REDESIGNING A SYSTEM OF CARE TO PROMOTE QI

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Contents

Redesigning a System of Care to Promote QI

The goal of this module is to highlight the important role that redesigning system within a health care organization has on overall quality. The module exemplifies how an organization establishes assesses their current system and then applies changes to their system supporting QI.

Part 1: Introduction

Why Redesign Current Systems

Many healthcare organizations made important advancements in the design and performance of their current *systems of care* Despite these improvements:

- Many improvements remain unused, fragmented, and isolated;

- Clinicians often feel overwork, unable to take on new work;

- Patient satisfaction level are not optimal ;

- Wait time for patients continue to increase

The Purpose of a System Redesign

The HRSA Quality toolkit describes a general approach to quality improvement as well as specific changes that can be made to improve care delivery utilizing the CCMs. Most often the toolkit described an approach that has been successfully utilized by HRSA grantees organizing changes within the framework of the *Chronic Care Model.* The toolkit further highlighted an approach using the critical pathway. Critical pathways, also known as clinical pathways have been used successfully by grantees in quality improvement but more frequently they have been used in the hospital setting. Within the various modules focusing specifically on the CCM's, the toolkit has linked practical changes that work from the field to the Care Model or the critical pathway and thus provided detailed technical assistance intended to facilitate improvement of the care systems for the CCMs.

As quality improvement teams become more experienced, it is helpful to have additional tools and strategies available for the quality improvement efforts. Many organizations will want to take advantage of QI techniques to improve many systems within the organization. Improving systems by intentional changes is also called "redesign." Redesigned systems have the potential to have broad impact to improve the way things work. This module outlines some additional models that are helpful as teams redesign systems as well as tools that are useful in the redesign process.

Following a successful redesign, organizations will want to ensure that the improved systems stay intact and not revert back to their original form. This work is also known as sustaining the changes of redesign. In addition, if the improvements have been focused on a particular care team, one site of a clinic or targeted toward a subpopulation of patients served, organizations

may want to expand or "spread" their redesigned systems. The process of sustaining and spreading redesigned systems is a bit different than the process of improvement and will also be covered in this module. Frameworks for Change

Models to Redesign Current Systems

Quality improvement can be overwhelming without an organized approach. Over time, models have been developed to allow teams to intentionally evaluate and make changes to systems. Again, the Chronic Care Model is respected around the world to organize an approach to ambulatory care but there are other models worth understanding that can be used alone or in an adjunctive way. Which model to use depends in large part about what you are trying to accomplish. Although an in-depth description of these models is beyond the scope of this module, Table1 is a list of models used successfully in the field, a brief description and the redesign perspective the model for which the model is intended.

Table 1: Models for Redesigning Systems

Model name	Brief description	Redesign perspective	More Information
Six sigma	Six Sigma seeks to improve the quality of process outputs by identifying and removing the causes of defects (errors) and minimizing variability in manufacturing and business processes. It uses a set of quality management methods, including statistical methods, and creates a special infrastructure of people within the organization ("Black Belts", "Green Belts", etc.) who are experts in these methods.	Might be considered if there is a wide variability in service delivery – logging of pharmaceuticals, standardizing referral processes	- http://www.sixsigmaonline.org/index.html - http://www.isixsigma.com/ - http://www.6sigma.us/
Toyota Production	The main objectives of the	These principles are frequently used by	The Toyota Production System

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System (AKA Lean)	TPS are to design out overburden and inconsistency and to eliminate waste). The most significant effects on process value delivery are achieved by designing a process capable of delivering the required results smoothly The tactical improvements of waste reduction *are* very valuable.	teams once they know what system change will result in an improvement. These principles are helpful to "operationalize" the change to create work flows, handoffs and processes that work over the long term. This framework emphasizes efficient systems that work.	• www.qualitycoach.net • lean-concepts.com/
Quality by Design	Quality Expert Joseph Juran believed that quality could be planned, and that most quality crises and problems relate to the way in which quality was planned in the first place.	Used in the process planning phase to assure quality is built into the design – most notably used by the FDA to improve the new pharmaceutical application process.	• PDA/FDA Joint Regulatory • Implementation of Quality-by-Design: Question-based Review • FDA, Industry Discuss the Fine Points of QbD

Note: Organizations who are considering adopting such improvement models as highlighted in the above chart should consider running PDSA cycles and testing the adoption of a model before implementing. All models may not work in every organization. The key is to focus on a model that works in your organization and your quality improvement project. For additional information please visit the module Testing for Improvement.

