

Building a Quality Improvement Plan

Focus Paper

Carol L. Sligh, MSN, RN, FACMPE

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In the last several years, measures to reduce health care costs have been mandated by the federal government focusing on a shift from fee for service to a value-based health care system. The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) was designed to repeal the Sustainable Growth Rate provisions and set a precedent for payment linked to the performance of physicians (U.S. Centers for Medicare and Medicaid Services, 2018). Payment methods were planned to award or penalize physicians based on several factors, one being quality of care delivered to a group of patients. These scores may be culled from a variety of sources such as Health Effectiveness Data and Information Set (HEDIS) which measures important health care conditions, for instance diabetes, hypertension, and cancer screening ("HEDIS®," n.d.). When quality scores do not meet HEDIS standards, medical practices must devise plans to increase scores thus limiting negative consequences. Quality improvement plans can assist an organization in increasing quality scores and improve patient care over a set period. For the process to work, a medical practice administrator must understand the importance of quality improvement (QI) in the practice setting.

The purpose of this focus paper is to explore how a redefined QI plan was utilized to increase quality indicator scores within a medical office setting as part of the shift to value based health care. Objectives presented will discuss the importance of quality improvement, demonstrate how the use of the Institute for Healthcare Improvement Model for Improvement increased quality indicator scores within the medical office setting, and discuss implications of a quality improvement plan. Research methodology utilized for the QI plan centered on a literature search of QI, an independent assessment of office workflows by a third-party person, and a root cause analysis to identify failure areas.

Importance of Quality Improvement

The Agency for Health Care Research and Quality defines QI as “systematic and continuous actions that lead to measurable improvement in health care services and the health

status of targeted patient groups” (Agency for Healthcare Research and Quality, 2017) and is rooted in human performance at all levels in the organization (Bornstein, 2001). Different programs offer a variety of ways to improve processes and the medical practice administrator must be aware of all to choose the right approach for improving processes in the medical office. All programs provide systematic approaches to identify problems, implement interventions, and evaluate changes in performance. QI must be reoccurring to achieve positive outcomes (Prentiss & Butler, 2018).

Benefits of QI are several and have direct impacts on medical practices if done properly. These benefits include improved clinical outcomes; improved efficiency of managerial and clinical processes; avoidance of costs associated with process failures, errors, and poor outcomes; identification of proactive processes that ensure reliable and proactive care; and improved communication with internal and external customers (U. S. Department of Health and Human Services Health Resources and Services Administration, 2011). However, to be realized, the practice administrator must be able to plan, implement, evaluate, and define QI activities to realize the benefits.

Background

The need for QI was noted when HEDIS scores remained stagnant or showed decreases in trends during six consecutive HEDIS quarters for a three-physician family medicine practice. As one of fourteen practices affiliated with a private, nonprofit flagship hospital, practice scores were among the lowest in the organization. Previous methods of increasing scores ranged from coaching individual front line staff to punitive measures affecting physicians. The methods were not effective as quality scores remained at the lowest level, frustrating stakeholders: medical practice administrator, office supervisor, physicians, registered nurse, medical assistants, and divisional leadership. The implications of no improvement included a decrease in possible reimbursement for failed quality measures, low staff and physician morale, and decrease in trust from divisional leadership.

Model for Improvement

Several resources were utilized to gather and understand the aspect of QI. These sources included the Agency for Healthcare Research and Quality, Centers for Medicare and Medicaid Services, CINAHL, Institute for Healthcare Improvement (IHI), Joint Commission, Medical Group Management Association, and National Institutes of Health. The above sources were used to organize literature as it relates to the QI plan, ease of implementation, timeliness of actions, and understanding of process by staff. As the organization had adopted the plan, do, study, act (PDSA) model, the practice administrator decided to build upon the model so that positive changes realized in the QI process would be sustained and hardwired into the office culture. Providing a solid basis for the QI plan was paramount for success to be achieved. It was with these facts in mind, the IHI Model for Improvement was chosen to plan and test the identified changes to increase quality indicator scores.

The Model for Improvement was developed to “accelerate improvement” in processes ("Science Of," n.d.). Founded using the principles of Walter Shewart and W. E. Deming’s work, the model is grounded in the profound knowledge theory where systems, psychology, knowledge, and variations mesh together to bring about change (Haughom, n.d., Scoville & Little, 2014). The model is adaptable to any size of project whether it is small or large. Advantages include application to all levels in the office, adaptable to many situations, can be informal or formal, ease in learning, and team focused (Little, n.d.).

