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LEADERSHIP: METHODS FOR IMPROVEMENT

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Because healthcare reform has incentivized facilities to invest in quality and patient experience, it is no longer good enough simply to improve on these two factors. Facilities must improve faster than the national average to avoid penalties or earn their incentives.

Total avoidable U.S. healthcare costs for nonadherence, delayed evidence-based treatment practice, antibiotic misuse, medication errors, suboptimal generic use, and mismanaged polypharmacy costs add up to $213 billion, $140 billion of which is related to ten million hospital admissions.[1]

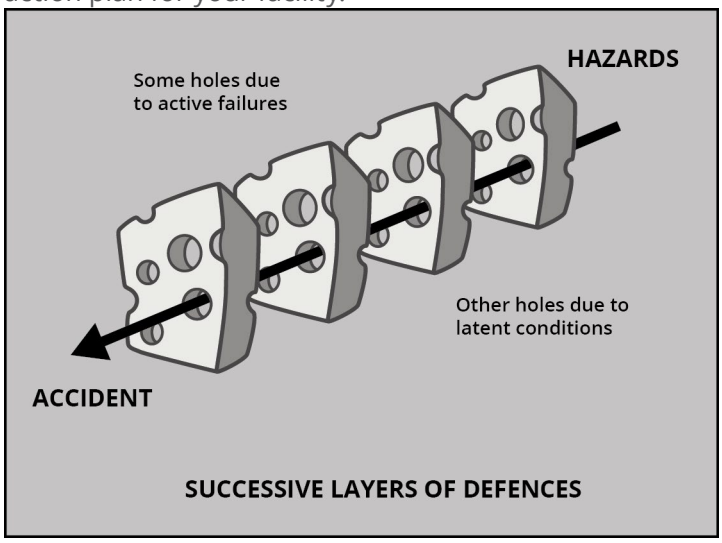
Why are these errors occurring? There is the person-centered analysis and prevention approach, which focuses on the individual responsible for making the error, and there is the systems-centered approach, which pays attention to the organizational factors that create precursors for the individual errors.[2] James Reason's Swiss cheese model explains that if errors occur, several simultaneous failures must have occurred within the organization

> According to this metaphor, in a complex system, hazards are prevented from causing human losses by a series of barriers. Each barrier has unintended weaknesses, or holes—hence the similarity with Swiss cheese. These weaknesses are inconstant—i.e., the holes open and close at random. When by chance all holes are aligned, the hazard reaches the patient and causes harm. This model draws attention to the health care system, as opposed to the individual, and to randomness, as opposed to deliberate action, in the occurrence of medical errors.[3]

Swiss Cheese Model[4]

By following this Swiss cheese model, the more defenses that are in place, the less likely an error will occur. The fewer and smaller holes in the "cheese," the more likely it is that errors will be stopped or caught before they occur.

What then are some of the best methods for these improvements? Many methods exist both in healthcare and in business. Before implementation of any of these methods, your challenge is to discover what is right for your facility, your staff, and your patients. Understand that utilizing these techniques and models together moves quality forward better than one approach alone can do. Consider these differing options and how they may relate best to the issues your facility is working to improve, as well as how they involve the staff best-suited to assist in the improvements, then map out how these methods might combine to form the best action plan for your facility.



The Model for Improvement

At such time as improvement must be accelerated, consider adding the Model for Improvement. Developed by Associates in Process Improvement, this simply yet powerful tool is not a replacement for other change models, but an addition to them that can accelerate improvement.

The model is comprised of two parts:

1. Three fundamental questions that can be used in any order
2. The Plan-Do-Study-Act (PDSA) or Plan-Do-Check-Act (PDCA) cycle to test changes for actual improvement.[5]

Start with identifying the answers to the three fundamental questions:

1. What are we trying to accomplish? (Specific, time-limited and measureable aim statement.)
2. How will we know if a change is an improvement? (Identify process and outcomes measures to track improvement over time and evaluate progress.)

