

Mid State Health Center Quality Improvement Case Study

Sharon Beaty and John W. Moran¹

Introduction:

Mid-State Health Center (MSHC) is an independent, non-profit primary care medical practice with offices located in Plymouth and Bristol, New Hampshire. It serves residents of 16 towns in the greater Plymouth area of Central New Hampshire. Patient, family, and community primary care needs are met by MSHC with an integrated practice model of three Internal Medicine Physicians, four Family Practice Physicians, one Pediatrician, four Nurse Practitioners, and three Clinical Psychologists. The mission of Mid-State Health Center is to provide sound primary health care to the community, accessible to all regardless of the ability to pay.

Mid-State Health Center is a Federally Qualified Health Center (FQHC) Look-a-Like that does not receive funding under section 330 but operates and provides services similar to grant-funded programs. As such, FQHC Look-Alike entities are expected to demonstrate the same commitment as grantees to serve all populations residing in their respective medically underserved communities and to satisfy the administrative, management, governance and service-related requirements unique to section 330-funded health centers.

Mid-State Health Center (MSHC) is recognized by the National Committee on Quality Assurance as a Level 3 Patient-Centered Medical Home. The culture of MSHC is one that is patient-centered and clinician-directed even though the non-profit corporation is governed by community members, almost all of whom are patients and members of the community it serves.

One of the cornerstones of the FQHC program is community involvement in both the management and governance of the health center. The FQHCs must be governed by a community-based Board of Directors, a majority of whom are users of the health center's services and who represent the health center's service area in terms of demographic factors such as race, ethnicity, and gender. The Board must autonomously exercise key decision-making regarding adoption and establishment of operating and service policies, approval of the budget and grant application, strategic and operational planning, and the hiring and, if necessary, dismissal of the executive director or chief executive officer.

Quality Improvement (QI) Projects:

The management team of the MSHC decided to investigate two areas of concern to them as potential quality improvement projects to help improve authorizations, reimbursement and improve patient satisfaction.

The first quality improvement project was to obtain a behavioral health authorization before the patient leaves and to reach 80% of dual visits. The current baseline data shows that behavioral health authorizations before the patient leaves are currently running at 25%.

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The second quality improvement project was to schedule dual appointments for INR and clinician visit and provide a seamless check-in and pre-examinations for patients scheduled for more than one appointment.

Process Followed:

Both of the quality improvement project teams followed the Plan-Do-Check-Act (PDCA) process as shown in figure 1².