Team formation is critical for the success of the Model as it relies on several individuals to plan, carry out, and oversee the project. As no one person is an expert in every aspect within an organization, the practice administrator must draw on others for assistance in the creation of a QI plan. Teams are a necessary component as through collaboration of ideas and knowledge sharing, lasting improvements can be achieved in the medical office (Schwarz, Landis, & Rowe, 1999). Team members should include a clinical leader, day to day leader, technical experts, and sponsors ("Science Of," n.d.).

The Model exists of two parts: three fundamental questions and the PDSA cycle. Three fundamental questions assist the team in planning for improvements:

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What change can we make that will result in improvements?

These questions assist the team in defining aims, establishing measures to gauge actual improvement, and selecting what changes should be tested ("Science Of," n.d.).

The PDSA model is a widely used tool for planning, initiating, studying, and acting upon changes to enhance improvements. The model is represented in a continuous circle to illustrate improvement is unending as the goal is to sustain improvements over a set period (Parry, 2014). Four steps are utilized to construct the PDSA model: *plan*, *do*, *study*, and *act* ("Science Of," n.d.).

Plan. The planning stage is essential for developing objectives for the test. During this phase the team makes predictions about what they think will happen during the test and why. A plan is developed on how the test should be carried out to include who will be involved, what actions will take place, when and where the testing will be conducted. At this point, it is necessary to decide on what data will be collected to ensure a change has taken place.

Do. It is during the *do* stage that the test is completed as outlined in the plan. Data collection should commence, and observations carried out to identify problems or other unexpected observations.

Study. Once the study has completed, it is necessary for the team to analyze data generated. Data should be benchmarked to compare data prior to plan implementation with data collected during the *do* stage to assess change in behaviors (Hughes, 2008). A summary of results should be completed, and the team should reflect on what was discovered during the testing phase.

Act. The final stage is to act upon what was learned from the study. The team must decide to keep the new process, change the process, or do away with the process. If the process is to be changed, it is during the act stage that modifications should be made. In addition, since QI is continuous, it is during this stage that planning for the next test should commence.

Assessment

After the practice administrator consulted with leadership regarding past HEDIS scores and current office activities, a third-party observer shadowed staff and physicians in the office to offer a different perspective on current office procedures. Observations took place over two days and in four-hour blocks during busy office hours. Once completed, the practice administrator was tasked with completing an action plan that addressed observed deficiencies in staff routines while the associate medical director addressed physician issues. A root cause analysis was performed to pinpoint areas that led to deficiencies in care.

Root Cause Analysis. The root cause analysis (RCA) is a tool used to identify causes of errors that produce unintended or undesired adverse outcomes while avoiding placing focus on mistakes or individuals (Parker, 2015). The goal of the RCA was to determine what happened in the office that led to decreasing scores, why scores declined, and what could be done to prevent further decline of HEDIS scores. Three possible causes emerged that contributed to the office's declining HEDIS scores.

One cause of low quality scores was the lack of understanding by staff. While physicians had a grasp on HEDIS and quality indicators, staff did not fully understand the implications of why measures were necessary in relation to quality standards. This was despite frequent explanations of importance, discussions in staff meetings, and management follow up with individual staff members. To appear as competent, staff members chose not to ask questions that would help them understand the measures, a detrimental element to the practice scores (Pettit & Duffy, 2015).

Communication was identified as another cause of low quality scores. Physicians expressed concerns with staff not gathering needed data or completing exams to satisfy HEDIS measures. They also voiced reluctance to instruct or remind staff to complete missed exams as they did not want the appearance of causing friction in the physician-staff relationship. Management was notified of discrepancies in care several days or weeks after the fact, effectively eliminating timely follow up for immediate correction and documentation (Hicks, 2016).

Inconsistent documentation also contributed to low quality scores. Within the electronic medical record, smart tips were not utilized to capture documentation that met HEDIS measures. Staff did not consistently use protocols established to guide care for certain patient populations, such as diabetics. Additionally, chart prepping activities ranged from moderate to minimal in information gathering due to lack of knowledge or perceived time constraints.

