACGME/NAS Competencies, Milestones, CLER programs emphasize patient care TEAM skills
- Multiple initiatives across AHC that address quality, patient satisfaction, communication
- Gap: No AHC initiatives to date have explicitly addressed the competencies required to be a member of an effective TEAM



Vision Statement

We will be satisfied only when we provide the best medical education to provide the best patient care

Materials/Methods

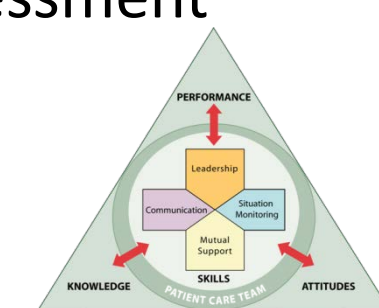
METHODS

- All providers at 2 Family Medicine Residency Sites participated in a 4-hr /3 module TeamSTEPPS training
- Instructors trained by system organizational leader trained in TeamSTEPPS: senior physician faculty, resident, staff from each site (nurse, PSR, MA, Prevention Specialist)
- TeamSTEPPS training modules selected based on needs assessment including: TeamSTEPPS background, team structure and mutual support (strategies to improve team effectiveness and provide effective feedback)
- Modules adapted to ambulatory care setting
- Aurora Research Subject Protection Program determined that this project does not constitute human subject research and does not require Aurora IRB oversight



EVALUATION

- 2-mo post follow-up data obtained using selected TeamSTEPPS TEAM Assessment Questionnaire items representing the 7 domains
- 2-mo Retrospective Pre/Post Caregiver Commitment to Change themes
- AHC ongoing patient experience metrics at baseline and post training



Results

TeamSTEPPS 2 mo Follow-up (5=Strongly Agree - 1=Strongly DISagree) - Response Rate 69% (55/80)

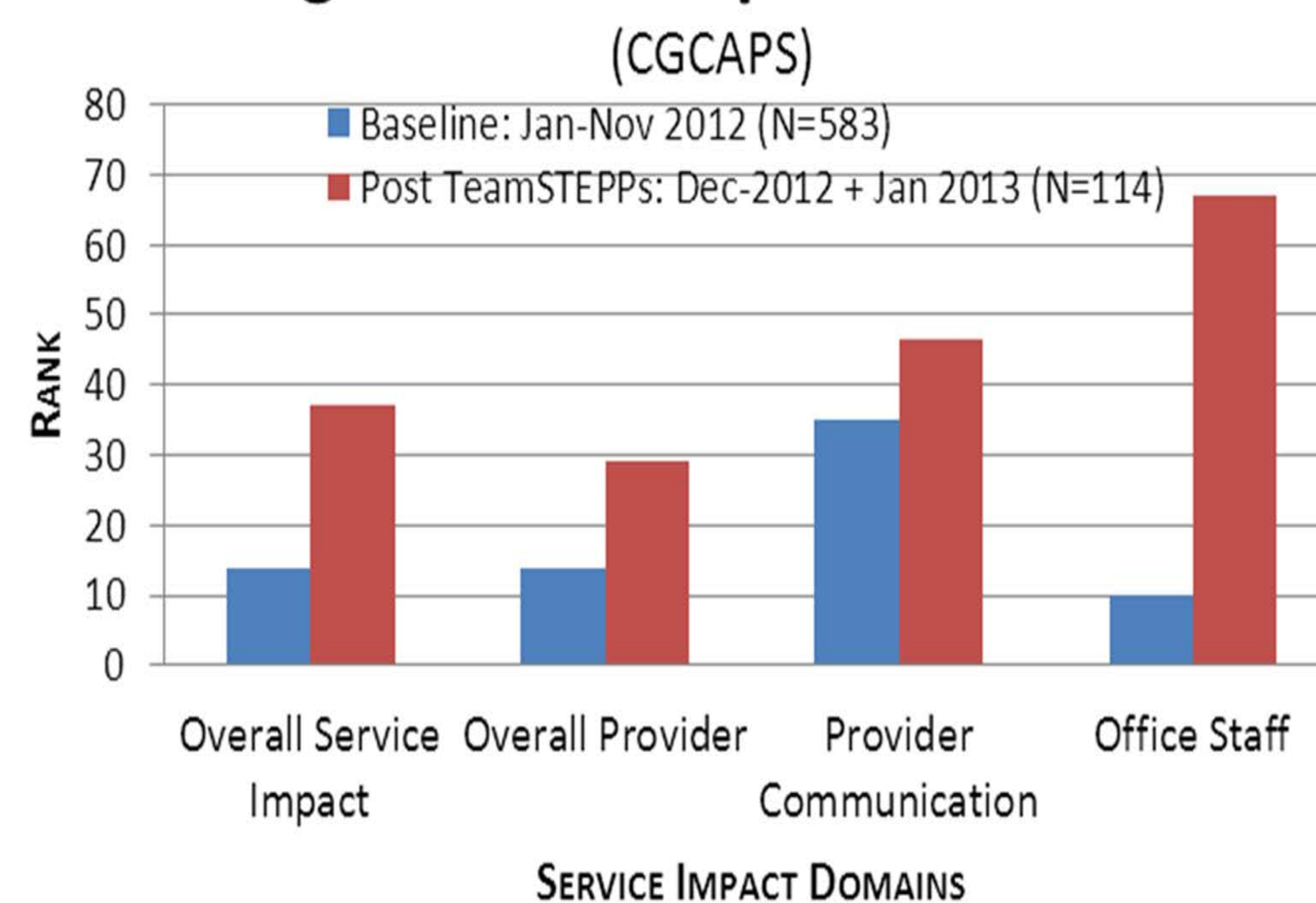
	Pre	Post
I know why I am on a team	4.3	4.4
Everyone on the team has a clear and vital role	4.0	4.3
I share my ideas/suggestions whether or not my boss/supervisor agrees with my input	4.1	4.3
The team can change or improve the way it goes about working on its tasks	4.0	4.1
My boss/supervisor is an effective leader	4.1	4.1
Team has adequate skills and members resources to achieve its goals	3.6	4.0
My boss/supervisor coaches and supports individual team members	4.1	4.0
This team works well together	3.8	3.9
This team is promptly informed of changes in policy or new developments	3.7	3.7
Team members are familiar with each other's job responsibilities	3.5	3.7
The team monitors and progresses the plan of care	3.7	3.7
Team members receive recognition for individual performance	3.7	3.7
Team functioning doesn't interfere with getting my own job done	3.6	3.6
Team members trust each other	3.5	3.6
There are no feelings among team members which might pull this team apart	3.4	3.3

TeamSTEPPS Retrospective Pre/Post Commitment to Change

Themes (6 = Always/Almost Always; 5 = Very Frequently; 4 = Frequently; 3 = Sometimes; 2 = Occasionally; 1 = Rarely/Never) Response Rate 69% (55/80)

	Pre	Post	+ Change
I make a focused effort to communicate effectively with all my clinic's care givers/team members (e.g., seek clarification, listen, give/seek constructive and timely feedback)	4.6	5.1	0.5
I make a focused effort to offer help/collaborate on care (e.g., patient care, clinic tasks)	5.0	5.2	0.2
I am "assertive" in advocating for the patient to achieve quality care/seek to improve clinical processes/efficiencies	4.9	5.3	0.4

Merged Patient Experience Metrics



Success Factors and Lessons Learned (Discussion)

- All sites have committed to and are enthusiastically engaged in performing better as a TEAM
- Our education unit has been tasked to lead dissemination efforts across Aurora Health Care
- C-suite champions and system stakeholders are critical in the initiation of TEAM process and system wide dissemination
- Superb leadership support (C-Suite, medical group, clinic) from conception through alpha test phase, continuing into beta testing
- Use interprofessional staff as facilitators/champions (Nursing, Social Worker, PSR, Residents, Faculty)
- Supportive and active steering committee
- Need to clearly communicate the challenge and why this is important
- Need to plan early and with the site leaders about how the curriculum will be reinforced and sustained

Barriers Encountered/Limitations

- TeamSTEPPS is longitudinally information rich; selectivity needed to support application/practice
- Tensions: Immediate clinical care delivery needs with the patience needed for institution wide culture changes: Competing challenges for time and energy
- Balance between local clinic implementation versus creating a process that will work broadly across the Aurora System
- Scheduling and Training
- Finding the right room to hold the session (conducive to group interaction AND small group break outs)

Conclusions

- "TEAM" competency may be the critical PROCESS element in enabling successful accomplishment of clinic and system achievement of strategic targets
- TeamSTEPPS is an excellent, comprehensive, yet flexible tool to teach TEAM competency

Bibliography

- Nasca TJ, Philibert I, Brigham T, Flynn TC. The Next GME Accreditation System – Rationale and Benefits. *N Engl J Med* 2012; 366:1051-1056
- Interprofessional Education Collaborative Expert Panel. (2011). *Core Competencies for interprofessional collaboration practice: Report of an expert panel*. Washington D.C.: Interprofessional Education Collaborative.
- Clinical Learning Environment Review (CLER) Program. Accreditation Council for Graduate Medical Education. <http://www.acgme-nas.org/clar.html> Accessed 2.15.2013
- TeamSTEPPS®: National Implementation. Agency for Healthcare Research & Quality. <http://teamstepps.ahrq.gov/> Accessed 2.15.2013
- Improving Patient Care through GME: A National Initiative of Independent Academic Medical Centers. <http://www.aiamc.org/ni-overview.php> Accessed 2.15.2013

National Initiative III: Final Work Plan

Team: Bassett Medical Center

I.	Overall Goal for NI III/Elevator Speech	<i>Our team's goal for National Initiative III was to develop a core faculty in quality and safety that would support curriculum in quality and safety across all of our residency programs.</i>
II.	Needs Statement	<i>This goal was important because the needs of our patients and the requirements of the ACGME mandate training in quality and safety for all physicians in training. At our institution, we have a deficit in faculty trained in the science of quality and safety. Residents respond better to curricular goals when they see them as important to their faculty role models.</i>
III.	Vision Statement	<i>In March of 2013, we hoped to see the outcomes of our success by having a faculty trained in the science of quality and safety which was actively involved in the delivery of curriculum for all residents.</i>
IV.	Measures	<i>Our intervention is incomplete. The didactic curriculum for the faculty is outlined and we are part way through delivery. Our plan is to measure attitudes and knowledge regarding the science of quality and safety among the core faculty pre and post intervention and to survey program directors and residents regarding involvement of the core faculty in delivery of the curriculum.</i>
V.	Success factors	<i>This has not been a successful program so far, but we have hope. The most successful component of our work was the spinoff work done within one of the residency programs by two of the core faculty. We were inspired by the dedication of some of the members of the group.</i>
VI.	Barriers	<i>The largest barrier we encountered was an institutional mismatch of priorities. Two specific issues – implementation of an electronic medical record occurred during the middle of the project – a huge drain on human resources - several core faculty members were unable to participate in the project during that time period. Several core faculty members had personal commitment to the project, but did not have support of their clinical chief of service. These were from departments that do not have residency programs, so the chief did not appreciate the value.</i>

VII.	Lessons Learned	<i>Don't simply get endorsement up front for the project by the CEO, CMO, Clinical Chiefs – have them actively involved in the process so that anticipated conflicts can be better determined and so that the time spent on the project is truly valued by the participants' leaders.</i>
VIII.	Unintended Consequences	<i>It is too soon to speculate on this</i>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with "1" meaning nothing and "10" meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p>1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with "1" meaning not at all satisfied and "10" meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p>1 2 3 4 5 6 7 8 9 10</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work? All three of our residency programs have involved their residents more substantially in quality and safety activities at the institution – it's hard to speculate what, if any, influence this project has had on that – the program directors are involved with the project, but they also know that they must get their residents involved.</i></p>
XII.	Next Steps	<i>We plan to continue the project to completion. We have been in conversation with one of the other NI III participants (Health Partners) who has a similar project and plan to look at similarities and differences and write about that. To infuse new energy in the project, further conversations with the CEO and clinical chiefs will be necessary.</i>



Creating a Core Faculty in Quality and Safety

James Dalton, MD, Kelly Currie, MD, Edward Bischof, MD, Charlotte Hoag

Bassett Medical Center, Cooperstown, NY

Overall Goal/Abstract

Our project aim was to create an educated and enthusiastic core faculty, composed of senior and resident physicians and administrators, who would take ownership of the curriculum in quality and safety for all residents at Bassett Medical Center.

An assessment of strengths and weaknesses in the organization revealed a deficit in expertise around the science of quality and safety in the faculty from all clinical disciplines.

This gap between existing expertise, and that needed to develop and sustain a curriculum for residents in quality and safety, was the driving force behind the project.

Background

Bassett Medical Center is an integrated health care system that provides primary tertiary care across an eight county area in rural upstate New York. Sixty resident physicians in three programs are sponsored at the institution. The administrative structure of the organization includes a sophisticated approach to quality and safety issues. The vast majority of the physician faculty in Medicine and Surgery, have not been actively engaged in the process of quality and safety, and have had little or no formal training in the science of quality and safety. With the new ACGME requirements, residents need to be actively involved in the quality and safety activities. It was our hypothesis that faculty would need to be champions for this curriculum.

The residents and faculty were surveyed for interest in a faculty development program around quality and safety, and a core faculty emerged.

Background (con't)

A decision was made to develop a didactic core curriculum for the faculty in a lecture-discussion format, using local and invited experts, and self-study.

The curriculum was designed by the group, with help from our local experts.

Vision Statement

Our vision is to have a curriculum in Quality and Safety for all post-graduate trainees, that is highly valued by the residents, and that is sustained by a dedicated faculty who are skilled in the science of quality and safety.

Materials/Methods

- The core faculty created a monthly meeting schedule. The purpose of the meetings was twofold – 1) to discuss quality and safety issues within the residencies, and 2) to establish a curriculum for their own learning.
- An important corollary was the residents meeting in the context of a Housestaff Quality Council.
- A monthly teleconference with National Initiative III colleagues was attended by core faculty. Relationships were formed and common ground was established.

Results

- Lecture series developed and in process of execution (see appendix)
- Program Directors have support for development of this curriculum
- Cultural obstacles have come into focus
- Residents have experienced similar obstacles
- Collaboration with others has fostered courage and creativity
- A collaborative research project is underway with another NI III partner

Success Factors and Lessons Learned

- The jury is out as to whether or not this has been successful, but the project has demonstrated the need to collaborate among the residency programs for common curricular goals
- It created an honest and open tension around the need for time to teach and develop as faculty
- Residents who were actively engaged in the process felt empowered as they understood their expertise in the system

Barriers Encountered/Limitations

The CEO was supportive, but if he had been a participant, there would have been a more potent driver of the process.

The inpatient EHR (Epic) was implemented mid project and was a MAJOR distraction for the core faculty

There is not a seamless interface between the clinical and administrative arms of the quality and safety mission

Conclusions

Outcome – remains to be seen. The curriculum will be delivered to faculty and we will see what the effect will be.

Process – invaluable. Anytime one is able to demonstrate the strengths and weaknesses of an organization, it is beneficial. Whether or not it is transformative, depends upon the lens through which one looks.

National Initiative III: Final Work Plan

Team: Baystate Medical Center

I.	Overall Goal for NI III/Elevator Speech	<i>To develop an inter-disciplinary, inter-professional Resident quality council (RQC) to improve patient care and safety by engaging residents in a culture of quality improvement, teaching them about quality improvement and by enhancing communication between hospital administrators and residents.</i>
II.	Needs Statement	<i>Hospital staff, play a key role in patient care at academic medical centers. They have unique insights into problems that occur within a hospital. Yet, they are not optimally involved in efforts to improve care.</i>
III.	Vision Statement	<i>“To improve patient care, safety and inter-disciplinary collaboration within Baystate Medical Center by engaging all resident programs in quality improvement.”</i>
IV.	Measures	<i>Engaged residents 80% attendance at meeting. Complete one project each</i>
V.	Success factors	<i>We learned what we did not do right- we selected our group WE learned from other programs through the conference call and meeting- have the resident select themselves</i>
VI.	Barriers	<i>Scheduling was a big barrier- made worse by potential lack of strong motivation to be there</i>
VII.	Lessons Learned	<i>Have resident apply to be in group and select from the applicant pool- already have the motivation</i>

VIII.	Unintended Consequences	<i>Faculty got together a lot and reinvented the wheel(how to engage the residents) a couple of times yet engage the learners</i>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with "1" meaning nothing and "10" meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p>1 2 <u>3</u> 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with "1" meaning not at all satisfied and "10" meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p>1 2 3 4 5 6 7 <u>8</u> 9 10</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <p><i>We have already started a plan for next year with some of the people that were engaged this year</i></p>
XII.	Next Steps	<p><i>We have designed the application form.</i></p> <p><i>Picked dates for the meeting up front</i></p>



**Baystate
Health**

Development of an inter-disciplinary, inter-professional

Resident Quality Council (RQC)

Reham Shaaban, DO, Adrienne Seiler, MD, Melody Brewer, MD, Kevin Hinchey, MD

Baystate Medical Center, Springfield, MA

National
Initiative

Barriers Encountered/Limitations-

One of the biggest barriers we encountered was lack of engagement from the residents involved due to several factors:

- Residents were chosen to participate despite each individual's level of interest in quality education and initiatives
- Each chief's duties varied and limited the amount of time available for participation in projects Chief residents have limited time to participate in projects
- There were multiple deliverables without a strong emphasis on one main goal of participation in the RQC
- Leadership of multiple residencies were not involved and, at times, not aware of the development of the council – we took a bottom-up approach

There was a delay in initiation of the council until September due to scheduling conflicts

Difficult to find a meeting time suitable for all

Conclusions

While the RQC experience did not reach all of the initial goals set aside, it was successful at forming inter-disciplinary working relationships and gauging the interest and knowledge of the housestaff in quality improvement. The vision and goals are still achievable in coming years, but will require a re-construction of the council. Moving forward, the council will consist of residents that have applied for the positions and have shown interest in quality improvement as recognized by their programs. Overall, the set backs faced have made it more clear as to how to continue to pursue the ultimate goal of improving patient care and safety through housestaff engagement in quality improvement.

Overall Goal/Abstract

To develop an inter-disciplinary, inter-professional Resident quality council (RQC) to improve patient care and safety by engaging residents in a culture of quality improvement, teaching them about quality improvement and by enhancing communication between hospital administrators and residents.

Background

Housestaff officers play a key role in patient care at academic medical centers. They have unique insights into problems that occur within a hospital. Yet, they are not optimally involved in efforts to improve care. Frequently, hospital administrators, nurses, and attending physicians study the outcomes of care, assess root causes when adverse events occur, and develop improvements as necessary. Resident input may not always be included in policy changes and, as a result, residents may not be engaged in adopting these policy changes. ACGME requires residents to “*systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement;*”

Vision Statement

“To improve patient care, safety and inter-disciplinary collaboration within Baystate Medical Center by engaging all resident programs in quality improvement.”

Materials/Methods

The RQC was initiated in 2012 with the collaboration between the housestaff, the Quality department and GME. The chief residents of all 10 residency programs in the hospital were chosen as the first class. The primary focus of the first year was to “teach the teacher,” thereby allowing us to disseminate information and knowledge about the science of quality and patient safety to all residencies. To achieve this goal, monthly didactic sessions were planned for Resident Quality Council. The secondary focus was to form parallel quality tracks in all residencies aimed to perform at least one quality project per year as well as develop participation criteria and interest for the upcoming year's Resident Quality Council.

Success Factors and Lessons Learned(Discussion)

- Significant improvement and comfort with inter-disciplinary communication amongst the 10 residency program chief residents
- Able to facilitate a working connection between psychiatry attending working on quality improvement and the psychiatry chief resident interested in developing a quality improvement track
- Multiple interdisciplinary ideas for projects that would bring different residency programs together- projects that can be evaluated further in future years
- Able to identify quality improvement champion attendings within each residency program to help as additional support for residents interested in the quality council

National Initiative III: Final Work Plan

Team: Christiana Care Health System

I.	Overall Goal for NI III/Elevator Speech	<i>Our team’s goal for National Initiative III was to develop skills to teach and to lead the incorporation of continuous performance improvement and safety principles into all education curricula and into clinical practice by working with the entire Christiana Care healthcare community, thereby improving the quality of care we deliver.</i>
II.	Needs Statement	<i>This goal was important because there is a gap in faculty and resident knowledge, skill sets, and ability to identify opportunities and apply quality improvement methodologies as appropriate. It is vital to develop skilled physicians in order to increase the value and safety of the clinical care we provide.</i>
III.	Vision Statement	<i>In March of 2013, we will see the outcomes of our success by shifting the culture of CCHS to focus on value and safety. The dissemination of culture change will be measured by increased knowledge, engagement in clinical projects and incorporation of continuous process improvement into daily practice. Clinicians will be aware of their role in the system and be able to identify opportunities and apply their skills to affect change. This will result in our becoming a national model for quality improvement.</i>
IV.	Measures	<i>We determined the success of meeting our goal by measuring whether teaching quality and safety improvement science curricula to faculty increases their capability as experts, teachers, and leaders of safety and quality, systems and practice improvement. Our first cohort consists of 11 learners leading 9 improvement projects. Our pre-and post-intervention measures include, (1) pre, mid-point and post program surveys to measure the impact on participants’ confidence in teaching quality and safety competencies across six domain; (2) perceived impact of the program on residents (Annual ACGME Resident Survey), (3) perceived impact within the institution (project review 90 and 180 days post), and (4) percent of participants that achieve a professionally recognized quality improvement certification within 1 year of completing the program.</i>
V.	Success factors	<i>The most successful component of our work was the integration of interdepartmental, interprofessional course faculty created valuable teaching and learning experiences. Curricula can be developed and delivered to time constrained faculty that promotes both knowledge acquisition and relevant application. We are inspired by our mid-point competency ratings assessment completed in February 2013 which demonstrated an increase across all competency domains</i>

		<i>since the beginning of the course. Post program assessment is scheduled for May 2013.</i>
VI.	Barriers	<i>The largest barrier we encountered was that while all participants are learning, project progress has varied. Relevance of project selection and team formation led to more success for the projects on track. For subsequent offerings, the course schedule will be revised to allow for more dedicated project work time.</i>
VII.	Lessons Learned	<i>The single most important piece of advice to provide another team embarking on a similar initiative would be that learners come with an improvement project relevant to their current role that is pre-approved by their immediate supervisor, program director, and/or department head. In addition, early assignment of improvement project mentors may support keeping all learners' projects on track, especially with a focus on the formation of an improvement project team. Early dialogue with key stakeholders during program design was instrumental in realizing organizational support.</i>
VIII.	Unintended Consequences	<i>The learners whose projects are not progressing according to initial plan, there the perception that there is a degree of frustration by the learners involved. The lasting consequences of this are not known, however, is felt to have a short-term impact.</i>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with "1" meaning nothing and "10" meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with "1" meaning not at all satisfied and "10" meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>

XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work? There are identifiable gaps in the trainers of our residents regarding improvement sciences. Curricula can be developed and delivered to time constrained faculty that promotes both knowledge acquisition and relevant application. It's too early to determine whether the program effectively trains-the-trainer in improvement and safety.</i></p>
XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made. Sustainment plans include broadening the enrollment offering to included representatives from additional program faculty members, and include residents. For subsequent offerings, the course schedule will be revised to allow for more dedicated project work time.</i></p>



Leadership Development in Integrating Quality and Academic Training Programs

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Introduction/Background

Health care professionals in faculty and leadership roles are uniquely positioned to have a profound impact on improving the quality and safety of patient care while preparing the next generation of the medical profession workforce. Our Department of Medicine's vision to increase faculty capability as experts and leaders in quality and safety improvement sciences called for the design and implementation of a faculty development program. This was accomplished by leveraging the success of our interprofessional resident QI curriculum (ACT¹) and partnering with our Value Institute.

Overall Goal

Overall goal of the program is to examine whether teaching quality and safety improvement science curricula to faculty increases their capability as experts, teachers, and leaders of safety and quality, systems and practice improvement.

Methods

Using Kern's approach to Curriculum Development for Medical Education², we designed and implemented a professional development program, Advanced Quality and Safety Improvement Science, for our faculty. A learning needs assessment³ (19 questions addressing 6 competency domains) administered to Internal Medicine Faculty and Residents formed the basis for the description of the program's goals, objectives, course schedule and curricular topics. Prospective learners applied and submitted a pre-approved improvement project proposal with the intention to demonstrate application by leading an improvement effort. This, in turn involved the mentorship of faculty and residents in quality and safety improvement science skills development. 11 faculty/ teaching staff members (Internal Medicine physicians, Nursing Director, Pharmacist, and Physician leaders) were enrolled with 9 improvement projects proposed. The program started in August 2012 and will conclude in May 2013.

Program Description

Key elements of the program:

- 16 structured sessions (40 hours over 9 months)– pre-readings, project milestones, report outs to senior leadership
- Content delivered using both didactic and experiential teaching methods, by internal and external content experts (Figure 1)
- Coaching and mentoring between learners, faculty and course directors during sessions and between sessions - "all teach, all learn"
- Skills applied through improvement projects

Results/ Findings to Date

Participants' confidence in teaching quality and safety competencies across six domains was measured using pre and post program surveys. Competency ratings before the program identified gaps in the faculty and teaching staff. Mid-point documentation of learning was performed in February 2013. All competency ratings increased since starting the program (Figure 2). Post-program documentation of learning will be performed. Longitudinal outcomes include measurements of perceived impact of the program on residents (Annual ACGME Resident Survey), perceived impact within the institution (project review 90 and 180 days post), and percent of participants that achieve a professionally recognized quality improvement certification within 1 year of completing the program.

Figure 2.

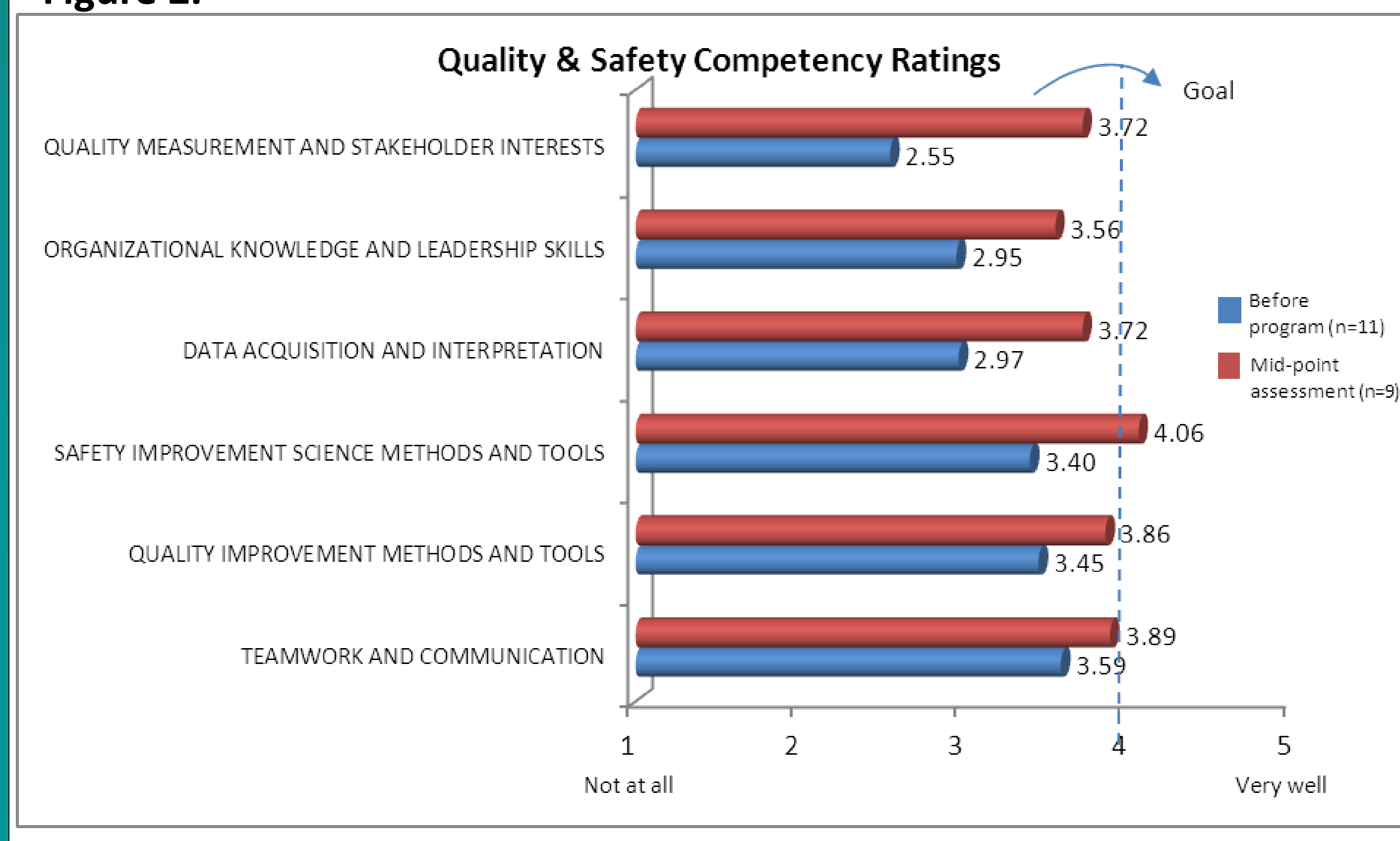


Figure 1. PROGRAM SCHEDULE AT A GLANCE

Session	Topic(s)
1	Program Overview, Goals and Vision; Change Management; Responsibility Charting
2	Interprofessional Teams
3	Science of Improvement
4	Value: Aligning Costs, Quality and the Patient Experience
5	Data Acquisition and Interpretation, Part 1
6	Safety Improvement Science Methods & Tools
7	Human Factors; Reliability and Design
8	Mid-point report out
9	Population Health Outcome; Variations in Care
10	Quality Improvement Project Evaluation
11	High Performance Leadership; Role of the Teacher - Mentor
12	Theory of Constraints
13	Data Presentation and Interpretation, Part 2
14	Research design and evaluation; IRB; Publishing Quality Improvement;
15	Closing Thoughts and Program Wrap-up
16	Final Report Out

Key Lessons Learned

Early dialogue with key stakeholders during program design was instrumental in realizing organizational support. While all participants are learning, project progress has varied. Relevance of project selection and team formation led to more success for the projects on track. The integration of interdepartmental, interprofessional course faculty created valuable teaching and learning experiences. For subsequent offerings, the course schedule will be revised to allow for more dedicated project work time.

Conclusions

There are identifiable gaps in the trainers of our residents regarding improvement sciences. Curricula can be developed and delivered to time constrained faculty that promotes both knowledge acquisition and relevant application. It's too early to determine whether the program effectively trains-the-trainer in improvement and safety.

Bibliography

- 1 Achieving Competency Today (ACT): Issues in Health Care Quality, Cost, Systems, and Safety
- 2 Kern, DE, et al. Curriculum Development for Medical Education: A Six-Step Approach, 2nd Ed. Baltimore, MD: John Hopkins University Press;2009.
- 3 O'Leary, KJ et al. Hospital Quality and Patient Safety Competencies: Development, Description, and Recommendations for Use. Journal of Hospital Medicine. 2011;0(0):1-7.