3. What changes can we make that will result in improvement? (Identify ideas for changes to try.)[6]

Start by creating an improvement team. The best team formation will include members familiar with all parts of the process, from administrators to managers and those who work within the process. Teams should have members representing three different kinds of expertise within the organization: system leadership, technical expertise, and day-to-day leadership.[5]

- System (Clinical) Leader – someone with enough authority to test and implement a change and deal with the issues that arise.
- Technical Expertise – someone who knows the subject intimately and understands the processes of care.
- Day-to-Day Leadership – the driver of the project who assures that tests are implemented and oversees data collection.[5]

Be sure to also appoint an executive sponsor to assist in taking responsibility for the success of the project. The sponsor does not need to be a daily participant in meetings and testing, but should review the team's progress on a regular basis.[5]

Also consider the importance of involving those who are informal leaders within the organization. Informal leaders are individuals who by virtue of how they are perceived by others are seen as worthy of following. An informal leader, as the name suggests, does not hold a formal position of power or authority over those who choose to follow him or her. However, informal leaders can influence or lead others based on their ability to evoke respect, confidence, and trust in others. Many times, informal leaders do not intentionally try to lead. They also have an impact—positive or negative—on the success of initiatives and formal leaders within the organization.[7]

Once the team has been assembled and changes have been identified, implement the Plan-Do-Study-Act (PDSA) or Plan-Do-Check-Act (PDCA) cycle to test the changes on a small area in order to identify results as quickly as possible with as little risk to the large population as possible. PDSA/PDCA allows teams to plan it, try it, observe the results, and act on what is learned; this is the scientific method adapted for action-oriented learning.[5]

Plan

Plan the test or observation, including a plan for collecting data

- State the objective of the test.
- Collect baseline data to assure understanding of impact of change or improvement.
- Make predictions about what will happen and why.
- Develop a plan to test the change. (Who? What? When? Where? What data need to be collected?)

Do

Try out the test on a small scale.

- Carry out the test.
- Test over shorter periods of time to move process forward.
- Document problems and unexpected observations.
- Begin analysis of the data.
- Perform "just in time" changes to improve process as learnings are discovered.

Study / Check

Set aside time to analyze the data and study the results.

- Complete the analysis of the data.
- Compare the data to your predictions and baseline.
- Summarize and reflect on what was learned.

Act

Refine the change, based on what was learned from the test.

- Determine what and where modifications should be made.
- Prepare a plan for the next test of change.
- Continuously work on improving through data collection and analysis.[5]

It may take several cycles to learn about and refine the change before it is ready for implementation on a larger scale. It may also happen that after running through PDSA/PDCA, the proposed changes do not end up leading to improvement after all. It is important to then select only the changes that will most benefit the facility, staff, and patients/residents.

Once the best changes have been identified, it is time for implementation: the permanent change to the way work

is done. This may affect written policies, training, and documentation, to name a few. The improvement team's executive sponsor can often be a driver of this change for the organization. The PDSA/PDCA cycle may even be used again to formulate the implementation plan.

Change Theory

Developed during the 1940's, Kurt Lewin's Change Theory has remained a significant part of change management strategies. Lewin's three-step model focuses on rejecting and then replacing prior learning using the steps Unfreeze, Change / Movement, and Refreeze.

Unfreeze

The first step is to unfreeze the existing situation in order to overcome the strains of individual resistance and group conformity.8 This helps prepare your staff for the change and builds trust and recognition for the need to change. It can also open staff up to participating in problem recognition and solution brainstorming.

Change / Movement

In the second step, the process of change occurs. Thoughts, feelings, and behaviors are all targeted. During this time, staff members are encouraged to view the targeted problem from a different perspective, work together on new information, and connect the views of the group to those of the leaders who also support the change.[8]

Refreeze

The third and final step is to refreeze. Often, change is short-lived and staff will revert to the "old ways" if change is not solidified, or frozen into place. Refreezing involves integrating the new values into the community values and traditions, stabilizing the new equilibrium that resulted from the change by balancing both the driving and restraining forces.[8] This may include reinforcing new patterns by way of formalizing them into documented policies and procedures.

Lippitt's Phases of Change Theory

In the late 1950's, Ronald Lippit, Jeanne Watson, and Bruce Westley expanded Lewin's Three-Step Change Theory to include seven steps that focus more on the role and responsibility of the change agent than on the evolutions of the change itself.

1. Diagnose the problem.
2. Assess the motivation and capacity for change.
3. Assess the resources and motivation of the change agent. This includes the change agent's commitment to change, power, and stamina.
4. Choose progressive change objects. In this step, action plans are developed and strategies are established.
5. The role of the change agents should be selected and clearly understood by all parties so that expectations are clear.
6. Maintain the change. Communication, feedback, and group coordination are essential elements in this step of the change process.
7. Gradually terminate from the helping relationship. The change agent should gradually withdraw form their role over time. This will occur when the change becomes part of the organizational culture.[8]

Positive Deviance

Born out of a study by Dr. Marian Zeitland in the late 1980's on malnutrition, the Positive Deviance (or PD) approach brings about sustainable behavioral and social change by identifying solutions already existing in the system.[9] In her research, Dr. Zeitland found that despite a group's disadvantage, there were always some in the group who developed their own special practices which garnered better outcomes (in this research, better nutritional status) than their neighbors, even though none had access to additional or better resources. Where traditionally, the word "deviance" conjures negativity, positive deviance involves behaviors that depart from the norms in an honorable way.