Model for Improvement in Action

Through the RCA and a renewed appreciation for needed change, the practice administrator set the Model for Improvement plan into action. A primary team was assembled consisting of the practice administrator, serving as the clinical leader and technical expert; office supervisor, providing day to day leadership; and registered nurse, serving as a secondary clinical leader. Supportive team members included the division's director and associate medical director, both serving as project sponsors. The physicians in the office also served as supporting members but were not involved with the project planning due to lack of interest and perceived attitude management is responsible. Nursing quality indicators recently developed by administration were utilized to gather baseline data. These indicators served as benchmarks for the planned improvements to measure whether the pending QI plan would be successful.

Once the team was assembled, aims on what the group was trying to accomplish were established. The aim was to increase quality scores within the medical practice. Measures were established on how the team would know that a change was an improvement. It was decided of the seven nursing indicators currently reviewed, an improvement would be noted by an increase

in three indicators scores in the three-month time frame. Changes were discussed that would result in improvement. These changes included education of staff, review of established protocols, monthly chart audits, and sharing of data.

Plan

In construction of the plan, the team reviewed findings and developed the objective to increase three nursing indicators by twenty-five percent in a three-month period. No specific indicator was chosen for improvement, just a positive increase in three scores to ensure the plan was effective. The prediction of the team was that through education of staff and one to one mentorship, three quality indicators would be increased by twenty-five percent in the three-month testing period.

During the discussion regarding the plan to test, five questions were asked regarding *who*, *what*, *when*, *where*, and *what and how data* would be collected. Who? It was decided that all office staff would be involved to ensure everyone understood the importance of QI and how they were part of the process in improving scores (Haughom, n.d.). What? Education of staff would include lecture and hands on didactics, be based on the core values of the organization, provide resource materials, outline responsibilities of all office members, including physicians, and monitoring of activities. The registered nurse and office supervisor would conduct shadow rounds to reinforce education. Lastly the practice administrator would audit thirty charts per month and record data in spreadsheet. When? The proposed education would be provided in a two-hour education meeting in the afternoon and the office would be closed. In addition, monthly chart audits were to take place at close of each month. Where? The testing phase would be conducted in the medical office. What and how data will be collected? Seven indicators to be reviewed with direct implications to HEDIS scores and monthly chart audits would consist of thirty charts per month.

Once the plan was developed, the proposed QI plan was presented to the divisional leadership for endorsement. Permission was granted to close the office for an afternoon,

signifying strong support of leadership, a necessary component for successful QI plans (Medical Group Management Association, 2015). Providers were apprised of plans and encouraged to support their team members in the proposed initiative to better the practice's scores.

Do

Education was offered as informal training to the entire staff in the office. Ground rules were set at the beginning of the program and staff was encouraged to participate in dialogue to ensure understanding of teachings. Education centered on the core values of the organization, those being integrity, excellence, compassion, and accountability. Training consisted of lecture and hands on didactics to allow staff time to demonstrate understanding of concepts and how to apply in their daily workflow. Resource materials were provided in binders created for each staff member to utilize as reference guides during and after education was completed. Lastly, responsibilities of each staff member, including physicians, were outlined to promote accountability in the individual staff member's role.

Once education was completed, the registered nurse served as a mentor for correct documentation practices by shadowing staff to monitor proper documentation techniques, provide training in use of protocols, and proper chart prepping techniques. In conjunction with the nurse activities, the office supervisor reviewed random charts for proper documentation of indicators to ascertain if immediate change was taking place. If no change was present, the office supervisor followed up with staff on why changes were not made and if further training resources were needed to understand concepts.

Formal chart audits were conducted by the practice administrator at the close of each month and consisted of ten charts per staff member. Seven nursing quality indicators were reviewed, and results were placed in a spreadsheet to capture percentage of activities completed by staff. After review of results, random patient charts were sent to the staff members who were asked to perform self-audits of their own work. Results of staff performed audits were forwarded to the practice administrator and evaluated for notable differences against those performed by

office management. Findings of both chart audits were sent back to staff to discuss any differences that were noted and offering congratulations and encouragement when self-audits corresponded with management results.

Throughout the testing phase, problems were documented as they became known. One problem noted was the lack of physician support for medical staff embarking on the new process. While physicians voiced their support, there was little action noted towards staff's progress. Interpersonal relationships between staff members were also noted causing some personnel to lose focus on goal. Each problem was addressed in a timely fashion to keep the testing process on track.