National Initiative III: Final Work Plan

Team: Crittenton Hospital Medical Center/ Wayne State University

I.	<i>Overall Goal for NI III/Elevator Speech</i>	<i>Our team's goal for National Initiative III was to create a framework for aligning GME with Hospital's quality improvement and safety strategies</i>
II.	<i>Needs Statement</i>	<i>This goal was important because it integrates educational curriculum development with pt care outcomes and it assures everyone's engagement towards a common goal</i>
III.	<i>Vision Statement</i>	<i>In March of 2013, we will see the outcomes of our success by reducing overutilization of health care resources and improve efficiency in the hospital through faculty and residents quality improvement and leadership development Recognize the central role and impact of GME programs in QI and patient safety initiatives</i>
IV.	<i>Measures</i>	<i>We determined the success of meeting our goal by measuring: Clinical outcomes (QI projects) Educational outcomes: QI Knowledge (QIKAT) Participants satisfaction with experience Presentations and publications Organizational outcomes: Teamwork and safety climate (SAQ), Hospital QI Day Financial impact: ROI</i>
V.	<i>Success factors</i>	<i>The most successful component of our work was broad engagement of stakeholders; residents were able to engage with and lead interdisciplinary teams; didactic and experiential learning is powerfully synergistic; patient care improvements are very motivating to the teams</i>
VI.	<i>Barriers</i>	<i>The largest barrier we encountered was coordinating schedules and carving out time for teams activities and meetings There is no extra funding for such projects</i>

VII.	<i>Lessons Learned</i>	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be.....</i></p> <p><i>Wide hospital engagement is critical to success</i></p> <p><i>Regular meetings with teams is important for sustainability</i></p> <p><i>Regular meetings with leadership is also very important</i></p> <p><i>Everyone is very busy, so dedicated time to work on projects need to be assured</i></p>
VIII.	<i>Unintended Consequences</i>	<p><i>Describe any unintended consequences from your project.</i></p> <p><i>1. Positive unintended consequences were.....</i></p> <p><i>The Board looks at GME in a different light as a major factor for QI</i></p> <p><i>2. Negative unintended consequences were....</i></p> <p><i>Residents felt pressured to fulfill all other responsibilities in addition to their QI projects involvement</i></p>
IX.	<i>Expectations Versus Results</i>	<p><i>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;"><i>1 2 3 4 5 6 7 <u>8</u> 9 10</i></p>
X.	<i>Satisfaction</i>	<p><i>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;"><i>1 2 3 4 5 6 7 <u>8</u> 9 10</i></p>
XI.	<i>Project Impact</i>	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <p><i>Major impact on the organization: organized first Hospital QI Day, built framework for sustainability, the work continues next year, hospital staff can rely on residents now as their advocates, teams appreciated each member unique perspective, definitely increased the knowledge on QI strategies and systematic approach to addressing gaps in care</i></p>
XII.	<i>Next Steps</i>	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p> <p><i>Started another cycle with 4 project and 4 other teams, included another residency program (ENT), will include a more organized effort on leadership development this cycle, expect to present the results in June at the Hospital QI Day.</i></p>



Aligning Graduate Medical Education With Hospital's Quality Improvement and Safety Strategies



Markova T, Sottile F, Morris P, Zakaria K, Murdoch W, et al.
Wayne State University and Crittenton Hospital Medical Center, Michigan

Overall Goal

- To design QI and safety initiative with the WSU-sponsored IM, FM and TY Residency Programs at the primary hospital, Crittenton
- It involves: QI knowledge acquisition, team building and experience-based strategies
- Residents work in interprofessional teams to understand their workplace, collect and present data, and propose interventions for improvement of care

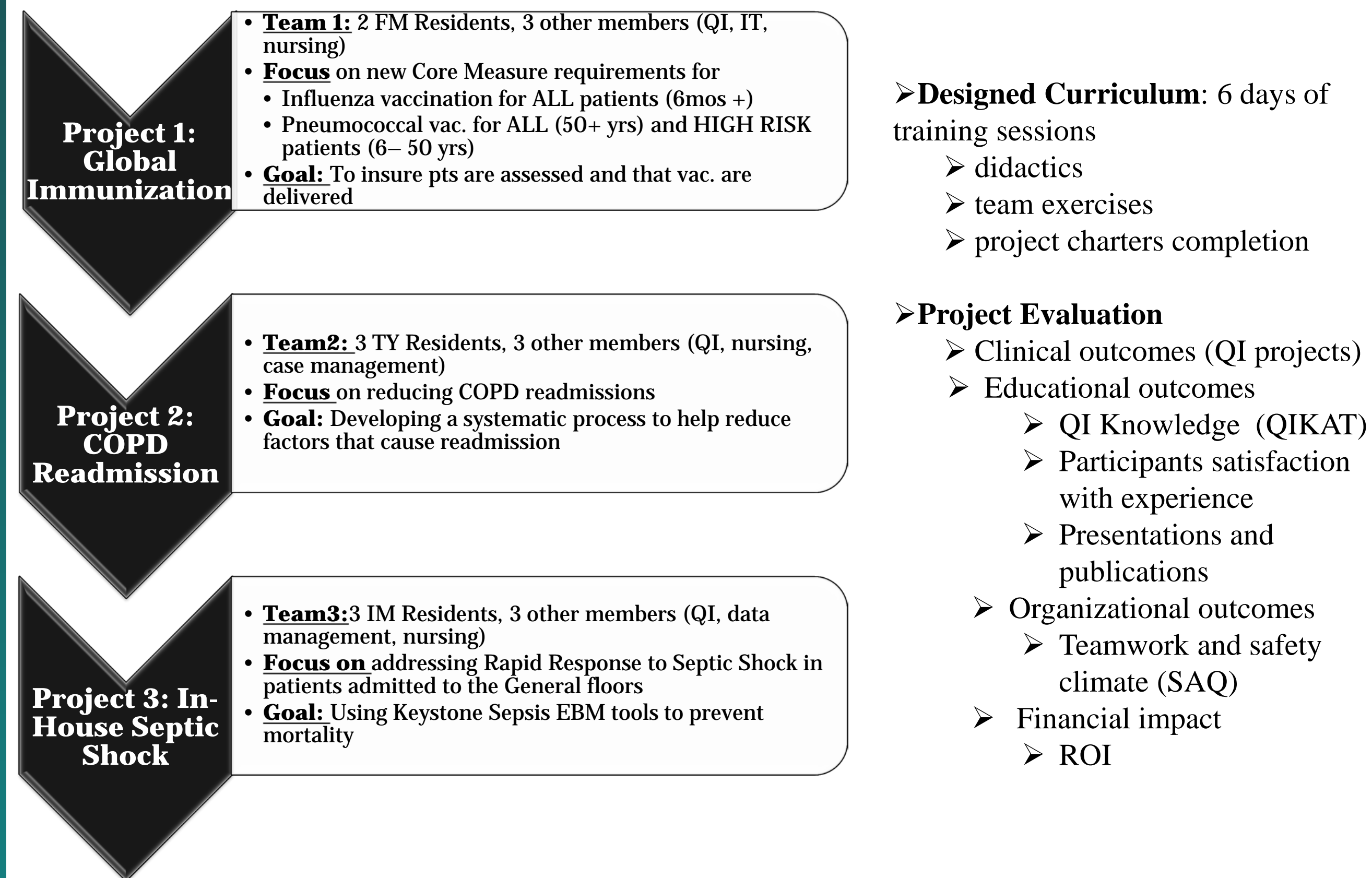
Background

- The public and profession acknowledge that quality and safety in health care needs improvement.¹
- The IOM has advocated for interventions¹ and followed up with a strategy for health system and medical education redesign.^{2,3}
- Resident QI efforts, have the potential to improve care more quickly and effectively.⁴
- It is imperative for GME to focus on the ACGME Practice-Based Learning and Improvement (PBLI) and Systems-Based Practice (SBP) core competencies.⁵
- Residencies are involved in QI projects, but very few have a systematic approach with integration with the hospitals' strategic initiatives.
- Data for educational and clinical outcomes is limited.⁶

Vision Statement

- Align GME with hospital strategic planning to improve patient care quality and safety
- Reduce overutilization of health care resources and improve efficiency in the hospital through faculty and residents quality improvement and leadership development
- Recognize the central role and impact of GME programs in QI and patient safety initiatives

Materials/Methods



Results

Immunization Project:

Measure	Process Yield Before	After
Pneumonia Overall	94.8%	96.7%
Pneumonia Age 65+	96.3%	100%
Pneumonia High Risk	67.7%	93.5%
Influenza Overall	84.8%	98%

COPD Readmission Research Project:

Baseline: 19.85% of COPD readmission rate within 30 days during 2011
Data served as a mean to identify any factors that would decrease readmissions and improvement of standardized care set

Sepsis Process Improvement:

Compliance with EBM requirements were analyzed.
Results include development of SEPSIS order set, activation of rapid response protocol and education to clinical staff

Educational outcomes: QI knowledge improvement from 3/5 to 3.4/5 on QUIKAT

Success Factors and Lessons Learned

- The needs assessment proved that QI competencies are lacking in residents and hospital staff
- Residents were able to engage with and lead interdisciplinary teams
- Didactic and experiential learning is powerfully synergistic
- Patient care improvements are very motivating to the teams

Barriers Encountered/Limitations

- It is challenging to coordinate schedules and carve out time for teams activities and meetings
- There is no extra funding for such projects
- The results need to be disseminated through publications and presentations
- Larger studies are needed to evaluate impact

Conclusions

- We demonstrated that aligning GME process improvement projects with the hospital's strategic objectives can lead to superior educational outcomes, reduced over-utilization of resources, improved patient safety and more efficient care delivery through teamwork with faculty, residents and hospital staff.
- Using a systematic approach, we successfully engaged the academic institution, WSUSOM with an independent partnering hospital to align medical education with hospital's patient safety initiatives.
- The stakeholders understand the importance of teaching the work force QI, safety, teamwork and leadership competencies

Bibliography

1. Kohn LT, Corrigan JM, Donaldson MS; Institute of medicine. To Err Is Human: Building a Safer Health System. Washington DC: National Academy Press; 2000.
2. Institute of Medicine. Crossing the Quality Chasm. Washington, DC: National Academy Press;2001:207-214.
3. Institute of Medicine; Committee on Health Professions Education Summit. Health Professions Education: A Bridge to Quality. Washington DC: National Academy Press;45-96.
4. Ogrinc G et al. Understanding the value added to clinical care by educational activities. Acad. Med.1999;74:1080-6.
5. Accreditation Council for Graduate Medical Education. Outcome Project: <http://www.acgme.org/outcome/comp/compFull.asp>. Accessed March 27, 2012.
6. Boonyasai RT, et al. Effectiveness of teaching quality improvement to clinicians: a systematic review. JAMA. 2007;298(9):1023-1037.

National Initiative III: Final Work Plan

Team: Florida Hospital Graduate Medical Education

I.	<p>Overall Goal for NI III/ Elevator Speech</p>	<p><i>Our team's goal for National Initiative III was.....</i></p> <p>The goal for Florida Hospital Graduate Medical Education is to develop a longitudinal and Sustainable GME based quality and safety program that will provide education that enables our learners to improve health care quality by achieving better, more affordable care with healthier patients and population. We aim to contribute to a cultural transformation within our organization to improve quality and safety, while equipping our learners with the skills to engage in Quality Initiative and Patient Safety projects within the hospital and their practices.</p>
II.	Needs Statement	<p><i>This goal was important because.....</i></p> <p>This goal would meet the needs for multiple drivers:</p> <p>Institutional: address the ACGME requirements for a quality and patient safety training environment for resident physicians Physician: enable practicing physicians to meet continued professional development and maintenance of certification requirements Patient: provide improved quality and safe care.</p>
III.	Vision Statement	<p><i>In March of 2013, we will see the outcomes of our success by.....</i></p> <p>The development and implementation of a curriculum for all of FH GME residency and fellowship program faculty, residents and fellows</p>
IV.	Measures	<p><i>We determined the success of meeting our goal by measuring.....</i></p> <p><i>Our pre-and post-intervention measures were.....</i></p> <ol style="list-style-type: none"> 1. GME faculty and alumni surveys on interest and knowledge in QI and PS 2. Number of faculty, residents and fellows completing IHI training modules 3. Number of faculty designated as PS and QI leaders/mentors 4. Number of PS and QI projects initiated 5. Number of GME PS and QI projects adopted on the system level 6. Number of PS and QI projects disseminated in scholarly fashion: posters, presentations, articles, etc
V.	Success factors	<p><i>The most successful component of our work was.....</i></p> <ol style="list-style-type: none"> 1. The adoption of the IHI curriculum for all GME programs 2. The engagement of multiple hospital departments in the NI III journey: risk management, performance improvement, continued professional development, hospital leadership. <p><i>We were inspired by.....</i></p> <p>Programs at Mayo and University of Michigan which engaged GME and medical staff in PS and QI projects and had fully developed curriculums.</p>

VI.	Barriers	<p><i>The largest barrier we encountered was.....</i></p> <p>Engaging the performance improvement department while they were in a period of restructuring and rebuilding their leadership, goals and objectives.</p> <p><i>We worked to overcome this by.....</i></p> <p>Presenting our work plan to their new leaders and other influential people within the hospital system in various venues: multi-disciplinary committee dinner, medical officers meeting and direct engagement.</p>
VII.	Lessons Learned	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be.....</i></p> <p>Look at the work done in PS and QI at other institutions. Avoid duplication and time spent on developing a new curriculum when there are many proven plans that can be adopted to meet local needs.</p>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p><i>1. Positive unintended consequences were.....</i></p> <p>The alignment of CME department goals for improving physician education in QI, completion of board certification requirements for medical staff and the development of physician leaders in QI.</p> <p><i>2. Negative unintended consequences were....</i></p> <p>Overloading incoming residents with the volume of required on-line learning prior to residency matriculation.</p>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with "1" meaning nothing and "10" meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with "1" meaning not at all satisfied and "10" meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>

XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <ul style="list-style-type: none"> • A greater awareness in the need to provide PS and QI education to faculty and residents • A greater interest in participate in PS and QI projects.
XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p> <ol style="list-style-type: none"> 2. Identify at least one QI and PS faculty leader in each residency program 3. Require at least one completed QI/PS project from each program 4. Continue to require all faculty and residents to complete the PS and QI IHI on-line training modules.

FLORIDA HOSPITAL GRADUATE MEDICAL EDUCATION NATIONAL INITIATIVE III



J PORTOGHESE MD, J KEEHBAUCH MD, D LAMB, BSN, J PEPE, PHD

PATIENT SAFETY AND QI MISSION

Develop a longitudinal and sustainable GME based quality and safety curriculum.

NEEDS ASSESSMENT

- Institutional:** address the ACGME requirements for a QI and PS training environment for residents.
- Physician:** enable practicing physicians to meet CME and maintenance of certification requirements.
- Patient:** provide improved quality and safe care.

GOALS

- To provide education on improving healthcare quality and safety
- To contribute to a cultural transformation at FH to improve quality and safety.
- To equip learners with the skills to engage in QI and PS projects

Our pre- and post-intervention measures were:

- GME faculty surveys on interest and knowledge in QI and PS
- Number of faculty, residents and fellows completing IHI training
- Number of faculty designated as PA and QI leader/mentor
- Number of PS and QI projects initiated
- Number of GMEPS and QI projects adopted on system level
- Number of PS and QI projects disseminated in scholarly fashion

METHOD

I. Surveyed the GME faculty and alumni

II. Faculty Survey on Patient Safety and Quality (N=29, Scale 1-5)

Level Of Interest	Mean
1. Process improvement as it applies to patient care.	3.17
2. Utilizing quality assurance process to identify system errors.	3.14

Conclusion: Faculty have **moderate interest** in learning process improvement and identification of system errors.

Level Of Skill	Mean
1. Process improvement as it applies to patient care-Skill Level	2.43
2. Utilizing quality assurance process to identify system errors-Skill Level	2.62

Conclusion: Faculty have **below average baseline knowledge** in process improvement and identification of system errors.

III. Discussion with QI leaders from Mayo and UM

IV. Developed multi-tiered curriculum



V. Selected IHI on-line modules for knowledge development



— SUCCESS —

- The adoption of IHI curriculum for all GME programs.
- The engagement of multiple hospital departments in the NI III journey: risk management, performance improvement, continued professional development, hospital leadership
- The alignment of CME department goals for improving physician and completion of board certification requirements for medical staff.

National Initiative III: Final Work Plan

Team: Franklin Square

I.	Overall Goal for NI III/Elevator Speech	<i>Our team's goal for National Initiative III was..... To establish a project that addressed outpatient based patient safety specifically indirect patient care.</i>
II.	Needs Statement	<i>This goal was important because..... there is very little known or written about patient safety with outpatient indirect care, but the bulk of medical care takes place when the patient is not in the office</i>
III.	Vision Statement	<i>In March of 2013, we will see the outcomes of our success by..... a study which reflects that provider response times to laboratory results can be influenced by a reminder system.</i>
IV.	Measures	<i>We determined the success of meeting our goal by measuring..... provider response times Our pre-and post-intervention measures were..... provider response times</i>
V.	Success factors	<i>The most successful component of our work was..... gathering data through our centrality EMR We were inspired by.....our small but successful result.</i>
VI.	Barriers	<i>The largest barrier we encountered was..... leadership buy-in We worked to overcome this by..... compromising on our acceptable time frame for signing laboratory results.</i>

VII.	Lessons Learned	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be.....</i></p> <p>Pick something small and attainable in the time frame given.</p>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p><i>1. Positive unintended consequences were.....we learned how to mine this particular type of data from our EMR.</i></p> <p><i>2. Negative unintended consequences were....</i> <i>Providers became tired of the reminders</i></p>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with "1" meaning nothing and "10" meaning everything), how much of what you set out to do was your team able to accomplish? 7</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with "1" meaning not at all satisfied and "10" meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work? 5</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <p>People do seem to speak more frequently about indirect patient care</p>
XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made. Would like to develop a text based reminder system.</i></p>



A Simple Intervention to Improve Timely Follow-Up for Laboratory Test Results in an Outpatient Resident and Faculty Clinic

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MedStar Franklin Square Medical Center, Baltimore, Maryland



Overall Goal

Our goal was to develop a simple intervention to improve timely follow-up of laboratory test results.

Background

A lot of outpatient care occurs when the patient is not in the office. This care includes phone calls, requests for medication refills, and review of test results.

We sought to identify an aspect of indirect patient care that could be quantified and measured through our electronic medical record (EMR) and chose to study the response times to outpatient laboratories .

Hypothesis: Weekly reminders via pagers or email would shorten the responsible health care providers' response time to addressing laboratory test results.

Vision Statement

We sought to study response times as a way to highlight the importance of indirect patient care, particularly from a patient safety perspective.

We were hoping to improve awareness of outpatient follow-up.

Methods

Electronic medical records of residents, faculty and Allied Health Practitioners working in two primary care practice sites were assessed for laboratory results.

Sign time was defined as the time between the results appearing in the responsible health care providers' EMR inbox to that same providers' signature appearing on the result.

Pre-Intervention: The study was announced at two department wide conferences, and all providers were e-mailed weekly for four weeks information about the study and the intervention.

Control Period : July 1, 2011-January 31,2012

Intervention Period : March 2, 2012-June 30, 2012

Intervention: All providers received weekly pager reminders to check their inboxes.

Data extraction: Centricity - GE Clinical Informatics application, EMR data extracted by EMR project director.

Discussion

Our brief intervention showed that a simple weekly reminder to providers to check their in-boxes resulted in shorter viewing and signing times than without the reminders.

Further study is needed to determine if other forms of reminders such as cell phone texts would produce similar results.

Limitations

Our study did not determine if medical errors were prevented or if patients received higher quality of care when their providers signed labs in a more timely fashion.

Our study was only 16 weeks long; it is unclear if the intervention affect sustained or weaned after the intervention.

Study completed at one medical center and results may not be applicable to other settings and locations.

Results

	Number of Laboratory Tests (n)	Mean Sign Time (SD)	P value
Pre-intervention	8390	1.41 (1.61)	
Intervention	4257	1.20 (1.56)	
			<0.000

Conclusions

It might be possible that even a simple intervention such as a weekly reminder could improve the shortening of the viewing and signing time in EHR.

Bibliography

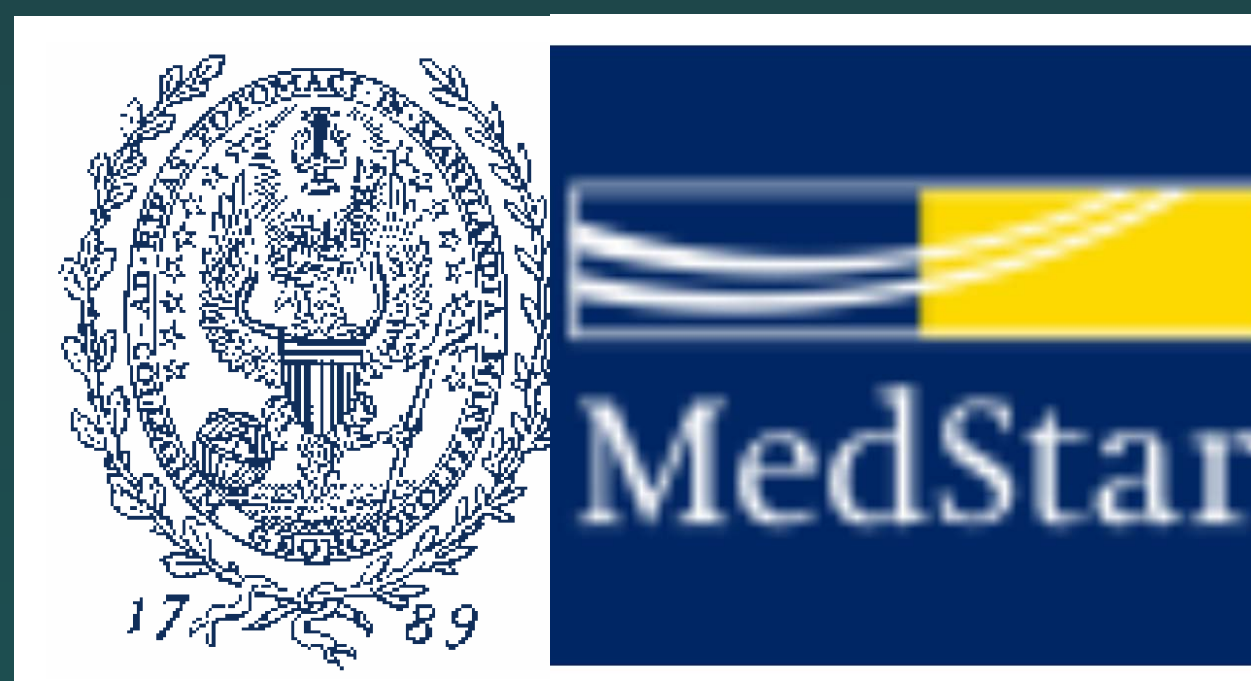
1. Schenarts PK, Schenarts KD. *Educational impact of the electronic medical record.* J Surg Educ, 2012 Jan-Feb; 69 (1):105-12
2. Lesko S, Hughes L, Fitch W, Pauwels J. *Ten-year trends in family medicine residency productivity and staffing: impact of electronic health records, resident duty hours, and the medical team.* J. Fam Med. Feb;44(2):83-9.

National Initiative III: Final Work Plan

Team: [Georgetown University Hospital/Georgetown School of Medicine](#)

I.	Overall Goal for NI III/Elevator Speech	<i>Our team's goal for National Initiative III was to build a plan for teaching patient safety throughout the medical center campus.</i>
II.	Needs Statement	<i>This goal was important because building a patient safety culture at an academic hospital required all elements of the campus to be aware of and to appreciate patient safety</i>
III.	Vision Statement	<i>In March of 2013, we will see the outcomes of our success by seeing improved acceptance of the patient safety culture and improved knowledge in patient safety issues</i>
IV.	Measures	<i>We determined the success of meeting our goal by measuring improvements in student actions in simulations and by student and resident participation in occurrence reporting</i>
V.	Success factors	<i>The most successful component of our work was collaboration across disciplines and across institutions. We were inspired by other institutions</i>
VI.	Barriers	<i>The largest barrier we encountered was alterations in leadership We worked to overcome this by being prepared</i>

VII.	Lessons Learned	<i>The single most important piece of advice to provide another team embarking on a similar initiative would be modest</i>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <ol style="list-style-type: none"> <i>1. Positive unintended consequences were unsure</i> <i>2. Negative unintended consequences were costs</i>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with "1" meaning nothing and "10" meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with "1" meaning not at all satisfied and "10" meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <p><i>Improved acceptance of the patient safety culture</i></p>
XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made. Adding to the existing facets.</i></p>



Quality and Safety in the Balance: An Integrated and Comprehensive Approach to Education on Patient Safety for UME & GME



Avram H. Mack, M.D., Eileen S. Moore, M.D.

Overall Goal/Abstract

The successful generation of a campus wide plan for teaching and learning quality and safety, highlighting the ways GUH-GUSOM interaction might occur

- residents as teachers in GUSOM programming
- students participating in hospital safety activities
- Building a shared culture of patient safety

Background

At the inception of this project neither GUH nor GUSOM had a full, tested plan for education in PS/QI at the GME or UME level respectively. Generation of these curricula were poised to be an opportunity for a cohesive approach, despite their being controlled by two independent organizations: For just more than a decade Georgetown University Hospital (GUH) has been operated by Medstar Health, an independent non-profit corporation, which had developed a keen interest in patient safety and quality improvement (PS/QI) and which was bringing that emphasis to its expectations for GME. However, like most schools of medicine, Georgetown School of Medicine's (GUSOM) curriculum had not universally and robustly addressed PS/QI. While the clinical faculty at GUSOM were mostly GUH clinicians, the GUSOM curriculum and its students were lagging behind that of the hospital. While the affiliation between these two institutions was working as well as any recent academic-clinical marriage had, this was recognized as an opportunity for intervention that would require attention from both institutions.

Vision Statement

Create a cohesiveness between the segments on campus to achieve an increased degree of PS/QI

The successful integration of a medical school into an independent hospital's safety culture

The successful generation of cohesive curricula or expectations in PS/QI

Materials/Methods

Interviews with key stake holders

Development of educational activities for MS3 and MS4

Site visits to other institutions (eg, UCSF, U. Missouri)

Attendance/Networking at meetings (AAMC, IHI, AIAMC)

Frequent "checking" with leadership of both institutions

Assessment at end of MS4

Participation in Hospital PS/QI Leadership

Results

	2009-10	2010-11	2011-12	2012-13
Intervention	Sporadic	Piloting	Baseline MS3 & MS4	Continued MS3 & MS4
Simulation Score	N/A	N/A	Baseline	Pending
Patient Safety Culture Score	N/A	Baseline	X	X

Success Factors & Lessons Learned

We met with great success in openness to collaboration across the campus, but learned the lesson that we had many additional parallel collaborations across our systems.

We quickly learned to "roll with the punches".

Barriers Encountered/Limitations

Unexpected challenges and solutions:

There remains no agreed-upon measurement nor intervention for student or resident safety culture, yet, tremendous progress has been made toward this end.

Presence of many, many cooks taught us that we have to keep abreast of all developments: we can't be just "educators" or just clinicians or just administrators.

Conclusions

Engineering a campus plan is hard enough when the two components are a single unit, it is uniquely challenging in an independent academic medical center.

The educational piece does not drive the whole enterprise. There are many enterprises within the overall enterprise that must all align.

It was indeed a transformative experience.

Bibliography

Limited portion of literature review:

1. Wong et al. Acad Med 2010 Sep;85(9):1425-39.
2. Boonyasai RT et al Acad Med 2010 Sep;85(9):1425-39.
3. Cosby KS et al. Ann Emerg Med 2003 Jan;10(1):69-78

National Initiative III: Final Work Plan

Team: Guthrie/ Robert Packer Hospital

I.	Overall Goal for NI III/Elevator Speech	<i>Our team's goal for National Initiative III was to integrate Quality Improvement and Patient Safety into the existing residency curriculum in the interest of enhancing resident education.</i>
II.	Needs Statement	<i>This goal was important because of the changing paradigm in healthcare system and medical education that emphasizes the increasing importance of quality improvement projects to enhance patient safety. Therefore, to prepare our residents for this evolving concept and to involve them in projects enhancing patient safety at an institutional level, we decided to participate in NI III</i>
III.	Vision Statement	<i>In March of 2013, we will see the outcomes of our success by increasing the yield of quality improvement projects at an institutional level. We anticipate this will also lead to an increase in the overall number of publications of resident initiated QI Projects.</i>
IV.	Measures	<i>We determined the success of meeting our goal by measuring the increase in resident QI Activities. A new scale for measuring resident progress through the QI process was created and reflects considerable improvement in resident participation. We have seen a greater than 100% increase in resident initiated QI projects since the beginning of this process.</i>
V.	Success factors	<i>The most successful component of our work was generating interest in the faculty and increasing awareness regarding the increasing significance of QI initiatives in practice and Graduate medical education.</i> <i>We were inspired by the presentation made by Dr. V. Arora regarding resident handoffs. Her presentation illustrated a very rational and achievable approach to the concept.</i>
VI.	Barriers	<i>The largest barrier we encountered was getting residents to buy into this relatively new concept and actively contribute towards its success.</i> <i>We worked to overcome this by engaging residents in a discussion regarding the significance of the program and its long term goals and benefits. Resident interest was considerably increased once the initial QI projects received IRB approval and institutional support.</i>

VII.	Lessons Learned	<i>The single most important piece of advice to provide another team embarking on a similar initiative would be to engage residents early by outlining the resident specific benefits of the process and to maintain an open dialogue between residents and the faculty to identify specific needs and to avoid attrition.</i>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p><i>1. Positive unintended consequences: An increased awareness about evidence based medicine amongst the residents. Considerably streamlined process for IRB review of proposed projects.</i></p> <p><i>2. Negative unintended consequence: Perception of increased workload by the residents.</i></p>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">7</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">7</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <ul style="list-style-type: none"> • Increased resident research participation and output. • Enhanced faculty participation in QI initiatives. • The IRB has introduced a more streamlined review process for QI projects.
XII.	Next Steps	<i>After the success of our current plan, the residency will be formalizing the inclusion of the QI/ Patient Safety Initiatives into the residency research curriculum. Appropriate changes will be made to the didactic curriculum to prepare residents to undertake QI projects. At an institutional level, with the success of the current initiative, other GME programs are expected to incorporate similar changes in their curricula.</i>



Promoting QI & Enhancing Patient Safety Through Graduate Medical Education: The Next Step?

Kulkarni A., Pease N., Stapleton D.

Guthrie Clinic/ Robert Packer Hospital, Sayre PA



Overall Goal

Our team’s goal for National Initiative III was to integrate Quality Improvement and Patient Safety into the existing residency curriculum in the interest of enhancing resident education.

Background

Given the changing paradigm in healthcare and graduate medical education that emphasizes the importance of quality improvement projects to enhance patient safety, a need was felt to incorporate this theory into resident education. Hence, to prepare our residents for this evolving concept and to involve them in projects enhancing patient safety at an institutional level, this project was undertaken.

Vision Statement

the summer of 2013, we hope to see the positive outcomes of our project by increasing the yield of quality improvement projects at an institutional level. We anticipate this will also lead to an increase in the overall number of publications of resident initiated QI Projects.

Materials/Methods

We will determine the success of our program by measuring the increase in resident QI Activities. A new scale for measuring resident progress through the QI process (See table 1) was created and reflects considerable improvement in resident participation. We have seen a greater than 100% increase in resident initiated QI projects since the beginning of this process.

Table 1: Resident QI Progress Scale

Score	Stage of Completion
1	Conceptualization of project (No formal proposal)
2	Formal hypothesis generated and submitted for review
3	Hypothesis approved by faculty mentor/ QI Supervisor after changes
4	Formal IRB Proposal and IRB Application completed
5	IRB Approval granted
6	Data Collection underway
7	Preliminary Manuscript developed and submitted for review
8	Manuscript Finalized/ Submitted/ Under Review
9	Manuscript Accepted
10	Project published/ presented

Barriers Encountered/Limitations

The largest barrier we encountered was getting residents to buy into this relatively new concept and actively contribute towards its success. We worked to overcome this by engaging residents in a discussion regarding the significance of the program and its long term goals and benefits. Resident interest was considerably increased once the initial QI projects received IRB approval and institutional support.

Success Factors and Lessons Learned(Discussion)

The most successful component of our work was generating interest in the faculty and increasing awareness regarding the increasing significance of QI initiatives in practice and Graduate medical education. While preparing for this project, a streamlined procedure for seeking IRB review was established specifically for QI Projects. This was a positive outcome that was not anticipated at the outset.

Conclusions

- Engage residents early by outlining the resident specific benefits of the process.
- Maintain an open dialogue between residents and the faculty to identify specific needs and avoid attrition.
- Monitor resident progress through the process and provide positive and constructive feedback.

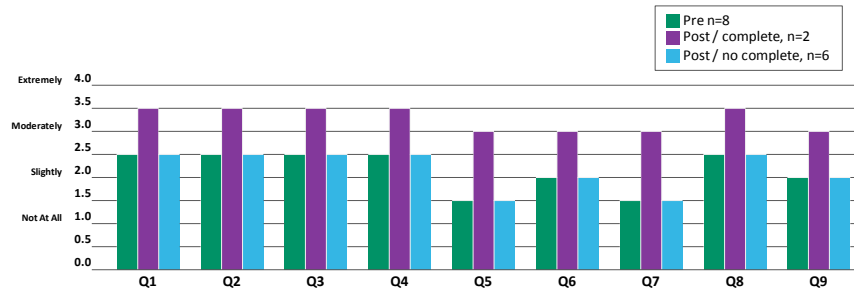
National Initiative III: Final Work Plan

For your final work plan, please update sections I thru VII as needed and add your responses to sections VIII thru XII. The collective data from all of the teams' completed plans will be invaluable as we learn and publish from this collaborative experience.

Team: HealthPartners /Regions Hospital

I.	<p>Overall Goal for NI</p> <p>III/Elevator Speech</p>	<p><i>Our team's goal for National Initiative III was.....</i></p> <p><i>HealthPartners Institute for Education and Research (the Institute) has been committed to designing and delivering quality improvement to medical residents for the last four years. Medical residents have acquired practical tools and knowledge to participate and lead quality improvement (QI) projects and initiatives, and have learned how to connect their experiences and learning system-wide. A group of physician leaders, residents and graduate medical education (GME) staff identified a gap between the education residents receive and the education physicians receive regarding QI. In addition, there is a need for more faculty physicians to fill the role of mentors and coaches in QI education of residents.</i></p>
II.	Needs Statement	<p><i>This goal was important because.....</i></p> <p><i>In 2008 the GME office, along with program directors and residents, created curricula to address the Accreditation Council for Graduate Medical Education (ACGME) core competencies of Systems Based Practice and Practice Based Learning and Improvement. Materials such as presentations, videos and reading materials were created to deliver quality improvement education. In addition, residents worked on QI projects in their respective residency programs. To compliment this education, the Institute created its own and first Institute for Healthcare Improvement (IHI) Open School Chapter in Minnesota. Residents gained access to on-line tools and coaching in a very flexible environment and had access to the chapter faculty and leader. Residents reported to have learned from the QI curricula and tools, but felt they needed more mentors and coaches on-site, thus creating a need to train faculty.</i></p>
III.	Vision Statement	<p><i>In March of 2013, we will see the outcomes of our success by..... By educating a cadre of faculty members on QI methods and tools, and equipping them with the skills and abilities to educate and guide medical residents.</i></p>
IV.	Measures	<p><i>We determined the success of meeting our goal by measuring.....</i></p> <p><i>Our pre-and post-intervention measures were.....</i></p> <p><i>We used pre and post quantitative surveys, and finalized the project with a qualitative interview to better understand what worked and what we need to improve.</i></p>

Quantitative Data:



In your role as a leader, please indicate if you are FAMILIAR or COMFORTABLE with the following elements.