Flow Chart of PDCA Cycle

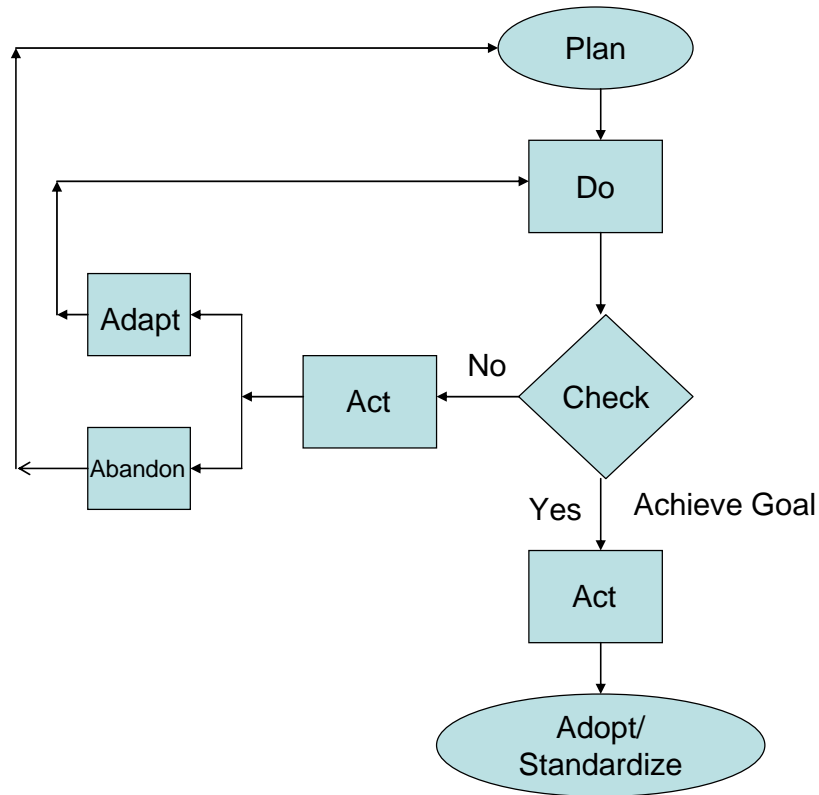


Figure 1

PDCA is based on the “Shewhart cycle,” and was made popular by Dr. W. Edwards Deming, considered by many to be the father of modern quality control. The Plan-Do-Check-Act cycle (PDCA) has been embraced as an excellent foundation for and foray into quality improvement, as it is both simple and powerful. Its simplicity comes from the systematic, straightforward and flexible approach that it offers. Its power is derived from its reliance on the scientific method, i.e., it involves developing, testing, and analyzing hypotheses. This foundation offers a means to become comfortable with a host of quality improvement methods and techniques and to progressively evolve into addressing more complex problems, employing additional QI tools, and migrating to system-wide approaches to QI in an organization.

² The ABCs of PDCA, Grace Gorenflo and John W. Moran, http://www.phf.org/resourcestools/Documents/ABCs_of_PDCA.pdf, accessed February 17, 2011

Both teams were trained in the basic tools of Quality Improvement and how they are linked in a sequence to provide a robust problem-solving process as shown in figure 2.³

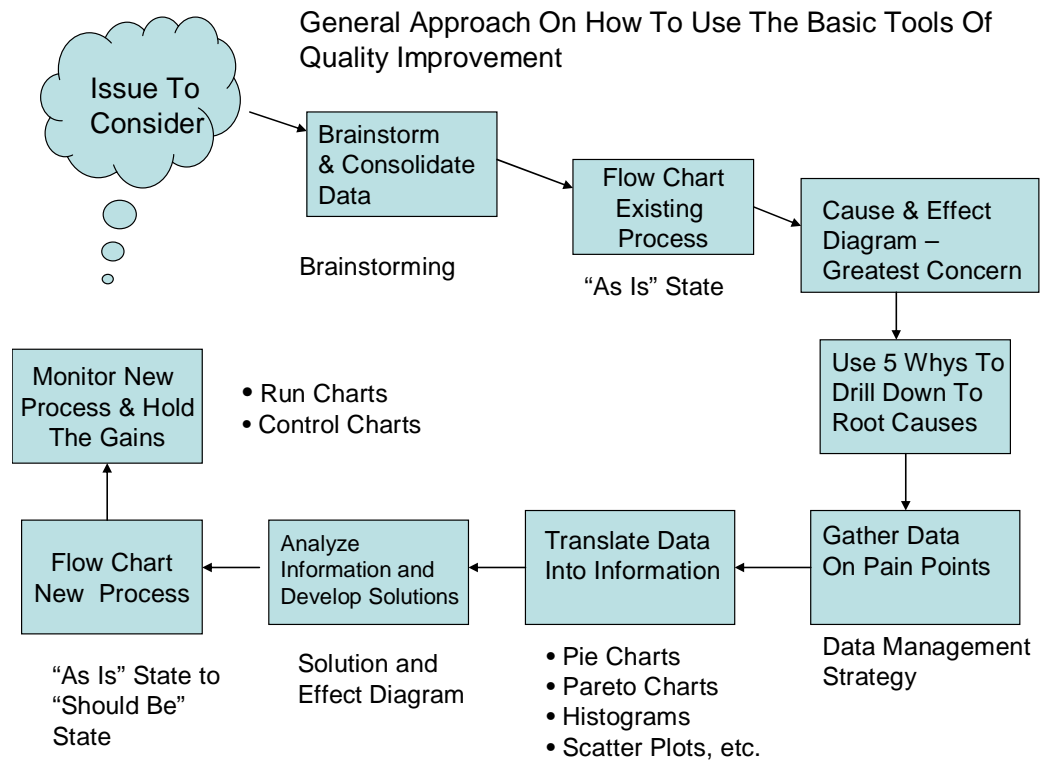


Figure 2

QI Project # 1: Medical & Behavioral Health Appointments

Goal: To get a behavioral health authorization before the patient leaves; reach 80% of dual visits by September 1st. Currently behavioral health authorizations before the patient leaves are achieved 25% of the time.

