CHAPTER TWENTY-FOUR

FOLLOW THROUGH ON IMPROVEMENT

Storyboards, Data Walls, and Playbooks

Chapter Purpose

Aim. To make plans to tell the improvement story, measure progress over time, and sustain improvement using standard processes.

   Objectives. At the completion of this unit, you will be able to

• Describe the improvement fundamentals needed to maintain and sustain improvement.
• Identify where improvement data can be posted for viewing by all

microsystem members to increase their knowledge about purpose, progress, and priorities.
• Design a microsystem playbook that documents standard ways of performing processes and that can be used in orientation, performance appraisals, and daily improvement work.
• Develop a storyboard to document your microsystem's improvement journey and progress made over time.

I t is essential to anchor new ways of thinking, behaving, and communicating in the daily environment of the microsystem. This chapter discusses three tangible products that are extremely valuable for fostering microsystem cultural transformation—storyboards, data walls, and playbooks. Each of these products

helps you create a visual environment; they are viewable artifacts that reinforce the microsystem's aspiration to be a high-performing unit.

What Is the Importance of Follow Through?

Well-intended efforts to make meaningful improvements are at risk of not being sustained over time after early aims are achieved. Systems and processes are constantly under pressure, professionals come and go, processes morph as time passes, and unless someone is actively doing the *follow-through,* improvements can be lost. Intentional planning to hold the gains, through monitoring processes and reviewing data, is essential to prevent old habits from encroaching on the new and improved ways.

What Can You Do to Follow Through?

The key follow-through activities for microsystem leaders are following the fundamentals of improvement, creating a data wall to display ongoing performance measures, creating and updating a microsystem playbook, and maintaining a storyboard of the system's improvement journey.

What Are the Fundamentals of Improvement?

Practicing the fundamentals of microsystem improvement is important to ensure that the right things consistently happen in your microsystem. These fundamentals include

- *Leadership.* Ensure that the microsystem has an effective leadership team— often a physician and a nurse or an administrative person—that communicates and reinforces the microsystem's vision in words and action.
- *Discipline.* Consistently use improvement science methods when change is required. Using the improvement model and the techniques embodied in the Dartmouth Microsystem Improvement Curriculum will foster continued learning, new habits, and ongoing growth.
- *Rhythm.* Maintain the weekly or biweekly lead improvement team meetings and use effective meeting skills. Holding daily huddles to review clinical care and improvement progress helps to remind everyone of the imperative for ongoing improvement. Monthly all-staff meetings should have improvement on every

agenda to promote the vitality of the process. Reporting of data specific to new improvements and conducting process monitoring keep metrics that matter on everyone's radar screen.

• *Pace.* Clinical care has its ups and downs. Continuing to maintain the rhythm just described, even during peak periods of clinical activity, is important. Be sensitive to high-volume, high-acuity times; avoid launching work on new improvement themes when it will compete with clinical demands.

What Is a Data Wall?

A data wall is a clearly defined physical space where vital measures of performance can be posted on the wall for all members of the microsystem to review. The posted measures can reflect not only the microsystem's improvement work and performance metrics but also the work and metrics of the larger organization. Chapter Twenty-Two recommends identifying a *data captain* and building measurement into daily work. It is important to know who will *own* the data wall and keep it up to date and relevant. The data captain can own the data wall, review the metrics on a regular basis, and determine, with the lead improvement team, when data no longer need to be posted and which subset of data will be needed for monitoring.

Data come from many sources; they can be provided by the macrosystem or the microsystem may collect its own data. Secretaries, nurses, physicians, assistive personnel, patients, and families in the microsystem can all contribute vital information to the data wall. Using run charts and control charts to display data over time reinforces the idea that processes and outcomes vary as time passes and that a basic goal is to increase reliability. The data displays do not necessarily need to come from a software program; they can be simple pieces of graph paper showing daily, weekly, and monthly measures and can be posted manually by someone who is close to the process.

Many high-performing microsystems review their data walls at monthly all-staff meetings to (1) ensure that all members are informed of the gains being made, and (2) draw attention to early warning signs of poor results that require attention.

What Is a Playbook?