Part 2: Tools for System Redesign

Many quality improvement teams struggle with creating tests of change or deciding which of the choices that have worked for others are right for them. There are many tools for Quality Improvement, but a few have been extensively used by HRSA grantees and are worth mentioning here. This section will describe three tools in depth: process mapping (also known as flow charting), the 5 Why's for root cause analysis and the Cause Effect diagram (also known as the fishbone diagram.) A case story will illustrate how each of these tools could be used to augment their quality improvement efforts.

Case Story:

The Problem:

Windy Plains Fictional Health Center wants to improve diabetes care and notice that a high percentage of patients have poor glycemic control. They decide to use the CCM diabetes poor control to monitor their progress. The clinicians like the critical pathway approach and use the module for some change ideas but where should they start?

Process Mapping

Process Mapping or Flow Charting is one of the most powerful tools for process improvement. The map is optimally created by a team to assure that there is agreement in how the process currently works. Variation in how work is performed is a frequently encountered contributor to low performance.

Process mapping allows a visual depiction of processes and allows comparison of the current state to a more idealized process. Additional resources are available to learn how to do this and there are very sophisticated techniques and even software to process maps. But if we stick to the essentials, there are just a few basic steps:

1. Clearly define where the process you are mapping begins and ends.
2. Determine the steps in the process. For clinical QI teams, these are the tasks that a staff person would do for a patient. Avoid too much detail at first – in other words a step might "register the patient" instead of "greet the patient, ask the patient to sign in, give the patient the intake form to complete" etcetera.
3. Sequence the steps. Using temporary adhesive notes are helpful so that you can move the steps around. Once they are ordered correctly, draw in arrows to show the direction of the process.
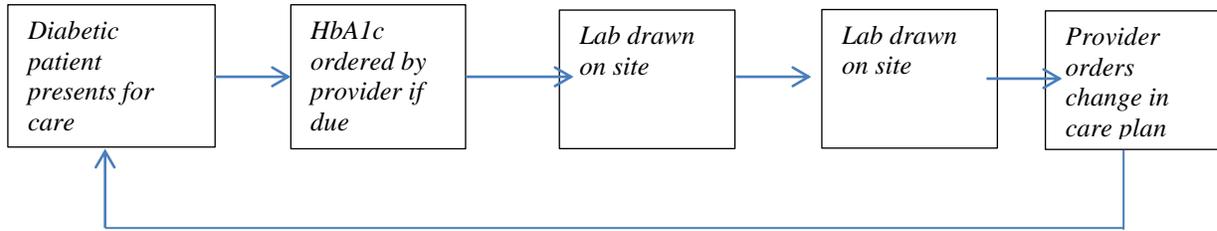4. Label your process map by identifying the process and the date. That's it!

Teams use process maps in a variety of ways including a training tool to assure staff members do the process the same way, allow others external to the work to understand the process or as part of a training guide. But perhaps the most important role of process mapping is for quality improvement.

There are two important applications of process mapping for QI. First, process maps allow for a view of the process in its entirety. Unexpected complexity, redundancy, inconsistencies and inefficiencies often become apparent when you visualize a process in this way. Second, the map of how the process currently works can be compared to how an idealized process would work. The differences in the maps help organize the changes that need to be made to improve performance from how things are now to a more idealized state.