Team Members:

- Sharon Beaty, CEO
- Bill Sweeney, CFO
- Kristen Nielsen, IS Coordinator
- Tonya Dow, Administrative Assistant
- Paula Roberge, HR Coordinator

Current State:

Clinician identifies need for behavioral health visit during the medical visit. The clinician leaves the room to get behavioral health or sends medical assistant for behavioral health. Behavioral

³ The Public Health Quality Improvement Handbook, R. Bialek, G. Duffy, J. Moran, Editors, Quality Press, © 2009, p.160

health comes to exam room and a note in electronic record is made with information being sent to billing group for invoicing. The current state patient flow chart is shown in figure 3.

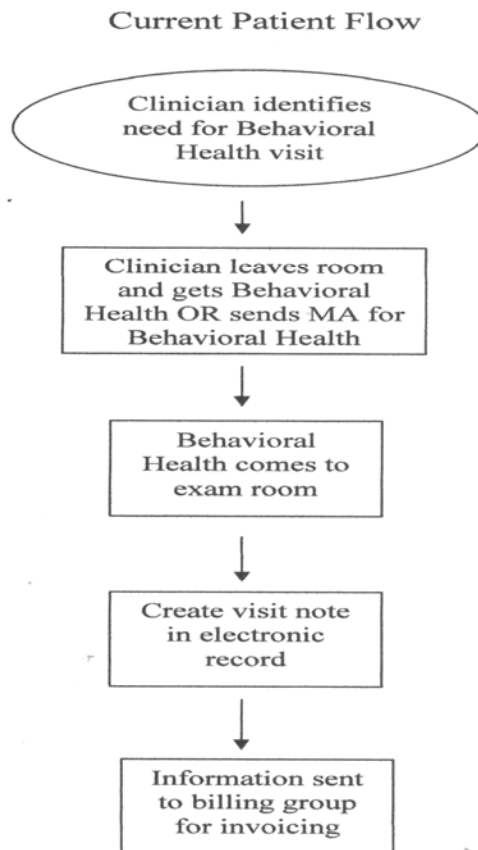


Figure 3

Barriers Identified from the current state patient flow chart team analysis:

- Clinician time
- No authorization team group setup in taskman (secure internal e-mail to update patient's Electronic Medical Record)
- No quick screen pick in taskman
- Clinician forgets to taskman the authorization team

What has to change? It is proposed that when a clinician identifies a need for a behavioral health visit during the medical visit they will send a taskman to the authorization team for authorization approval. The authorization team accepts the task and calls the payor for same day authorization or denial. The authorization or denial is documented within docman (secure system to document external authorizations or tests into the Electronic Medical Record) blue forms with the information being sent to the billing group for invoicing. If these changes are successful they will eliminate the following current problems:

- Inconsistent authorizations and reimbursement – it was conservatively estimated that at least one visit per day did not get authorized which resulted in a net loss of \$100/visit to the clinic which is \$24,000 annualized.
- Patient dissatisfaction due to inappropriate denials was reduced, additional phone calls by the staff to follow-up with patient on a denial were reduced, and this resulted in a decrease in re-billing for denials. These savings could not be quantified but did result in less staff time being wasted in follow up that could be applied to other billing functions.

Proposed Changes to the Current Patient Flow as shown in figure 4:

- Clinician Education to inform authorization team via taskman.
- Authorization Team accepts task and calls payor.
- Authorization Team receives same day authorization or denial.
- Authorization Team documents authorization number and person spoken to in Docman blue forms
- Information is then sent to billing group for invoicing.