The last part of the testing phase was to begin the task of analyzing data. A spreadsheet was designed to be representative of the numerator and denominator of each nursing quality indicator. The numerator represented of times the indicator was correctly documented and the denominator, the number of times the indicator was applicable. A percentage was then calculated representing the compliance rate for each indicator. The validity and reliability of the spreadsheet was to ensure consistency was measured each time the spreadsheet was utilized in the data collection phase.

Study

Once the data was collected for the three-month time frame, chart audit information was analyzed by the practice administrator for possible trends in improvement. Review of raw data on existing spreadsheets allowed the administrator to visually review the results and determine if a pattern of improvement or decline existed between the months. Scores also demonstrated the need for future PDSAs to address areas that surfaced through data collection. During the test period, six indicators demonstrated improvement which surpassed the goal of three indicators. One indicator declined from the pre-education audit result. The practice administrator could note change with quality indicators, yet the amount of change was not fully realized until the

percentage of change was calculated demonstrating the magnitude of the importance for the redefined QI Plan.

As a final activity of the study phase, a summary of what was learned was compiled. The plan reinforced a commonly held belief that a medical practice administrator must set the tone for staff to engage in the QI process for improvements to be successful. By building staff confidence to create positive changes, the administrator promotes a change in culture that sustains improvements (Taylor et al., 2013). In addition to the positive aspect of engaging staff, interpersonal relationships between personnel and lack of physician encouragement were realized. If problems or concerns were not dealt with in a timely manner, the QI plan could derail, and all efforts of improvement be in vain (Hansmann, n.d.).

Act

In the last stage of the PDSA, team members had to determine if modifications should be made to the original plan. While it was decided that the appropriate actions were adequate for the past testing period, it was noted that education must be expanded to physicians regarding office activities to facilitate actual acceptance for change. QI activities must also be included as part of the initial orientation process so new staff understand their role in the office setting and the need to increase and maintain improvement scores for a successive period.

The decision to keep the plan in place was made based on the positive improvements noted during the testing phase. Thirty chart audits are completed each month and results continue to be monitored using the spreadsheet to analyze changes. Success was celebrated with staff as the results of the QI plan proved to be greater than the original goal. Review of scores and proper documentation techniques have been incorporated into monthly staff and physician meetings. Ongoing evaluations occur monthly to ensure improvements are constant. If any deviations are noted, the original team evaluates if new PDSA is warranted or reinforcement of education is required. In addition, to keeping the plan in the place, new PDSAs were designed to target low scoring items that were noted during the original PDSA, for example, blood pressure rechecks.

Challenges

During the PDSA, the process was faced with challenges of physician encouragement and interpersonal relationships as previously mentioned. The practice administrator served as the leader to navigate the challenges and keep staff focused on the end goal, increasing quality measures. A well-functioning team was important while testing changes within the environment. Each member had to be accountable for their part and the leader had to guide staff to remain focused on the task at hand as well as long term goals (Medical Group Management Association, 2015).

Physician Encouragement. In the last month of the PDSA testing phase, physicians reverted to habits asserting staff were not documenting needed quality items, displaying lack of ownership for team scores, and deflective posturing when quality scores were discussed with the physician group. The practice administrator recognized that although the physicians voiced their overall support for the PI plan prior to the commencement, support for their clinical team was lacking as the testing phase neared completion. A heart to heart conversation with physicians demonstrated that support was needed from the physicians if positive outcomes were to be realized (Arar et al., 2011). As the practice administrator, office supervisor, and registered nurse had worked extensively to train and monitor staff in correct workflows, physicians had to support the efforts and to own their scores as they were held accountable for personal measures as the organization was held accountable for overall measures. Management and staff were able to assist in collecting data, however if physicians did not take an active role in discussing discrepancies at the time of happening, continued improvement would not be realized in the future.

Because of the conversation between physicians and the practice administrator, one physician was appointed to become the champion for the staff and encourage them in their positive efforts. Recognition by this champion took place at staff meetings when scores were discussed with staff. Through the champion's endeavors, staff voiced recognition that their efforts were noticed not only by the leadership and organization, but also by the office physicians

thereby strengthening the culture of continued improvement among staff members ("Basics of Quality," 2018, Taylor et al., 2013).