A playbook is a collection of core and supporting processes used routinely by your microsystem. It includes flowcharts and diagrams of processes that have been tested using improvement science and that represent "the way we want this process done." The aim of a playbook is to provide a place to collect standard processes of care.

How Is the Playbook Used?

The playbook is used to maintain high performance and to promote safety, efficacy, and efficiency. This can be accomplished in many ways:

- *Interviewing job candidates.* Review of the playbook offers clear communication about how the microsystem functions and how it expects members of the microsystem to interact with each other.
- *Orienting a new staff member.* The playbook is an efficient way to teach new staff about the way the microsystem work is done. Because playbooks use flowcharts and diagrams, the steps in each process are easy to understand. Flowcharts provide an easy way for new staff to learn and remember process steps.
- *Conducting performance reviews.* The playbook can be used for performance evaluation, enabling staff to review expected performance vis-à-vis actual performance. It can be used periodically to check whether everyone who uses a specific process is using the standard version of that process.
- *Orienting temporary staff.* Temporary staff—such as per diems, floats, and travelers—may become part of your microsystem for a period of time. The playbook is a helpful resource for them, helping them do their work the right way.

How Do You Create a Playbook?

Once you have completed testing changes to a process, you can create the *final* (SDSA) version of how that process should be executed all the time. It is usually best to use a deployment flowchart to show what actions should be taken by whom and in what order.

In addition to flowchart(s), the playbook can include tools that support the process, such as

- Data collection forms
- Blank forms such as huddle sheets and report forms
- Pictures of how to complete a process

There are three basic steps to making a playbook:

1. *Table of contents.* Create a table of contents listing the individual processes included. A notebook is a convenient place to store the materials and to make

it easy to copy and update the flowcharts. You may wish to create an electronic playbook to provide better access and to simplify updates.

2. *Checklist templates.* Complete a playbook checklist for each process (see Figure 24.1) to outline what is included in each section and when updates are scheduled.

3. *Flowcharts.* Following each checklist, insert the appropriate process flowchart(s) and additional information. Repeat this for each process listed in the table of contents. If you are using a notebook, consider using clear *sleeves* to store the flowcharts and forms, in order to protect the pages and to make extra copies readily available.

How Do You Maintain Your Playbook?

Playbooks evolve over time as you test processes and identify new best practices. It is important to *refresh* your playbook at predetermined intervals and when improvement cycles are done. Not only should the playbook be refreshed but critical review of the SDSA processes over time will often identify the need to move from SDSA back to PDSA, because of new knowledge, new equipment, or new technology. A key principle of the PDSA ↔ SDSA method is the notion that ongoing improvement work shifts back and forth between experimentation and standardization.

Use the checklist to identify who will be responsible for reviewing and updating and when the process will be kept current. In general, people who are part of the process should be the ones responsible for keeping the playbook current.

A good method to ensure that the recommended steps in a process are being completed as planned is to identify someone to observe the current process, step by step, and make notes when the steps are not performed as documented.

Performance lapses may occur for assorted reasons:

• The individuals were not aware of the best practice.
• The process has changed but the playbook has not been updated.
• Some people have decided to execute the process using their own style.
• Changes have occurred in equipment or materials or supplies.
• A physical space has changed.

All of these reasons reveal why playbooks, education, and reminders are important. Staying close to the process helps you to identify when the playbook needs to change and when new flowcharts need to be completed.

FIGURE 24.1. PLAYBOOK CHECKLIST TEMPLATE.

PLAYBOOK CHECKLIST

Name of Process _____

Contact Person   _____

Which of the following are included in this section?

☐   Flowcharts

☐ _____
☐ _____
☐ _____
☐ _____

☐   Forms

☐ _____
☐ _____
☐ _____
☐ _____

☐   Data collection sheets: Include measures that will be monitored to ensure
     standardized process specifications are being followed.

☐ _____
☐ _____
☐ _____
☐ _____

☐   Pictures

☐ _____
☐ _____
☐ _____
☐ _____

WHO will observe, review & update? _____
                                                                   Name

_____
                                                    Frequency of Review

DATE of review _____
                                                    Date

DATE to report findings of review to lead improvement team _____
                                                                                        Date

What Is a Storyboard?