Case Story continued….
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Process Mapping in Action

The Windy Plains improvement team decided to map their current process of care for diabetics. The map was as follows:

Diabetic patient presents for care	*HbA1c ordered by provider if due*	*Lab drawn on site*	*Lab drawn on site*	*Provider orders change in care plan*

They then compared their map to the idealized process map

1. HbA1c measured at appropriate interval

2. Results received & routed to designated person

3. HbA1c value compared with target for patient

4. HbA1c target

No — 4a. Implement improvement strategies

Yes — 4b. Agree to continue current care plan

5. Reinforce guidelines & appropriate follow-up
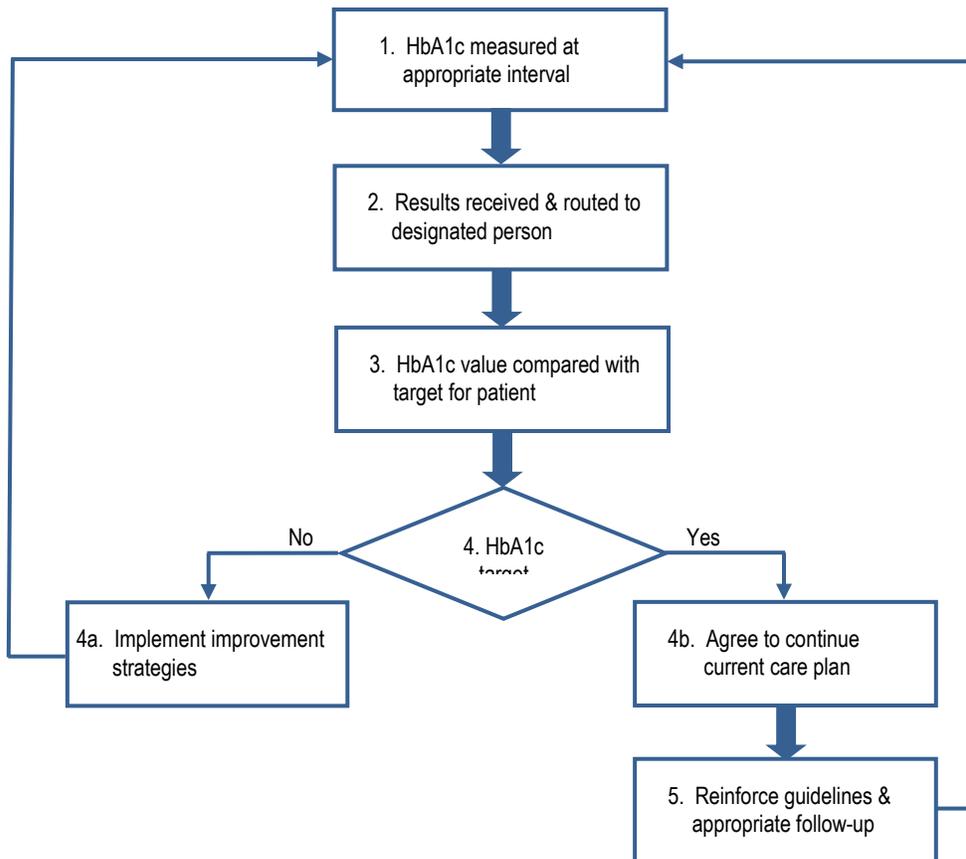
A quick comparison of the process map presented in the above case story revealed the following observations:

Idealized Step	Key difference(s) from our process	QI Opportunities
1	'When patient presents" is not the same as "appropriate interval"	Make sure A1c measured regardless of reason for visit when due; outreach to patients if they are due and have not come in
2	No difference	NA
3	Target level for patient not obvious	Figure out how to communicate target a1c level among staff
4	Treatment changed by provider but patient involvement varies depending on provider, improvement strategies implies ongoing support to patient ; providers differ in the response to an elevated A1c	Consider how to involve patient in their care; how can we better support patient to achieve glycemic goals?; how do we address the variation in practice?
5	Guidelines not currently shared; follow up provider dependent	Share guidelines in patient-friendly format; consider options to improve rate of follow up.

By comparing the current map versus the idealized process map, the team had a good idea of where to focus their efforts. They decided to work on making sure that the A1c was drawn when it was due and started a two pronged approach including designing an outreach strategy and exploring how to assure patients who did come in had the A1c drawn on schedule.