Interpersonal Struggles. Interpersonal struggles between staff members came to light halfway through the testing phase. Performance issues in charting, performing everyday tasks, and attendance were displayed affecting the entire office. A three-pronged approach between the practice administrator, office supervisor, and registered nurse, was utilized to ascertain if the staff member directly affected could be saved while ensuring other staff were able to continue with assigned duties. Through a variety of supportive measures and solicitation of ideas from staff members, staff were able to continue the PDSA and demonstrate positive outcomes (Medical Group Management Association, 2015).

Implications of Quality Improvement Plan

The Model for Improvement was successfully utilized in designing a QI plan to combat decreasing quality scores in a medical practice where other improvement attempts had failed. Results of the PDSA raw data revealed patterns of improvements (see Figure 1). Of the seven nursing indicators measured, six measures showed an increase, five greater than twenty-five percent, whereas one measure declined from pre-education scores. This increase in six scores was counted as a victory by the practice administrator as the goal number of three measures was surpassed. The percentage of change was calculated from the pre-education data to the three-month end of the testing phase (see Figure 2). It was through these scores that the magnitude of change was revealed that started from a simple QI plan. Consequently, these small changes led to slight improvements in two HEDIS scores in consecutive quarters.

Figure 1

PDSA Quality Indicators

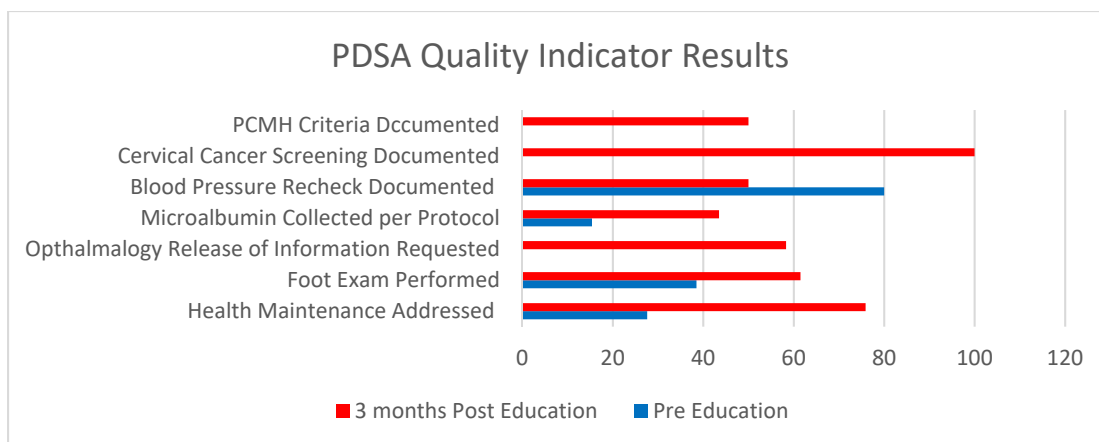


Figure 2

PDSA Change Percentage

Nursing Indicators	Pre- Education	3 Months Post Education
Health Maintenance Addressed	27.6%	75.9%
Foot Exam Performed	38.5%	61.5%
Ophthalmology Release of Information Obtained	0%	58.3%
Microalbumin Collected per Protocol	15.4%	43.5%
Blood Pressure Recheck Documented	80%	50%
Cervical Cancer Screening Documented	0%	100%
PCMH Criteria Documented	0%	50%

Significance

The significance of findings from the Model for Improvement was far greater than expected. Through the process, it was learned that formal QI plans are necessary for a medical practice administrator to facilitate changes in the office. Without such plans, growth is inhibited, and status quo is maintained which can lead to the poor quality of care, lack of engagement by staff and physicians, dissatisfied patients, and lower reimbursement levels.

The Model also demonstrated a commitment to improving patient outcomes. During the staff education module, the need for improvement was impressed upon the staff through illustration of where the office currently stood in quality scores. While confronted with the knowledge that the office had the lowest scores in the organization, the practice administrator tied

the importance of the initiative back to patient outcomes and the need to improve. Staff members were able to connect how certain tasks contribute to care rendered to the patients by connecting quality of care to the core values of the organization. Improved outcomes equated to better patient care, a topic that resonated well with staff as it gave them a focus on the need to improve.

Lastly, increased productivity through consistency was noted during the PDSA phase. Prior to the testing phase, protocols and checklists were not consistently followed even though staff had been trained on proper use. For actions to be consistent, staff members had to utilize the tools that had been previously provided to capture needed actions. These tools were reintroduced to staff during the education session and resource material was placed in binders for staff to readily review when needed. Expectations were reset with staff members and physicians regarding knowledge of tools and the staff's use of tools as a guide to proper patient care. Staff were able to accurately triage patients therefore decreasing wait times at the later part of the visit.