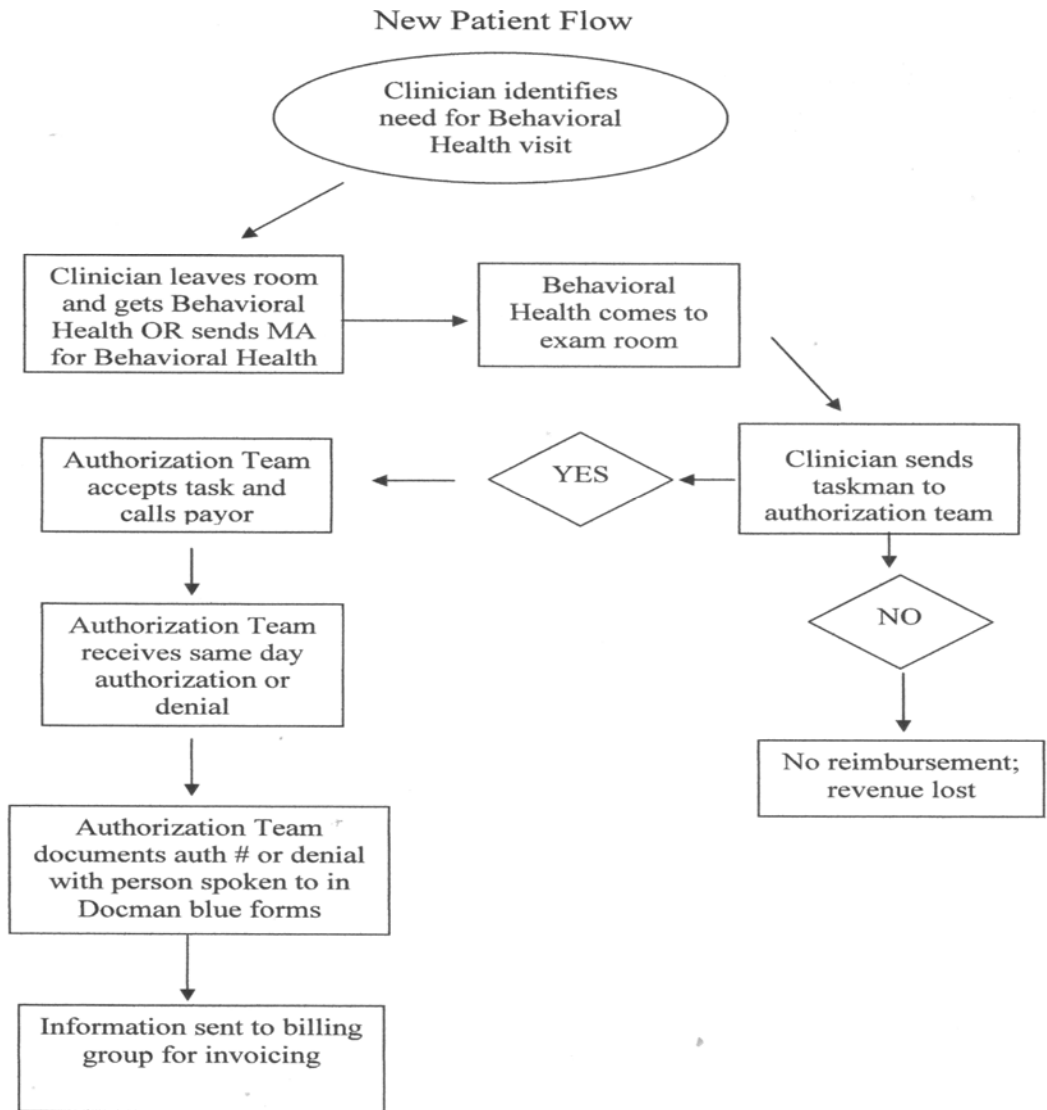


Figure 4

Summary:

After reviewing the current flow with all clinicians and staff involved in getting a behavioral health authorization, the team agreed that the current flow needed some modifications as shown in the new patient flow in figure 4. The problem was one of communication, handoffs not being seamless, and the need to re-train some personnel on the correct protocols of obtaining authorizations. All of the changes have been completed and the same day denial rate has reduced from an average of 10 per week to less than one, a 90% reduction in the first three months of the new patient flow and authorization process. The positive result to the bottom line may well exceed \$24,000 per year.