Root Cause Analysis

At times during improvement work, teams may be confronted with a situation for which more information is needed. This is typically a situation where you see that something happens frequently but it is not entirely clear why it happens that way.   The term Root Cause Analysis is used to describe the process of finding the real cause of the problem and dealing with it rather than simply continuing to deal with the symptoms.

5 Whys
Two techniques are commonly used to explore root cause analysis. One of the most popular techniques is call the "5 whys" – figure out something that went wrong and ask why, then in answer to that reason ask why again and so on. Coupled with some critical thinking questions, this can be a powerful tool to get to the bottom of issues that can be solved once and for all. These questions help keep you out of some of the traps you run into using the 5 Whys [1] to determine root cause:
- What proof do I have that this cause exists? (Is it concrete? Is it measurable?)
- What proof do I have that this cause could lead to the stated effect?   (Am I merely asserting causation?)

- What proof do I have that this cause actually contributed to the problem I'm looking at? (Even given that it exists and could lead to this problem, how do I know it wasn't actually something else?)
- Is anything else needed, along with this cause, for the stated effect to occur? (Is it self-sufficient? Is something needed to help it along?)
- Can anything else, besides this cause, lead to the stated effect? (Are there alternative explanations that fit better? What other risks are there?)

Case Story continued……

Root Cause Analysis in Action

The Windy Plains QI team wanted to tackle the challenge of practice variation: why were some patients prescribed changes to the care plan when the A1c was elevated while others were not? Once the data was available, the physician champion was readily able to see that patients with poor glycemic control were handled differently depending on the provider. The champion decided to bring up the topic at a provider meeting to try to better understand the variation. By using the 5 whys technique, providers were able to talk about the thought process in dealing with the issue and recognized that some of the decisions made in the exam room in the moment might be better addressed with some consensus and additional support from the care team. Caring for patients when they were not the PCP, time, and concerns about patient adherence were all reason frequently cited as to why action was not taken when a patient had an elevated A1c > 9. Having the provider team involved provided the critical thinking needed to validate these as root causes of the problem.   The QI team was able to strategize solutions with the support of the provider team to address these issues

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As is sometimes the case, teams think a process is working until they evaluate more closely. In the case of Windy Plains, the team determined that since the A1c was drawn on site, the process of getting the lab done and the results to the right people was working well. (see chart comparison of current care versus idealized care) When they started looking at patients to outreach however, it was discovered that up to 10% of patients who had A1cs ordered never had the test done. Since the processes were in place to ensure that the test was done, there was some negativity about where the process was failing and some finger pointing at MAs and lab personnel. The QI team lead recognized that a more objective evaluation of the problem was in order and suggested the construction of a Cause & Effect Diagram.

Cause & Effect (Fishbone Diagrams)

Cause Effect Diagrams (AKA Fishbone diagrams) allow a team to identify and display all of the possible causes of a problem. This pulls the discussion into a more objective realm and discourages focusing on the history of the problem or symptoms of the underlying issue.
To construct the diagram, agree on a problem statement and place that on the right side of a large paper or white board. Draw major cause categories and connect them to the backbone of the chart as shown. Typical categories explored are equipment, people, methods, and materials but any categories that fit the problem should be used. This is exampled in the diagram below:
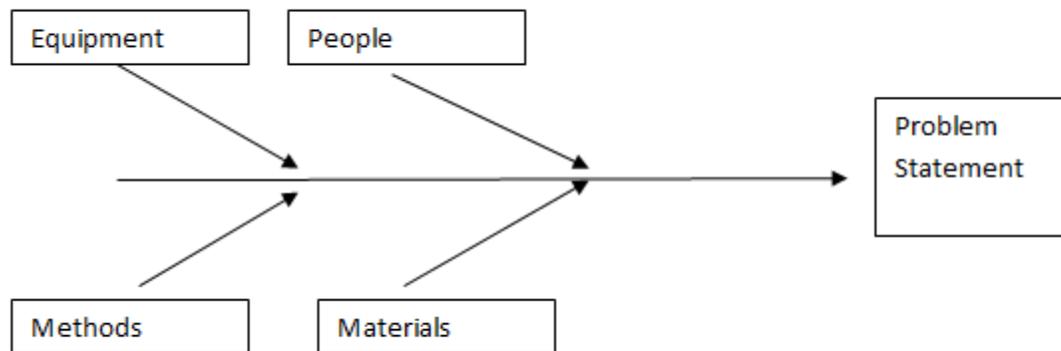
Then brainstorm contributors to the problem under each category. Important "root" causes may appear in multiple categories or repeatedly or may be decided based on a *nominal group process.*