- | | |
|--|--|
| Q1 Writing a clear problem statement (goal, aim) | Q6 Implementing a structured plan to test a change |
| Q2 Studying the process | Q7 Using PDSA model as a systematic framework for trial and learning |
| Q3 Making changes in a system | Q8 Building your next improvement upon prior success or failure |
| Q4 Identifying whether a change leads to an improvement in your skills | Q9 Identifying how data is linked to specific processes |
| Q5 Using small cycles of change | |

Qualitative Data:

- *Training was more useful than expected.*
- *It was wonderful to use the tools learned while doing the project.*
- *The IHI Open School modules were very useful.*
- *Would have liked to access to IHI Open School modules after completing the module and be able to review materials.*
- *Managing time was difficult with busy schedules; this was add-on work. There was no protected time for this faculty development activity.*
- *Obtained a lot of help from the GME office.*
- *Having a project before taking the IHI Open Schools Modules was ideal.*
- *Having a project aligned with organizational/departmental goals was perfect.*
- *Participants reported that having completed the training made them more knowledgeable of QI tools than the other participants in the QI teams.*
- *This is really the science of making life easier. Everyone should be trained in QI.*

V.	Success factors	<p><i>The most successful component of our work was..... We were inspired by.....</i></p> <p><i>Faculty loved the flexibility of the program and the IHI Open School modules. The fact that they were engaged in an effort they felt passionate about and that was aligned with departmental organizational goals, made the project move forward. Faculty were very appreciative to have support when needed. The flexibility of the program was also viewed as a barrier. Those who could not find time to work on projects were identified too late in the program and intervention in getting them back on track was unsuccessful. While this is a good initiative, it has to have more leadership support. Faculty need to have protected time to do this work. This program could be designed to be part of maintenance of certification or leadership development and promotion. It may have been more effective to have a structure similar to the AIAMC National Initiatives were participants meet every quarter and shared their experiences and progress.</i></p>
VI.	Barriers	<p><i>The largest barrier we encountered was..... We worked to overcome this by.....</i></p> <p><i>Protected time was the biggest barrier. The number of participants was very low due to the voluntary nature of the initiative. It was not easy to recruit faculty physicians for this initiative. However, those who participated found it very useful. It would have better to have a structure similar to the AIAMC National Initiatives were participants meet every quarter and shared their experiences and progress. We need to find a way to have funding to pay for protected time to participate in QI. The C-Suite leadership needs to get more involved in helping this work spread across the organization.</i></p>
VII.	Lessons Learned	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be.....</i></p> <p><i>While we had a small group of physicians who participated in the training program, the experience was positive. The participants who completed all the requirements felt grateful and felt more prepared than other physicians in their department to educate and mentor residents on QI projects. They reported that getting a QI project done is easier once you learn the tools, it gets easier to problem solve and find solutions. The QI projects selected will continue to produce good results and a relationship with the GME office will continue. Physicians who volunteered were very interested in QI and furthering their education. How do we engage others? How do we spread?</i></p>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <ol style="list-style-type: none"> <i>1. Positive unintended consequences were..... We have partnered with Bassett Medical Center to distribute a post survey to our organizations and compare how our projects impact change and are receptive to future projects. We intent to publish results together.</i> <i>2. Negative unintended consequences were.... While we put a lot of effort in recruiting physicians for this project, we were not able to recruit an adequate number.</i>

IX.	Expectations Versus Results	<p>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
XI.	Project Impact	<p>What changes have you observed in your residency program(s), or at your institution, based upon your work?</p> <p><i>Faculty Physicians have heard about this initiative and have inquired about the next phase and training opportunity. We will take this initiative to the Medical Executive Committee meeting to obtain support and spread training more widely.</i></p>
XII.	Next Steps	<p>Describe next steps for your project, including plans for sustaining and spreading the changes made.</p> <ul style="list-style-type: none"> • <i>Collaborate with Bassett Medical Center on Organization wide survey and publish results.</i> • <i>Review faculty training program and make appropriate modifications.</i> • <i>Present at the Medical Executive Committee meeting to obtain support, recruit more volunteers, and spread what we learned.</i> • <i>Provide maintenance of certification to recent participants, and develop a plan for future participants.</i>

Faculty Development – Quality Improvement Training

Authors: Marcella de la Torre, MNM, Andrew Zinkel, MD, Adetolu Oyewo, MD, Kara Kim, MD, Richard Mahr, MD, Deb Curran, MA, Jon O'Neal, MD, Gary Collins, MD, Bloomington, Minnesota

HealthPartners Institute for Education and Research (the Institute) has been committed to designing and delivering quality improvement (QI) to medical residents for the last four years. Medical residents have acquired practical tools and knowledge to participate and lead quality QI projects and initiatives and have learned how to connect their experiences and learning system-wide. A group of physician leaders, residents and graduate medical education (GME) staff identified a gap between the education residents receive and the education physicians receive regarding QI. In addition, there is a need for more faculty physicians to fill the role of mentors and coaches in QI education of residents.

Background

In 2008 the GME office, along with program directors and residents, created curricula to address the Accreditation Council for Graduate Medical Education (ACGME) core competencies of Systems Based Practice and Practice Based Learning and Improvement. Materials such as presentations, videos and reading materials were created to deliver QI education. In addition, residents worked on QI projects in their respective residency programs. To compliment this education, the Institute created its own and first Institute for Healthcare Improvement (IHI) Open School Chapter in Minnesota. Residents gained access to on-line tools and coaching in a very flexible environment and had access to the chapter faculty and leader. Residents reported to have learned from the QI curricula and tools, but felt they needed more mentors and coaches on-site, thus creating a need to train faculty.

Vision

To educate faculty on QI methods and tools, and to equip them with the skills and abilities to educate and guide medical residents.

Materials and Methods

Step One: Faculty members interested in improving their competency in QI were identified by a voluntary invitation to participate in faculty development. Faculty was asked to begin by completing a pre-test to assess their knowledge of QI methods.

Step Two: Faculty were asked to lead or actively participate in a QI project approved by the planning committee. Efforts were made to select projects that faculty felt passionate about and were aligned with organizational and departmental goals. Coaching by the Manager of Quality Initiatives and Faculty Development was provided throughout the project. In some cases, project management was provided by the faculty member's own department.

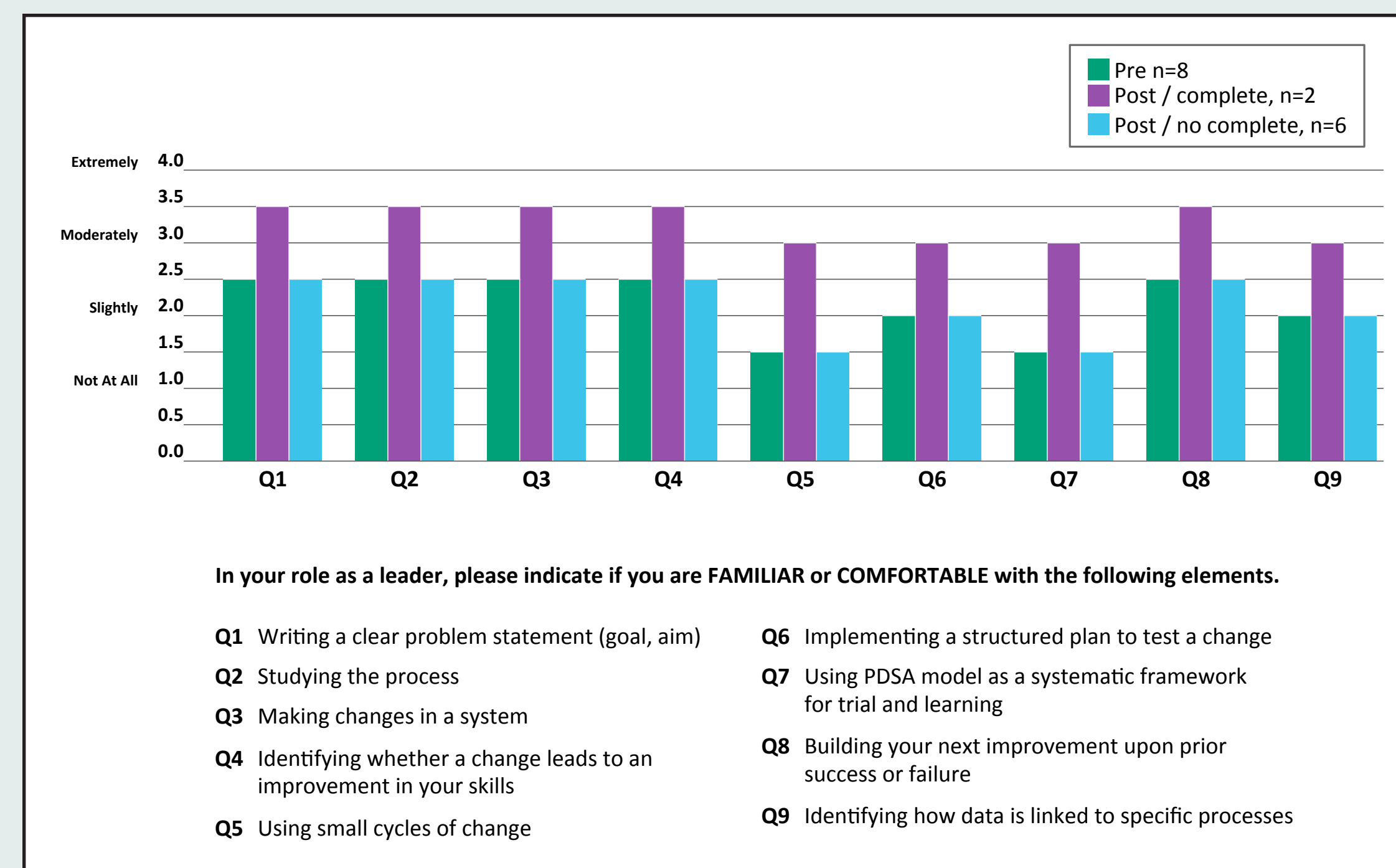
Step Three: Faculty completed six IHI Open School training modules on their own time, but had the opportunity to consult with the Manager of Quality Initiatives and Faculty development as needed. The modules covered: 1) Fundamentals of Improvement; 2) The Model for Improvement: Your Engine for Change; 3) Measuring for Improvement; 4) Putting It All Together; 5) The Human Side of Quality Improvement; 6) Level 100 Tools.

Step Four: Faculty were asked to take a post-test to evaluate their knowledge of QI methods. In addition, qualitative interviews were conducted with each faculty member participant.

Results

We had eight faculty members who volunteered to participate in the training program. Results of pre- and post-tests are shown on the Quantitative Data chart. Two large-scale QI projects were generated from this initiative: **Dialysis Shared Decision Making** and **Emergency Medicine Department Communication**. Both projects have generated positive outcomes and the work continues, even after the completion of the National Initiative III.

Quantitative Data



Qualitative Data

- Training was more useful than expected.
- It was wonderful to use the tools learned while doing the project.
- The IHI Open School modules were very useful.
- Would have liked to access IHI Open School modules after completing the module and review materials.
- Managing time was difficult with busy schedules; this was add-on work. There was no protected time for this faculty development activity; the GME office was extremely helpful.
- Having a project before taking the IHI Open Schools Modules was ideal.
- Having a project aligned with organizational/departmental goals was perfect.
- Participants reported that having completed the training made them more knowledgeable of QI tools than the other participants in the QI teams.
- This is really the science of making life easier; everyone should be trained in QI.

Recap from Qualitative Data:

- 1) IHI Open School training modules were useful.
- 2) Training program was useful in general.
- 3) It was great to have a coach and faculty member in the GME office.
- 4) Having a project aligned with organization/department goals was ideal.
- 5) Availability of protected time was a big barrier.

Success Factors and Lessons Learned

Faculty loved the flexibility of the program and the IHI Open School modules. Being engaged in an effort they felt passionate about and that was aligned with departmental and organizational goals, made the project move forward. Faculty were very appreciative to have support when needed.

The flexibility of the program was also viewed as a barrier. Those who could not find time to work on projects were identified too late in the program and attempts to get them back on track proved to be unsuccessful.

While this was a good initiative, it has to have more leadership support. Faculty need to have protected time to do this work. This program could be designed to be part of maintenance of certification or leadership development and promotion. It may have been more effective to model the AIAMC National Initiatives where participants meet every quarter and share their experiences and progress.

Barriers Encountered/Limitations

Protected time was the biggest barrier. The number of participants was very low due to the voluntary nature of the initiative. It was not easy to recruit faculty physicians for this initiative, however those who participated found it very useful.

It would have been better to have a structure similar to the AIAMC National Initiatives where participants meet every quarter and share their experiences and progress. We need to find a way to have funding to pay for protected time to participate in QI. The C-Suite leadership needs to get more involved in helping this work spread across the organization.

Conclusions

While we had a small group of physicians who participated in the training program, the experience was positive. The participants who completed all the requirements felt grateful and more prepared than other physicians (in their department) to educate and mentor residents on QI projects. They reported that getting a QI project done is easier once you learn the tools; it gets easier to problem solve and find solutions. The QI projects selected will continue to produce good results and a relationship with the GME office will continue. Physicians who volunteered were very interested in QI and in furthering their QI education. How do we engage others? How do we spread?

 **HealthPartners®**
Institute for Education and Research

National
Initiative

National Initiative III: Final Work Plan

Team: [Iowa Health Des Moines, Resident Quality Council](#)

I.	Overall Goal for NI III/Elevator Speech	<p><i>Our team's goal for National Initiative III was.....</i></p> <p>To improve the health of our communities by embedding quality improvement and patient safety processes and practices into our medical residency programs.</p>
II.	Needs Statement	<p><i>This goal was important because.....</i></p> <p>Embedding quality improvement and patient safety processes and practices into our medical residency programs is critical in improving patient safety, competence of our physicians, and achieving the <i>Best Outcome, Every patient, Every time.</i></p>
III.	Vision Statement	<p><i>In March of 2013, we will see the outcomes of our success by.....</i></p> <p>Having a working Resident Quality Council (RCQ) whose mission and purpose is to:</p> <ul style="list-style-type: none"> • Encourage and promote the development of quality improvement / patient safety initiatives and research within the Iowa Health-Des Moines(IHDM) residency programs. • Increase resident knowledge and application of quality improvement methods and tools. • Share quality improvement project and outcomes information between and among residency programs. • Be a repository of resident initiated quality improvement / patient safety initiatives and research. • Promote the sharing of resident research projects and scholarly activity within the IH-DM community. • Support residents who wish to initiate quality improvement / patient safety projects and research. <p>Finding a measureable increase in our residents' perception of their own quality improvement skills through the administration of a self-evaluation.</p>
IV.	Measures	<p><i>We determined the success of meeting our goal by measuring.....</i></p> <p>Residents' knowledge, attitudes, and practices through the administration of an electronic survey.</p> <p>Our pre-intervention measures are below (α = Cronbach alpha). Post intervention survey to be sent early summer 2013.</p>

Table 1. Quality Improvement Knowledge ($\alpha=0.9607$)

Statement	Not Familiar	Somewhat Familiar	Familiar	Very Familiar
Writing a clear problem statement	6%	33%	45%	16%
Constructing aims and goals	5%	25%	55%	15%
Studying a process	12%	34%	44%	10%
Identifying outcome variables	11%	38%	38%	13%
Making changes to a system	9%	36%	45%	10%
Using small cycles of change	18%	31%	39%	12%
Implementing a structured plan to evaluate a change	13%	37%	40%	10%
Using a Plan, Do, Study, Act (PDSA) as a systematic framework	23%	27%	33%	17%
Building improvements on prior successes or failures	8%	29%	52%	11%
Measuring / defining study variables	8%	41%	39%	12%
Linking data to specific processes	11%	46%	33%	10%

Table 2. Quality Improvement Attitudes ($\alpha=0.7478$)

Statement	Strongly Disagree	Disagree	Agree	Strongly Agree
QI teams are an effective means of implementing change	1%	9%	78%	12%
There are mechanisms to initiate a QI project at IHDM	0%	7%	72%	21%
Faculty listen to my concerns about patient safety	0%	4%	54%	42%
I know who to contact in order to get a QI project started	7%	34%	41%	18%
Learning about QI processes should be included in residency programs	3%	15%	60%	21%
It is important to have residents on hospital QI teams (B6)	3%	15%	57%	25%
I have time to work on QI projects	14%	44%	36%	6%
QI teams are a waste of time	17%	62%	18%	3%
QI will be part of a physician's post residency career	1%	8%	72%	19%
All residents should participate on at least one QI project	3%	28%	53%	16%

Table 3. Quality Improvement Practices ($\alpha=0.7299$)

Question	Yes	No
Have you had prior QI coursework?	52%	48%
Have you participated on a QI project team with other residents?	59%	41%
Have you participated on a multi-disciplinary QI project team?	40%	60%
Have you suggested a QI project to improve care?	41%	59%
Have you seen a process improved using QI methodology?	60%	40%

V. Success factors

The most successful component of our work was.....

- **How quickly residents took ownership of the newly established RQC.**
- **A reporting structure that ensures communication to other quality committees within the hospitals and the Board of Directors.**

We were inspired by...

The enthusiasm of many residents on the RQC, and the generation of quality concerns needing to be addressed within our hospital system.

VI. Barriers

The largest barrier we encountered was.....

Time constraints and clinical obligations for resident involvement in projects and attendance at RQC meetings.

We worked to overcome this by.....

Having two residents from each program on the council to ensure attendance by at least one resident, along with an internal webpage for posting of council progress and meeting content. Dual membership also supports an efficient succession plan for loss of residents to graduation.

	Lessons Learned	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be.....</i></p> <p>Look at options and approaches outside your own institution. When you stay internal and only look within there is a tendency to reinvent existing processes.</p>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p>1. <i>Positive unintended consequences were.....</i></p> <ul style="list-style-type: none"> • RQC is a place for residents to bring in other concerns (i.e. NG tube troubleshooting, hand hygiene awareness, etc.). • Our ability to see where other participating institutions in the initiative are in order to evaluate progress. <p>2. <i>Negative unintended consequences were...</i></p> <p>Waxing and waning of council enthusiasm.</p>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p>1 2 3 4 5 6 7 8 9 10?</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p>1 2 3 4 5 6 7 8 9 10?</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <ul style="list-style-type: none"> • Awareness surrounding performance improvement and patient safety has increased, although full impact has not been fully realized. • RQC facilitated collaboration and communication between residency programs, residents, hospital staff, and other IHDM quality committees. • Resident driven QI projects provided opportunities for sustainable results when coupled with administrative support and institutional resources.
	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p> <ul style="list-style-type: none"> • Associate Program Directors will be charged with supporting the RQC, process improvement, and patient safety curriculum. • Continue to build a robust, comprehensive process improvement and patient safety education program for faculty. • Explore pairing medical staff with clinical quality coordinators to facilitate process improvement projects.

Implementation of a Resident Quality Improvement Council within a Health System

Hanna C. Engel-Brower, MD; Hayden L. Smith, PhD; Julie A. Gibbons, BSN;

Valerie M. Boelman, BS; Angela R. Claytor, MPA; Michael Rodemyer, MS; W. John Yost, MD; Douglas B. Dorner, MD

Iowa Health Des Moines Des Moines, Iowa

Overall Goal/Abstract

Quality Improvement (QI) projects improve patient safety processes and outcomes. Education and resident engagement in the these areas can results in better prepared physicians.

Project goal: Improve resident knowledge and engagement in quality improvement (QI) projects.

Background

The Accreditation Council for Graduate Medical Education (ACGME) has emphasized the importance of quality improvement (QI) education in residency.¹ Many variables limit residents' time such as hour restrictions,^{2,3} making the addition of educational components difficult. Given the increased importance of QI education, institutions have attempted various approaches to integrate QI components.⁴⁻⁷ This poster presents information on early findings from a National Initiative III project involving the creation and implementation of a Resident Quality Council (RQC).

Vision Statement

Residents will become further engaged in QI projects and help guide QI education strategies leading to measurable increases in resident QI knowledge, attitudes, and practices.



Materials/Methods

An Institutional Review Board approved survey assessing baseline QI knowledge, attitudes, and practices was sent electronically to all 130 Residents. Survey details:

- cross-sectional
- electronic
- included standardized responses
- space for open-ended responses
- incorporated reverse scored questions

A RQC was created with residents selected from each of our five residency programs. Non-voting support staff representatives included Medical Education, Nursing Quality, Clinical Quality, and Research.

Results

Survey completed by 102(78%) residents; (α =Cronbach alpha)

Table 1. Quality Improvement Knowledge ($\alpha=0.9607$)

Statement	Not Familiar	Somewhat Familiar	Familiar	Very Familiar
Writing a clear problem statement	6%	33%	45%	16%
Constructing aims and goals	5%	25%	55%	15%
Studying a process	12%	34%	44%	10%
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Table 2. Quality Improvement Attitudes ($\alpha=0.7478$)

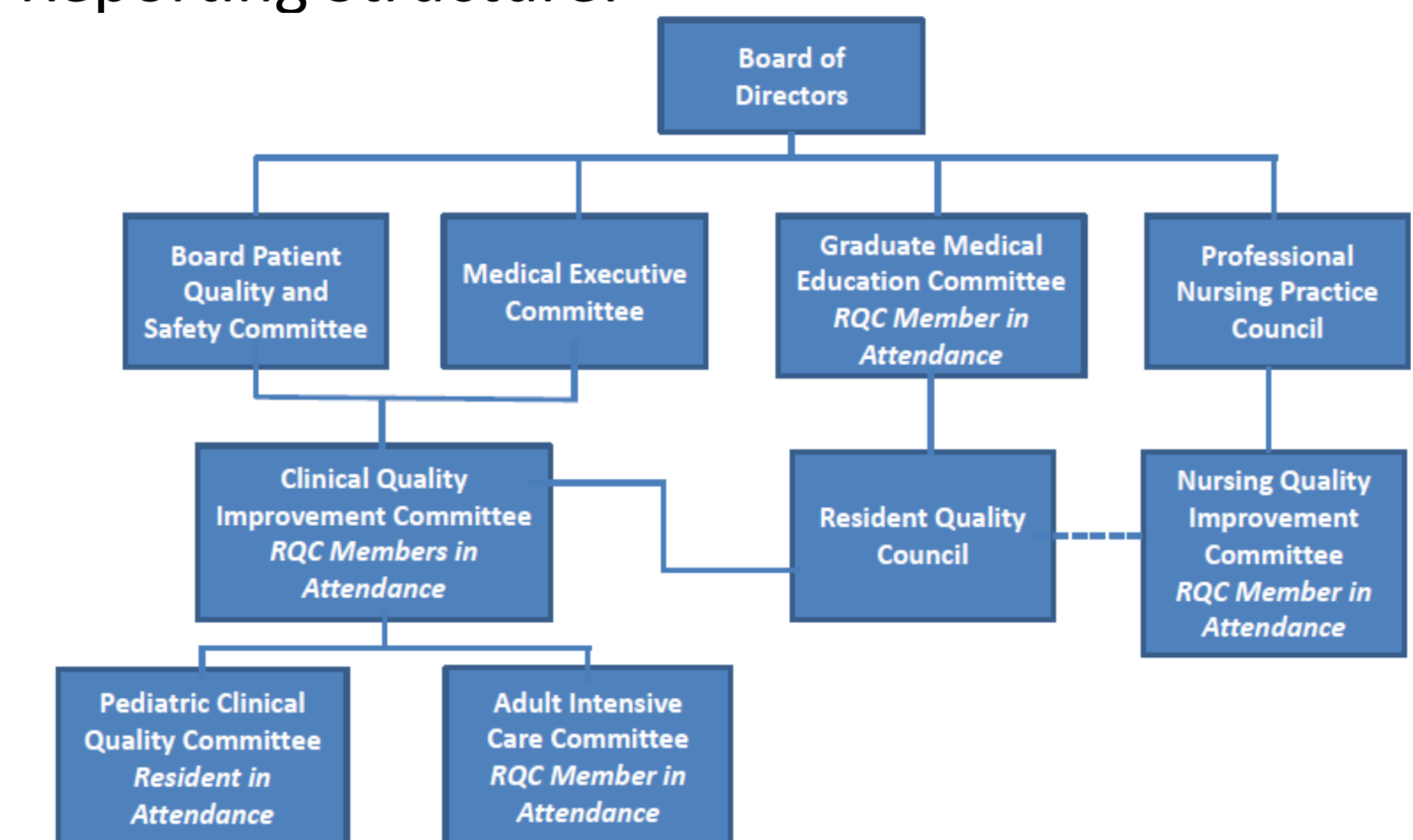
Statement	Strongly Disagree	Disagree	Agree	Strongly Agree
QI teams are an effective means of implementing change	1%	9%	78%	12%
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I know who to contact in order to get a QI project started	7%	34%	41%	18%
Learning about QI processes should be included in residency programs	3%	15%	60%	21%
It is important to have residents on hospital QI teams (B6)	3%	15%	57%	25%
I have time to work on QI projects	14%	44%	36%	6%
QI teams are a waste of time	17%	62%	18%	3%
QI will be part of a physician's post residency career	1%	8%	72%	19%
All residents should participate on at least one QI project	3%	28%	53%	16%

Table 3. Quality Improvement Practices ($\alpha=0.7299$)

Question	Yes	No
Have you had prior QI coursework?	52%	48%
Have you participated on a QI project team with other residents?	59%	41%
Have you participated on a multi-disciplinary QI project team?	40%	60%
Have you suggested a QI project to improve care?	41%	59%
Have you seen a process improved using QI methodology?	60%	40%

Success Factors and Lessons Learned

- Residents with interest in QI brought an unexpected amount of enthusiasm to council.
- RQC Reporting Structure:



Barriers Encountered/Limitations

Time constraints and clinical obligations posed difficulties for resident involvement in projects and attendance at RQC meetings.

Conclusions

- Survey identified program specific opportunities to improve QI education for residency programs.
- RQC facilitated collaboration and communication between residency programs, residents, and hospital staff.
- Resident driven QI projects provided opportunities for sustainable results when coupled with administrative support and institutional resources.

Bibliography

1. The ACGME. Accreditation Council for Graduate Medical Education. Common program requirement. http://www.acgme-2010standards.org/pdf/Common_Program_Requirements_07012011.pdf. Accessed January 11, 2013.
2. American Medical Association. Accreditation Council for Graduate Medical Education. Directory of Graduate Medical Education Programs, 2003-2004. Chicago, IL: American Medical Association Press; 2003.
3. American Medical Association. Accreditation Council for Graduate Medical Education. Directory of Graduate Medical Education Programs, 2011-2012. Chicago, IL: American Medical Association Press; 2011.
4. Scott DR, Weimer M, English C, et al. A novel approach to increase residents' involvement in reporting adverse events. *Acad Med.* 2011;86(6):742-746.
5. Fleischut PM, Evans AS, Nugent WC, Faggioli SL, Kerr GE, Lazar EJ. Perspective: call to action: it is time for academic institutions to appoint a resident quality and patient safety officer. *Acad Med.* 2011;86(7):826-828.
6. Chase SM, Miller WL, Shaw E, Looney A, Crabtree BF. Meeting the challenge of practice quality improvement: a study of seven family medicine residency training practices. *Acad Med.* 2011;86(12):1583-1589.
7. Fleischut PM, Faggioli SL, Evans AS, et al. The effect of a novel housestaff quality council on quality and patient safety. *Jr Comm J Qual Patient Saf.* 2012;38(7):311-317.

National Initiative III: Final Work Plan

Team: JPS Health Network

I.	Overall Goal for NI III/Elevator Speech	<i>Our team's goal for National Initiative III was..... Teaching Process Improvement and Patient Safety to Adult Learners in GME</i>
II.	Needs Statement	<i>This goal was important because..... Accreditation Agencies including ACGME, Joint Commission, and CMS require hospitals and providers to focus on improving patient safety and quality. The project would not only satisfy requirements but prepare residents and faculty for participation in future projects.</i>
III.	Vision Statement	<i>In March of 2013, we will see the outcomes of our success by..... (1)An increase in PI project is progress since the initial education, (2) completion of training to all interns and new residents, program directors, and (3) Program Directors disseminating of information to faculty.</i>
IV.	Measures	<i>We determined the success of meeting our goal by measuring..... Our pre-and post-intervention measures were..... Attendance at training (residents and PDs); number of training activities given; number of active projects; initiation of PI and patient safety curriculum.</i>
V.	Success factors	<i>The most successful component of our work was.....The initial program with interns and new residents during orientation. We were inspired by.....New resident interest and promotion of project to faculty and other residents.</i>
VI.	Barriers	<i>The largest barrier we encountered was.....time requirements and conflicts due to clinical schedules. We worked to overcome this by..... Electronic notes and correspondence. Did not find a way to solve all issues. Still in progress.</i>

VII.	Lessons Learned	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be.....Time management and time conflicts are an expected barrier. We learned that residents are very much interested in improving quality and patient safety and would like to have a larger involvement. Faculty could be motivated through resident involvement. We also learned that new methods of teaching are needed that include both face to face and alternative avenues to get information to learners.</i></p>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p><i>1. Positive unintended consequences were..... residents had projects recently accepted for a conference. Although small, the projects are pertinent to needs within our institution.</i></p> <p><i>2. Negative unintended consequences were....some projects did not move as quickly but they are in progress. Limited dissemination to faculty.</i></p>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <p><i>We were able to get the attention of the program directors and residents and will implement a curriculum for faculty and upper level residents in 2013.</i></p>
XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p> <p><i>Improve training curriculum and methods. Continue this with interns and new residents in 2013. Develop both resident modules and faculty modules. Measure number of residents and faculty involved in performance improvement pre and post training.</i></p>



Teaching Process Improvement and Patient Safety in GME



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Overall Goal/Abstract

The overall goal of this project is to increase quality and patient safety in GME through experiential learning with program directors, faculty, and residents. Our team recognizes that a major barrier to moving forward is limited knowledge of standardized process methods among residents and faculty. The preliminary stages of this project include identifying the best method for training residents and faculty given the time constraints and limited resources.

Background

New trainees are limited to a 16 hour work day including any required formal didactic training. Current didactic sessions have been revised to meet these requirements but introducing performance improvement that is sustainable requires ongoing learning and incorporation of this material into the clinical learning environment. One goal is to identify barriers and potential competing assignments that impact longitudinal participation in structured and performance improvement learning and participation.

Vision Statement

We want the faculty and residents working in multidisciplinary teams to Improve the function and outcomes in the clinical environment.

We aim to change the way program directors, faculty and residents think about their role in performance improvement and patient safety.

Materials/Methods

The target team for the first stage includes new interns . We chose a pre and post intervention evaluation method for assessment of the quality of the training and the assessment of the effectiveness of the projects. During the active part of the training, each participate was asked to (1) choose a group of peers to form a process improvement team; (2) select a potential problem to address; (3) develop a hypothesis; and (4) select a team leader that would be the responsible person for navigating the team during the training and project time. Using a similar method to the AIAMC, quarterly, the teams would come together to review progress and interval outcomes and barriers..

Results (data gathered both quant & qual.)

	1 st meeting	2 nd meeting		
Prior PI knowledge	0 of 73 attendees	8 residents 2 faculty		
No. Projects	11			
Continued learning				
No. active PI projects among residents			6	

Success Factors and Lessons Learned(Discussion)

The first training session s was held during new resident orientation, with 100% participation. New residents were willing to learn new skills to address improvement In the clinical environment. New residents were excited to develop projects they thought might improve Patient outcomes, orientation process, EMR Education, and training methods.

Barriers Encountered/Limitations-

Lack of participation in subsequent training. Limited time for performance improvement standard training and project work in first half of program year. **Opportunities for improvement?** Modify PI training to meet availability and time restraints. Engage faculty to join in participation and development. **Unexpected challenges (and solutions)?** Institutional site visits and audits interrupt the flow of learning and lead to inability to meet deadlines. May postpone new programs in a year with site visits. Need to recruit program assistance early, accept flexibility, and promote and teach change management.

Conclusions

Residents and faculty who participate in process improvement gain more awareness of system dynamics and available support. Active participation improves motivation to address problems in a multidisciplinary fashion. Projects will change based on interim findings and internal climate changes. Change management must be a part of the curriculum. Identifying the best method for incorporating this training into the curriculum may serve as a model that can be duplicated in similar environments.

Was it a transformative/worthwhile experience? Preliminary findings show those with active projects may be change agents.

What do you want to share with the audience? Identifying time for new programs and training with new interns and residents is difficult given new work hour restraints. Traditional learning models need modification.