Storyboards can communicate the highlights of your work to others in a way that is easy to follow and graphically interesting. The storyboard communicates more in graphs and pictures than in words. The format is easy to use, maintain, and read, and it memorializes achievements. Someone new to the work should be able to understand what was done and why by following the logic of the storyboard's graphical displays, data analyses, and conclusions.

How Do You Make a Storyboard?

There are many ways to construct a storyboard. You can make one the old-fashioned way, using boards and graphics and pictures on paper. Increasingly, however, people are choosing to use Microsoft PowerPoint to create a storyboard as a PowerPoint slide, and then to print that slide as a poster, using a large format printer. This method allows you to import data and other graphics directly into PowerPoint and to create the poster without rework.

Materials often used for a storyboard include

• Foam core board for a freestanding display
• Colored poster board
• Pictures
• Graphics, data, flowcharts, and fishbone diagrams
• Spray glue

A general format for a storyboard follows. Start your story in the upper-left-hand corner.

1. List your facility's name, microsystem name, and lead improvement team's name. In addition:
   • Supply the location of the facility.
   • List the names or roles of the team members involved in improvement efforts.
   • Give the dates of interaction and a timeline.
2. Document your AIM statement:
   • State what you and your team were trying to accomplish.
   • Include the area worked in and the scope of the aim. If applicable, also mention the extent of the spread of improvement beyond the initial area and scope.
3. List the diagnostic tools used to identify the need to improve.
4. List the measures monitored during the improvement cycles.

5. List the change ideas implemented. Also list the change ideas tested.
6. Display qualitative and quantitative results.
7. Summarize the effort, and indicate the next steps.

Discussion

The improvement journey is hard work and never ends. Even harder is ensuring that the improvement gains and successes you have made are sustained and continuously improved on. High-performing microsystems continue to achieve success and reach new levels of performance when they stay true to the fundamentals of improvement, when they follow through—using data walls, playbooks, and storyboards—and when they keep improvement omnipresent in busy clinical settings. The follow-through tools presented here will help you keep the visual environment vibrant with improvement knowledge and outcomes and serve as reminders to celebrate improvement progress by the members of the microsystem. The habits of improvement need to be woven into the fabric of everyday work and reinforced using (1) visual reminders, (2) meeting skills, and (3) active engagement from everyone.

Case Studies

Intermediate Cardiac Care Unit (ICCU)

The ICCU lead improvement team maintains a dynamic storyboard for all ICCU staff to review (see Figure 24.2). This storyboard serves as an educational source for staff to communicate progress and as a talking point for leaders and others who visit the ICCU. The conference room walls chronicle the history of ICCU's improvement journey because meeting notes are recorded on flipcharts along with graphics and diagrams.

The data wall continues to grow, blending organizational measures with relevant ICCU data. The data portray real-time progress and help keep the ICCU team alert to progress and trends that might trigger investigation.

The ICCU playbook is under construction. The lead improvement team's initial work resulted in a clear, uniform process for interdisciplinary morning rounds participation with defined roles, defined content for reports, and action items.

Plastic Surgery Section

A visual display of improvement activities and the 5 P's provide constant reminders of the focus and goals of improvement for the Plastic Surgery Section (see Figure 24.3). The data wall keeps staff current on performance and shows when certain processes

FIGURE 24.2. STORYBOARD DISPLAY OF THE ICCU IMPROVEMENT JOURNEY.

Case Study: Intermediate Cardiac Care Unit
Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire

<u>PURPOSE</u>
The ICCU will create an environment in which cardiac patients and their families can receive excellent, comprehensive, specialized state of the art quality care.

TEAM

Jean R.N.	Joanne
Shelly	Dara
Melanie	Laurie
Edward M.D.	Dhaval
Kate	Mary
Jessica	Lucia
Shelby	Tiffany
Nancy	Marcia (cardiac patient)

TIMELINE
January '06
Attended Coach the Coach (educational session)
Established regular team meetings with effective meeting skills
Review 5P's
February '06
Begin interdisciplinary rounds
March '06
Interdisciplinary rounds clarification of roles in rounds
Creation of script for each role
Order of reporting modified
Discharge ticket initiated
April '06
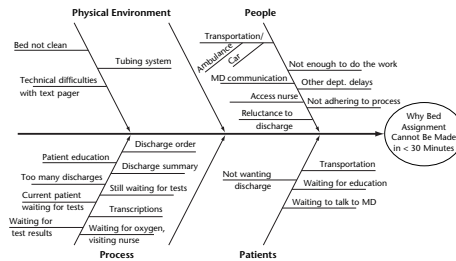Continued testing of rounding report process
Discharge planning ticket revised