If we consider the case story as an example and determine the problem statement, "HbA1c was due for patient during visit but not did not occur we could then look at the *root cause* to determine categories which can be put into the format and the output of the brainstorm might be these:

Provider Procedure
- Provider did not order
- Provider did not use proper EHR screen to order
- Provider did not use alert that order ready
- Provider did not discuss test with patient

MA procedure
- MA cannot monitor orders in timely way
  - Short staffed
  - Overbooks
  - Variation in how test alerts used
- MA does not have time to accompany patient to lab
  - Seniors and disabled are particularly challenging
  - Rooming patients higher priority
  - Short staffed
- MA does not transmit order to lab
  - Why can't lab pick up order directly? EHR access rules prohibit

Patient factors
- Patient not aware test will be done
- Patient time – has to leave

- Patient disabled or sick and cannot navigate to lab
- Patient not sure what to do next so leaves

Lab factors
- Test order not received
- Lab closed – hours of clinic and lab do not match
- Out of reagent
- Lab orders surpass staff capacity on Mon, Wed, Thursday mornings when all providers working.

The Case Story….

Brain storm Results

From this brainstorm, the team was able to focus on two primary areas: how the order was communicated to all involved and the impact on staffing. They then can test strategies to improve within the parameters set out by leadership.

The case story illustrates that systems of care can be redesigned utilizing a variety of tools. In the case of the team from Windy Plains, a number of changes were tested and then implemented. These changes to the system of care for diabetes resulted in a substantial decrease in the number of patients with poor glycemic control. The changes that Windy Plains made included the following:

- Patients with diabetes are now readily identified within the EMR. MAs check the last A1c date and order by protocol
- Providers who order have agreed how to use the order entry feature on the EMR and have been trained to standardize this process
- Laboratory hours have been adjusted to assure lab can be ordered while patients are being seen
- Providers have agreed upon standards to take with elevated A1c, regardless of PCP. The clinic is also working hard to improve continuity of care for DM patients
- The MAs have "adopted" patients who need more support and monitor their providers DM patients for visits due. They work with the front desk to outreach to patients to ensure they are retained in care.
- As they implemented changes in their workflows, the mapped the new processes and looked at their redesigned systems with "Lean" thinking to optimize them. A few redundancies were eliminated and all members contributed to assure smooth handoffs for critical tasks.

Part 3: Sustain and Spread Quality Improvement

Introduction

Now that the Quality Improvement Team has worked hard to redesign systems improve performance, it is time to focus on assuring that those improvements "stick"and to evaluate opportunities to spread improvement to other parts of your organization. It is important that improvement leaders take the time to reflect and plan the next steps forward.

The most critical question must be: did we accomplish our aim? If not, it is prudent to reconsider how to move forward. Three scenarios are commonly seen in the field:

1. Improvement efforts were unsuccessful due to lack of resources or focus. This is commonly the situation when organizational improvement projects have been derailed by competing priorities or significant changes in leadership. If the situations that impacted your progress have resolved, it is reasonable to re-calibrate and start the QIP again.

2. Unanticipated challenges arose during your work that will prevent you from achieving your aim. Resource cuts, changing organizational priorities or unanticipated changes in demand for services are examples of situations that might not be readily remediated. In these circumstances, it is often best to regroup and focus once again on what is most important. The xxxx module describes how to consider options for QIPs and may be relevant to help teams change gears. [link to module re designing QIPs]

3. The aim was not achieved within our time frame but we are progressing. In these situations, often times it is best to recalibrate the time frame and continue the work.

The key point is that if you did not achieve what you set out to do, it is better to continue that journey and only then move on to activities to sustain and spread. Said another way, it is important to spread success, not a work in progress.