Do Nothing Approach

As scores continued to slide prior to the Model's implementation, the *do nothing* approach was not an option ever considered. The practice administrator watched a continuous slide in scores despite numerous attempts to correct the problem. Frustration mounted as each quarter scores were discussed in divisional meetings, and the office was among the lowest scoring practices. After consultation with divisional leadership on issues in the office, the practice administrator willingly agreed for a third-party observer to review office practices to find the missing pieces. It was with this action and the use of the QI plan, improvements were realized.

Pros/Cons

As with any QI plan, pros and cons exist and must be managed to achieve the highest possible gain. Pros realized revolved around staff, orientation of new staff, and sustained improvement. Staff members verbalized their understanding of why the office had to change for the better. In addition to verbalization, the staff demonstrated they could change when presented

with the facts on why and how change was necessary. Pride in work completed grew as monthly scores continued to increase for the better.

Another pro was the development of tools that are now used in the training of new staff. A different orientation process for new hires was implemented by the registered nurse to ensure understanding of protocols and checklists. Shadowing and chart audits allow the nurse to gauge the employee's level of understanding and consistency in use of tools provided. Redirection is immediate, and correction of errors is lessened as employees are trained the right way the first time.

An overwhelming pro has been the increase or sustainment of improvements that the Model brought forth. Gains made in improvement were sustained despite a very slight decrease noted following the month a valued staff member resigned. This sustainment demonstrated to the practice administrator that remaining staff consistently followed prior teachings to ensure the office was meeting the needs of the patient.

During this process, two cons stood out in the QI plan. The Model was designed to accelerate changes in a short period of time, however, short term processes must be continuously monitored until hardwired into place. Despite the plan's completion at the end of the three-month phase, the practice administrator had to foster a commitment from all staff members and physicians to continue the process for maximum effectiveness. Because the testing phase had ended did not mean the office would revert to old patterns.

An additional con realized with the chosen QI plan was the physicians' individual resistance to initiatives and lack of engagement as staff readily worked to change the office scores. Ideally physicians should want to embrace change and foster the team work required to bring forth changes that affect their work habits and bottom line of the organization. Sadly, this was not the case until the administrator confronted the issue. Physicians, even though employed by the organization, had to take ownership of individual scores and encourage the office team in the positive measures achieved.

Lessons for Other Healthcare Managers

Several lessons can be applied to other health care leaders from this focus paper. First, QI plans set the foundations for change in quality initiatives. Whether improvements are to be large or small, a QI plan can help develop knowledge by breaking down processes to find failures and improve processes. The IHI Model for Improvement provides a blueprint to steer change in the office setting.

Secondly, consistency is required from building the right QI plan, to achieving and maintaining improvements. Tools, such as checklists and protocols, should be used consistently to ensure the patient care is centered on the activities required to provide quality care to patients. The healthcare manager must be consistent in providing guidance to staff during the process, encouraging the continued efforts of all. In addition, the manager needs to be consistent in reporting data to stakeholders regarding progress of goals and resolving issues as they arise.

The third lesson to be learned is that investment of time is necessary on all levels of the QI plan. Health care managers must recognize that time commitments are required on their part to learn how a QI plan functions, how to teach the concept to staff, and how to monitor and analyze data once completed. Without spending the time needed to build a strong foundation, the QI plan may become *just another* project that requires work with no value acquired.

Finally, the lesson of team work is invaluable as no one person is an expert on all subjects. Improving quality of care is not a solitary activity. The health care manager must foster teams by involving those who work on the processes as well as engaging leadership. Team work brings about change faster as sharing of ideas and ownership of initiatives takes place.

Conclusion

Through a well constructed QI Plan, processes can be redesigned to make positive and lasting changes in the medical practice setting. Knowledge and use of such programs is paramount for the success of the medical practice and administrator as the landscape of health care continues to shift with payment models tied to quality. Improvements must be leveraged by

the dynamics of change, data and human resources for changes to occur and be meaningful. The IHI's Model for Improvement provides the administrator with a guide to create and evaluate process change in an easy to understand format. Whether examining complex or simple processes, through the use of the IHI Model for Improvement the medical practice administrator can realize gains when QI plans are conducted properly.

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