National Initiative III: Final Work Plan

Team: MedStar Health – Harbor Hospital, Washington Hospital, Union Memorial & Good Samaritan Hospital
Standardizing Resident Handoff Training: A Standardized Approach across Multiple Disciplines

I.	Overall Goal for NI III/Elevator Speech	<p><i>Our team’s goal for National Initiative III was..... To create a comprehensive handoff curriculum to be implemented across all training programs within MedStar Health</i></p> <p><i>The curriculum will involve ‘training the trainer’ approach to promote a consistent handoff process that ultimately will be promoted by the residents themselves.</i></p>
II.	Needs Statement	<p><i>This goal was important because.....Several studies have noted inadequacies and wrong information conveyed through handoffs among residents. One study found that key information was not passed to the oncoming resident 60% of the time (1).</i></p> <p><i>Two prior surveys found that the majority of programs in internal medicine (60%) and emergency medicine (74.4%) do not have handoff curriculums in place (2,3).</i></p>
III.	Vision Statement	<p><i>In March of 2013, we will see the outcomes of our success by.....Instituting a resident handoff curriculum throughout all MedStar Health that improves the knowledge, skills and attitudes of incoming and current residents and interns.</i></p>
IV.	Measures	<p><i>We determined the success of meeting our goal by measuring.....</i></p> <p><i>In the pre-workshop survey of PGY 1-5 residents, 206 surveys were completed of which 26% indicated that they did not have a handoff protocol and 47% noted that they did not receive formal handoff training . 41% noted that they either often or sometimes did not follow their handoff protocol. Only 55% of the residents agreed that they felt comfortable giving care to a new patient after receiving a handoff. 75% of new incoming interns who completed a survey prior to the handoff workshop said they received no formal education or training on handoffs in medical school. After the interns received their training session, they were observed performing handoffs with their peers. A checklist was used to assess whether or not they were complying with the crucial components of an adequate handoff- face to face interaction, uninterrupted handoff, a written component, a succinct statement of the problem, addressing a to-do list, if-then plans given, and acknowledgement of recipient understanding.</i></p> <p><i>Our pre-and post-intervention measures were.....</i></p> <p><i>Results comparing pre and post direct observation encounters demonstrated statistical improvement after</i></p>

		<p>three months in to-do lists, pre 13/19 (68.4%) and post 40/42 (95.2%) $p = 0.02$, if-then statements, pre 6/19 (31.6%) and post 29/41(71%) $p = 0.0026$, and read-back, pre 11/15(73.3%) and post 41/42(97.6) $p = 0.04$.</p>
V.	Success factors	<p>The most successful component of our work was implementation of a standardized curriculum for resident handoff education. Also we worked towards developing a reproducible and reliable tool to access resident skills and knowledge in performing handoffs.</p> <p>We were inspired by the positive responses we received from the residents regarding the handoff curriculum.</p>
VI.	Barriers	<p>The largest barrier we encountered was working across different hospitals at different locations.</p> <p>We worked to overcome this by having frequent telephone conference meetings, liberal use of group e mails, and help from the AIAMC.</p>
VII.	Lessons Learned	<p>The single most important piece of advice to provide another team embarking on a similar initiative would be to ensure a good simple study design that utilized a simple tool to access resident knowledge and skills that is both reproducible and reliable.</p> <ul style="list-style-type: none"> • “The process of conducting a multicenter, multispecialty study across two cities with a large team was a “learning experience” in itself.” Dr. Dick Williams
VIII.	Unintended Consequences	<p>Describe any unintended consequences from your project.</p> <ol style="list-style-type: none"> 1. Positive unintended consequences were the realization the OSHE tool was not useful for our purposes as there was too much inter-observer variation. 2. Negative unintended consequences included time constraints. Therefore, we did not have time to directly observe many residents for the pre-intervention component. Also, the personal identifier we chose was too difficult to work with (mother’s date of birth).
IX.	Expectations Versus Results	<p>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>

X.	Satisfaction	<p><i>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work? We have all made a concerted effort to continue to educate and observe resident handoffs. We realized the importance of on going feedback. It is essential for success.</i></p>
XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p> <ul style="list-style-type: none"> <i>• Establish the handoff workshop, emphasizing the S-T-I-R protocol, as an annual event at the start of the academic year for all specialties and all residents across our system.</i> <i>• Use the handoff tool to evaluate progress in transitions of care milestones and to give formative feedback to all residents throughout the year.</i>

Goal

- To create a comprehensive handoff curriculum to be implemented across all training programs within MedStar Health.
- The curriculum will include a workshop experience incorporating simulation and peer-to-peer training to promote active learning of critical elements of the handoff process.

Background-The Problem

- The Joint Commission has made handoff of patients a priority for quality and safety.
- The ACGME requires programs to develop a structured handover processes to facilitate both continuity of care and patient safety.
- One study found that key information was not passed to the oncoming resident 60% of the time.
- Two prior surveys found that the majority of programs in internal medicine (60%) and emergency medicine (74.4%) do not have such processes in place.

Vision Statement

- What is the current state of resident handoffs throughout MedStar Hospitals and does instituting a handoff curriculum improve the knowledge and attitudes of incoming and current residents?
- Does instituting a resident handoff curriculum improve the quality of the resident handoffs?
- Is the new resident handoff curriculum well received and useful as perceived by participating residents and interns?

Methods

Study Design: Prospective study at four teaching hospitals in MedStar Health across multiple disciplines. **Survey:** To determine the current state of resident handoffs in MedStar Health we distributed an anonymous survey among residents throughout the MedStar system. **Intervention:** A handoff workshop was developed by the researchers and the same educational curriculum was taught at each participating hospital among three disciplines: internal medicine, general surgery and obstetrics/gynecology. Workshop session included didactics and simulation with audience interaction. We promoted a standardized approach to the handoff, using our “S-T-I-R” model (Summary, To do, If-then, Readback/Feedback). **Direct Observations:** The quality of the resident handoffs was evaluated both before and 3-4 months after the workshop by direct observation.

Results

- 206 surveys were completed by residents from PGY1- 5 level.
- 26% indicated that they did not have a handoff protocol.
- 47% noted that they did not receive formal handoff training.
- 41% noted that they either often or sometimes did not follow their handoff protocol.
- 75% of new incoming interns who completed a survey prior to the handoff workshop said they received no formal education or training on handoffs in medical school.
- 119 residents completed the post workshop survey. See Table 1.
- Post-workshop observation results found that interns were more likely to report “To-Do” (p=0.02) and “If-Then” statements (p=0.003), along with facilitating receiver read back (p=0.04).

Limitations

- Many of the direct observations were made by the study designers which could have resulted in bias.
- The same residents in the pre data collection were not necessarily the same residents in the post data collection.

Figure 1

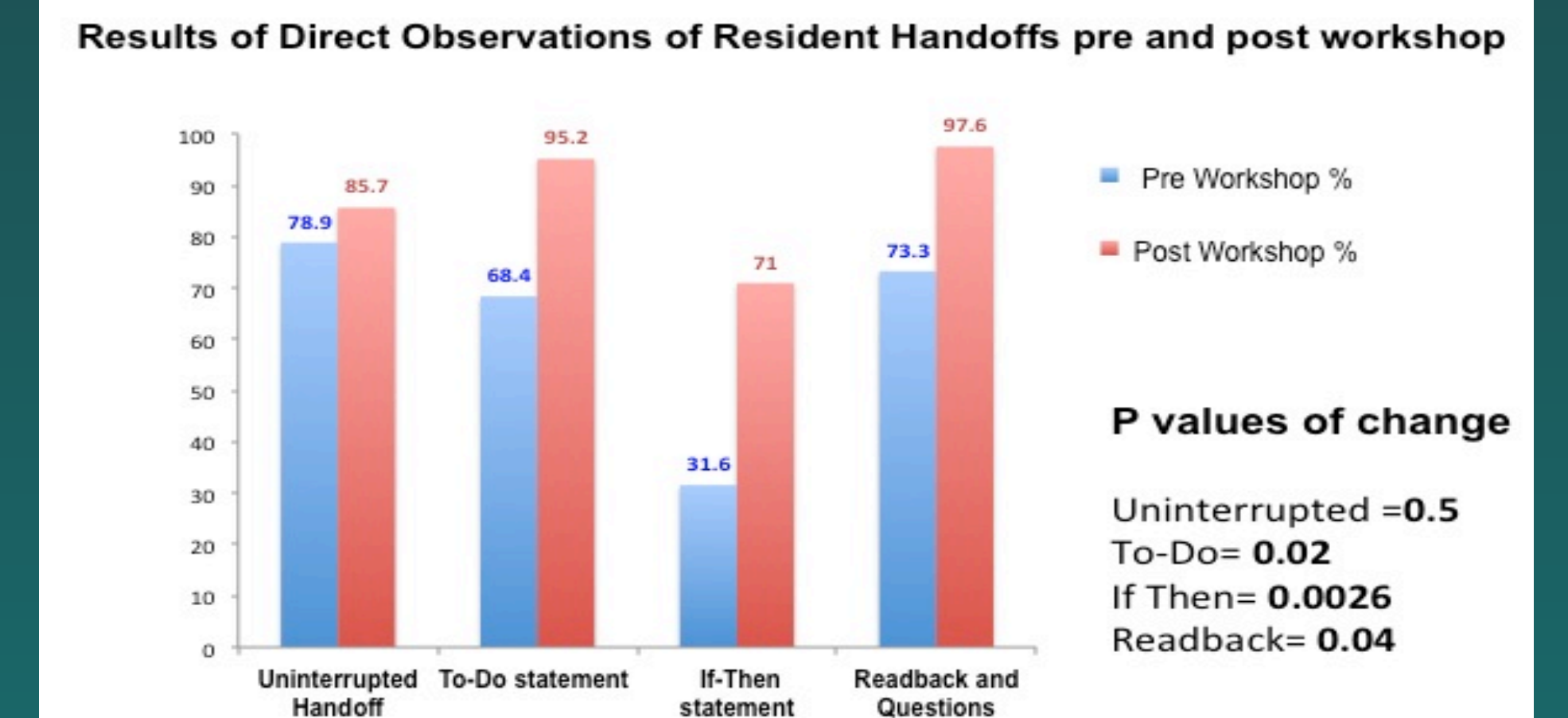


Table 1

Results of post-workshop survey

Question from the survey	% of respondents who agreed
Feel more confident in giving effective verbal handoff	94
Will change current practice of giving handoffs after workshop	90
Believe the changes made will be sustainable	96
Believe a systematic approach to handoffs will be beneficial to patient care	98

Conclusions

- A significant portion of residents across various disciplines lacked handoff training and a handoff protocol.
- A handoff workshop at the start of the academic year leads to sustained improvement in handoff quality.
- The process of conducting a multicenter, multispecialty study across two cities with a large team was a “learning experience” in itself.

Next Steps

- Establish the handoff workshop, emphasizing the S-T-I-R protocol, as an annual event at the start of the academic year for all residents across our system
- Use the handoff checklist to evaluate progress in transitions of care milestones and to give continuing formative feedback.

National Initiative III: Final Work Plan

Team: Mt Carmel Health

I.	<p>Overall Goal for NI III/Elevator Speech</p> <p>The overall purpose is that we will build a plan developing goals for a comprehensive quality curriculum for Mount Carmel Health graduate medical education to include CME and systems efforts. The plan should be comprehensive to include residents, faculty, non-teaching staff and administration. It should be enduring to develop residents well-versed in quality initiatives and safety and a lifetime commitment and ability to be leaders in the same. This plan should also include developing and equipping all participants with the tools needed to accomplish these tasks now and in the future.</p>	<p><i>Our team’s goal for National Initiative III was to develop the curriculum, implement the curriculum and develop at least two, possibly more teams of residents, faculty, continuing medical education physicians and Q&S representatives working on a system wide Quality and Safety Project.</i></p>
II.	<p>Needs Statement</p> <p>The Accreditation Council for Graduate Medical Education (ACGME), through the Next Accreditation System (NAS) and the recently-established Clinical Learning Environment Review (CLER) program, has placed significant emphasis on the integration of quality and safety training and participation of residents in this process.</p>	<p><i>This goal was important because few Graduate Medical Education Systems have incorporated, in any meaningful way, residents into the Quality and Safety initiatives of the MO. This despite the resident staff being on the “front-line” of all most if not all quality and safety efforts in teaching institutions. Physicians need to be the leaders in Q&S in the future.</i></p>
III.	<p>Vision Statement</p> <p>We envision a fully developed Quality and Safety Curriculum for all our residents in the Mt Carmel Health System.</p>	<p><i>In March of 2013, we will see the outcomes of our success by having the first round of the curriculum completed and all our PGY I residents in the institution obtaining the IHI Open School Certificate of Completion.</i></p>
IV.	<p>Measures</p> <p>All Mt Carmel PGY I residents will have obtained the IHI Open School Certificate of Completion. Those not graduating after one year will then have the next two years of their training to design and complete a Quality or Safety Project under the supervision and guidance of Faculty and Institutional Quality and Safety.</p>	<p><i>We determined the success of meeting our goal by measuring IHI Open School Completion and the establishment of three active Q&S teams that are developing projects using “Open School” techniques including PDSA Cycles and evaluation methods learned in the curriculum.</i></p>
V.	<p>Success factors</p> <p>The jury is still out. Although all residents participated and completed the curriculum with many actually lecturing, the final results of implementing the on-going curriculum (to be repeated with each incoming intern class), remain to be seen.</p>	<p><i>The most successful component of our work was the actual implementation of the curriculum and the buy-in from the residents recognizing the need and usefulness for quality patient care.</i> <i>We were inspired by MO Quality and Safety and Faculty participation.</i></p>

VI.	<p style="text-align: center;">Barriers</p> <p>Convincing the trainees of the usefulness and utility of the importance of understanding and their ability to implement a large scale quality and safety project.</p>	<p><i>The largest barrier we encountered was freeing up all PGY I's and "protecting" their time for these curricular meetings.</i></p> <p><i>We worked to overcome this by obtaining the support of the DIO, GMEC and all Program Directors.</i></p>
VII.	<p style="text-align: center;">Lessons Learned</p> <p>Like most new initiatives, build the base of information and proceed with extreme caution.</p>	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be to obtain leadership approval and support at all levels. Close follow-up and frequent communication.</i></p>
VIII.	<p style="text-align: center;">Unintended Consequences</p>	<p><i>Describe any unintended consequences from your project.</i></p> <p><i>1. Positive unintended consequences were.....</i></p> <p><i>2. Negative unintended consequences were....</i></p>
IX.	<p style="text-align: center;">Expectations Versus Results</p> <p>This is an ongoing project that has started out very well. The first year of our established curriculum is successfully completed and three teams developing projects are beginning, to be completed in the next two years.</p>	<p><i>On a scale of 1 to 10 (with "1" meaning nothing and "10" meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9X 10</p>
X.	<p style="text-align: center;">Satisfaction</p> <p>We are extremely satisfied with our progress to date</p>	<p><i>On a scale of 1 to 10 (with "1" meaning not at all satisfied and "10" meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9X 10</p>
XI.	<p style="text-align: center;">Project Impact</p> <p>We have met our Q&S Curricular goals and expect ACGME CLER visits to go well in this area.</p>	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <p><i>The actual Q&S impact will be determined over the next two years when we are actually completing three projects with six more online.</i></p>

XII.	The next step include	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p> <p><i>Developing and implementing “projects” using IHI Open School techniques.</i></p> <p><i>Monitoring so the projects are meaningful and appropriately address Quality and Safety issues.</i></p> <p><i>Continuing the Q&S curriculum as implemented this academic year.</i></p> <p><i>Assure we are developing physicians who are knowledgeable and skilled in quality and safety initiatives.</i></p>
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Quality and Safety: Building the Culture

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Overall Goal/Abstract

The Accreditation Council for Graduate Medical Education (ACGME), through the Next Accreditation System (NAS) and the recently-established Clinical Learning Environment Review (CLER) program, has placed significant emphasis on the integration of quality and safety training and participation of residents in this process. Mount Carmel Health has developed a comprehensive quality and safety curriculum. We describe the process, content, and results of those efforts that encompass the entire first-year class of residents at our institution.

Background

Working through the Alliance of Independent Academic Medical Centers (AIAMC) and their National Initiative III program, Graduate Medical Education (GME) developed a quality and safety curriculum based on the Institute for Healthcare Improvement Open School.

Materials/Methods

PGY-1 trainees meet frequently with faculty and using Open School techniques develop their own quality and safety project, with the guidance and support of GME and system leaders in quality and safety. The designed project is implemented in the second year of their training with outcome measures being gathered during the third year, culminating in a multidisciplinary system-wide formal presentation of their project.

Results

Three teams of PGY-1 trainees, faculty, and administrative representatives including quality and safety officers have completed the open school. Each has developed and is implementing a system-wide quality/safety project. Outcomes will not be completed until some time between the 2nd and 3rd year of implementation.

Barriers Encountered

Convincing the trainees of the usefulness and utility of the importance of understanding and the ability to implement a large scale quality and safety project.

Success Factors

This meets the ACGME requirement of integrating quality and safety into the curriculum. This curriculum crossed all programs within Graduate Medical Education. This project is well received and supported by administration and the department of quality and safety at Mount Carmel Health System.

Conclusions

A formal quality and safety curriculum enriches teaching skills and improves methods in the field of quality and safety, resulting in meeting and exceeding the requirements of the ACGME core competencies. The opportunity to author one or more peer-reviewed manuscripts at the conclusion of the series is strongly encouraged. We believe this process and curriculum will lead to positive reviews and continued full accreditation by the ACGME for both the institution and our individual programs at Mount Carmel Health.



National Initiative III: Final Work Plan

Team: National Rehabilitation Hospital

I.	Overall Goal for NI III/Elevator Speech	<i>Our team's goal for National Initiative III was..... To create a QI curriculum for the residency program that matches residents with attendings needing to complete a PI project for maintenance of certification</i>
II.	Needs Statement	<i>This goal was important because..... Previous projects have been successful but have not been sustainable.</i>
III.	Vision Statement	<i>In March of 2013, we will see the outcomes of our success by..... Having a curriculum in place and multiple PI projects on-going</i>
IV.	Measures	<i>We determined the success of meeting our goal by measuring..... The number of QI projects Our pre-and post-intervention measures were..... A needs assessment survey</i>
V.	Success factors	<i>The most successful component of our work was..... We were inspired by..... There was clear interest in the project from both attendings (seen in results from needs assessment survey) and residents</i>
VI.	Barriers	<i>The largest barrier we encountered was..... We worked to overcome this by..... Coordinating everyone's time and creating the actual online curriculum</i>

VII.	Lessons Learned	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be.....</i></p> <p>To start early and set firm deadlines with each step of the project</p>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p>1. <i>Positive unintended consequences were.....</i> <i>Increased awareness of the need for QI and also its requirement for the MOC</i></p> <p>2. <i>Negative unintended consequences were....</i></p>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with "1" meaning nothing and "10" meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with "1" meaning not at all satisfied and "10" meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <p>Continuing to develop the interactive curriculum and implementing it on a yearly basis such that we will have sustainability.</p>
XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p>

Overall Goal/Abstract

Development and implementation of a Quality Improvement curriculum, using National Initiative – III and its premise of “teach the teacher” as its conduit.

The projects will be completed such that they satisfy ABPMR-MOC⁴ for attendings, and ACGME Residency Review Committee requirements, all through a common experience.

Background

In taking part in NI-II a project focusing on hand-offs was ultimately a success, however it has shown questionable sustainability. We have recognized the need for an overall process improvement curriculum that may allow an outlet for multiple quality projects.

This has become even more pressing with ACGME guidelines pushing for resident involvement in process improvement, in conjunction with the requirement for PI projects for fulfillment of maintenance of certification part 4(MOC⁴) by the American Board of Physical Medicine & Rehabilitation (ABPMR)

Vision Statement

We will create a sustainable process improvement curriculum that may be carried over year to year in our residency program.

This will be accomplished through an experiential learning process, inclusive of the PDSA cycle, and previous methodology in quality improvement research.

Materials/Methods

1. Needs assessment survey distributed to all inpatient attending physicians.
2. Attendings agreeing to take part in our pilot curriculum are matched individually with a group of residents.
3. Together they are led through an interactive online quality improvement curriculum using Moodle, group meetings, and ultimately the PDSA framework.



Barriers Encountered/Limitations-

Overall the largest impediment to completion of the project has revolved around the timing and organization of the interactive curriculum. With so many conflicting schedules between attendings and residents there certainly has and will be challenges in the future.

Results (Needs Assessment Survey)

* Why have you not completed the MOC-4 requirement?

Answer	0%	100%	Response Ratio
Not sure what to do - PI methodology			75.0%
Not sure what to do - ABPMR MOC-4 requirements			50.0%
Unable to find the time			37.5%
Started and is taking longer than expected			25.0%
Actually in process and on time			12.5%
Not planning on recertifying this cycle			0.0%
Other (View all)			12.5%
Totals			100%

Success Factors and Lessons Learned (Discussion)

Based on the needs assessment and feedback from the residents, there has been definite excitement and anticipation about the project. Currently we are in the implementation stage as we have decided to use additional technology (Moodle) for the interactive curriculum. Over the next few months we anticipate the completion of multiple projects currently on stand-by.

There is no doubt that the ability for attendings to complete their required MOC PI project with our course may offer the sustainability we desire as their input and mentorship continues to be paramount in our residency training program.

Conclusions

Overall this has been a good experience and NI-III certainly spawned the idea for our project. Going forward we have plans on fulfilling our goals within the next few months after implementation of our online interactive curriculum.

Linking attending physicians and residents together may offer an excellent option for the sustainability of a quality improvement curriculum going forward. As the groups continue going through the stages of EPIC, there will likely be a number of process improvement projects completed, and ultimately several needed changes/adjustments to our facility.

References

- ABPMR Clinical Care PIP Criteria - www.abpmr.org.
- American Board of Internal Medicine - www.abim.org/ccpim/#overview
- Handbook for Basic Process Improvement - www.au.af.mil/au/awc/awcgate/navy/bpi_manual/handbook.htm
- Institute for Healthcare Improvement - www.ihl.org
- University of Chicago Quality Improvement Initiatives - medqi.bsd.uchicago.edu/curriculum.html

National Initiative III: Final Work Plan

Team: Ochsner Health System

I.	Overall Goal for NI III/Elevator Speech	<p><i>Our team’s goal for National Initiative III was.....</i></p> <p><i>Implement a faculty development curriculum that is practical, sustainable and centered around quality and patient safety</i></p>
II.	Needs Statement	<p><i>This goal was important because.....</i></p> <ul style="list-style-type: none"> • <i>re-define required faculty competencies,</i> • <i>develop physician thought leaders,</i> • <i>aligns Graduate Medical Education with Institutional priorities around patient safety and quality,</i> • <i>ensure compliance with ACGME and other accreditation standards</i>
III.	Vision Statement	<p><i>In March of 2013, we will see the outcomes of our success by.....</i></p> <p><i>Improved student / resident evaluations of teaching faculty</i></p> <p><i>Teachers aligned with needs and styles of learners</i></p> <p><i>Improved understanding of quality as demonstrated by pre and post surveys and number and outcomes of specific quality initiatives</i></p> <p><i>Ensure compliance with ACGME program rules</i></p> <p><i>Program will ensure successful ACGME institutional site visit - with Ochsner recognized for best practice implementation in faculty development</i></p>
IV.	Measures	<p><i>We determined the success of meeting our goal by measuring.....</i></p> <p><i>Our pre-and post-intervention measures were.....</i></p> <p><i>Resident and Faculty surveys demonstrating an improved perception of</i></p> <p><i>Compliant with ACGME program rules</i></p>
V.	Success factors	<p><i>The most successful component of our work was.....</i></p> <p><i>We increased the participation among resident and faculty in QI and patient safety efforts throughout the institution.</i></p> <p><i>Improved the culture and perception among faculty and residents with regards to Quality Improvement, Patient Safety, and Faculty Development</i></p> <p><i>We were inspired bythe 100% buy in from all GME program directors and residents who participated.</i></p>

VI.	Barriers	<p><i>The largest barrier we encountered was.....</i></p> <p><i>Institutional roll out epic EMR and the region was affected by Hurricane Isaac in the middle of our curriculum. Both required delays in our timelines and distracted teams from the task.</i></p> <p><i>We worked to overcome this by..... by extending the time line and changing some of the in person report out sessions to written report out sessions.</i></p>
VII.	Lessons Learned	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be..... IHI open school provides high quality leaning modules that allow our busy clinicians and house officers the flexibility to complete the modules on their time. Not having to develop our own modules on QI and Patient safety saved us time and money. Deadlines are important and report out sessions not only provide these deadlines but also allow for important cross discussions among our different programs.</i></p>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p><i>1. Positive unintended consequences were..... different residency programs coming together to develop joint QI projects.</i></p> <p><i>2. Negative unintended consequences were....unable to align with our PI department as much as expected upon roll out.</i></p>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>

XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work? Increased participation in the resident safety council, increased awareness of the ACGME requirements by program directors. Change in culture with regards to patient safety and quality improvement.</i></p>
XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made. We had previously developed a Resident Quality Council (RQC) with representation from all of our ACGME programs and GME administrative support. We will work through RQC to continue our current QI projects. In addition, our GME leadership will take over the role of running the curriculum annually for key clinical and interested faculty and house officers. Participation in the curriculum and QI projects will be a metric for all our GME programs.</i></p>



Developing a practical and sustainable faculty development program with a focus on teaching quality improvement: An AIAMC National Initiative III project



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Overall Goal/Abstract

Goal: To develop a *practical and sustainable* faculty development program with a *focus on teaching quality improvement (QI) and patient safety (PS)*.

Background

- Teaching the next generation of physicians requires more than traditional teaching models.
- The Accreditation Council for Graduate Medical Education's Next Accreditation System places considerable emphasis on developing a learning environment that fosters resident education in quality improvement and patient safety.

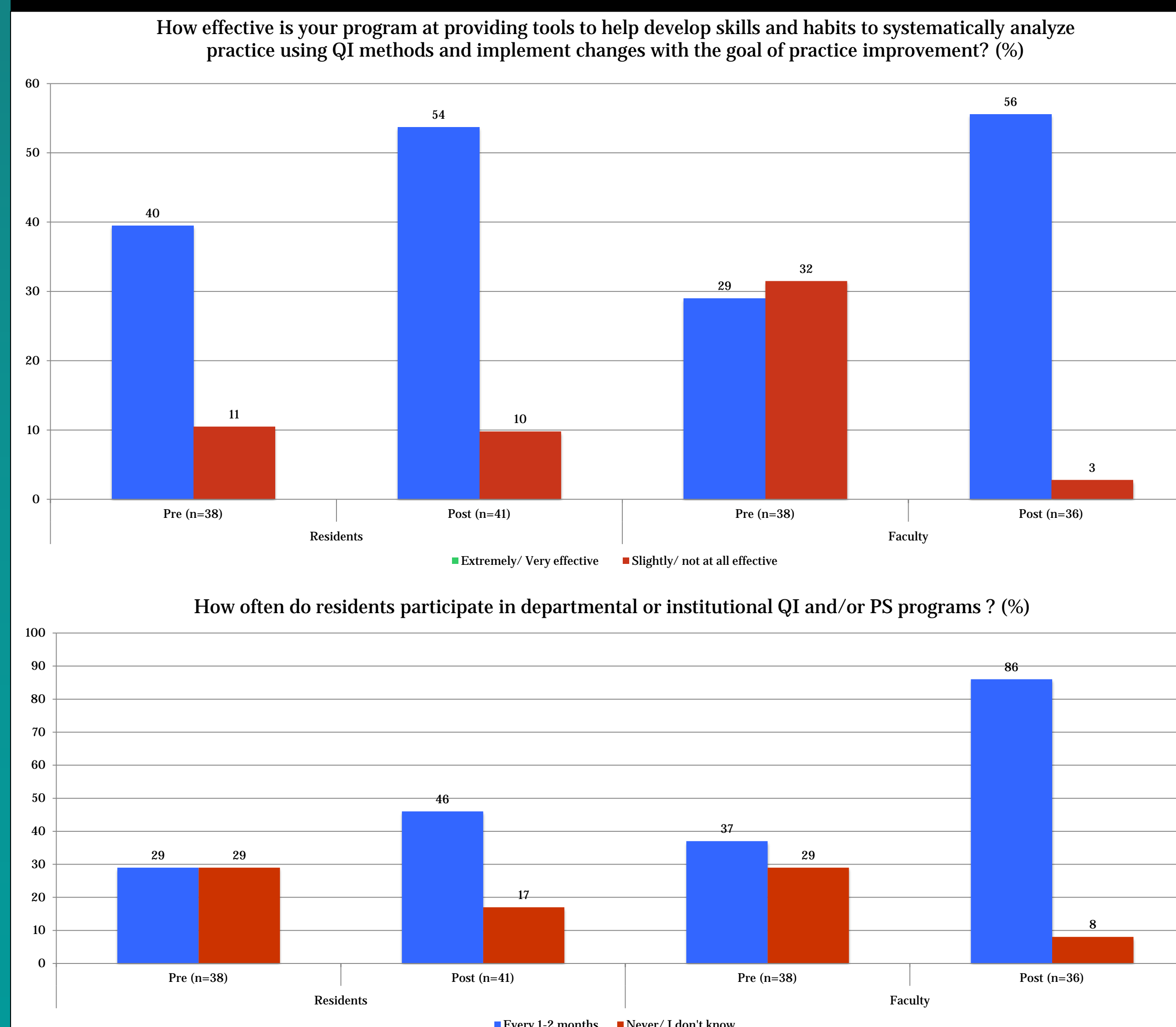
Vision Statement

- We aim to see the outcomes of our success by:
- Improve resident evaluations of teaching faculty
 - Align teachers with needs and styles of learners
 - Improved understanding of quality as demonstrated by pre and post surveys and number and outcomes of specific quality initiatives
 - Ensure successful institutional site visit – with recognition for best practice in faculty development
 - Increase resident/faculty participation in PS/QI

Materials/Methods

- Developed a curriculum to address these 3 areas consisting of 5 online modules completed by resident/faculty pairs
 - 2 modules - part of IHI Open School – focus on QI/PS
 - 3 modules - internally developed teaching/learning
- Developed pre and post curriculum surveys to assess faculty & resident baseline perceptions of their experience with:
 - quality improvement tools and training
 - resident participation in QI and PS programs
- 17 GME training programs developed QI projects while completing the first learning module

Results



Success Factors/ Lessons Learned

Successes:

- Buy in from all GME programs
- Quality of QI projects developed by programs

Lessons Learned:

- Encourage teams to complete QI projects while completing IHI modules
- Regular tracking and team report out encouraged teams to have projects/milestones completed

Conclusions

- We demonstrated that it is feasible to develop a sustainable and practical faculty development program within a large academic medical center
- Our pre-implementation survey results confirmed the need and our post-implementation survey demonstrated an improvement in the culture and perception with regards to QI, PS, and faculty development
- Future goals include sustaining & spreading program to all faculty & residents in our institution

Bibliography

- Rodrigue, C., Seoane, L., Gala, R., Piazza, J., Amedee, R. Developing a Practical and Sustainable Faculty Development Program with a Focus on Teaching Quality Improvement: An AIAMC National Initiative III Project. *Ochsner Journal* 2012; 12: 338-343.
- Nasca TJ, Philibert I, Brigham T, Flynn TC. The next GME accreditation system—rationale and benefits. *N Engl J Med*. 2012 Mar 15;366(11):1051-1056. 2012 Feb 22.
- Skeff KM, Stratos GA, Mygdal WK, et al. Clinical teaching improvement: past and future for faculty development. *Fam Med*. 1997 Apr;29(4):252-257.
- Steinert Y, Mann K, Centeno A, et al. A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8. *Med Teach*. 2006 Sep;28(6):497-526.
- Boonyasai RT, Windish DM, Chakraborti C, Feldman LS, Rubin HR, Bass EB. Effectiveness of teaching quality improvement to clinicians: a systematic review. *JAMA*. 2007 Sep 5;298(9):1023-1037.
- Wong BM, Etchells EE, Kuper A, Levinson W, Shojania KG. Teaching quality improvement and patient safety to trainees: a systematic review. *Acad Med*. 2010 Sep;85(9):1425-1439.

National Initiative III: Final Work Plan

Team: [Orlando Health](#)

I.	Overall Goal for NI III/Elevator Speech	Our team’s goal for National Initiative III was to create a Quality Improvement Curriculum at Orlando Regional Medical Center
II.	Needs Statement	This goal was important because there is no standardized Quality Improvement training for residents at Orlando Health
III.	Vision Statement	In March of 2013, we will see the outcomes of our success by having created a QI curriculum that is simple, yet adaptable to all residency programs at ORMC
IV.	Measures	<p>We determined the success of meeting our goal by measuring the baseline QI knowledge of residents followed by reassessing QI knowledge after the curriculum</p> <p>Our pre-and post-intervention measures were questionnaires developed from literature survey and questions deemed relevant to basic knowledge of QI were used to create the questionnaires</p>
V.	Success factors	The most successful component of our work were having greater than 50% respondents on our baseline QI evaluation and recruiting QI interest from other programs
VI.	Barriers	<p>The largest barrier we encountered was time management to complete the training modules</p> <p>We worked to overcome this by discussing with each programs’ champion what is the appropriate length of time to complete the QI modules</p>

VII.	Lessons Learned	The single most important piece of advice to provide another team embarking on a similar initiative would be to anticipate resistance to change and the solution is to allow adequate time for individuals to adapt to change
VIII.	Unintended Consequences	Describe any unintended consequences from your project. 1. Positive unintended consequences were more faculty became interested in Quality Improvement 2. Negative unintended consequences were none
IX.	Expectations Versus Results	<i>On a scale of 1 to 10 (with "1" meaning nothing and "10" meaning everything), how much of what you set out to do was your team able to accomplish?</i> 1 2 3 4 5 6 <u>7</u> 8 9 10
X.	Satisfaction	<i>On a scale of 1 to 10 (with "1" meaning not at all satisfied and "10" meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i> 1 2 3 4 5 6 7 8 <u>9</u> 10
XI.	Project Impact	What changes have you observed in your residency program(s), or at your institution, based upon your work? The residency programs have now chosen the IHI Open School QI Modules as part of their QI training of residents
XII.	Next Steps	<i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i> Our plan of sustainability is through our champions from each residency programs. Our champions will introduce the IHI Open School modules to their program.