QI Project # 2: Dual Appointments for INR and Clinician Visit

Goal: Provide a seamless check-in and pre-examinations for patients scheduled for more than one appointment by July 1st. Often patients are scheduled for nurse visit appointment just prior to clinician appointment for patient convenience.

Team Members:

- Cynthia Piper, Clinical Supervisor
- Pam Plummer, Clerical Supervisor
- Walter Bryant, Facilities Coordinator
- Vicki Nielsen, Medical Information Management Supervisor
- Peggy Rosen, Quality Assurance Coordinator

Current State:

Multiple patients scheduled for 8:00 AM nurse visit two pro time (INR) visit with clinician. Visit to follow at 8:00 AM or 8:15AM. The current state flow chart is shown in figure 5.

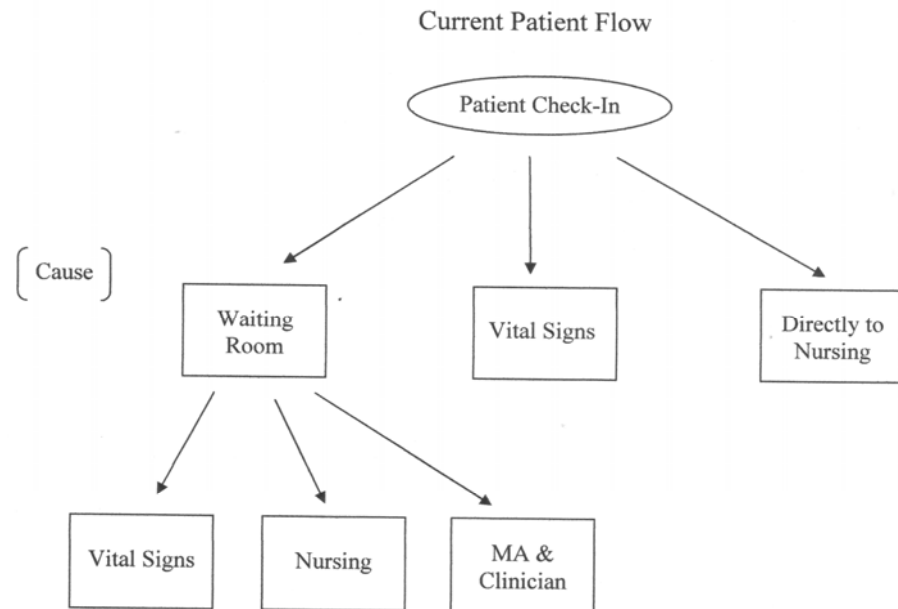


Figure 5

Barriers Identified from the current state patient flow chart:

- Nurses arrive just prior to 8:00 are – need to “open up” log on.
- Phone interruptions.
- Abnormal INR results take longer to determine new dose, patient education.
- Need to go to vital sign station – not consistent, before or after nurse visit appointment.
- Overbooking 8:00AM nurse visit appointments.

- Patient does not always tell reception they have two appointments.