The rest of this module will deal with considerations in redesigning your systems to sustain and spread improvements. The assumption now is that you have been successful in improving systems of care and that those improvements are worthy of sustaining and spreading.

The Case Story Continued…

> ***Sustaining Improvements:***
>
> ***Presented with the data that showed a clear improvement in patient outcomes, the leadership of Windy Plains was committed to redesign systems in the other sites in the system and implement these changes. Leadership was also willing to commit to allowing the QI team to continue their work with other projects which were prioritized by the medical director.***

Sustain the Gains

During the improvement journey, you have experienced the fact that complex systems tend to evolve or revert back to previous iterations organically. So the task to sustain the gains is really this: how can we stabilize the systems that result in excellent performance so that it is resistant to these typical dynamics?

For many, it has been helpful to envision a near 100% turnover in staff. Would the care for diabetic patients remain excellent if Mary the MA was not there to go that extra mile every day and call patients who had not been in for care? Or if Dr. Jones did not encourage his provider team to aggressively manage blood pressure for their patients?   The reason this visualization is helpful is because it helps us to avoid a large pitfall in improvement work: person-dependent systems. This concept is critical and needs to be considered all during the planning for sustaining, and later spreading, improvement.

Creating a Sustainability Plan

It is useful to be very clear about those processes and systems you want to sustain. We remember that every system is perfectly designed to get the result it achieves, so what are you doing differently now to result in improved performance?   This is where those PDSA summaries come in handy! Teams will often look back over minutes or have conversations about those changes that worked. Once the team is clear about what needs to be sustained, the work can begin. Typically the work will involve three distinct categories:

- Leadership & Finance
- Operations: Policies and procedures, information technology
- Staff
- Leadership & Finance

Leadership must understand what has changed and the benefits of those changes. Most often, the recognition will come at the end of the QIP when progress is measured against the aim. But at times, leaders may view quality improvement as just a project not an ongoing concern. So it is important to have the conversation and assure that leaders are committed to sustaining (perhaps also spreading) these improvements. In particular, any costs incurred due to the changes must be covered. Examples of changes often linked to improvements with financial impact include staffing changes, hours of operation, facility utilization and supplies.

Many organizations have found that successful quality improvement opens other doors for revenue – the so called business case for quality improvement. Organizations find that expense reductions and revenue enhancement can result from improvements. A few examples include: Expense reductions:

- Standardization of exam room set up decreases supply costs
- Improved charge capture at POS decreased amount of billing staff needed
- Open access scheduling reduced nurse FTE devoted to triage activities
- Cross-training eliminated need for locum tenens and higher cost contract workers to cover staffing needs

Revenue enhancers

- Improved charge capture
- More revenue-producing lab tests available on site
- Additional patients seen/fte due to more efficient work flows and team based care
- *Pay-for-performance* money based on improved quality outcomes from payers
- Additional grant opportunities based on quality systems and ability to appropriately measure and improve performance.

Once leaders are convinced that the improvements make sense financially and will further the organizational mission, it is important that they communicate that the improved systems are here to stay. One popular way leaders have communicated this to staff is by explaining that this is the new way of doing business. Accompanied by messages about how the improvements will benefit patients, staff and the organization as a whole, this commitment to the improvements from leadership is an essential step in sustaining the gains.

Operations

Assuring that changes are completely incorporated into how the daily work is accomplished is critical to sustaining change. Even though the changes were tested during the redesign phase, it is important that managers observe the impact of these changes on a daily basis. It is impossible to think about every possibility that might come up, so being vigilant is helpful to handle unexpected challenges early on. Operations work will typically look at the impact of the changes on staff work flow, gaps in training created by the change, the need to update operating procedures as well as the impact to staff morale and the effect the changes have on the patient experience.

Staff Work Flows

The redesigned system should function smoothly and not be a strain for staff to accomplish. Systems with redundancies or inefficiencies will not survive as staff will naturally develop "work arounds. " Teams that have used TPS/Lean thinking in their redesign are less likely to have challenges. It is better to tweak systems early if problems do arise. In particular, managers should look at the "handoffs" – a word used to describe a transition from one person or role to another. In ambulatory care, handoffs are common: front desk, MA, provider, MA, lab, front desk and perhaps outreach. Information and responsibility must flow smoothly for optimal patient benefit.