Quality Improvement Curriculum at Orlando Regional Medical Center

Caroline Nguyen-Min, MD; Bridgette Provost, MD, MPH; Kwabena Ayesu, MD

Orlando Health, Orlando, Florida



Goals

- To establish a Quality Improvement (QI) curriculum at Orlando Regional Medical Center (ORMC)
- To utilize IHI Open School QI modules for training residents
- To evaluate residents post-training to see if there is a change in residents' QI knowledge
- To facilitate future QI projects by residents

Background

Quality Improvement, an important part of all organizations, has recently gained significant attention as a result of the Institute of Medicine's landmark report "To Err Is Human" in 1999; this showed between 44,000 to 98,000 patients dying each year due to medical errors. In light of this, quality improvement initiatives are on the rise and the ACGME has now encompassed QI as part of their core competencies. Currently many hospital institutions, including teaching hospitals, are attempting to align their QI goals to improve the quality of healthcare. In our institution, Orlando Regional Medical Center, we have chosen to utilize the Institute for Health Improvement Quality Improvement modules as our basic training curriculum. Prior to initiating the courses, a pre-test QI questionnaire was administered to the residents in Internal medicine (IM), Emergency medicine (EM), OB/GYN, Surgery, Orthopedics, Pediatrics and Pathology to evaluate their baseline knowledge of QI.

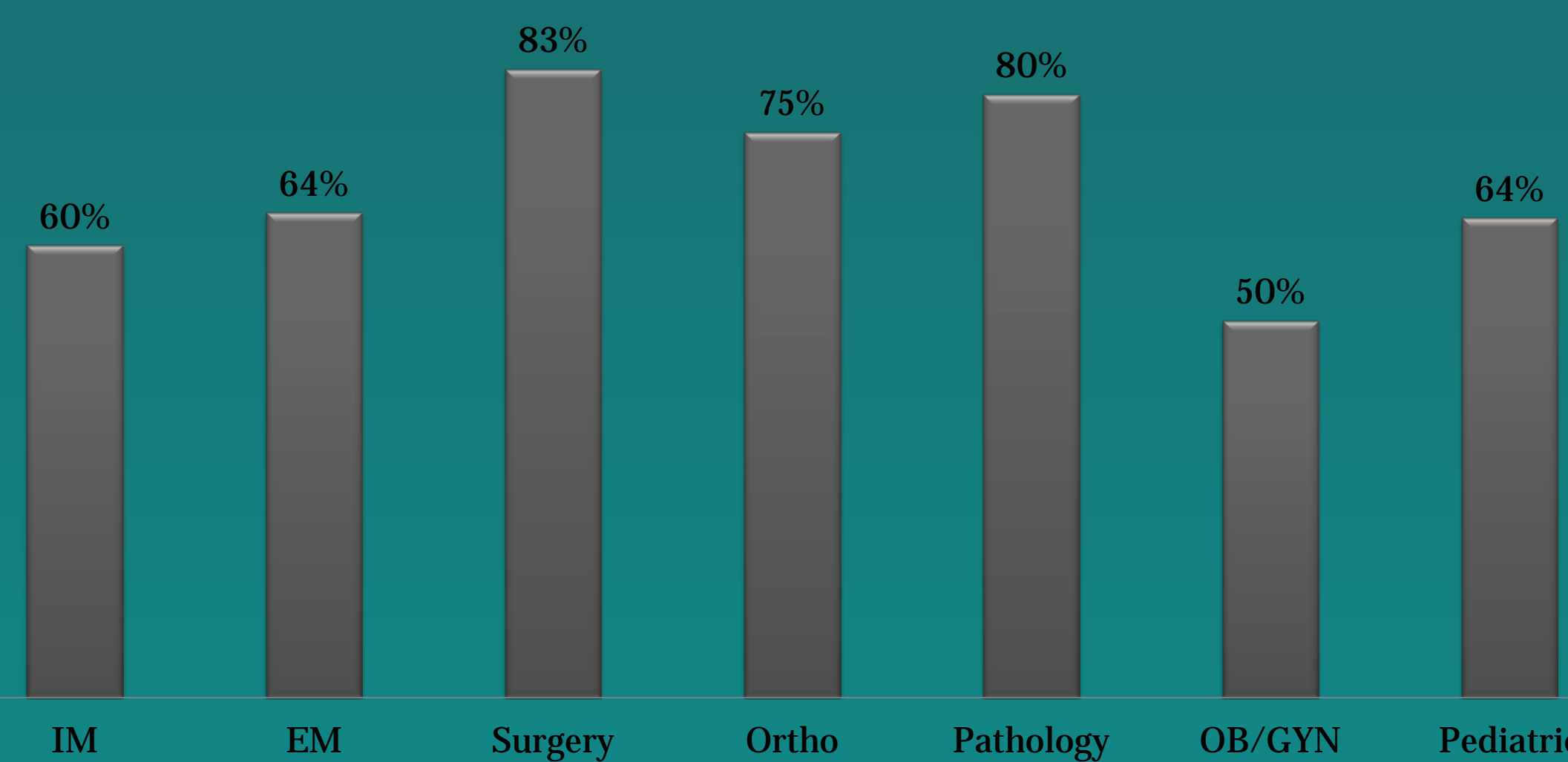
Vision Statement

- To create a Quality Improvement curriculum that is simple, yet adaptable to all residency programs at ORMC.

Material/Method

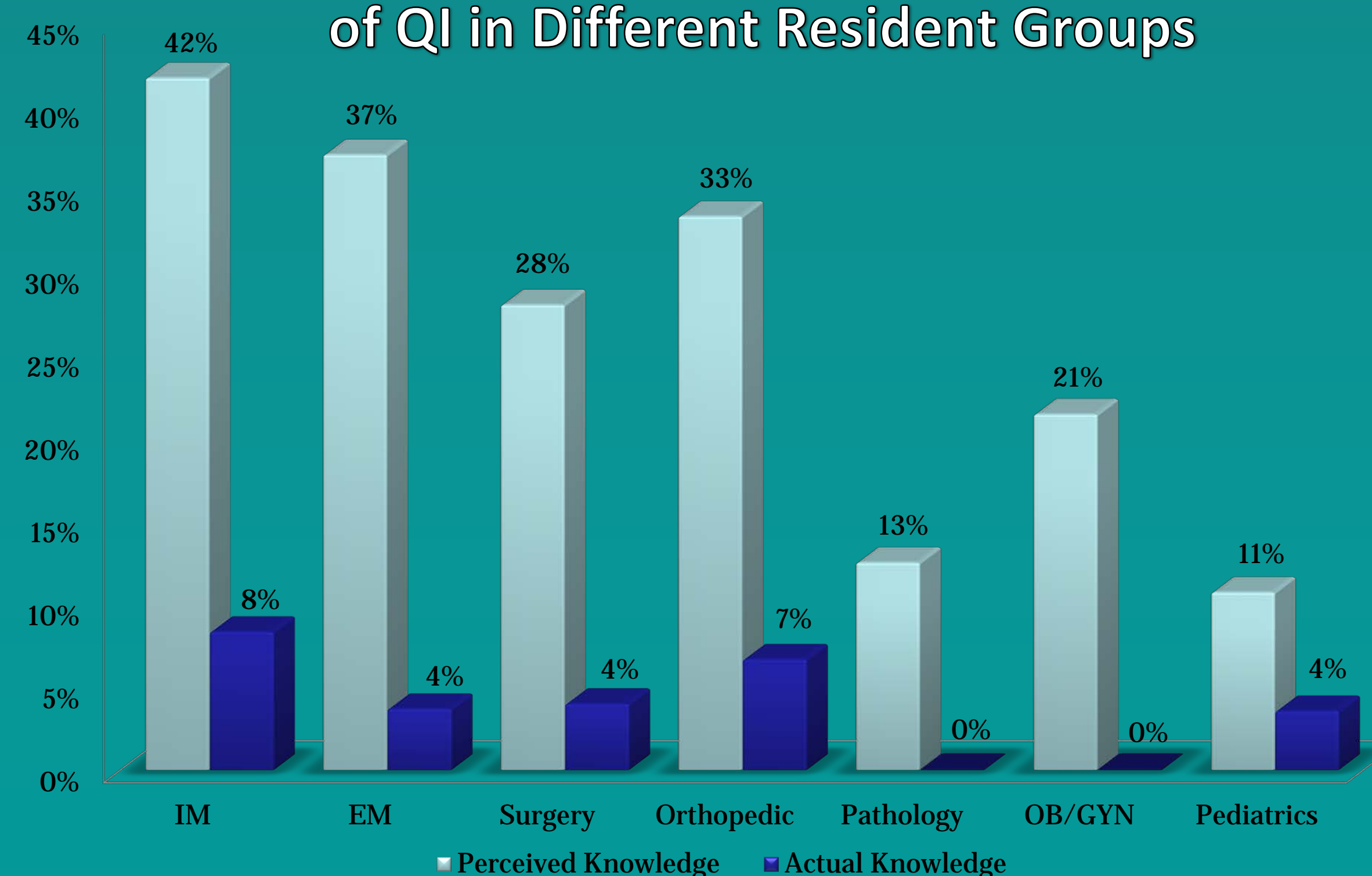
A literature survey was done and questions that were deemed relevant to the basic knowledge of QI were selected for the pre-test QI questionnaire. The pre-test questionnaire was administered to the residents in IM, EM, OB/GYN, Surgery, Orthopedics, Pediatrics and Pathology.

Percentage of Respondents per Department



Graph 1. Data displaying the percentage of respondents from each department

Comparison of Perceived to Actual Knowledge of QI in Different Resident Groups



Graph 2. Discrepancy with perceived compared to actual knowledge

Success Factors and Lessons Learned

- Greater than 50% respondents on baseline QI evaluation
- Recruited QI interest from other programs
- Challenges encountered with time management involved with the modules

Barriers Encountered

- Time management
- Different stakeholders and competing schedules
- Residents resistance to change
- Limited faculty experiences with QI curriculums

Conclusions

- There is evidence of inadequate knowledge of QI amongst residents
- QI curriculum is essential to educate and enhance not only patient care, but to meet ACGME accreditation standards

Bibliography

Institute for Healthcare Improvement. *Understanding Medical Error and Patient Safety*. Accessed on February 1, 2013 at IHI.org

National Initiative III: Final Work Plan

Team: OSF Saint Francis Medical Center and University of Illinois College of Medicine Peoria

I.	Overall Goal for NI III/Elevator Speech	<p><i>The goal of this project was to develop physician engagement in shared performance improvement/quality improvement (PI/QI) efforts with OSF Saint Francis Medical Center and the University of Illinois College of Medicine, in order to provide physicians with the knowledge and skills to perform PI/QI as part of their daily work and to teach PI/QI to the residents they serve.</i></p> <p><i>Therefore, the objectives of the project were:</i></p> <ul style="list-style-type: none"> • <i>Understand the barriers to physician engagement in PI efforts institution-wide</i> • <i>Develop a PI curriculum focused on the needs of physicians from various environments (UICOMP core faculty and residents)</i> • <i>Develop an integrated structure for guiding and monitoring PI</i> • <i>Create a system that provides decision makers with the quality data for strategic planning and decision making (from recognition of problem to project completion) through the development of an Oversight Committee</i>
II.	Needs Statement	<p><i>The need for major improvements in safety and quality in healthcare has never been greater, yet our current approaches are not keeping pace with the desired improvements for all stakeholders. The practice of medicine involves a multidisciplinary team providing care for exceedingly complex patients and processes in an aging population. PI/QI is a desired skill set for all physicians (faculty and residents). Recognition of the importance of PI/QI to physicians is evident through recent ACGME new common program requirements mandating that residents receive PI/QI education. Many currently practicing physicians lack formal education in PI/QI, yet are required to teach this curriculum to the residents they serve. An opportunity exists to engage and educate physicians and residents within OSF Saint Francis Medical Center and University of Illinois College of Medicine Peoria in shared performance improvement efforts. Our current system does not maximize the integration of physicians into its performance improvement initiatives leading to fragmented bodies pursuing individual performance improvement in specific areas.</i></p>
III.	Vision Statement	<p><i>In March of 2013, we will see the outcomes of our success by: Providing physicians with the education and structural organization and support necessary to be effective and engaged leaders of performance and quality improvement efforts within our institutions.</i></p> <p><i>Developing the framework to allow those physicians participating in the curriculum to develop sufficient skill to be able to teach residents in their programs the core PI/QI principles and apply these concepts in their daily practice.</i></p>

IV.	Measures	<p>We determined the success of meeting our goal by: <i>Measuring Participation Rates for Physician PI Overview Curriculum and Advanced Training and Project Work (Rapid Cycle Improvement) participation among core UICOMP faculty.</i></p> <p>Our pre-and post-intervention measures were:</p> <ol style="list-style-type: none"> 1. <i>Self-assessed proficiency in PI: Confidence in Current Ability to Improve Health Care Locally</i> 2. <i>Survey of Participants View on Need for PI</i> 3. <i>Participants' performance in PI: QIKAT (Quality Improvement Knowledge Application Tool)</i> 4. <i>Evaluation of Learning Objectives Met for those core faculty participating in the advanced curriculum (to be completed at the end of the project work cycle in April)</i>
V.	Success factors	<p><i>The most successful component of our work was.....</i></p> <ul style="list-style-type: none"> • <i>Communication with stakeholders at every step in curricular development and pilot process</i> • <i>Online curriculum for ease of use</i> • <i>Experiential project work with coaching for tools weekly</i> • <i>Partnership between OSF SFMC and UICOMP allowed for the development of resident PBLI curriculum as a direct result of the newly developed physician PI curriculum</i> <p><i>We were inspired by.....</i></p> <ul style="list-style-type: none"> • <i>Visible organizational (OSF SFMC and UICOMP) support throughout project</i> • <i>System-wide PI capability and experience</i> • <i>System-wide PI culture</i>
VI.	Barriers	<p><i>The largest barrier we encountered was.....</i> Time constraints for physicians <i>limited physician ability to participate in project work initially</i></p> <p><i>We worked to overcome this by.....</i> <i>Physician PI Program Manager role and hands on supportive PI Director aided smooth transition to project work for physicians</i></p>
VII.	Lessons Learned	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be.....</i></p> <ul style="list-style-type: none"> • <i>Stakeholder analysis and face to face communication at all levels from the beginning of the project and continued throughout is critical to success</i> • <i>Developing accessible and easy to use online PI core</i>

		<p><i>curriculum increases physician participation and awareness</i></p> <ul style="list-style-type: none"> • <i>Physician Rapid Cycle Improvement project work is successful when projects are tightly scoped and within the area of responsibility of the physician leading the PI effort</i> • <i>Embedding a pilot feedback loop into the curriculum in survey form allows for improvement in the curriculum in ongoing fashion</i>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <ol style="list-style-type: none"> 1. <i>Positive unintended consequences were..... Development of parallel residency PI curriculum for two of our programs with projects kicked off for 5 teams of residents led by core faculty serving as mentors</i> 2. <i>Negative unintended consequences were.... Unanticipated need to increase PI support capability quickly to meet the needs of the 5 additional projects being led by resident physicians (a good problem to have)</i>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work? We were able to spread our initiative much more broadly than I would have anticipated due to physician champions leading the way and supporting physicians’ burning platform</i></p>

XII.	<p style="text-align: center;">Next Steps</p>	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p> <p><i>Continue our current Physician PI Curriculum</i></p> <p><i>Continue our current Physician Led PI Project Work (Rapid Cycle)</i></p> <p><i>Complete the pilot for Resident PI Curriculum and Project Work (Rapid Cycle)</i></p> <p><i>Spread the Resident PI Curriculum and Project Work to other residency programs within UICOMP</i></p>
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Physician Performance Improvement Curriculum Collaboration

Julie Wohrley, MD, Tom Santoro, MD, Tim Miller, MD, Mike Cruz, MD,

Lisa Fuller, Bob Wolford, MD, Vernon Large

OSF Saint Francis Medical Center and University of Illinois, College of Medicine,
Peoria, IL



Overall Goal/Abstract

The goal of this project was to develop physician engagement in shared performance improvement/quality improvement (PI/QI) efforts with OSF Saint Francis Medical Center and the University of Illinois College of Medicine, in order to provide physicians with the knowledge and skills to perform PI/QI as part of their daily work and to teach PI/QI to the residents they serve.

We designed, piloted and evaluated a physician-oriented, PI/QI curriculum. Faculty from 11 residency programs at the University of Illinois College of Medicine at Peoria, participated in the curriculum. Forty seven of 150 faculty participated in a pre-curriculum Quality Improvement Knowledge Application Tool (borrowed with permission from Greg Ogrinc, VA Medical Center, White River Junction). At the time of this publication, 18 core faculty had participated in the newly developed PI/QI curriculum and had completed a post curriculum QIKAT Assessment. Post assessment scoring from the post test survey were not available at the time of this publication to make any determinations regarding PI/QI knowledge gained from the curriculum as the pilot is still under way. Early results indicate a recognized need for physicians to become proficient in PI/QI as part of their routine daily work. In addition, two core faculty physicians are participating in Physician Rapid Improvement (PRI) projects currently (90 day project cycle) with multidisciplinary teams, which include residents. Finally, as an outcome of the project, Internal Medicine and Med/Peds residency programs are partnering with us to develop a PBLI-based curriculum in PI/Q and the pilot is currently underway.

Background

The need for major improvements in safety and quality in healthcare have never been greater, yet our current approaches are not keeping pace with the desired improvements for all stakeholders. The practice of medicine involves a multidisciplinary team providing care for exceedingly complex patients and processes in an aging population. PI/QI is a desired skill set for all physicians (faculty and residents). Recognition of the importance of PI/QI to physicians is evident through recent ACGME new common program requirements mandating that residents receive PI/QI education. Many currently practicing physicians lack formal education in PI/QI yet are required to teach this curriculum to the residents they serve. An opportunity exists to engage and educate physicians and residents within OSF Saint Francis Medical Center and University of Illinois College of Medicine Peoria in shared performance improvement efforts. Our current system does not maximize the integration of physicians into its performance improvement initiatives leading to fragmented bodies pursuing individual performance improvement in specific areas.

Therefore, *the objectives of the project were:*

- Understand the barriers to physician engagement in PI efforts institution-wide
- Develop a PI curriculum focused on the needs of physicians from various environments (UICOMP core faculty and residents)
- Develop an integrated structure for guiding and monitoring PI
- Create a system that provides decision makers with the quality data for strategic planning and decision making (from recognition of problem to project completion) through the development of an Oversight Committee

Vision Statement

The vision for this project was to provide physicians with the education and structural organization and support necessary to be effective and engaged leaders of performance and quality improvement efforts within our institutions.

We envisioned developing the framework to allow those physicians participating in the curriculum, to develop sufficient skill to be able to teach residents in their programs the core PI/QI principles and apply these concepts in daily practice.

Materials/Methods

Stakeholder Analysis and Communication Plan: Over a 12-month period, all core faculty from UICOMP's 11 residency programs received face to face communication regarding the need for a physician specific PI/QI curriculum and their role in teaching this curriculum to residents. A communication plan was developed and implemented

Curriculum Development: Consisted of two parts: a *core curriculum* and an *advanced curriculum* to support physician led project work. The curriculum was piloted by 18 core faculty from UICOMP (at the time of this publication). The advanced curriculum is being piloted by two core faculty from UICOMP participating in project work at the time of this publication. The physician PI core curriculum was delivered utilizing an online format. The objective of the core curriculum was to develop general competency in core tenets of PI/QI (understand the model for improvement using FOCUS PDCA methodology).

Development of Physician Rapid Improvement Model for Project Work: An advanced curriculum was developed utilizing FOCUS PDCA methodology and tools in order to support project work developed as a result of a gap analysis in the participating areas. This project work is expected to last for 90 day cycles for each project. Residents from the two programs are participating on the project teams and the weekly coaching using the hands on tools and just in time training and curriculum based on FOCUS PDCA (Find, Organize, Clarify, Understand, Select, Plan, Do, Check, Act).

Gap Analysis: A gap analysis was performed in the two participating residency program areas and charters were created (MICU Continuity of Care and Error Reporting in the Family Medical Center).

Development of Physician PI/QI Portal: An online physician portal housed all the curricular content, tools and templates as well as housed the project work sites.

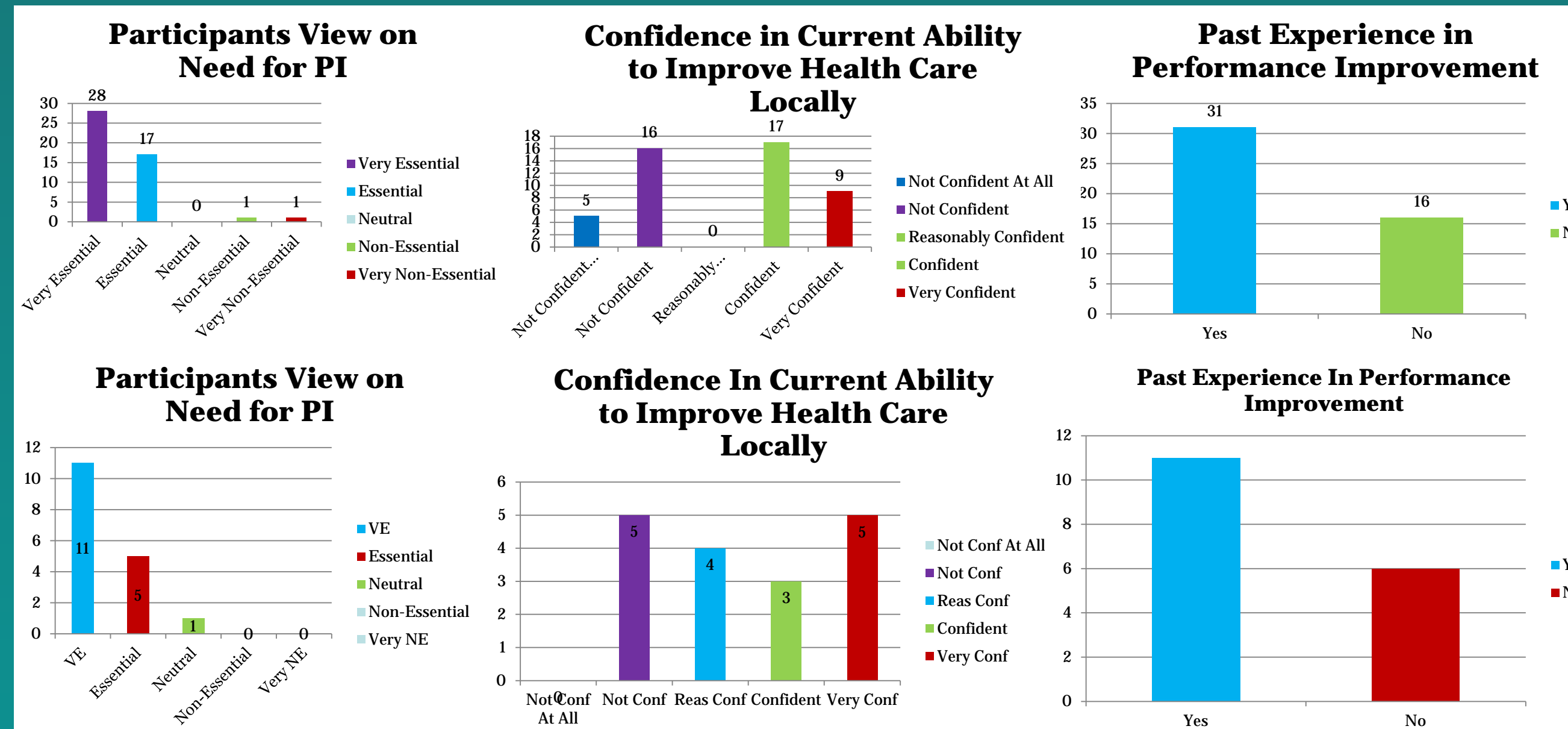
Physician PI Oversight Committee: Was established to support the deployment of the Physician Rapid Improvement project work. This guides PI work, establish accountability, developing an integrated structure to support curricular development and a reporting structure for project work.

Resident PI/QI Curriculum: A PBLI-based PI/QI curriculum was developed and a pilot begun

Evaluation of the Curriculum: The curriculum was evaluated based on participation rates of core faculty pre and post curriculum delivery, core learning, self assessed proficiency in PI/QI and physician time involvement.

Evaluation of the Resident Curriculum: A tool is currently under development to assess resident core learning and self assessed PI proficiency

Results: Pre/Post Curriculum



Success Factors and Lessons Learned(Discussion)

Success Factors:
 Visible organizational (OSF SFMC and UICOMP) support throughout project
 System-wide PI capability and experience
 System-wide PI culture

What Worked Well:
 Communication with stakeholders at every step in curricular development and pilot process
 Online curriculum for ease of use
 Experiential project work with coaching for tools weekly
 Partnership between OSF SFMC and UICOMP allowed for the development of resident PBLI curriculum as a direct result of the newly developed physician PI curriculum. The same curriculum with some modifications was utilized for the resident curriculum and project work (5 projects currently being chartered)

Barriers Encountered/Limitations-

Opportunities: Time constraints for physicians limited physician ability to participate in project work initially; Physician PI Program Manager role and hands on supportive PI Director aided smooth transition to project work for physicians

Conclusions

1. Stakeholder analysis and face to face communication at all levels from OSF SFMC and UICOMP is critical to success
2. Developing accessible and easy to use online PI core curriculum increases physician participation
3. Physician Rapid Improvement project work is successful when tightly scoped and within the area of responsibility of the physician leading the PI effort
4. Using the pilot feedback to improve core curriculum is an ongoing effort to continue to increase the quality of our physician PI/QI curriculum

Bibliography

1. Can evidence-based medicine and clinical quality improvement learn from each other? *BMJ Qual Saf* 2011;20(Suppl 1):i13e17. doi:10.1136/bmjqs.2010.046524
2. Crossing the Quality Chasm: A New Health System for the 21st Century (Free Executive Summary)
3. <http://www.nap.edu/catalog/110027.html>
4. Quality improvement in medical education: current state and future directions. *Medical Education* 2012; 46: 107-119
5. To Err is Human: Building a Safer Health System: Institute of Medicine 1999
6. Transforming Graduate Medical Education to Improve Health Care Value. *NEJM* 2011; 364:8 : 693-695
7. Teaching and Assessing Resident Competence in Practice-Based Learning and Improvement. *J Gen Intern Med* 2004; 19: 496-500.

Special thanks to Greg Ogrinc for use of QUIKAT Survey and training.

National Initiative III: Final Work Plan

Team: Reading Health System

I.	Overall Goal for NI III/Elevator Speech	<p><i>Our team’s goal for National Initiative III was..... To create a train-the-trainer model in which residents receive additional training in QI and then teach that material to ambulatory offices at Reading Health Physician Network..</i></p>
II.	Needs Statement	<p><i>This goal was important because.....</i></p> <ol style="list-style-type: none"> <i>1. Residents need QI training to be successful in future practice.</i> <i>2. Residents learn leadership skills</i> <i>3. Many physicians in the Reading Health Physician Network never received training in QI and no mechanism exists within the group for support of QI learning.</i> <i>4. QI leads to better patient care.</i>
III.	Vision Statement	<p><i>In March of 2013, we will see the outcomes of our success by..... Integrating the project into our first office.</i></p>
IV.	Measures	<p>Educational Assessment <u>Qualitative Study</u> – “A Case Study Analysis of the Train - the –Trainer Model for Medical Residents” to examine the feasibility and efficacy of our train-the-trainer program, as an educational method for residents</p> <p>Project Assessment <u>Participant Survey</u>- Pre- and Post- intervention survey abstracted from the AIAMC NI III pre- and post-survey document to assess their understanding of QI/PI. <u>Process/Outcomes Measures</u>- Specific to projects selected by the offices.</p>
V.	Success factors	<p><i>We were inspired by.....</i> Enthusiasm if the residents to develop the QI project.</p>

VI.	Barriers	<ol style="list-style-type: none"> 1. Getting “Buy In” from administration, physicians and office staff-addressed by multiple meetings, CME credit, meals provided. 2. Time-resident availability was limited secondary to other commitments-addressed by utilizing resident admin time for QI meetings. 3. Implementation of a new HER within the Reading Health System.
VII.	Lessons Learned	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be.....</i></p> <p>You will go nowhere unless the stakeholders are part of the development process and see this as part of their lives, not an “add on”.</p>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <ol style="list-style-type: none"> 1. <i>Positive unintended consequences were.....an excess of meetings turned into a bonding experience.</i> 2. <i>Negative unintended consequences were....an excess of meetings leading to delays in rollout.</i>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <p>None...yet.</p>

XII.	Next Steps	<i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i> <i>Rollout to first office.</i>
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Overall Goal/Abstract

Creation of a ‘train the trainer’ model for residents to disseminate principles of process improvement to hospital-employed primary care practices

Vision Statement

- Residents will lead in the transition of primary care practices to become Process Improvement focused
- Residents will develop leadership skills in PI education and implementation
- Dissemination of training by residents will support a sustainable PI culture and better care for the patients of RHS

Metrics

Educational Assessment

- Qualitative study - ‘A Case Study Analysis of the Train-the-Trainer Model for Medical Residents ‘ to examine the feasibility and efficacy of our ‘train the trainer’ program, as an educational method for residents

Project Assessment

- Participant Survey - Pre- and post-intervention survey abstracted from the AIAMC NI III pre- and post -survey document to assess their understanding of process improvement
- Process/Outcomes Measures – Specific to project selected by trainees

Background

- With a rapidly changing healthcare environment , the need arises for a systematic effort to ensure quality health care services, educate and train clinicians, and assess and improve outcomes
- Skills in Process Improvement (PI) are critical to bring about effective change and improve clinical practice
- Our Internal medicine residency program has been recognized by the parent organization as an important contributor to PI programs within the institution
- The residency program has had a six year experience with year-long didactic series in Process Improvement
- As part of this curriculum, residents work in multi-disciplinary teams on selected projects
- A shared visioning process established with graduate medical education and hospital administration supports the spread of education in PI across the institution
- By adopting a train-the-trainer model residents can teach the skills they have learned in process improvement to other physicians and staff
- The ‘train-the-trainer’ model is a cost effective method of harnessing available resources to provide education across the institution

Methods

- Development of a “Train the trainer” supplementary curriculum for primary care track residents in leadership and education
- Creation of QI curriculum for physicians and staff at the ambulatory offices
- Training of physicians and staff in 5 one-hour sessions at the offices
- Project selection and implementation by physicians and staff utilizing the skills provided
- Provision of on-going support by residents throughout the project
- Data analysis by the quality improvement department of the hospital
- Report to Hospital leadership

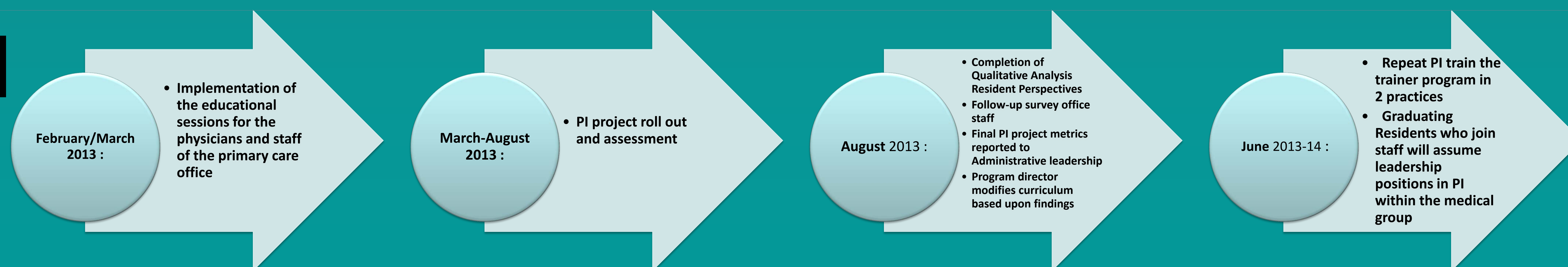
Barriers Encountered/Limitations

- Getting “buy in” from administration, physicians and office staff
- Resident availability for the project was limited by other responsibilities and scheduling conflicts

Bibliography

- Continuous Quality Improvement in Primary Care: What's Happening? Leif I. Solberg et al Medical Care Vol. 36, No. 5 (May, 1998), pp. 625-635
- A practice change model for quality improvement in primary care practice Cohen D, McDaniel RR Jr et al Journal of Healthcare Management / American College of Healthcare Executives [2004, 49(3):155-68
- The Urgent Need to Improve Health Care Quality Mark R. Chassin et al JAMA. 1998;280(11):1000-1005
- Interprofessional Education: Results Of An Effort To Integrate Quality And Safety Into Medical And Nursing School Curricula And Foster Joint Learning Linda Ann Headrick et al Health Aff December 2012 31:122669-2680