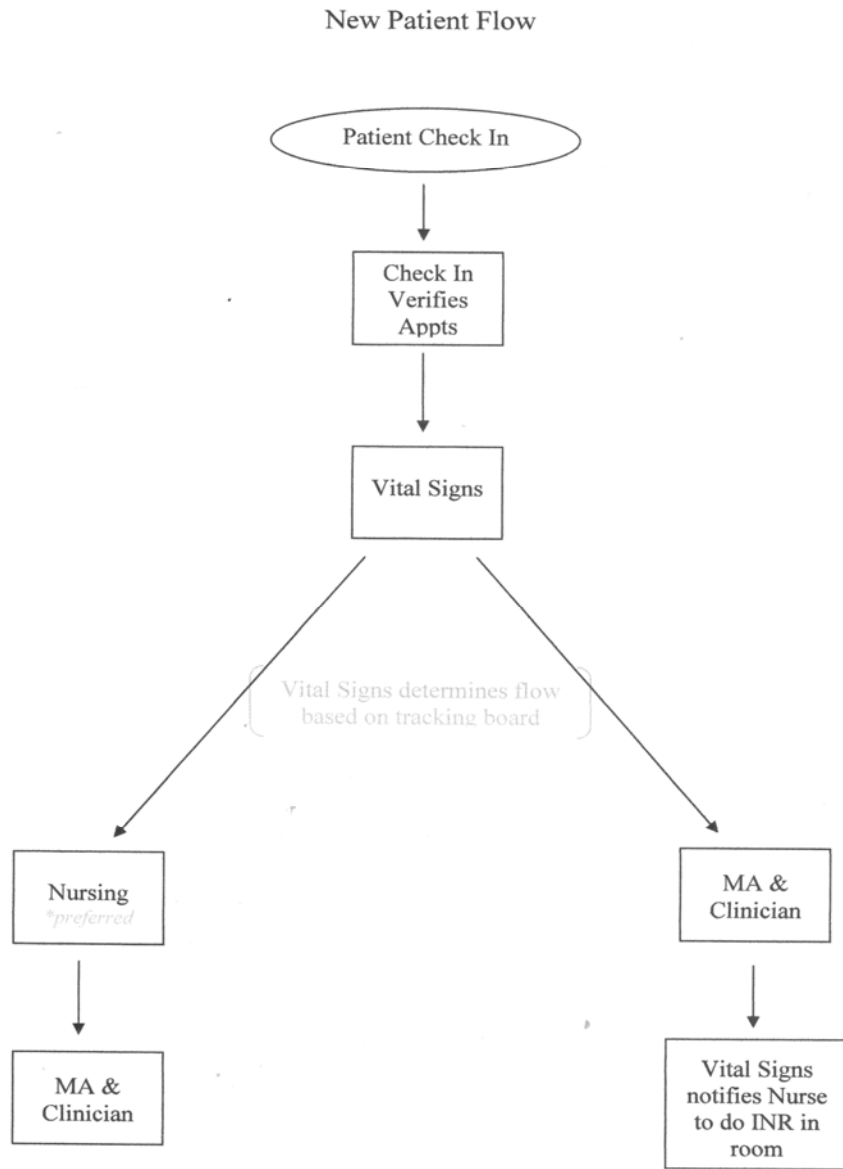


Figure 6

What has to change?

- Inconsistent patient flow results in delays in having patient ready for clinician.
- INR result not available for clinician
- Patient dissatisfaction due to choppy patient flow and feeling rushed.

Proposed Changes to the patient flow are shown in figure 6:

- Decrease overbooking 8:00 AM and 1:00 PM nurse visit two appointments.
- Nurse scheduled to arrive at 7:45 AM.

- Patient education to arrive timely.
- Check-in staff education to verify scheduled appointments.
- Patient directed to vital signs after check-in.
- Vital signs determines flow based on tracking board
- Education to nursing – need to fast-track nurse visit two patients (use “connecting flight” analogy)

Summary: With the introduction of the new process flow and the nurses arriving earlier it has resulted in an improved patient flow for dual appointments. One side benefit has been that patients are now getting their INR test consistently which has resulted in additional revenue from those who in the past missed having their labs done on site. One obstacle that has been encountered is that patients are not arriving on time for the dual appointments and additional patient education and follow-up is taking place to ensure on time patient arrivals.

Conclusion:

Mid-State Health Center, after incorporating the Quality Improvement tools for these two projects, has actually learned to employ them when the conversation turns to solving a problem. We have learned to step back, take a look at the tools and employ them to simplify our process and keep the team on task. We believe that this saves time for our group and produces better outcomes. We tend to remember more and identify barriers in advance, saving time when we begin to implement solutions. We are very grateful to John Moran and the Public Health Foundation for sharing these QI tools and techniques with us and find them simple and powerful enough that we can continue to incorporate them in various situations in our clinic. Adhering to the processes encourages us to do a more comprehensive job of problem solving and reminds us to continue to reevaluate and fine-tune our systems. This will continue to offer us cost savings in the future.

Please submit feedback on this paper to SBeaty@midstatehealth.org or jmoran@phf.org.