DIAGNOSIS
THEME: Communication
Global Aim
We aim to improve the <u>process of communication</u> in our ICCU.
<u>The process begins</u> with the initial notification of the need for patient admission.
<u>The process ends</u> with the appropriate discharge disposition of the patient.
<u>By working on this process we expect</u>: Improved patient care and efficiency; improved flow of consistent information between patients, providers and families, improved communication along the health care continuum; a reduction in readmissions; a reduction in stress.
<u>It is important to work on this now because</u> we have identified the need to improve: satisfaction of patients, families, and care professionals. We need to eliminate near misses and errors due to poor communication and have clearer plans of care.

Specific Aim Statement
We aim to assign and communicate assigned bed for patients within 30 minutes of request for admission.

Measures
1. Time from phone call to time of admit bed communicated
2. # of admissions/day
3. % of discharges before noon (to open beds for admits)

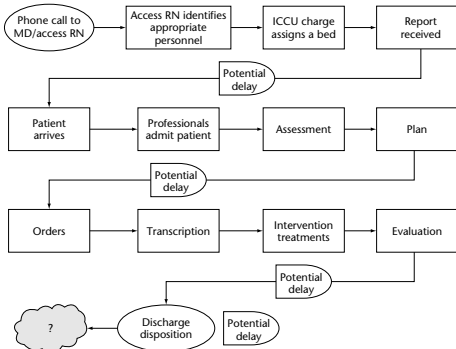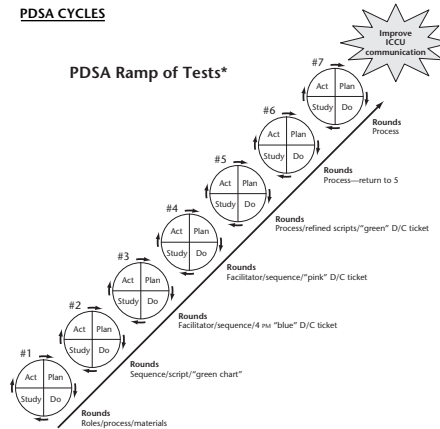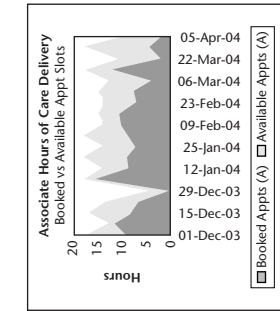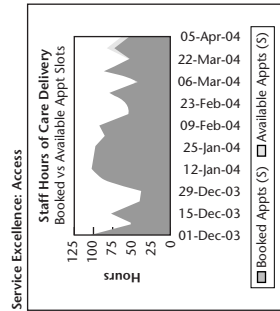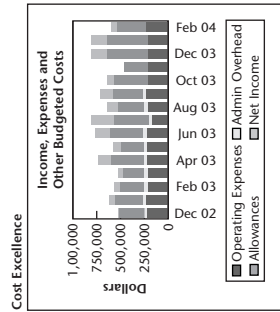**Figure 19.5 Fishbone Diagram: ICCU Bed Assignment***

*Note. This figure shows the factors that contribute to the delays in bed assignment that prevent achievement of the specific aim: assign and communicate bed assignment for needed admission in 30 minutes

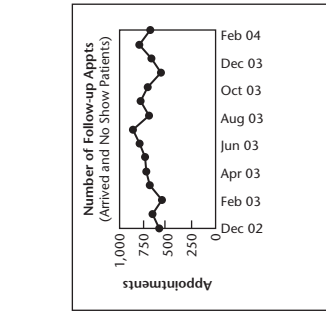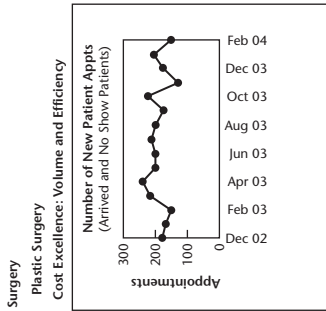**PDSA CYCLES**

PDSA Ramp of Tests*

*Note. The ICCU team used repeated rapid tests of change, based on stringing together PDSA cycles, to attain the aim regarding improving the communication process of morning rounds.