Next steps



National Initiative III: Final Work Plan

Team: Riverside Methodist Hospital

I.	Overall Goal for NI III/Elevator Speech	<i>Our team’s goal for National Initiative III was to implement a sustainable curriculum that would better characterize and monitor stress recognition and resident burnout while also improving resilience and safety culture in graduate medical education.</i>
II.	Needs Statement	<i>This goal was important because a disparity was seen in safety culture and stress recognition between residency programs.</i>
III.	Vision Statement	<i>In March of 2013, we will see the outcomes of our success by improved scores on the Safety Attitudes Questionnaire and Burnout Survey; resident engagement in quality and safety curriculum.</i>
IV.	Measures	<i>We determined the success of meeting our goal by measuring resident burnout, and measuring attitudes pertaining to safety culture and stress recognition related to patient care.</i>
V.	Success factors	<i>The most successful component of our work was the interdisciplinary conferences We were inspired by Dr. Bryan Sexton and the Duke Patient Safety Center.</i>
VI.	Barriers	<i>The largest barrier we encountered was buy-in from program directors to allow changes to curriculum and to give up precious protected time of the residents. We worked to overcome this by approaching the curriculum in multiple ways – “tweaking” existing curriculum, changing the focus of some M&M conferences, starting slow, and allowing for introductory periods to “prove” the worth.</i>

VII.	Lessons Learned	<i>The single most important piece of advice to provide another team embarking on a similar initiative would be to have enough people on your team! Believe in your vision!</i>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p><i>1. Positive unintended consequences were spillover projects in other residency programs in our health system.</i></p> <p><i>2. Negative unintended consequences were more recognition for our mission, meant more work for the already small team! Not enough time to fully develop and finish the initial project.</i></p>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work? System wide changes to Morbidity and Mortality Conferences, CME being offered to attending physicians for attending quality improvement and safety lectures. A gradual but palpable shift in the safety culture.</i></p>
XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made. Our curriculum changes were made to 3 out of 4 of our programs, we will approach the 4th in the new academic year. We will continue to monitor burnout on an annual basis, and revise the curriculum as needed. Continue to adapt and develop the new standard for Morbidity and Mortality Conferences, as well as introduce new resilience conferences.</i></p>

Monitoring Resident Burnout While Building Resilience In A Multidisciplinary Community Hospital

Andrew Rhinehart MD, Laurie Hommema MD, Jim Schmidt LISW
Riverside Methodist Hospital in Columbus, OH

Goals

- To develop a method for measuring resident burnout
- To design a curriculum to improve resident burnout and safety culture
- To implement the curriculum in four residency programs
- To monitor the efficacy of the new curriculum

Background

- 2010 Safety Attitudes Questionnaire showed a disparity in safety culture and stress recognition between our residency programs
- Demanding work hours, high amounts of debt from medical education, emotional exhaustion, and decreased sense of control in residency cultivate resident burnout.
- Resident burnout and stress recognition negatively impacts patient safety and quality improvement

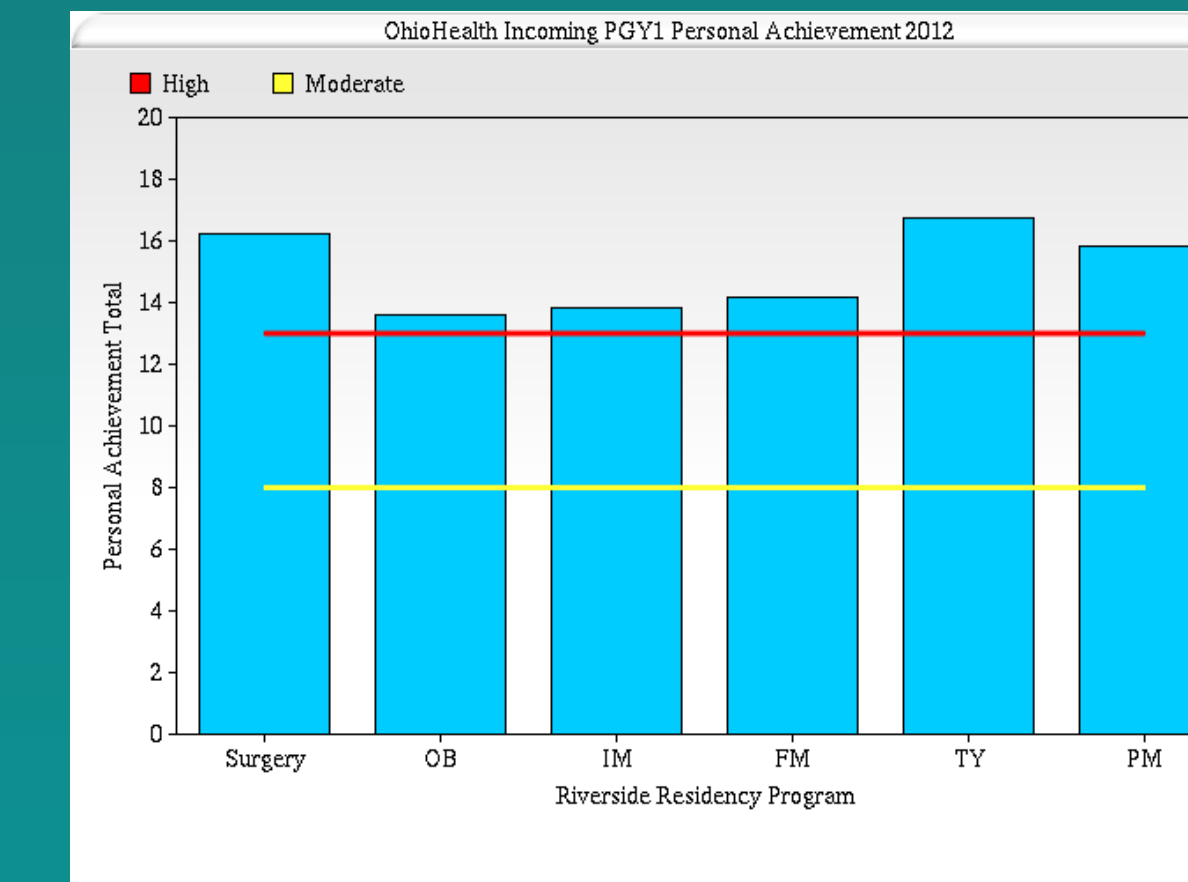
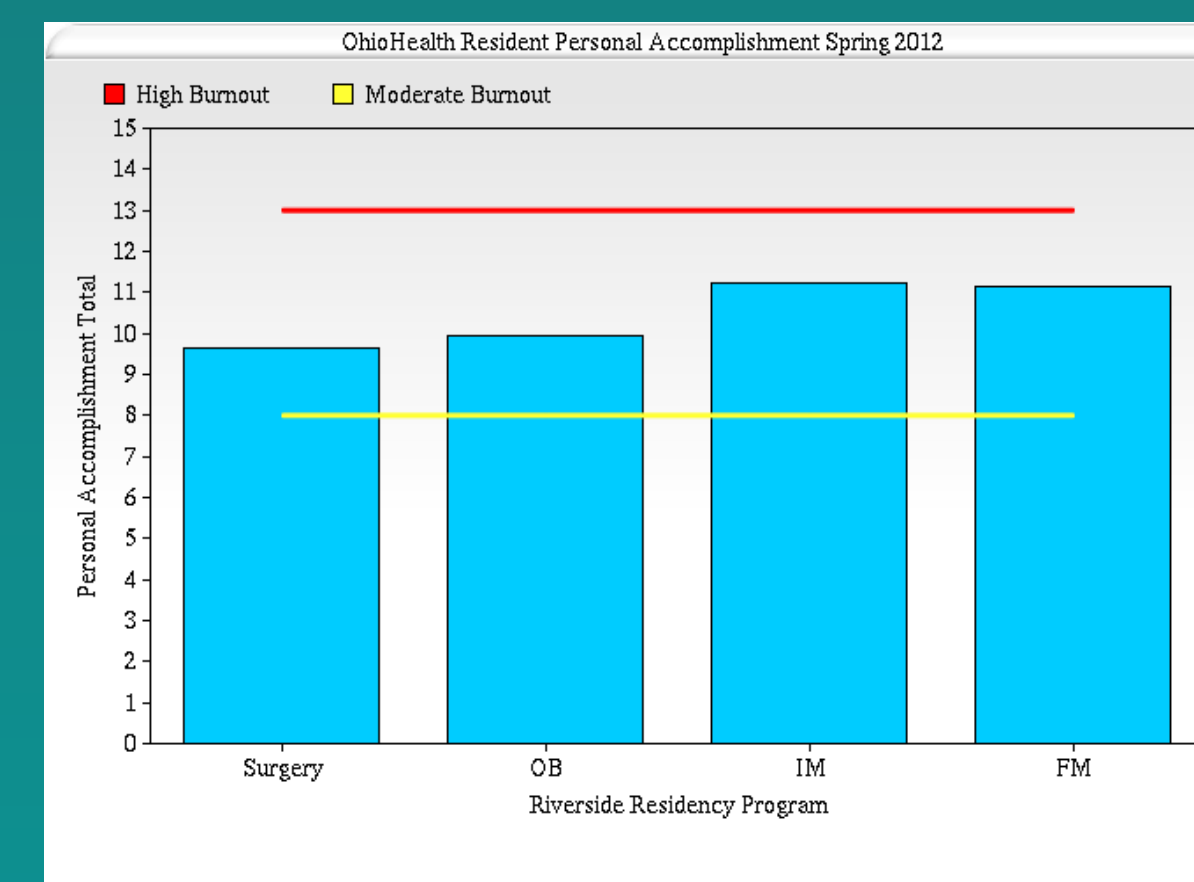
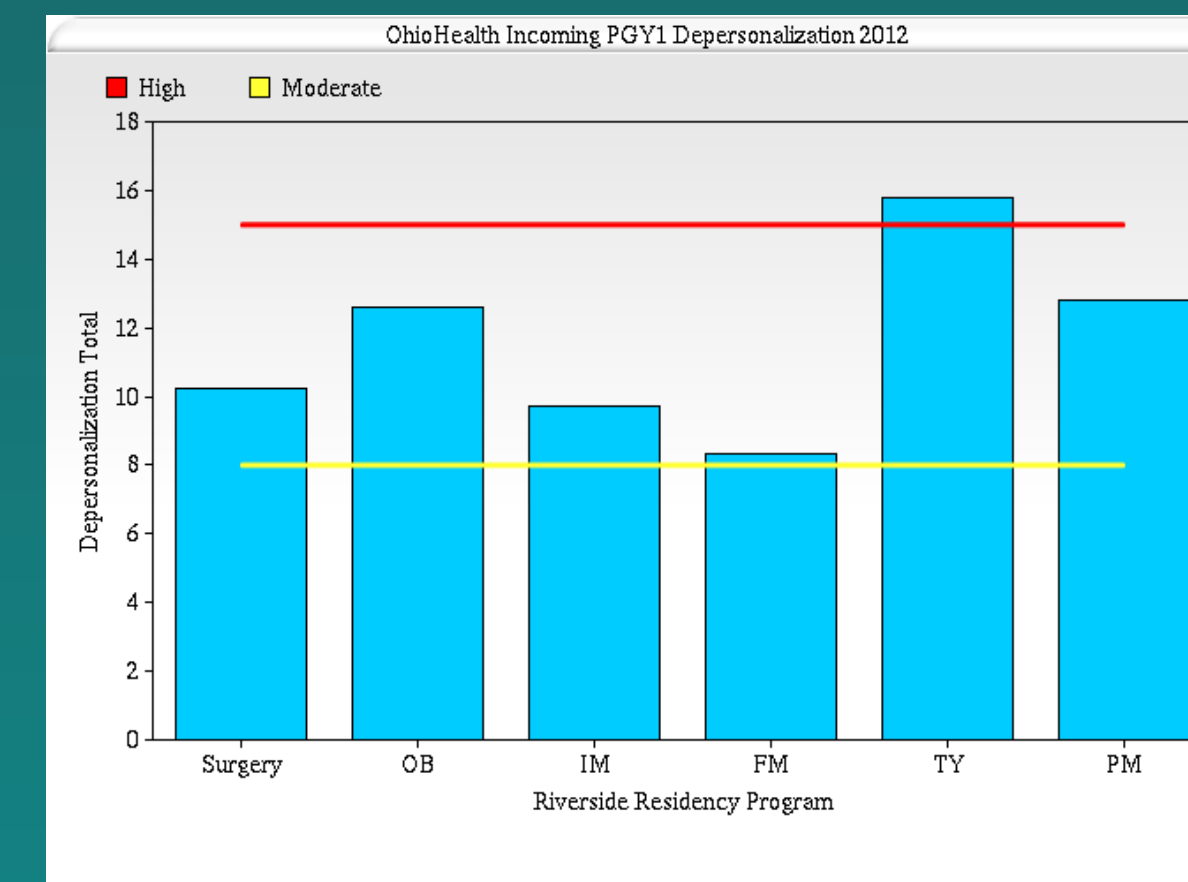
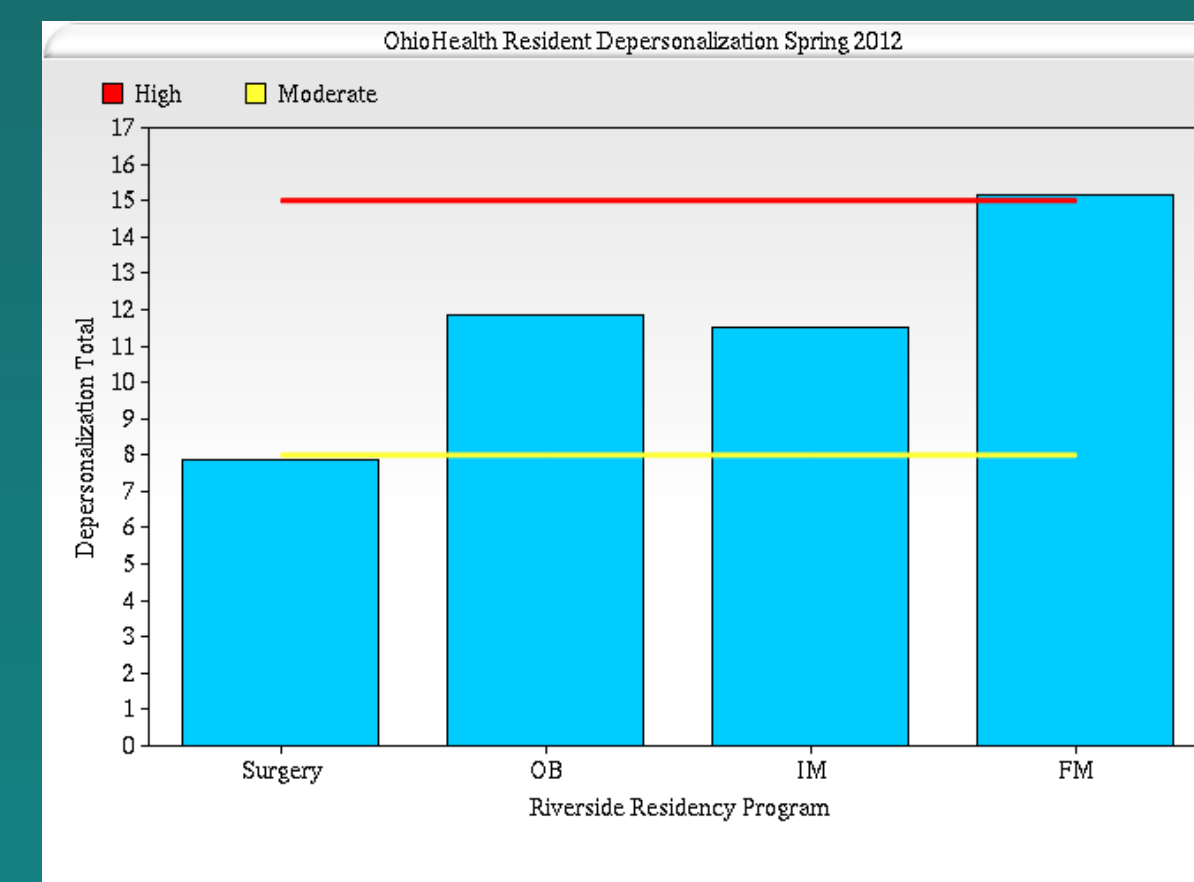
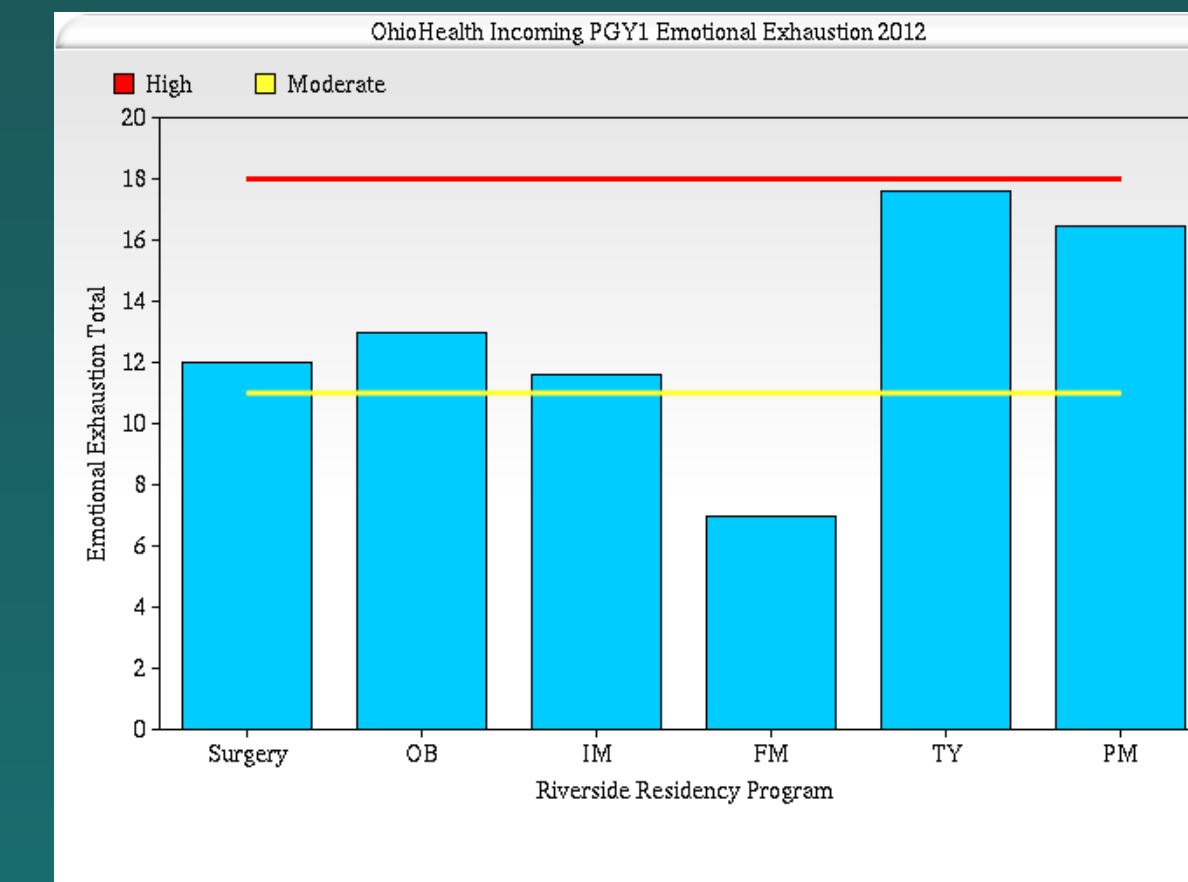
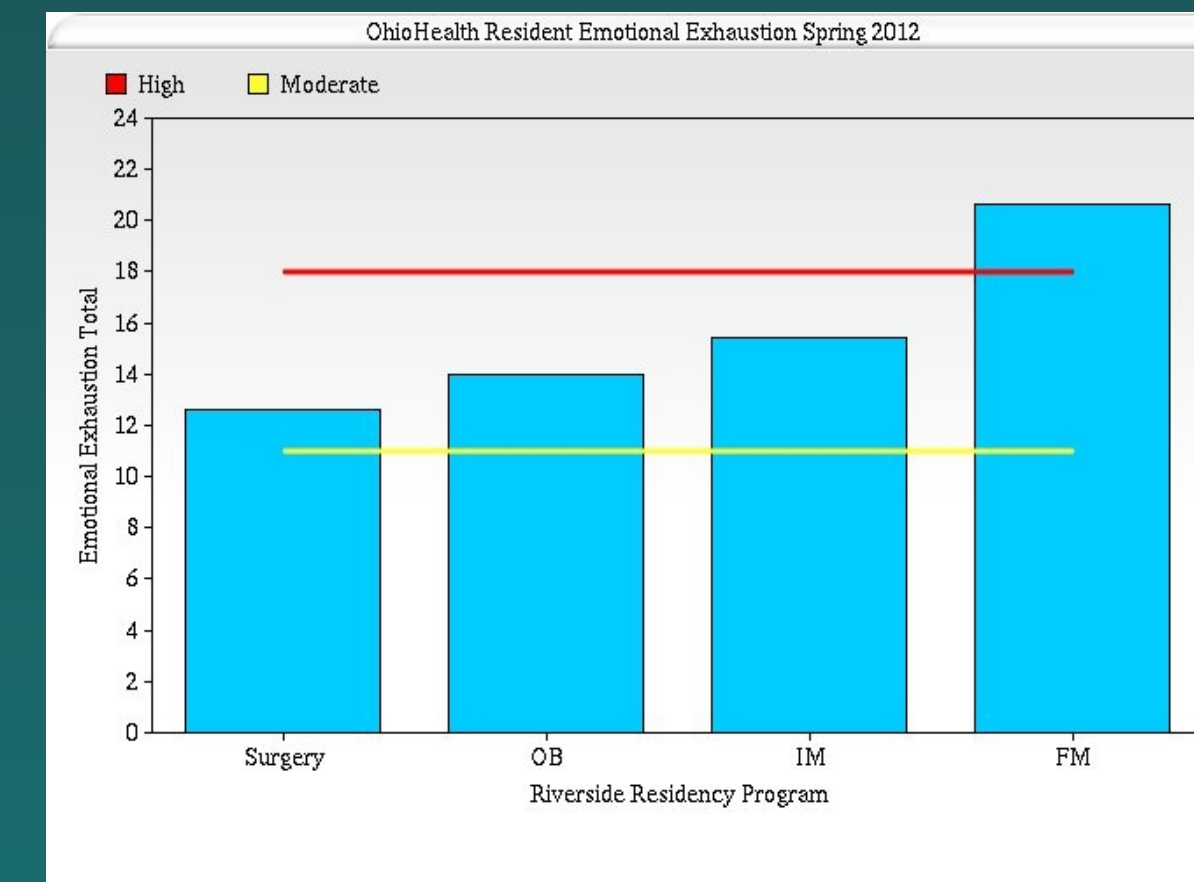
Vision Statement

To implement a sustainable curriculum that will better characterize and monitor stress recognition and resident burnout; while also improving resilience and safety culture in graduate medical education.

Materials/Methods

- Developed and distributed burnout survey to residents of all programs and incoming interns annually
- Performed a curricular needs assessment for each residency program
- Introduced a monthly interdisciplinary conference
- Individualized and implemented resilience and safety curriculum based on needs assessment for each residency program

Results



Barriers

- Buy-in from program directors and residents
- Engagement by residents in curriculum
- Scheduling of protected time
- Sustainability
- Man Power

Conclusions

- Residents in all specialties exhibit moderate to high amounts of burnout
- Burnout was evident even in incoming interns
- Burnout is directly related to patient safety and it is essential that residents receive training in resilience
- Survey results after intervention are pending

Success Factors and Lessons Learned

Success Factors

- Initial data showed need for change which reinforced buy-in
- Small groups well received and started culture change
- Interdisciplinary conferences were well attended and supported

Lessons Learned

- Reducing burnout and building resilience requires a change in culture, which is a slow process

Bibliography

- Maslach C., Jackson S. W., Leiter M. P. Maslach Burnout Inventory. 3rd ed. Mountainview, CA: Consulting Psychologists Press; 1996.
- Thomas NK. Resident Burnout. JAMA. 2004;292(23):2880-2889
- McCray L. W., Cronholm P. F., Bogner H. R. Resident physician burnout: is there hope? Fam Med. 2008;40:626-632.
- Sexton, Bryan. Duke Patient Safety Center

National Initiative III: Final Work Plan

Team: Saint Francis Hospital and Medical Center

I.	Overall Goal for NI III/Elevator Speech	<p><i>Our team's goal for National Initiative III was.....</i> To create a health care delivery science curriculum at Saint Francis that incorporates Quality Improvement / Process Improvement, Research, and Communication.</p>
II.	Needs Statement	<p><i>This goal was important because.....</i> Residents need a foundation for future practice. Faculty need to become more familiar with these concepts and skills. ACGME requires integration of quality and process improvement into residency programs – this emphasis will be highlighted via CLER.</p>
III.	Vision Statement	<p><i>In March of 2013, we will see the outcomes of our success by.....</i> Residents and faculty will have more confidence in their ability to conduct and/or oversee Quality Improvement / Performance Improvement projects.</p> <p>Residents and faculty will have more confidence in their ability to conduct and/or oversee research projects.</p> <p>Residents will have enhanced ability to accomplish essential communication tasks during clinical encounters (with patients and healthcare teams).</p>
IV.	Measures	<p><i>We determined the success of meeting our goal by measuring.....</i></p> <p>Completion of the first iteration of the resident curriculum, with distribution of all slide decks to faculty.</p> <p>Completion of a quality improvement / process improvement project by PGY2 residents.</p> <p>Completion of research projects by PGY3 and PGY4 residents.</p> <p><i>Our pre-and post-intervention measures were.....</i></p> <p>Survey of residents and faculty re: quality improvement / performance improvement knowledge and skills.</p> <p>Communication Assessment Tool – systematic feedback to residents on patient perspectives.</p> <p>We are comparing key markers of scholarly activity within our resident staff (i.e., number of residents engaged in active research, progress, grants, presentations, publications) for the 2 years prior to implementing the formalized curriculum, compared to both the first year and second years after implementation. To date, we can assess only progress and grants.</p>

V.	Success factors	<p><i>The most successful component of our work was.....</i></p> <p>Working together to develop the curriculum (Dr. Crowell, Dr. Makoul, Dr. Roland, Dr. Shlansky, with support from Ashley Negrini, Beth Grieg, Dottie Wakefield, and Lauren Tiberio).</p> <p><i>We were inspired by.....</i></p> <p>The residents' ability to engage in the process when given appropriate guidance.</p>
VI.	Barriers	<p><i>The largest barrier we encountered was.....</i></p> <p>As we have not done this before, the need to provide the entire curriculum to all PGY2, PGY3, and PGY4 residents somewhat dilutes the discussion.</p> <p><i>We worked to overcome this by.....</i></p> <p>Next year, we plan to offer the communication component to PGY1s, Quality Improvement / Process Improvement component to PGY2s, Research component to PGY3s, and develop a Leadership component for PGY4s.</p> <p>This will require more faculty involvement, particularly Drs. Riley, Rodis, and Wolf. We plan to debrief with faculty to engage them in the process, and will incorporate both resident and faculty feedback before beginning the next curricular cycle.</p>
VII.	Lessons Learned	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be.....</i></p> <p>Engage a broad group of faculty early on, but be sure there is a core group to take responsibility for moving ahead. On a related note, you cannot do this well without a strong coordinator (Ashley).</p>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p><i>1. Positive unintended consequences were.....</i> Faculty took an interest in this aspect of training.</p> <p><i>2. Negative unintended consequences were.....</i> We focused more on the resident curriculum than on faculty development re: health care delivery science during this first iteration. Next year, will involve more faculty.</p>

IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p>1 2 3 4 5 6 7 8 <u>9</u> 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p>1 2 3 4 5 6 7 <u>8</u> 9 10</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <p>More coherence. A different level of resident-faculty interaction. Better integration of GME and Quality.</p>
XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p> <p>Splitting topics by PGY cohorts next year. Involving more faculty.</p>

Overall Goal/Abstract

To improve the quality and quantity of research initiatives within our department of Obstetrics and Gynecology. We are comparing key markers of scholarly activity within our resident staff (i.e., number of residents engaged in active research, progress, grants, presentations, publications) for the 2 years prior to implementing the formalized curriculum, compared to both the first year and second years after implementation.

Background

Prompted by participation in the Alliance of Independent Academic Medical Centers (AIAMC) National Initiative III, the Department of Obstetrics and Gynecology (ObGyn) at Saint Francis Hospital and Medical Center instituted a health care delivery science curriculum in the 2012-2013 academic year, with a focus on quality improvement (QI) and research.

Vision Statement

Increase productivity in our scholarly activity from both faculty and resident staff.

Materials/Methods

Our curriculum consists of 20 hours of protected resident time during the academic year. Curricular time is divided into lectures and work sessions. Major lecture topics include: Fundamentals of health care delivery science, Principles of QI, Research design and statistical analysis; Teamwork and communication. In both lecture time and work sessions, residents are guided through the logistics of project coordination by our quality improvement and research staff. While our lecture format is attended by PGY2-PGY4 residents, the 15-minute work sessions at the end of most lectures focused on different areas for each year of residency.

The focus of work sessions for PGY3s and PGY4s has been to complete, present, and publish an *individual* research project. Using templates with timelines for completion of each major step, residents' progress was tracked by an advisor. The goal for PGY4s is to orally present their project at our department research day in March; PGY3s are expected to present posters of their research. The focus of the work sessions for PGY2s is develop, design, and complete a *team* QI project. This is a collaborative project amongst PGY2s which will also be presented in March at our department resident research day.

Results

(data gathered both quantitative & qualitative)

	Independent Research Projects	Grants obtained	Papers submitted	Papers published
Before AIAMC N13	75% (8/12)	0	TBD	TBD
After AIAMC N13	91% (11/12)	3	TBD	TBD

Table -1

Success Factors and Lessons Learned(Discussion)

Teamwork and administrative support helped to facilitate this project.

Barriers Encountered/Limitations

- Time
- Resident staff skepticism
- Organizational challenges

Conclusions

To date, we can assess only progress and grants.

National Initiative III: Final Work Plan

Team: Scott & White Memorial Hospital of Scott & White Healthcare

I.	Overall Goal for NI III/Elevator Speech	<i>The goal is to develop a sustainable House-staff directed and led Quality and Patient Safety Educational Model which jointly serves to improve knowledge and delivery of evidence-based-care and best practices to affect improved patient outcomes.</i>
II.	Needs Statement	<i>This goal was important because we want to improve patient care, safety, and outcomes and enhance house staff engagement in quality.</i>
III.	Vision Statement	<p><i>In March of 2013, we will see the outcomes of our success by</i></p> <ol style="list-style-type: none"> <i>1. Improving the culture of education and professional development in quality improvement and patient safety, and</i> <i>2. Achieving benchmarks for key measures associated with quality improvement projects.</i> <p>House Staff Quality Council - Mission <i>To improve patient care and safety at Scott & White Memorial Hospital by engaging the house staff in quality improvement.</i></p> <p>House Staff Quality Council - Vision <i>Scott & White Memorial Hospital house staff will provide the highest quality patient care and eliminate avoidable patient harm.</i></p>
IV.	Measures	<i>We determined the success of meeting our goal by measuring the extent of implementation of the House Staff Quality Council.</i>
V.	Success factors	<ul style="list-style-type: none"> <i>• Interested self-motivated residents</i> <i>• Multidisciplinary team work</i> <i>• Publicly recognize early success</i> <i>• Mentorship from Faculty Advisors, Lean and Quality Coaches and Staff</i> <i>• Support and Involvement from numerous hospital leaders, including Chief Academic Officer, Chief Quality Officer and Chief Medical Officer</i>
VI.	Barriers	<i>The largest barrier we encountered was time limitations. We worked to overcome this by regular bi-weekly meetings for the first 3 months followed by monthly meetings. We are also requesting house staff protected time from Program Directors as part of the sustainability plans.</i>

VII.	Lessons Learned	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be to</i></p> <ol style="list-style-type: none"> <i>1. Protect residents' and fellows' time for participating on a house staff quality council,</i> <i>2. Develop a strategy for prioritizing potential quality improvement, and</i> <i>3. Provide education and training on QI tools and techniques early in the council process.</i>
VIII.	Unintended Consequences	<ol style="list-style-type: none"> <i>1. Positive unintended consequences included significant interest in subsequent year councils and extensive support from executive hospital leadership.</i> <i>2. Negative unintended consequences were not experienced. The consequences have been very positive.</i>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with "1" meaning nothing and "10" meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with "1" meaning not at all satisfied and "10" meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
XI.	Project Impact	<ul style="list-style-type: none"> <i>• The HSQC has been successful in initiating quality improvement projects that are pertinent to the house staff and uniquely aligned with hospital quality goals.</i> <i>• House staff can be key personnel in defining quality and patient safety issues, as they are the ones providing front-line daily care to patients.</i> <i>• House staff is motivated to be involved in a hospital-wide council that is significantly supported by leadership throughout the hospital.</i>
XII.	Next Steps	<p><i>We are expanding the House Staff Quality Council and strengthening the council relationship with the hospital quality department.</i></p>

The Results of a House Staff Quality Council (HSQC) in its Inaugural Year



Dixon JL, Swendsen CS, Best A, Brackman M, Campbell J, Collins J, Hovland S, Knabe J, Morelli J, Morris A, Rodriguez-Collado W, Stagg H, Berry T, Erwin JP 3rd, McAllister RK, Papaconstantinou HT, Wehbe-Janeck H.