What makes the PD approach different from traditional problem solving is the fact that PD aims at identifying and optimizing existing resources and solutions. It is a social or behavioral change approach best used to address serious problems whose resolution depends on people acting in different ways.[10]

The advantage of using PD is that it offers a way to engage every staff member at all levels and sectors of the facility. Involving everyone results in better adherence to change, because direct involvement in the decision-making process results in participants being far more likely to change their attitudes and behaviors than

if they were simply told how to change their behavior.[10] PD employs more "ownership" than "buy-in," resulting in better and faster adoption of change.

PD methodology consists of five basic steps:

1. Define the problem, current perceived causes, challenges and constraints, common practices, and desired outcomes.
2. Determine the presence of PD individuals or groups.
3. Discover uncommon but successful behaviors and strategies through inquiry and observation.
4. Design activities to allow community members to practice the discovered behaviors.
5. Monitor and evaluate the resulting project or initiative which further fuels change by documenting and sharing improvements as they occur, and help the community discern the effectiveness of the initiative.[9]

Though PD may not be best for every problem, it works well for an "all hands on deck" response, when the problem is serious and meaningful to the community. Therefore, PD can be applied to health care when the problem has already been identified, and now a solution must be discovered.

What the PD approach will uncover is likely a solution particular to each facility, focusing on local best practices; what works in one facility may not work in another. For instance, facilities may agree nationwide that a sign is necessary to prompt staff when they need to wear a gown, but the placement of those signs with each facility for maximum effectiveness may differ from location to location.

The Positive Deviance Initiative defines the ten criteria for a PD project as:

1. All stakeholders (a diverse group of team members) are involved in the five steps of PD methodology.
   a. Define
   b. Determine
   c. Discover
   d. Design
   e. Monitor
2. The group carries out these five iterative steps.
3. Facilitators do not make the discovery nor do they control the process.
4. The PD inquiry is carried out and vetted by the group members.
5. The inquiry findings are explicit and behavior based, not value-based or dependent on the individual traits of positive deviants. The findings should not focus so much on what the PD practices are, but on HOW the behavior of positive deviants—be they individuals or groups—enables them to overcome or prevent the issue in question.
6. A plan of action is developed by the group and based on the inquiry findings.
7. The initiative is practice-oriented, multi-channeled and multi-targeted, and utilizes existing resources and networks.
8. The group develops its own monitoring and evaluation plan, including the creation of their own tools to do so.
9. Feedback loops are developed to keep the group informed and enable the members to participate and innovate.
10. The group members are able to explain how they solved the problem and can provide specific examples of behavior and social change directly linked to the PD inquire and the inquiry-informed initiative.[9]

Remember that the strength of PD resides in the fact that a community will have some people or groups within it who already have solutions to problems, and peers will be more inclined to take on actions that already work in their setting and to adopt ideas that they took part in discovering and creating.[10]

High Reliability Organizations

High reliability organizations are organizations that experience fewer accidents than normal due to changes in culture.[11] Such organizations include commercial aviation and nuclear power, both of which operate under hazardous conditions and yet maintain safety levels that are far better than those of health care.[12] For example, high reliability organizations do not have safety processes that fail 40 to 60 percent of the time, which is the case in health care when one considers hand hygiene and hand-off communication in health care.[12]

How can high reliability be applied to health care so that it experiences the same levels of safety and success?

Five traits define a high reliability organization: sensitivity to operations, reluctance to accept "simple" explanations for problems, preoccupation with failure, deference to expertise, and resiliency.[13] It is possible to make substantial progress toward modeling your facility into

a high reliability organization by hardwiring each of these traits into your location.

High reliability organizations are sensitive to operations.

It is important for both leaders and staff to be aware of how processes and systems affect the organization. There can be no assumptions: Each employee must pay close attention to what is and is not working.