NEXT STEPS
1. **Continue to test interdisciplinary morning rounds.**
2. **Prepare scripts and process to move interdisciplinary morning rounds to the bedside to include patients and families.**
3. **Review and post data on data wall.**
4. **Review roles and functions to ensure optimized roles.**
5. **Consider redesign of "care teams" to improve continuity and reliability of patient care.**

FIGURE 24.3. PLASTIC SURGERY SECTION DATA WALL.

Ambulatory Clinical Practice Committee

Surgery

Plastic Surgery

Technical Excellence

% Patient Appts with Current Meds and Allergies Verified

Med Charted · Allergy Charted

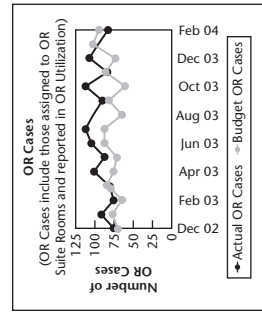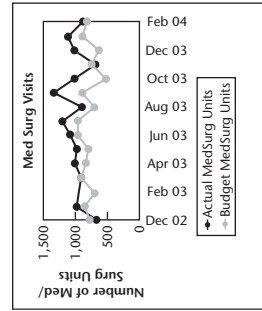**Patient Characteristics**

Age Distribution of Patients Receiving Care in Clinic

0–10
11–24
25–44
45–64
65+

Age Data detected on DP

Service Excellence

Patient Satisfaction Rating of Service

Visit Overall · Appt Scheduling
Provider Overall

Cost Excellence

Income, Expenses and Other Budgeted Costs

Operating Expenses · Admin Overhead · Net Income
Allowances

OR Cases
(OR Cases include those assigned to OR Suite Rooms and reported in OR Utilization)

Actual OR Cases · Budget OR Cases

Med Surg Visits

Actual MedSurg Units
Budget MedSurg Units

Ambulatory Clinical Practice Committee

Surgery

Plastic Surgery

Cost Excellence: Volume and Efficiency

Number of New Patient Appts
(Arrived and No Show Patients)

Service Excellence: Access

Staff Hours of Care Delivery
Booked vs Available Appt Slots

Booked Appts ($) · Available Appts ($)

Top 10 Conditions/Diagnoses	% of All OP Dxs
Other aftercare	32.2
Other skin disorders	9.9
Open wounds of head, neck, and trunk	5.5
Residual codes, unclassified	5.3
Nonmalignant breast conditions	4.7
Other congenital anomalis	4.4
Chronic ulcer of skin	4.3
Other nervous system disorders	3.9
Other and unspecified design necalism	3.6
Other connective tissues disease	3.1

Number of Follow-up Appts
(Arrived and No Show Patients)

Associate Hours of Care Delivery
Booked vs Available Appt Slots

Booked Appts (A) · Available Appts (A)

Referring Provider Distribution	% of All OP Referrals
ALL OTHER	42.0
INTERNAL–LEBANON	29.3
DOCTOR NOT ENTERED	25.4
INTERNAL–NORTHERN REGIONAL OFFICE	3.3
INTERNAL–SOUTHERN REGION	0.0
INTERNAL–NO LONGER ACTIVE	0.0
DOCTOR NONE/SELF/UNKNOWN	0.0

may need attention to avoid backsliding. The Plastic Surgery playbook continues to grow. Scheduling methods, contingency plans, daily huddles, and shared medical appointments are some of the activities contained in this microsystem's playbook.

Review Questions

1. What are the essential follow-through practices that sustain and monitor improvement gains?
2. What fundamentals of improvement maintain the momentum of improvement?
3. How do data walls, storyboards, and playbooks compare and contrast?
4. What playbook functions can be used in a microsystem?

Between Sessions Work

1. Create a storyboard showing your microsystem's current state.
2. Start and maintain a data wall of results, achievements, and processes to be monitored.
3. Create and actively manage your microsystem playbook.