Scott & White Healthcare and Texas A&M Health Science Center College of Medicine, Temple Texas

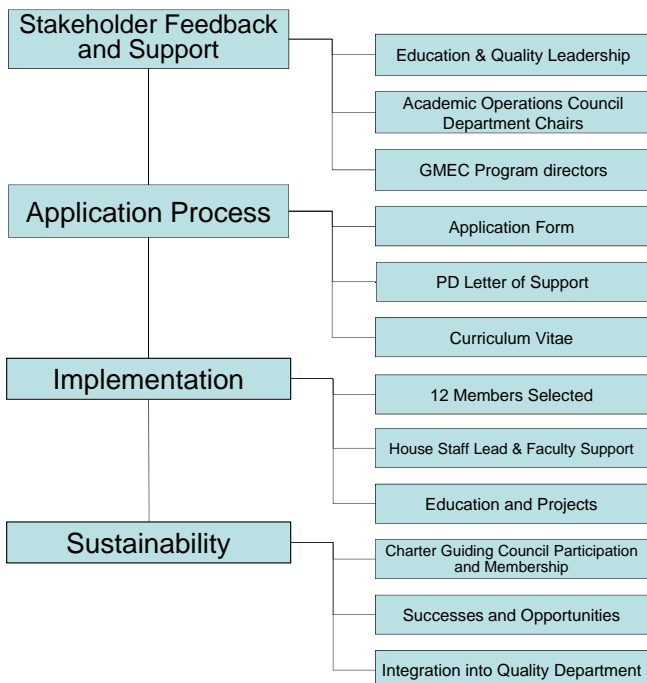
Overall Goal

The goal is to develop a sustainable House-staff directed and led Quality and Patient Safety Educational Model which jointly serves to improve knowledge and delivery of evidence-based-care and best practices to affect improved patient outcomes

Setting

Scott & White Memorial Hospital is a 635 bed tertiary with 35 ACGME and 17 non-ACGME Residency & Fellowship Programs and 450 House Staff on campus. SWMH is affiliated with Texas A&M Health Science Center College of Medicine.

Development & Sustainability



Mission, Vision, Council Charter

Mission

To improve patient care and safety at Scott & White Memorial Hospital by engaging the house staff in quality improvement.

Vision

Scott & White Memorial Hospital house staff will provide the highest quality patient care and eliminate avoidable patient harm.

SCOTT & WHITE Healthcare Committee Charter: House Staff Quality Council (HSQC), 2012-2017	
Purpose	The purpose of the House Staff Quality Council is to engage house staff in quality improvement and patient safety activities.
Customer Expected	<ul style="list-style-type: none"> Participation in quality improvement projects pertinent to the house staff of Scott and White Memorial Hospital. Allow house staff to be instrumental in care delivered to patients in the community. Increase awareness and provide education to the house staff on quality outcomes and opportunities.
Scope	Scott and White Memorial Hospital and immediately affiliated sites of QM activity.
Key Responsibilities and Functions	<ul style="list-style-type: none"> Provide representatives to the Scott and White physician quality council and QM on issues of quality related to house staff. Develop areas of need of quality improvement relating to house staff issues. Give recommendations or plans for quality improvement in those areas and present to hospital leadership.
Time Frame for Completion	Ongoing.
Decision Making Authority	HSQC will conduct monthly meetings. Decisions will be made by a majority of the group majority and non-voted of the faculty member group.
Council Members	Alexander Dixon, MD, General Surgery, Chair Scott Swendsen, MD, Internal Medicine, Vice Chair Anna Best, M.D., Pathology Jason Brackman, MD, Family Medicine Jason Campbell, MD, Anesthesiology James Collins, M.D., Plastic Surgery Sarah Hovland, M.D., MPH, Family Medicine Jeffrey Knabe, M.D., Orthopedic Surgery John Morelli, M.D., Radiology Andrew Morris, D.O., Emergency Medicine William Rodriguez-Collado, M.D., Pulmonary and Critical Care Matthew Stagg, M.D., General Surgery
Faculty Members	Tiffany Berry MD - Family Medicine John Erwin MD - Cardiology Jason Hovland MD - Anesthesiology Henry Papaconstantinou MD - Dept of Surgery QM Council and the Academic Quality Department Faculty member groups every other month. QM will report monthly. Physician Quality Council open invitation.
Reporting to and Frequency	

Council Quality Projects

- **Verbal Orders Pull tab:** Standardized sticker that signifies verbal orders and clarification of confirmation signature. *Status:* Currently being trialed.
- **Change of Shift Handoff:** Researched best practices and conducted baseline status. Developed template and provided an educational conference. Part of an IRB exempt research project. *Status:* Piloted in two departments. Gathering feedback.
- **Clarification of Contact Isolation:** Searching for a way to display to physicians the reason for contact isolation and allow for appropriate earlier discontinuation. *Status:* Placard development and regulations.

Lessons Learned

- Develop a strategy for prioritizing potential quality improvement
- Provide education and training on QI tools and techniques early

Components of Success

- Interested self motivated residents
- Multidisciplinary team work
- Publicly recognize early success
- Mentorship from Faculty Advisors, Lean and Quality Coaches and Staff
- Support and Involvement from numerous hospital leaders, including Chief Academic Officer, Chief Quality Officer and Chief Medical Officer

Conclusions

- The HSQC has been successful in initiating quality improvement projects that are pertinent to the house staff and uniquely aligned with hospital quality goals.
- House staff can be key personnel in defining quality and patient safety issues, as they are the ones providing front-line daily care to patients.
- Resident self-motivation is key to active participation.

Members & Faculty



National Initiative III: Final Work Plan

Team: Scottsdale Healthcare

I.	Overall Goal for NI III/Elevator Speech	<p><i>Our team's goal for National Initiative III was.....</i></p> <p>Identify a system-wide, sustainable model of integrated patient care that embraces education and patient-orientated quality measures.</p>
II.	Needs Statement	<p><i>This goal was important because.....</i></p> <p>It engages providers, incorporates active learning, includes the patient experience, and provides a high level of patient outcomes.</p>
III.	Vision Statement	<p><i>In March of 2013, we will see the outcomes of our success by.....</i></p> <p>Improved patient-orientated outcomes that matter.</p>
IV.	Measures	<p><i>We determined the success of meeting our goal by identifying credible quality metrics that impacted patient care, along with a sustainable program that integrates GME/CME/Quality across the system.</i></p> <p><i>Our pre-and post-intervention measures were given at our initial clinical forum and measured at six month intervals with data presented at the System Quality Level.</i></p>
V.	Success factors	<p><i>The most successful component of our work was teamwork and identifying a high quality sustainable educational program.</i></p> <p><i>We were inspired by the ability to identify underutilized resources and incorporating the outpatient and inpatient settings together within our program</i></p>

VI.	Barriers	<p><i>The largest barrier we encountered was sustainment across the system</i></p> <p><i>We worked to overcome this by incorporating involvement in multiple level of the system and driven by physician leadership</i></p>
VII.	Lessons Learned	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be.....</i></p> <p><i>Develop small goals and build additional goals from there.</i></p>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p><i>1. Positive unintended consequences were.....</i></p> <p><i>Ability to develop a multidisciplinary approach across our system</i></p> <p><i>2. Negative unintended consequences were....</i></p> <p><i>Lack of resources to complete all of our goals</i></p>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">1 2 3 4 5 6 <u>7</u> 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 <u>8</u> 9 10</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <p><i>Integration of quality into the curriculum and GME into the QI process</i></p>
XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p> <p><i>Quality curriculum across the system. Resident involvement across our system and with quality improvement.</i></p>

Overall Goal/Abstract

Objective of your project?

- To develop a multidisciplinary quality improvement clinical forum that focuses on improving patient outcomes across the continuum of care.
- 100% of Continuing Medical Education (CME) and Graduate Medical Education (GME) learning activities tied to curricular development .
- Include quality metrics.
- Increase number of scores of participants to 1-2 on the Likert scale.

What made you choose this project?

- There is a lack of integration of continuum of care for patients across hospital, ambulatory, and community settings causing some performance gaps.

Background

Root Cause Analysis: The 5 Whys

- There is a lack of integration of continuum of care for key patient populations across the system with multidisciplinary collaboration aligned with GME, CME, and the use of quality improvement tools and methods. **Why?**
- There has not been an approach which addresses how to integrate quality with hospital and outpatient care with the notion of continuum of care. **Why?**
- Activities in the hospital settings and community care facilities are aligned and fragmented. **Why?**
- No cohesive efforts exist to align medical education, the continuum of care, and quality improvement. **Why?**
- Lack of systematic approach and importance of continuum of care. **Why?**

Cause: No systematic program exists to align quality improvement, medical education and a continuum of care that ensures high quality patient outcomes.

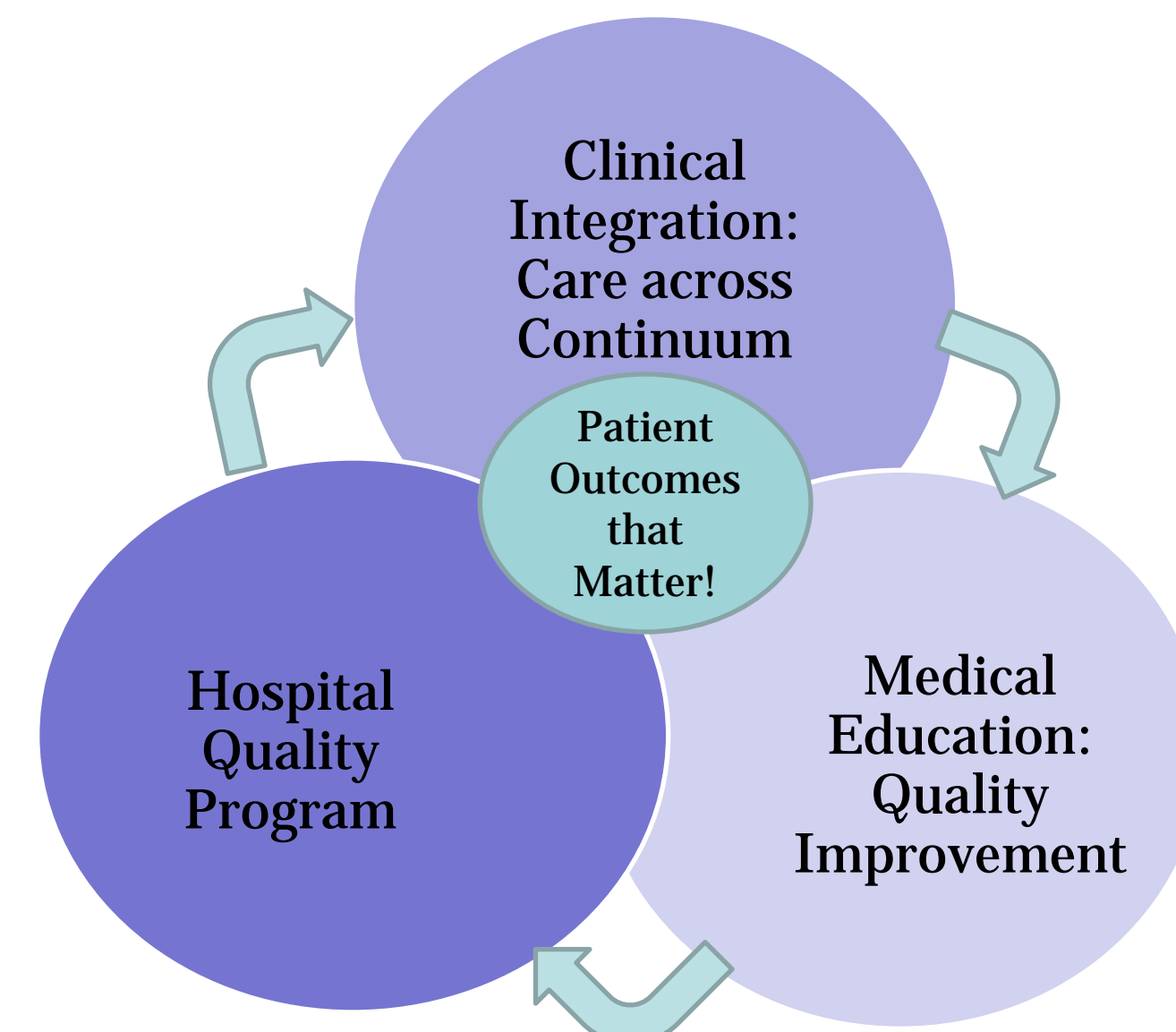
Vision Statement

SHC Quality Improvement Clinical Forum Goals & Aims:

- At least 1 Family Medicine resident will participate in every quarterly QRM meeting between Jan 2012 and April 2013.
- Family Medicine Chief Residents and the Medical Director of CME will implement at least one Grand Rounds meeting quarterly between Oct 2012 and April 2013. Case review will be designed to identify strengths as well as opportunities for improvement related to integrated patient care and patient-oriented outcomes that matter.
- Document attendance at Grand Rounds will reflect multidisciplinary participation as relevant to the case review.
- Demonstrate improved understanding of the integration of patient care across the continuum, including knowledge of quality improvement methods, as demonstrated by an increased number of 1-2 scores (“strongly agree” or “agree”) on the Likert scale.
- 100% of CME and GME learning activities tied to curricular development will include quality metrics starting Nov. 2013.

Materials/Methods

- System-Level Quality
- Physician Leadership
- Multidisciplinary
- Teamwork



- Triple Aim:
- Population Health
 - Patient Experience
 - Per Capita Cost

- Hospital
- Ambulatory
- Community Settings

Align Graduate & Continuing Medical Education

Results

PEDS- Quality Indicators	Target	1Q FY12	2Q FY12	3Q FY12	4Q FY12	2012
• Asthma Readmits within 7 days	trend/ review	0	0	0	0	0
• Children's Asthma Care Core Measure						
• Use of relievers	100%	100%	100%	100%	100%	100%
• Use of controllers	100%	100%	100%	100%	100%	100%
• Completion of Home Management Plan of Care	Better than Midas	87.60%	87.1%	100%	90%	88%
• Hyperbilirubinemia readmits within 7 Days (rate)	< 1.0%	0.55%	0.89%	1.01%	0.59%	0.75%
• Appendectomy perforation rate	< 30%	28.6%	11.1%	25.9%	18.2%	20.0%
PICU-Quality Indicator						
• Unplanned PICU Readmission w/in 24 hrs of DC or Transfer	< 10%	0	1.01%	1.45%	0	1.3%
• Accidental Extubation	trend/review	0	0	1	0	1
• Re-Intubation w/in 24 hrs of extubation	3-5% (10%)	0	0	0	0	0
• Ventilator associated pneumonias (VAP)	0	NA				
NICU-Quality Indicator						
• Accidental Extubations	trend/review	1	0	2	0	3
• Re-Admission to NICU, PICU, PEDS w/in 7 days	≤ 2.5%	0.00%	1.89%	0.00%	1%	1%
Peds/PICU Nursing Indicators NDNQI						
• Pain Assessment	(>75% ile)	100%	100%	100%	NA	
• IV Infiltration rate (%)	(>75% ile)	0	0	0	NA	
• Pressure Ulcer rate	(>75% ile)	0	0	0	NA	

Red = < 95% of target; Yellow = > 95 < 99; Green = > 99%

Skill Based Survey n=25 (this is baseline data as the program is only 6 months old)

Better comprehension and competency of Quality Improvement	70% Strongly agreed	4.5% Disagreeing
Were controller medications prescribed (out-patient) goal is 90%	68% yes	
Were steroid medications prescribed (Emergency department) goal is 90%	90% yes	

Success Factors and Lessons Learned (Discussion)

What made your project successful?

- Utilizing the A3/PDSA thinking methodology.
- Identifying the importance of integrating quality within CME/GME across the system
- The importance of communication.
- Inclusion of physician leaders across the continuum as key participants in the clinical forum.

What worked?

- The team concept.
- Identifying credible quality metrics that impacted patient care.

What are you most satisfied with?

- Developing a high quality sustainable educational program.

Unexpected 'wins'?

- The ability to identify un-utilized metrics, underutilized resources and incorporating the outpatient settings into the program.

Barriers Encountered/Limitations

Challenges:

Communication:

- ✓ Incorporating multiple disciplines to consistently communicate with each other was a challenging task.
- ✓ Data: It is easier to collect credible data from the inpatient setting in comparison to out-patient settings.

Opportunities for improvement

- ✓ To advance a multi-disciplinary approach that incorporates quality metrics into clinical settings.
- ✓ Continue to identify ways to expand provider engagement and develop further opportunities for education on quality outcomes specific to the Family Medicine residency program.

What could you have been done differently?

- ✓ Include other quality metrics that we did not account for in the initial phase

Unexpected challenges (and solutions)?

- ✓ Overall lack of processes to obtain quality metrics in outpatient settings.
- ✓ No centralized or formalized way to track quality metrics; could be addressed by utilizing the skills of experienced quality consultants.

Conclusions

•Opportunities for improvement re: knowledge & adoption of QI methods by participants.

- Less than half of participants had working competency of QI prior to forum.
- High percentage of participants had better knowledge and competency for integrating continuum of care for the pediatric asthma patient.
- Almost 90% will adopt QI methods & measures into clinical practice.

•Baseline pediatric asthma quality metrics showed favorable results

- Prescribing steroids (90%) and zero readmission rate.
- Opportunities for improvement: increase prescribing of ICS for persistent asthmatics in outpatient setting.

•New goals

- Next PDSA cycle: physician leaders across the continuum involved in defining key metrics, targeted performance , and benchmark comparisons for performance dashboards.
- Quarterly monitoring to ensure that performance is sustained or improved.
- Future multidisciplinary clinical forums will provide additional opportunities to assess forum effectiveness in improving patient outcomes that matter through adoption of QI methodology.

Was it a transformative/worthwhile experience?

The quality metrics which were measured identified opportunities to improve clinical care.

What do you want to share with the audience?

This approach can provide an effective and sustainable method to ultimately enhancing patient care and clinical outcomes across the continuum of care.

Bibliography

Bibliography

- Brotherton SE, Simon FA, Etzel SI. US Graduate Medical Education, 2001-2002: Changing Dynamics. *JAMA*. 2002;288(9):1073-1078. doi:10.1001/jama.288.9.1073.
- Grol R. Improving the Quality of Medical Care: Building Bridges Among Professional Pride, Payer Profit, and Patient Satisfaction. *JAMA*. 2001;286(20):2578-2585. doi:10.1001/jama.286.20.2578.
- Mazmanian PE, Davis DA. Continuing Medical Education and the Physician as a Learner: Guide to the Evidence. *JAMA*. 2002;288(9):1057-1060. doi:10.1001/jama.288.9.1057.
- West DC, Pomeroy J, Park JK, Gerstenberger EA, Sandoval J. Critical Thinking in Graduate Medical Education: A Role for Concept Mapping Assessment?. *JAMA*. 2000;284(9):1105-1110. doi:10.1001/jama.284.9.1105.

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National Initiative III: Final Work Plan

Team: TriHealth

I.	Overall Goal for NI III/Elevator Speech	<p><i>Our team's goal for National Initiative III was..... Develop a resident led Quality Council.</i></p>
II.	Needs Statement	<p><i>This goal was important because..... The council will help to align GME with Q&S processes within the parent institution.</i></p>
III.	Vision Statement	<p><i>In March of 2013, we will see the outcomes of our success by..... The development of a council that meets regularly to discuss quality initiatives within GME and proper alignment within TriHealth. All resident led quality initiatives will be monitored through this council and the council will serve as a conduit back to the four core residency programs.</i></p>
IV.	Measures	<p><i>We determined the success of meeting our goal by measuring..... Our pre-and post-intervention measures were..... Initial resident survey and follow up survey in May 2013. Number of QI projects that are ongoing in GME. Development of a process to track inpatient metrics for each program.</i></p>
V.	Success factors	<p><i>The most successful component of our work was.....Bringing the core residency programs together to address QI issues that will connect to the institution. The fall meeting in Chicago brought all of the residents on the council together. We were inspired by.....The dedication of residents and program directors committed to this goal.</i></p>

VI.	Barriers	<p><i>The largest barrier we encountered was.....The largest barrier was time and finding a common meeting time that worked for everyone.</i></p> <p><i>We worked to overcome this by..... Conferences calls, small group meetings to keep the project going.</i></p>
VII.	Lessons Learned	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be.....” Be patient and keep working towards your goal”</i></p> <p><i>Many effective changes in GME take time.</i></p>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p><i>1. Positive unintended consequences were..... increased collaboration among residents, nursing and other staff. Peaking the interest of professionals outside the group. Residents demonstrated a feeling of surprise and sometimes frustration when seeing quality data about the care they were providing.</i></p> <p><i>2. Negative unintended consequences were.... there was sometimes duplicate work going on. This seemed to happen when one group or individual was not current with the activities of the council.</i></p>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish? 7</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work? 9</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>

XI.	Project Impact	<i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i>
XII.	Next Steps	<i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i>



A SYSTEM-WIDE RESIDENT QUALITY IMPROVEMENT PROGRAM



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TriHealth, Cincinnati, OH

Introduction

This project is focused on developing an organized approach for residents to incorporate quality and patient safety into their resident program

The goal is to provide a strong foundation in performance improvement that can sustain the resident into his/her career as a licensed independent practitioner (LIP)

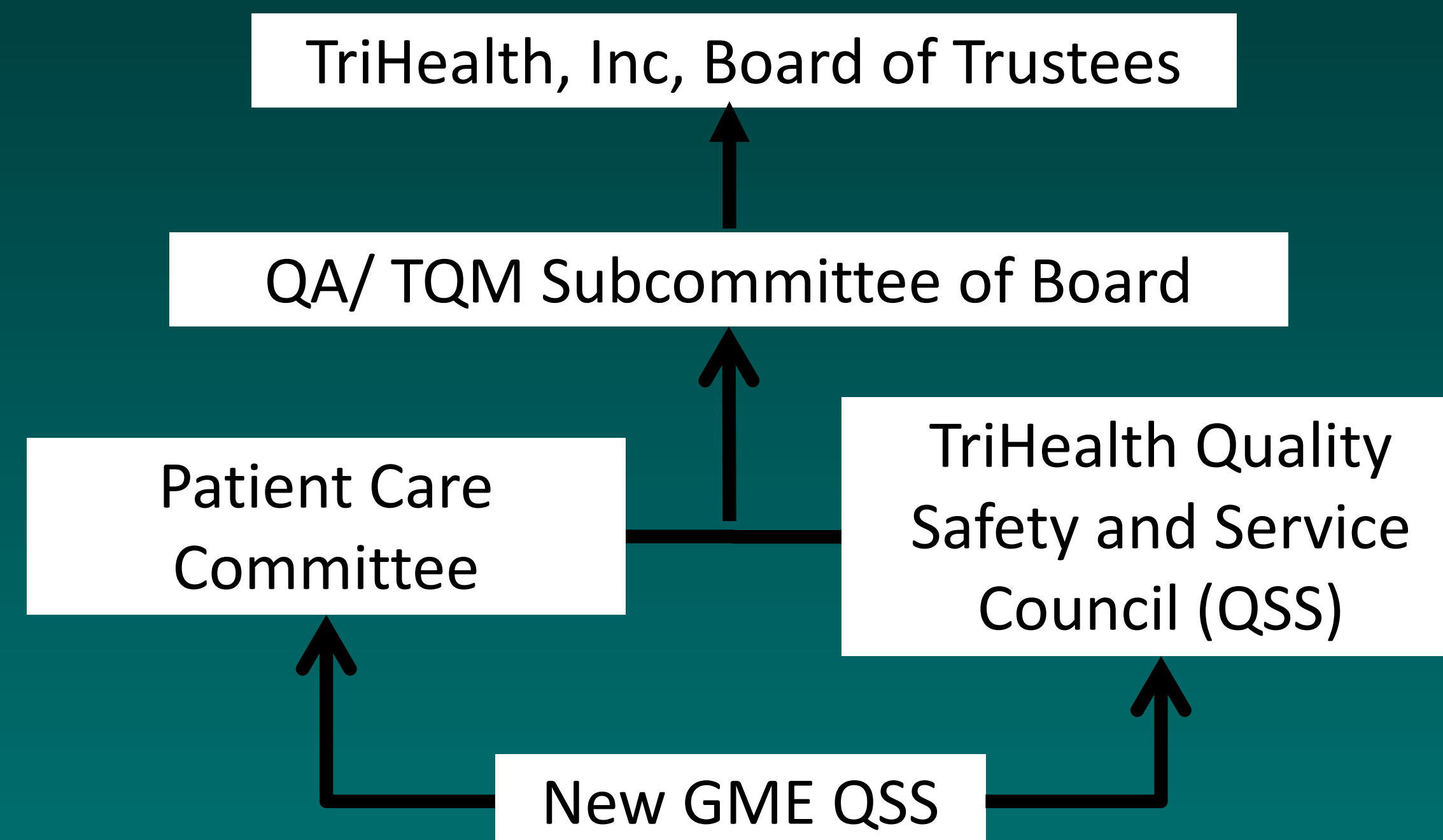
Hypothesis

- Providing a comprehensive, coordinated quality and safety program for residents is the right thing to do
- This process will enhance the education for our future healthcare providers
- Additionally, it is the best thing to do for our patients

Methods/ Project Description

- Assessment of existing resources across the four residency programs
- Gap Analysis of the assessment findings
- Establishment of reporting structure
- Design of score card and metrics for monitoring improvement efforts
- Baseline and post-intervention survey of residents' QI knowledge

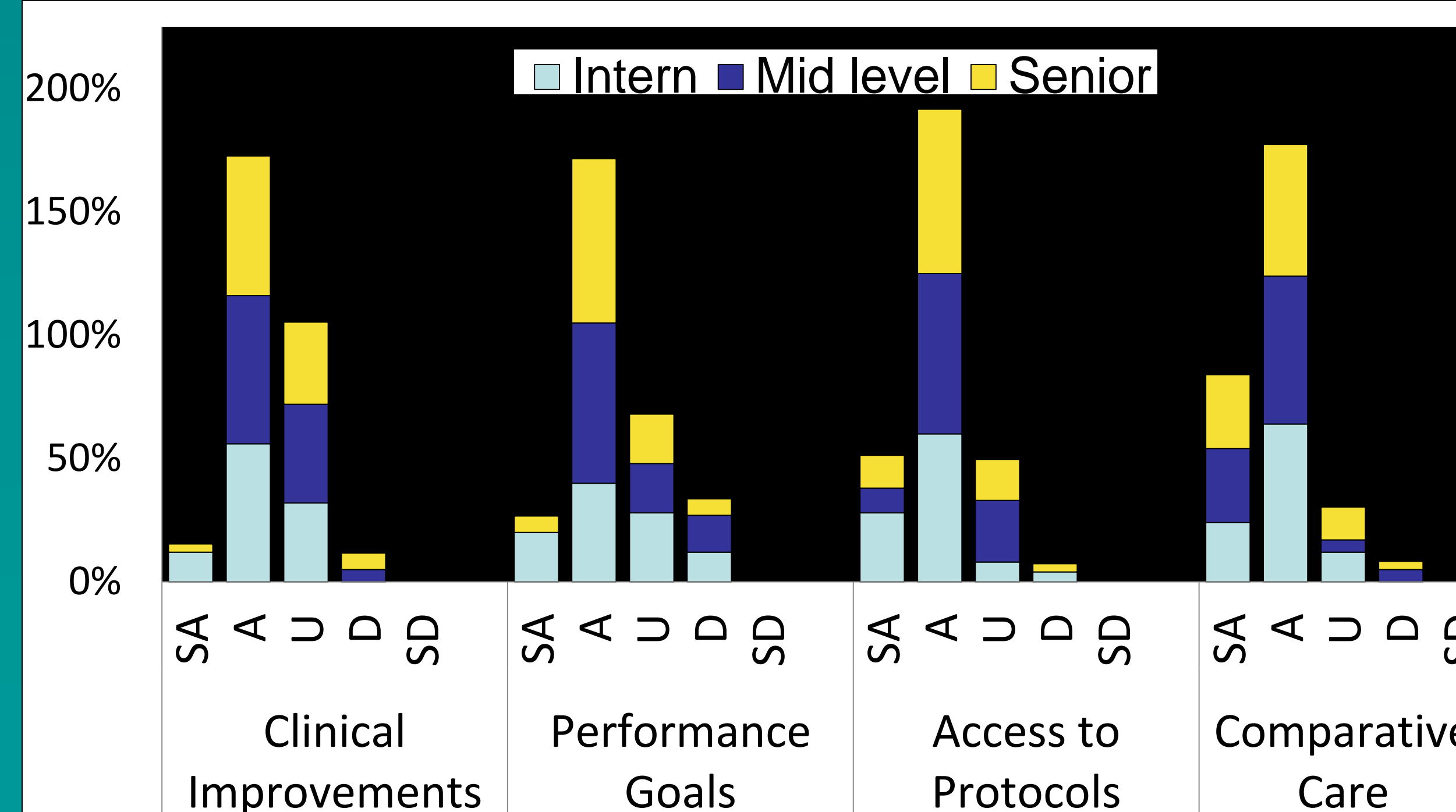
Proposed Reporting Structure



Results/ Findings to Date

- Metrics defined for each residency program
- Residency Council formalized and reporting structure aligns with organizational Quality, Safety and Service Council
- Incorporated resident projects into existing Quality and Patient Safety Days
- Survey results aided in defining residents' understanding of current quality, patient and service

Baseline Survey



Metrics for Score Card

Family Medicine

- Assessment for Rehab after Stroke
- Discharge instructions for heart failure

OB/GYN

- 3rd & 4th degree lacerations
- Use of blood products

Internal Medicine

- Glucose control in the ICU
- Hospital acquired injuries

Surgery

- Prophylactic antibiotic 1 hr prior to surgical incision
- Pts on beta blocker receive them during peri-operative period
- Foley catheter removed on POD 1 or 2

Note: All residency programs following VTE prophylaxis

Key Lessons Learned

- Varied resident schedules make it difficult to find a common time for meetings
- Cultural shift slow due to changing group of residents; impact will not be fully realized for three years
- Changing ACGME requirements add complexity to formalizing program

Conclusions/Next Steps

- Standardize documentation for accurate reporting
- Develop scorecard of clinical and academic performance that aligns with metrics defined
- Continuation of resident involvement in quality and patient safety projects
- Post-interventional survey – MAY 2013

National Initiative III: Final Work Plan

Team: Virginia Mason “Pause for Feedback”

I.	Overall Goal for NI III/Elevator Speech	<i>Our team’s goal for National Initiative III was..... Advance the culture of quality improvement and patient safety and enrich faculty and resident educational experience by improving competence of team members who are giving and receiving feedback. Both resident and faculty surveys identify “feedback” as the top development opportunity within Graduate Medical Education (GME). Initial investigation revealed a gap between resident and faculty perceptions about the frequency of feedback provision.</i>
II.	Needs Statement	<i>This goal was important because..... we are an educational institution and we must develop our resources—including human resources—to sustain a culture of education, quality improvement and patient safety.</i>
III.	Vision Statement	<i>In March of 2013, we will see the outcomes of our success by..... Create a culture of feedback in which both provider and recipient recognize feedback has occurred and develop beginner level team member competencies in metacognition & critical self-reflection.</i>
IV.	Measures	<i>We determined the success of meeting our goal by measuring.....Concordance of resident and faculty perceptions of feedback frequency. Our pre-and post-intervention measures were..... Resident and faculty perceptions of feedback frequency in two of the seven Virginia Mason GME programs.</i>
V.	Success factors	<i>The most successful component of our work was..... faculty and resident engagement in careful consideration of the problem followed by goal and vision development. The team did not settle for the easy road and was willing to explore uncharted territory. We were inspired by..... CIAQ member advice about use of Appreciative Inquiry as a method (thanks Marcella). Networking feedback that we may be “on to something new” and significant. Team members being outspoken and stepping into leadership roles.</i>

VI.	Barriers	<p><i>The largest barrier we encountered was.....</i> Lack of time and scheduling difficulties when working across multiple GME programs restricted time available to work collaboratively.</p> <p><i>We worked to overcome this by.....</i> team members remained flexible especially where schedules were concerned, but also developed a routine for meetings on cycles which occurred every 2 weeks.</p>
VII.	Lessons Learned	<p><i>The single most important piece of advice to provide another team embarking on a similar initiative would be.....</i></p> <p>Breaking out of mental valleys requires creativity, visioning and commitment to spending the time.</p> <p>Feedback improvement was placed into workflow and jargon was removed.</p> <p>A checklist was created to guide improved feedback behavior.</p>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p>1. <i>Positive unintended consequences were.....</i>we are considering creating a Smart Phone App as a reference for face-to-face feedback sessions</p> <p>2. <i>Negative unintended consequences were....</i> None yet identified.</p>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with "1" meaning nothing and "10" meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10 X</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with "1" meaning not at all satisfied and "10" meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10 X</p>

XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work?</i></p> <p>Program leadership, faculty and residents more aware of importance of frequent, face-to-face feedback that includes self-reflection and includes addressing the areas on which the recipient is focusing.</p>
XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p> <ol style="list-style-type: none"> 1. Incorporate time in workflow for weekly feedback session in every program. 2. Incorporate attestation to weekly feedback sessions into resident and faculty summative evaluations. 3. Collaborate with Organizational Development to develop educational material to improve competence of feedback recipients and providers.