Training

Many great redesigns have been sabotaged by lack of attention to training! No one enjoys being put in a position where they are asked to do something they are not comfortable doing. Adequate training and or mentoring should be provided to staff who may have adopted new roles or new tasks. Computer skills, using new parts of the EHR, comfort in assessing tobacco use or progress on a self-management goal are all examples of tasks that may be unfamiliar to staff.

Staff that feel competent and comfortable with their role within the care team will contribute to the success of the redesigned systems.

Operating Procedures

Documentation of standard operating procedures is not always completed in the midst of a busy office. The benefits are to assist with standardization if several individuals perform that task, to document steps to assist staff to learn a new way to do the work as well as to help orient new staff. One strategy that works well is to incorporate the process map of the redesigned system into the procedure. It is a helpful visual display and help give context to the work.
In conjunction with updating operating procedures, it may be appropriate to update job descriptions, hiring criteria, evaluation matrices and orientation manuals. This written documentation will also facilitate spread to other teams, sites or systems of care.

Staff Morale

Change is always challenging but since redesigned systems typically are improvements, these changes are easier than most. It is important to reinforce why the change is essential and to support staff that may have difficulty. It is also important to communicate to staff the data that illustrates the benefit of the change – improved A1c outcomes for patients as an example. Emphasizing that all team members' contributions are important to making the redesigned system work is also helpful.
Patient Experience
It is well documented that when considering satisfaction, patients do not think as much about quality as they do about how they are treated and how long they wait. Therefore patients will be more likely to notice how the office "feels" and the time it takes from time in to time out. Communicating with patients the rationale for the change, especially if there are bumps initially is reassuring to patients. Ultimately, patients appreciate that the staff are working to improve their health and will more readily accept changes if appropriately informed. It is also helpful to get feedback from patients about any other opportunities to improve from the patient perspective.

Staff

We have discussed some critical aspects of involving and communicating with staff in the operations section. Supporting staff with training, written documentation to ensure clear expectations and the rationale and benefits of the change are important. In addition, we need to remember that change is more of a social process – people change at different rates and for some, change is harder than for others. Managers who will be in a position of managing change may benefit from additional reading.

Tools to Support Change Management

Title	Link
Who Moved My Cheese….	**http://www.revvolutionarymarketing.com/wp-content/uploads/2010/07/Who_Moved_My_Cheese.pdf**
Positive Deviance: A Culture Change Management Approach to	**http://www.positivedeviance.org/resources/cpsi-pd-webinar-june-09.pdf**

Reducing Health Care Acquired Infections	
Culture & Change Management	**http://www.saferhealthcare.com/cat-shc/culture-and-change-management**

Spreading Improvement

In quality improvement jargon, spread means taking improvements and applying them to different care systems. Spread can involve sharing improvements with other teams within the same site, with teams in other sites and can also involve translation of the process of the approach to improvement to other topics or conditions. Throughout the toolkit, we have emphasized that there are core methodologies to improvement work. Teams with experience in one topic are often able to use a similar approach to others. Spread from one team to another and one site to another requires a bit more planning and thought. We will concentrate on considerations for spreading improved and redesigned systems to other health care teams in this module.

Where do you start?

As with most major changes, you must start with leadership. Typically, leaders will be convinced during the evaluation of whether to sustain a change [link back to prior section] if the redesigned system would benefit other care teams or sites. Often, there are economies in standardization. Constraints and the specifics of other populations served will need to be evaluated prior to the decision to spread.

Preparing the Spread Team

Teams that have successfully redesigned a system has resulted in improvements are typically excited and ready to share. If change were easy, the improvement team could just share what was different, spread teams would adopt it immediately and all would be well. But we know that this strategy is flawed although many of us have experienced it. The rationale for a different approach comes from an understanding of human nature and the response to change.
The process of spread is really social. One group of individuals is trying to convince another to change the way they do things. One way to think about this process is that teams who will accept change must be ready, willing and able to change.