The best way to hardwire this value is to be more transparent. Improved communication and data sharing—such as a daily post of the current number of facility-acquired pressure ulcers—creates an awarenesswithin the facility. The more awareness there is, the more staff at all levels will pay attention to what they can do to contribute to lower rates.

Leadership rounding can assist the leaders in gaining a stronger understanding of facility processes by promoting open, purposeful communication. It can also uncover what processes are working and which may be hindering staff or patients and residents. Exploration of workarounds within workflow is a key area to explore with those who are closer to the workflow.

While rounding, be sure to ask questions, practice active listening skills, and do not assume you know the answers. Question the processes in place, let staff know their concerns are heard and validated. Staff may not otherwise speak up, assuming their concerns have already been identified.

High reliability organizations are reluctant to accept "simple" explanations for problems.

It is easy to point fingers and jump to singular, "simple" explanations as to why something went wrong. However, digging deeper into the problem often reveals the specific source of the problem and allows for true success in solving that problem.

In one example, a New England facility experienced phlebotomy delays that affected discharges, cost, and revenue. Each group blamed the other based on their own personal perceptions. As the facility dug deeper into the problem, they found that the phlebotomists had an average time per blood draw that was significantly better than industry standards, and the real problem was found in the interactions and timing of multiple tasks and staff distribution. Once identified, changes made in staffing patterns and task timing resulted in a steady decline in length of stay and increased revenues.[14]

When examining data and metrics, be willing to challenge long-held beliefs. Use systematic attention to uncover very specific causes of failures. Dig into the metrics, compare information, and question the reasonable or obvious explanations, as it is possible the opposite may be true.

High reliability organizations have a preoccupation with failure.

Top of mind for every staff member at every level within a facility should be ways their work processes may break down. De-stigmatizing failure in this way allows staff to feel comfortable sharing near-missesso that the facility can focus on determining processes and safeguards that will prevent this same issue from occurring in the future.

Start by identifying what is working correctly. If a process is carried out successfully in one area of the facility, chances are strong that that success can be duplicated elsewhere. This also helps staff see that success is attainable.

High reliability organizations defer to expertise.

It may be that the people who have the most developed knowledge about the task or issue in question are not necessarily those at the top of the hierarchy. Leaders can gain tremendous insight by listening to staff about processes and operations within the facility and ensuring that they use each employee's input to make things better. Physicians and surgeons must be willing to listen to both their juniors and the nursing and clinical staff. Nursing hierarchies are often just as rigid as physician hierarchies; senior nurses must also be willing to hear suggestions and observations from newer nurses.

Often, new staff will have insight from experience at previous facilities and can share the successes from that facility to see how those successes could translate to the current facility. They also do not have biases and can see issues without constraint. New staff members offer a vast array of untapped expertise, not only from prior experience but also from viewing the current processes with fresh perspective.

High reliability organizations are resilient.

Errors will occur despite best efforts. A high reliability organization is not error-free. However, errors do not disable a high reliability organization. Instead, these organizations have the capability to quickly recognize errors, seek to understand them, and correct workflow to prevent them.

Leaders in high reliability organizations are relentless. Responding to failures once is not enough; leaders must be prepared to continually find new solutions and develop new ways to respond to unexpected events. In this way, though the facility may experience more failures, their resilience and swift problem solving prevents the failures from becoming catastrophes.

In order to sustain results, a facility must set specific and measureable goals and hold leaders and team members accountable for those goals. This promotes the organization to constantly be challenged, encouraging improvement upon itself and how it responds to problems, which will in turn drive a shared sense of resilience throughout the facility.Leaders can also help staff achieve greater results by reminding them to remember their purpose, promoting the fact that their work is worthwhile and they make a difference within the organization. Each employee has the capacity to better the facility through their work, reporting, or notice of areas for improvement. Tying the results back to each employee's purpose and work can help a facility achieve greater results.[13]

Finally, know that achieving high reliability in health care requires commitment and an understanding that changes will not occur rapidly. Nevertheless, high reliability is neither unrealistic nor unachievable so long as leadership is the primary driving force behind the primary drive for change.

Reduction in Variation

Variation in the health care system comes from multiple interrelated factors, some of which are internal and others of which are beyond the control of the healthcare system.[15] While not all variation is undesirable or inappropriate—consider positive deviance above—facilities should still take action to reduce inappropriate variation within their organizations.

Variation will always occur. It would therefore be an unreasonable goal to eliminate variation. The goal should instead be continually seeking to understand and manage variation so that the undesirable variations can be reduced.