PAUSE FOR FEEDBACK

Gillian Abshire, Kathleen Agard, MD, Alvin Calderon MD,
David Coy, MD, Brian D. Owens, MD, Joey Parker, DO, Ryan Pong, MD.
Seattle, WA



Overall Goal

Advance the culture of quality improvement and patient safety and enrich faculty and resident educational experience by improving competence of team members who are giving and receiving feedback. Both resident and faculty surveys identify “feedback” as the top development opportunity within Graduate Medical Education (GME). Initial investigation revealed a gap between resident and faculty perceptions about the frequency of feedback provision.

Materials/Methods

Implemented “Pause for Feedback” process and checklist tool in radiology and anesthesiology programs. Residents and faculty were briefed on the new process and in proper application of the checklist. In Radiology, residents were asked to initiate the request for face-to-face feedback at least one time each week from faculty of their choice. Anesthesiology, incorporated the checklist into an established weekly feedback process. Faculty were asked to actively participate in and to validate the resident’s self-appraisal and to verbally guide improvement strategies and tactics.

Barriers Encountered/Limitations

Lack of time and scheduling difficulties when working across multiple GME programs restricted time available to work collaboratively.

The process of team visioning delayed “fail forward fast” and rapid cycle PDSA (plan-do-study-act) implementation.

Sample size was limited.

Background

Effective feedback is necessary to reinforce positive behavior, correct deficits in clinical knowledge and skills, and provide residents with an understanding of their progress and opportunities. Pre-intervention appreciative inquiry of VMMC residents and faculty illustrated disparity in frequency of feedback. In all GME programs, 72% of faculty reported providing feedback at least weekly, only 46% of residents reported receiving weekly.

Results

Perceive Feedback Exchanged at least WEEKLY	Radiology Pre Study	Radiology Post Study	Anesth Pre-Study	Anesth Post Study
Faculty	100%	75%	36%	92%
Residents	71%	75%	92%	75%
Concordance <small>(percentage points)</small>	29	0	56	17

Conclusions

Using a checklist and allowing GME programs to operationalize a process for weekly feedback resulted in increased concordance in resident and attending perceptions of frequency of feedback.

Different processes for implementing “Pause for Feedback” were equally effective in Radiology and Anesthesiology programs.

Vision Statement

Create a culture of feedback in which both provider and recipient recognize feedback has occurred and develop beginner level team member competencies in metacognition & critical self-reflection.

Success Factors and Lessons Learned

PAUSE FOR FEEDBACK		
Make it timely, actionable, & based on observed behaviors or actions		
FOCUS	1. What do you want feedback about?	<input type="checkbox"/>
SELF ASSESS	2. What went well? What could be better?	<input type="checkbox"/>
STRATEGIES	3. How to attain a better result?	<input type="checkbox"/>
TACTICS	4. Actionable steps...	<input type="checkbox"/>
VALIDATE	5. Do we agree?	<input type="checkbox"/>

PAUSE FOR FEEDBACK		
Make it timely, actionable, & based on observed behaviors or actions		
Resident	-Request face-to-face feedback at least 1 time each week	
	-Initiate steps 1 - 4 -Validate steps 3 – 5	
Attending/ Mentor	-Incorporate into evaluation as appropriate	
Learning Preferences How do you learn best?		
Active	-	Reflective
Sensing	-	Intuitive
Visual	-	Verbal
Sequential	-	Global

The team avoided the easy answer, another lecture about “feedback.”

Breaking out of mental valleys requires creativity, visioning and commitment to spending the time.

Feedback improvement was placed into workflow and jargon was removed.

A checklist was created to guide improved feedback behavior.

Bibliography

- Rose, J. Waibel, B, & Schenarts, P. (2011) Disparity Between Resident and Faculty Surgeons’ Perceptions of Preoperative Preparation, Intraoperative Teaching, and Postoperative Feedback. *Journal of Surgical Education* , 68(6). November/December 2011.
- Bing-You, R, & Trowbridge, R. (2009, September 23/30) . Why Medical Educators May Be Failing at Feedback (Reprinted) *JAMA*, 302(12). jama.jamanetwork.com
- Ende, J. (1983) Feedback in Clinical Medical Education. *JAMA*, 250(6), 777-81.
- Nicola, D.& Macfarlane-Dick, D. (2006) Formative Assessment and Self-regulated Learning: A Model and Seven Principles of Good Feedback Practice. *Studies in Higher Education*31(2), April 2006, 199–218.

National Initiative III: Final Work Plan

Team: WMU School of Medicine

I.	Overall Goal for NI III/Elevator Speech	<i>Our team's goal for National Initiative III was..... To establish QI curriculum for Graduate Medical Education at MSU/KCMS (now WMU School of medicine). We also desired to formulate a plan for informing patients of lab results using our new EMR, with the PDSA cycle.</i>
II.	Needs Statement	<i>This goal was important because..... We have had no formal QI curriculum.</i>
III.	Vision Statement	<i>In March of 2013, we will see the outcomes of our success by..... We developed a mechanism to notify patients of normal PAP results; initiated changes in QI curriculum by adding required IHI Open School modules to our GME.</i>
IV.	Measures	<i>We determined the success of meeting our goal by measuring..... use of automated system of patient notification. Our pre-and post-intervention measures were..... Number of results sent via new automated system.</i>
V.	Success factors	<i>The most successful component of our work was..... Initiation of our initial lab reporting mechanism. We were inspired by.....inadequacies within our EMR system.</i>
VI.	Barriers	<i>The largest barrier we encountered was...Overreliance upon a small number of participants in our NI team. We worked to overcome this by..... actually this lead to our lack of realization of our primary goal.</i>

VII.	Lessons Learned	<i>The single most important piece of advice to provide another team embarking on a similar initiative would be..... to have multiple team members coordinating your efforts.</i>
VIII.	Unintended Consequences	<p><i>Describe any unintended consequences from your project.</i></p> <p><i>1. Positive unintended consequences were..... Learning the strong support that our administration was capable of.</i></p> <p><i>2. Negative unintended consequences were....none</i></p>
IX.	Expectations Versus Results	<p><i>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</i></p> <p style="text-align: center;">5</p>
X.	Satisfaction	<p><i>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</i></p> <p style="text-align: center;">5</p>
XI.	Project Impact	<p><i>What changes have you observed in your residency program(s), or at your institution, based upon your work? The effect has been minimal to date.</i></p>
XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p> <p><i>In September we embark on a year-long project using the Internal Medicine and Med-Peds departments as Beta site: “QI curriculum, Learn by Doing”. We will work with 6 teams of residents and faculty, each having their own QI research project complete with literature review, abstract writing, IRB submission and presentation at our annual Research Day in April 2014.</i></p>

CLOSING THE FEEDBACK LOOP

Effectively Communicating Pap Smear Results Using an Electronic Health Record A National Initiative III Final Report

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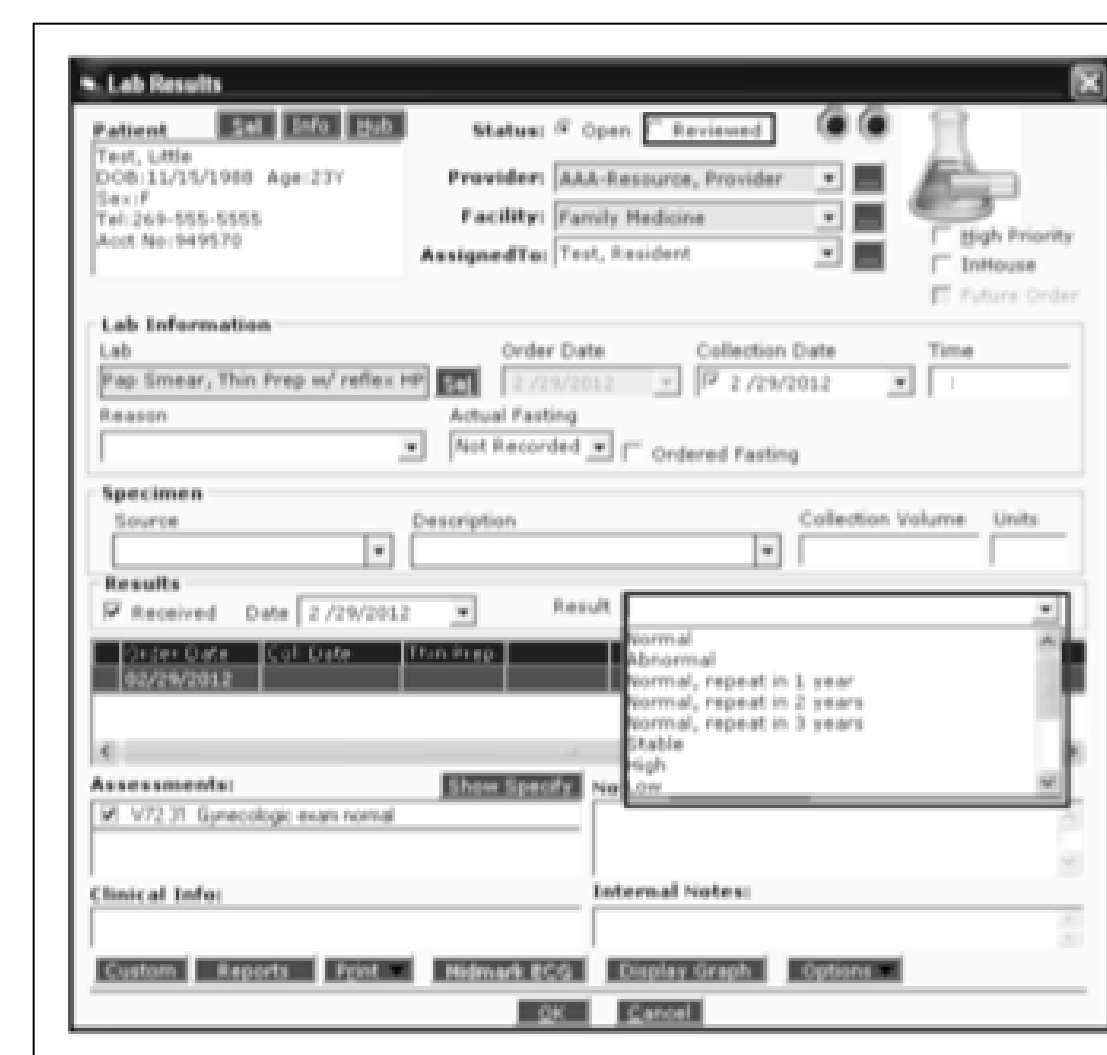


GOALS

- Our initial goal was to gain experience with a small, discrete project based in a “high-traffic” process (i.e. standardizing normal Pap smear reporting) that would have measurable impact for patients and residents in our primary care clinics.
- Secondly, the project would serve as a means for NI3 participants to become better-trained facilitators and disseminators of quality improvement curricula across departments of our institution.

METHODS

A simple three-question survey was distributed among primary care residents for voluntary feedback on their knowledge of lab reporting policies and preferences for patient contact regarding lab results. Common practices among practitioners and reporting capabilities of a newly launched electronic health record (EHR) were reviewed. Aims, measures and a timeline were developed across a multidisciplinary team of clinicians and staff.



DISCUSSION/SUCCESSSES

- Advocates of our Pap reporting project included: our NI3 team, primary care clinic directors, CEO, program directors, clinic staff, nursing director, EHR administrators
- Key components of this project’s success included: collaboration among all stakeholders, functionality of a newly adopted EHR and dissemination of processes to clinical staff and providers
- Executive buy-in was supported by the institution’s emerging identity as a patient-centered medical home
- Our greatest satisfaction was effecting change in a meaningful, resident driven way to improve patient care

BACKGROUND

Preventative services are an integral part of healthcare offered in a primary care clinic. Screening for cervical cancer is currently recommended for all women between the ages of 21-65 with a cervix, regardless of sexual history, per the 2012 USPSTF and ACS/ASCCP/ASCP guidelines. Primary care practitioners should seek to identify and screen applicable female patients. Reporting the results of screening tests to patients is not standardized and offers a valuable educational opportunity for both the patient and the clinician.

RESULTS

For all normal Pap results, a standardized letter is now generated with educational language and follow-up recommendations as noted by the ordering physician when reviewing the lab result in the EHR (see screen shot above). Weekly compliance reports are provided to clinic directors for individual and group feedback since the original implementation date of this policy on April 1, 2012. In April, 39% (n=64) of normal Pap results were compliant with the new policy. In October and November, 78% (n=85) of normal Pap results were compliant with the new policy. Prior to the implementation of this process, forty-two resident physicians were surveyed and only seven respondents (16.7%) indicated they knew what the lab reporting policy was.

LIMITATIONS/BARRIERS

- Over-reliance on a small number of people led to delays when any one “champion” was pulled in other directions
- Lack of coordination with other clinic and hospital QI committees toward a common goal of curriculum development
- Accessibility of functionality in a newly adopted EHR limited by institutional priorities, clinical training and policy development
- To date, post-implementation provider feedback and/or surveys not collected

VISION STATEMENT

- We will standardize the reporting of Pap test results to the patients of our primary care residency clinics utilizing an EHR-based process applicable to the reporting of other results.
- Through this effort, we will become more effective QI leaders and build a foundation of QI mentorship at WMed Clinics.
- We will change the culture at WMed to one that incorporates QI as a vital element of residency education and patient care.

CONCLUSION

Cervical cancer screening provides a valuable educational opportunity for our patients. Closing this feedback loop provides a framework for patient-provider communication that could be expanded to other test results. This project provided QI exposure to key stakeholders and mentors toward affecting a positive culture change at our institution. Curriculum development is ongoing and is likely to be most successful in conjunction with resident driven hands-on projects. One small but measurable contribution to curriculum development was the incorporation of IHI modules for residents across all programs.

BIBLIOGRAPHY

Langley GL, Nolan KM, Nolan TW, Norman CL, Provost LP. The Improvement Guide: A Practical Approach to Enhancing Organizational Performance (2nd edition). San Francisco: Jossey-Bass Publishers; 2009.
Varkey, P; Reller, MK and Resar, RK. Basics of Quality Improvement in Health Care. Mayo Clin Proc, 2007; 82(6): 735-39.

SURVEY RESULTS	Family Medicine (N=10)	Internal Medicine/ Med-Peds (N=16)	Pediatrics (N=16)	Total (N=42)
I believe there is a clinic policy on the handling of lab reports	9 (90%)	11 (68.8%)	12 (75%)	32 (76%)
I know that policy	2 (20%)	1 (6.3%)	4 (25%)	7 (16.7%)
I report via...				
Phone call	5 (50%)	6 (37.5%)	13 (81.3%)	24 (57%)
Letter	4 (40%)	3 (18.8%)	1 (6.3%)	8 (19%)
In person at next appointment	5 (50%)	6 (37.5%)	4 (25%)	15 (35.7%)
Various means	4 (40%)	6 (37.5%)	4 (25%)	14 (33.3%)

National Initiative III: Final Work Plan

Team: York Hospital/WellSpan Health

I.	Overall Goal for NI III/Elevator Speech	<i>Our team's goal for National Initiative III was.....</i> to use multidisciplinary simulation and live family modes to improve Rapid Response Team teamwork and communication with the patient and family; and to teach process improvement methods to residents and ancillary staff during simulations
II.	Needs Statement	<i>This goal was important because.....</i> Teamwork and communication failures contribute to 70% of adverse obstetrical events; TJC and ACOG called for creating Obstetrical Rapid Response Teams; and staff has little formal training on how to function as a team and support patients/families during emergencies
III.	Vision Statement	<i>In March of 2013, we will see the outcomes of our success by.....</i> incorporating quarterly multidisciplinary simulations as mandatory training for all nurses, residents and ancillary staff which lead to implementation of the hospital wide Code Neon alert; providing CME and Act 13 safety credits for attending physicians who attend multidisciplinary simulations; and creating action plans based on process improvement analysis of simulation outcomes
IV.	Measures	<i>We determined the success of meeting our goal by measuring.....</i> Improved rapid response time from 20 minutes to an average of 5 minutes; reduced access to emergency medications from 12 steps to 2 steps; in post simulation surveys 84% responded positively to "During OB emergencies, supplies and medications are readily available" compared to 70% positive response rate pre simulation training; and creation of a mass hospital wide alert where previously none existed <i>Our pre-and post-intervention measures were...</i> number of phone calls made to receive help during an OB emergency; number of OB rapid response calls; number of steps to access emergency meds; time to respond to ob emergency; and employee satisfaction score pre and post simulations
V.	Success factors	<i>The most successful component of our work was.....</i> improved access to emergency supplies and medications; and improved camaraderie between physicians and nursing staff <i>We were inspired by.....</i> The perspective of our patient and family actors of what it is like to live through a medical emergency; and the number of steps our nurses go through to obtain meds and supplies during emergencies

VI.	Barriers	<p>The largest barrier we encountered was..... Lack of attending involvement due to time restraints</p> <p>We worked to overcome this by..... Received approval for CME and Act 13 safety credit for attending participation</p>
VII.	Lessons Learned	<p>The single most important piece of advice to provide another team embarking on a similar initiative would be..... create a multidisciplinary team for planning; and provide incentives for attending involvement</p>
VIII.	Unintended Consequences	<p>Describe any unintended consequences from your project.</p> <p>1. Positive unintended consequences were..... improved teamwork/communication with other hospital departments</p> <p>2. Negative unintended consequences were.... scheduling challenges for resident involvement</p>
IX.	Expectations Versus Results	<p>On a scale of 1 to 10 (with “1” meaning nothing and “10” meaning everything), how much of what you set out to do was your team able to accomplish?</p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
X.	Satisfaction	<p>On a scale of 1 to 10 (with “1” meaning not at all satisfied and “10” meaning completely satisfied), how satisfied are you with what you were able to accomplish in your NI III work?</p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p>
XI.	Project Impact	<p>What changes have you observed in your residency program(s), or at your institution, based upon your work?</p> <p>Multidisciplinary simulations now integrated into resident education</p>

XII.	Next Steps	<p><i>Describe next steps for your project, including plans for sustaining and spreading the changes made.</i></p> <p>Involving other departments (ED/surgery/sepsis team/medical response) teams in future simulations; presenting at resident research day; and publication in a quality journal</p>
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Improving Obstetrical Rapid Response Teams (Code Neon): Multidisciplinary Simulation Training Using the Plan-Do-Study-Act Cycle

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Department of Obstetrics & Gynecology; Women & Children's Service Line



Problem Statement

Obstetrical emergencies affect up to 2% of all deliveries. Yet, there is no formal training on how to effectively respond as a team when emergencies occur. Maternity and OB staff expressed a longstanding concern with the number of phone calls required to get help and delayed response times. Responders expressed frustration at inconsistencies in receiving the page and the delayed access to equipment and medications once they arrived. Overall, there was a perception of poor communication and a lack of teamwork.

We conducted an employee survey of all staff involved in obstetrical emergencies. We included physicians, midwives, nurses, and ancillary staff from Maternity and Labor and Delivery. We also surveyed staff from Family Medicine and Anesthesia. Our results confirmed that up to 30% of obstetrical providers perceived a deficit in teamwork and communication during emergencies. Forty percent perceived a deficit in access to equipment and supplies during emergencies.

Understanding the Problem

Failure of teamwork communication contribute to 70% of adverse obstetrical events. Nationwide, there is an increase in maternal age, obesity, diabetes and hypertension. This results in an increased risk for OB emergencies including shoulder dystocia, preeclampsia, hemorrhage, and cesarean section. Citing a rise in maternal mortality and morbidity, ACOG and the Joint Commission called for creation of obstetrical rapid response teams (RRT).

Objectives

We set about to create a multidisciplinary OB RRT to achieve the following goals.

- Implement a mass page alert system
- Improve access to medication, equipment and supplies
- Improve teamwork and communication during OB emergencies
- Improve staff satisfaction with emergency response
- Identify the most common errors in OB emergencies

RRT Simulation in Labor & Delivery



Action Plan

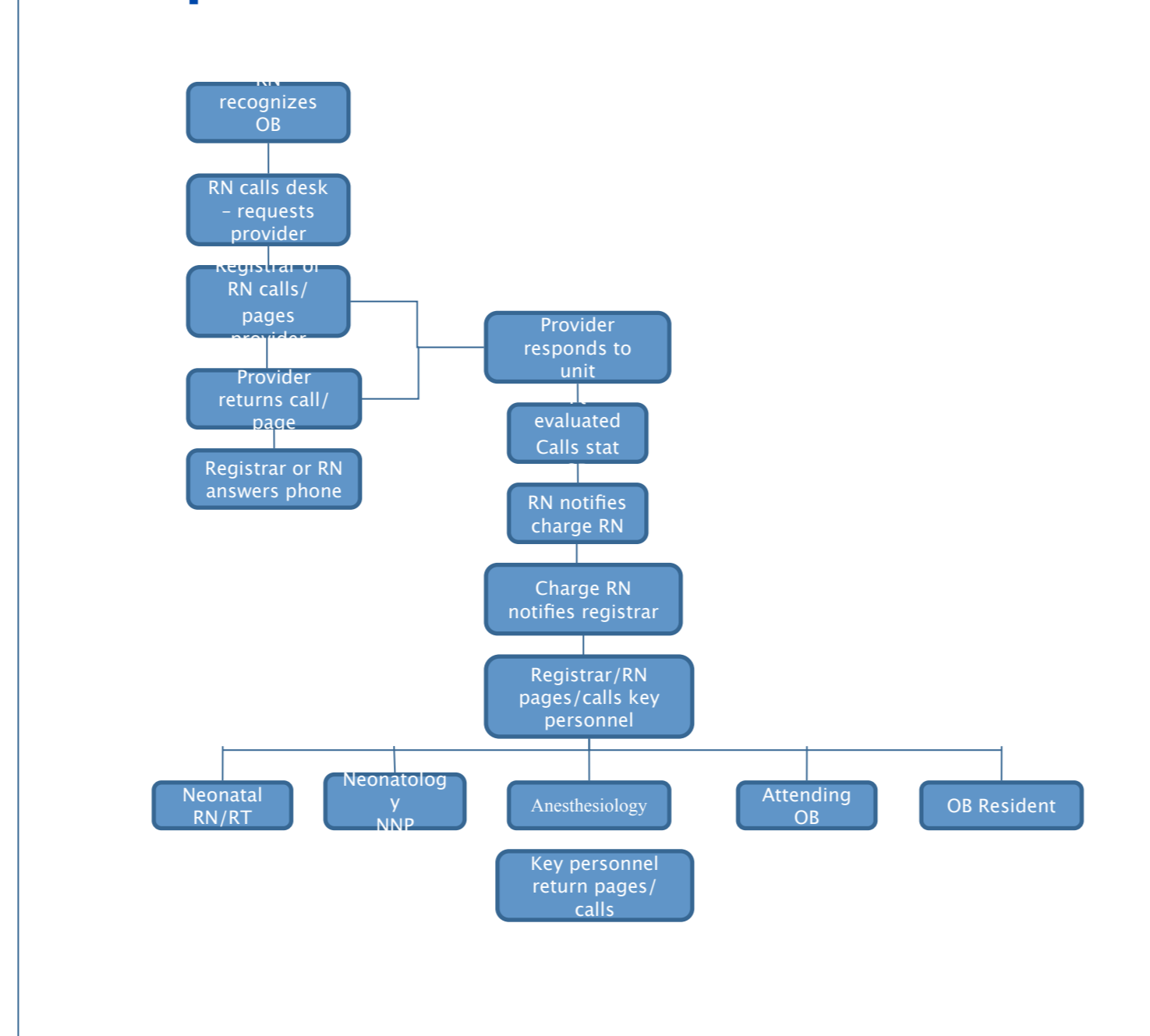
The RRT is committed to 4 half day simulations annually. Each multidisciplinary training session includes:

- Residents/nurses trained in performance improvement by lecture
- RRT lecture in one OB emergency per session (e.g., hemorrhage shoulder dystocia)
- In small groups, RRT uses PDSA to discuss trial changes for their simulation
- Each group trials PDSA changes during simulation
- In situ simulation witnessed by full RRT
- Simulation videotaped and added to PDSA library
- Full RRT debriefs simulation
- Debrief action plan created based on group PDSA/simulation
- PDSA changes trialed clinically by RRT during real calls
- Successful changes implemented
- Changes reviewed at next RRT simulation session

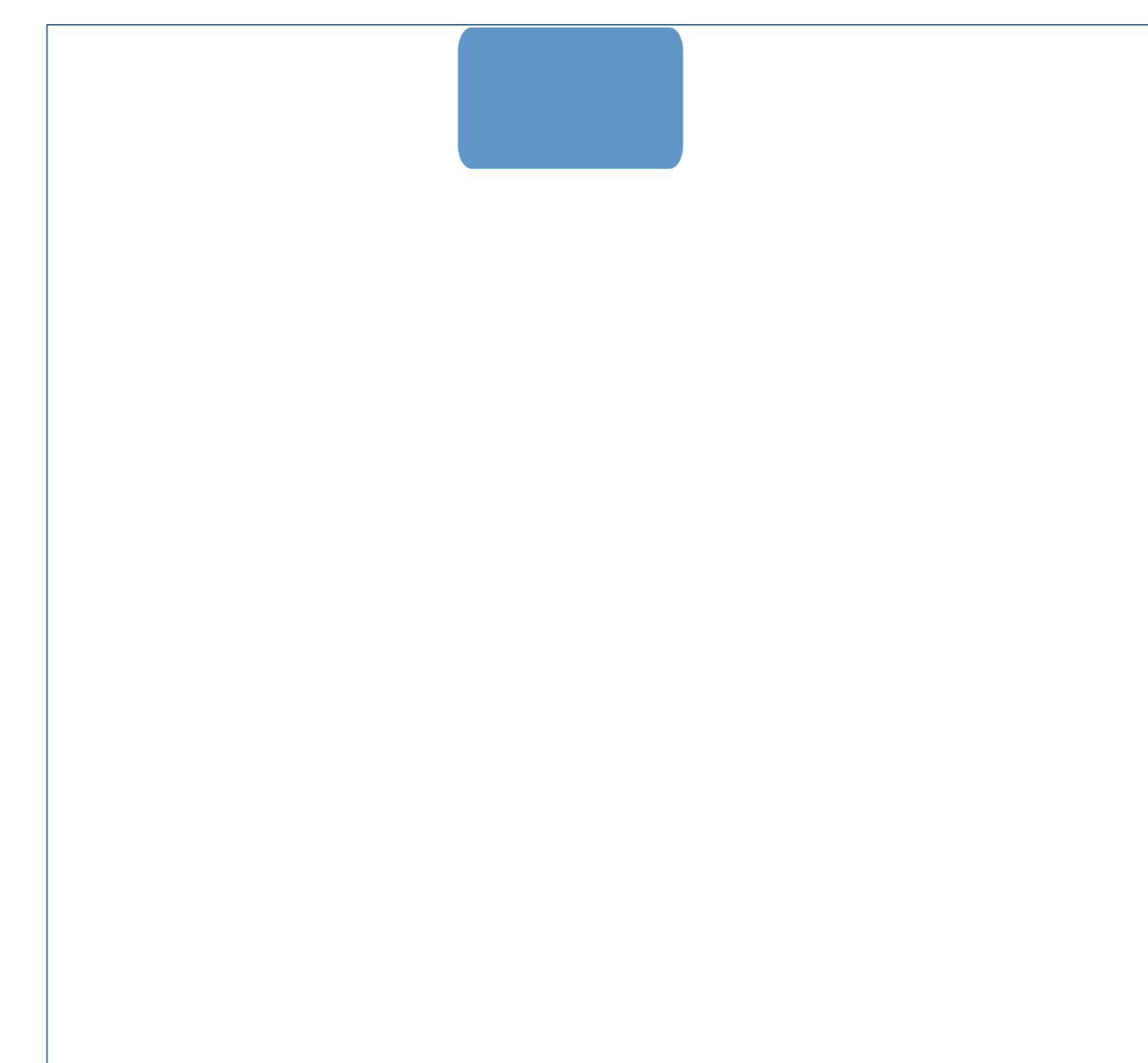
Results

During PDSA simulation, the processes for issuing emergency alerts and accessing emergency medications were analyzed. Modifications were made based on simulation findings.

Old Sequential OB Emergency Alert Hospital-Wide Alert



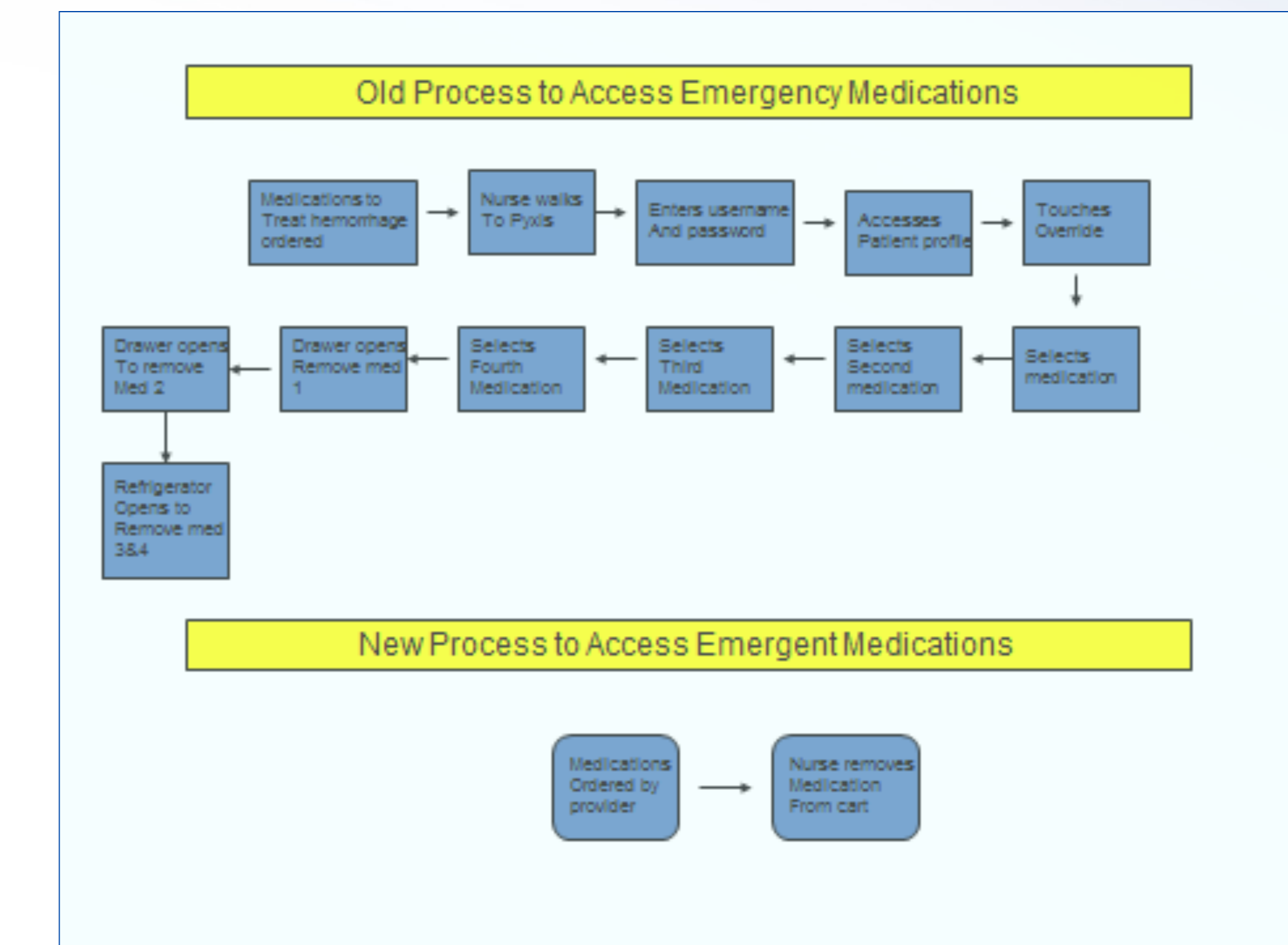
New Code Neon



- Reduced number of OB emergency response calls from 10 individual calls to one hospital-wide Code Neon Alert

- In 2012 Post-simulation survey, 98% responded positively to "During OB emergencies, staff responds quickly when called."

Steps required to access medication in OB emergency



- Access to emergency medications reduced from 12 to 2 steps
- In 2012 Post-simulation survey, 75% responded positively to "During OB emergencies, staff communication is clear."
- In 2012 Post-simulation survey, 84% responded positively to "During OB emergencies, supplies and medications are readily available."

Lessons Learned

- Multidisciplinary PDSA cycle training creates objective team building and problem solving. This gives providers ownership in culture change that directly impacts clinical care.
- PDSA simulation training aids in achieving long term goals.
- Lack of OB EHRs impedes data collection needed for pre-post comparison
- PDSA cycle training and simulation helps RRT to identify process and system barriers
- PDSA simulation training empowers staff to implement clinical changes
- PDSA simulation training improves patient care by guiding RRT to identify and rectify most common OB emergency errors.