Ready
Readiness to accept a change is necessary. Spread teams must agree on some level that the redesigned system will be an improvement. Remember that they are typically not involved day-to -day in the improvement process and may be wary of any changes, fearing the worst. It is helpful for member of the improvement team to explain the rationale for the changes, the process of testing and the success that has been gained. Describing a few failures is helpful to humanize the process and is reassuring to those who are trying to assess the process that led to the

redesigned systems. Spread teams will be more ready to change if they see a pathway that is reasonable. Data that was used to monitor the journey as well as PDSA logs are helpful adjuncts to the discussion.

Willing
Once a spread team hears the rationale for the change, they need to assimilate that information within their own context. It cannot be assumed that changes that work for one team will work for another without modification. Spread teams often ask if this is really starting over with an improvement process and it is not. But teams who will be changing need to embrace the change. Sometimes that means some tweaks to make it fit the particular circumstances. Sometimes it means that the spread team needs to fingerprint those changes as a way of making them their own.

Able
Once a spread team embraces the change as valuable and worthwhile, they need the time, authority and resources to make the change. Leadership is instrumental in ensuring that the spread team has what it needs to spread redesigned systems.
How does the Spread Happen?
As with any change process, it is important to have a plan. The Spread Plan will outline what will happen, who will be involved as well as the time frame. Most often, the spread is monitored with the same metrics as used by the improvement team. A plan is reassuring to staff and facilitates the transition effectively.

Spread Plan Components:

- List changes to be spread
- Evaluate new system against current system: process mapping helpful and identify key differences. These will be the areas that the spread team will focus on to make the changes.
- Discuss potential impacts or challenges that adopting the redesigned system will have and develop a plan to manage those impacts
- Create an action plan to make the changes including how you will capture information to monitor. Identify those areas you can just change and those areas where it might be more prudent to test changes using PDSA methodology. Consider using PDSAs when there are associated impacts due to differences between the improvement team site and the spread team site.
- Once the spread team is satisfied that the redesign has been adopted with or without modifications, follow the sustain steps. This will assure that the redesigned system will "stick" at the spread site.

How quickly spread can happen depends a lot on the change, anticipated impacts of the change on the spread team and the culture of the organization.

Example:

Suppose an improvement team redesigns an improved system of care that works to improve prenatal first trimester access. If the redesigned system is to be spread to other care teams within the same facility that serve the same population, spread might happen fairly quickly. Staff from other teams could be asked to take all of the changes including updated policies and procedures and HR practices and adopt them. If styles among provider teams are substantially different, more time might be needed to navigate these changes. If these changes were to be spread to another site with perhaps a different patient mix, more thought and planning might be necessary. A common example is one where the improvement team from the site that developed the improvement serves a different demographic group then the spread site. The spread site might need to tweak suggested improvements to allow for cultural competency or health literacy issues to best serve the population. In this case, Executive leadership, the improvement team and the spread site come to a consensus about what makes sense to implement and what areas might benefit from some additional PDSAs

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The plan will also lay out which of the supporting materials such as procedures, job descriptions etc discussed in the sustain section can be adopted and which might need modifications. If the site for the spread team is significantly different than that of the improvement team, the process of spread may resemble the improvement process somewhat where the spread team will test parts of the redesigned system with PDSAs to assure a good fit. The spread process is almost always less time consuming than the original improvement process but rushing it is not advised. Teams that adopt a redesigned process often become interested in improving other systems. Spread teams can become quality improvement teams as the cycle of continuous improvement perpetuates.

Part 6: References

1. Five-by-Five Whys (5x5 Whys). http://www.bill-wilson.net/b73.html

Part 7: Resources

- Baldridge National Quality Program
- The future is continuous quality improvement. *Quality Management in Health Care, 1*(3), 42-48.
- National Committee for Quality Assurance NCQA
- NQF
- Agency for Research and Quality www.arhq.gov
- Institute for Healthcare Improvement

- Quality Tools www.qualitytools.ahrq.gov
- Bridges to Excellence www.bridgestoexcellence.org