Unwarranted variation in care delivery is an indicator of opportunity to improve consistency of care and reduce unnecessary spending.[16] There are three broad categories of unwarranted clinical variation:

1. Underuse, which results in insufficient use of care.
2. Misuse, which results in improperly utilized care.
3. Overuse, which results in inappropriate use of care.[16]

Once undesirable or unwarranted variation has been identified, focus can be turned to understanding what is driving the variation and what solutions to implement. Variation is driven by different factors in different areas of the facility. For example, in a hospital, the greatest area of variation in surgery revolves around clinical products, while in medicine the focus is more on the length of stay.[17] Using a systematic improvement process in focused areas can assist in reducing inappropriate variation and improving overall outcomes. The American Hospital Association presents six steps to understanding and managing variation:

1. Determine your strategic focus to reducing variation
2. Set measureable goals
3. Acquire and analyze data
4. Understand your data
5. Identify areas of focus
6. Implement improvements[15]

Determine Your Strategic Focus to Reducing Variation
It is critical to determine the context in which your facility will be working on understanding and managing variation. Using strategic considerations enables you to focus on the areas with the greatest leverage. Some of these considerations may include:

- Reducing operational costs
- Standardizing use of medical supplies
- Strengthening shared decision-making and patient involvement
- Improving patient safety
- Improving patient satisfaction
- Reducing spending for the population
- Preparing to accept financial risk[15]

Set Measureable Goals

Setting a measureable goal is key in order to track performance and evaluate any progress made. Tables for organizing data can facilitate goal-setting by providing a framework for data, measures, and goals. Once goals have been set, consider using charts and graphs to illustrate performance.

Acquire and Analyze Data

It may not always be possible to collect data across the entire care continuum. Try instead to focus on these aspects:

- Collect data from internal systems that provide reliable and consistent information. Be sure that physician and other clinical leaders have confidence in the data systems selected.
- Focus on a few critical metrics—those most relevant to the process you wish to improve—to avoid the "analysis paralysis" that can occur from gathering too many irrelevant data points.
- Use multiple sources for data collection. Your facility's electronic medical record system should provide much of the necessary information.[15]Once the data has been collected, there are several approaches to choose from for analysis. Consider looking at how utilization has varied over time, across different locations, and/or by physician.[15]

Understanding Your Data

Look within your own organization in order to compare performance internally and track trends over time. This allows a like-to-like comparison, where leaders cannot claim that "our facility is different" from itself.

After looking within, be sure to look externally as well, using external data as a point of reference for performance and a good basis for setting goals. Be sure to avoid the temptation to simplify your internal data (such as looking at the facility's average rather than a department's average) when making comparisons, as this may cause you to overlook opportunities to improve. Compared data sets should always be comparable to yield the truest results.

Identify Areas of Focus

Choosing a specific area to assess will diminish the risk of generating tables and charts that do not drive any decisions. A specific assessment area may be one with the highest volume of service, the greatest financial impact in terms or revenue or cost, the most likely to result in avoidable injury to a patient, or the one identified as highest priority to the facility and leadership.

Some areas your facility may choose to focus on for reducing utilization variation are:

- Hospital readmissions
- Appropriateness of admissions and diagnostic and treatment procedures
- Emergency room utilization
- Intensive care unit utilization
- Home health utilization
- Obstetrics utilization
- Imaging tests
- Surgical procedures
- End-of-life care[15]
- Throughput
- Procedures such as medication administration
- Care practices

Implement Improvements

The final step is implementing improvements. A number of specific interventions to further these improvements can be executed, including:

- Engaging clinicians with feedback of data
- Standardizing operational processes using efficiency and quality improvement interventions such as Lean, Six Sigma, or Plan-Do-Study-Act
- Implementing evidence-based clinical guidelines
- Emphasizing appropriateness criteria
- Creating a culture change[15]

Conclusion

There is no right or wrong method for improvement—especially considering that many of the above methods share common features—only what will be the best fit for your facility and your staff. Factors such as society and culture will continually impact what method will work best for each situation, and what worked the first time may need to be adjusted significantly the next time due to

different staff, different times, and a different issue to address. Every time you choose to make a change or improvement, consider how each of these methods can help with the challenge or change implementation that your facility is facing. Use them separately or in combination to identify, study, and successfully implement change in your organization or processes.

Finally, remember to share the information and impact of the improvements your facility is making. Clinicians in particular are more likely to be driven by meaningful data and will be much more likely to buy in to the changes and improvements when supported by good data.

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