Quality Improvement Basics: Pulling It All Together Transcript

Slide 1:
Welcome to the Quality Improvement Basics course 'Pulling It All Together' module.

Slide 2:
Now that you've learned the key concepts of Quality Improvement, it's time to tie the lessons learned and tools all together by telling a quality improvement story. We'll see how the components fit together using an example based on a clinic that is struggling with low performance on their national hypertension measure. The work will focus on identification of their patients with hypertension that are undiagnosed and helping them get their blood pressure under control. As we work our way through this example, keep in mind how this improvement methodology will apply to your own QI projects.

We'll then conclude the course with a few final thoughts on what we've learned along with a few parting tips.

If you recently went through the modules, then you'll be set to dive right in to the following QI story. If it's been a while since you started the course or if you feel you need a rapid refresher, go to the Modules Overview, the first module, and brush up briefly on the content or navigate to a specific module where you need to solidify your learning.

Also, before we start, please open the related documents for this module (tools, templates and any samples) which are available on the web page where you found this module link. It will help you to have those ready for quick reference as screenshots of the documents may not legible on your screen. The examples from our QI Story are contained in the final page or two of each tool that has been presented throughout the course.

Slide 3:
Let's get right into our Quality Improvement Story

Slide 4:
Our QI story starts out with a clinic that has reviewed it's performance on many state and national quality measures and leadership has arrived at a short list of those measures that are concerning as they are below their peer clinics and have not improved over the past year, despite discussions with staff and clinicians to simply 'do better' on them. The clinic needs to learn why these measures aren't doing well and has had a few staff complete the Quality Improvement Basics course. Now they would like to utilize the tools and techniques to make some noted improvements and lasting change to sustain better patient care.

The clinic leadership team engaged one of its new Quality experts to help them get started and this staff member walked leadership through an exercise using the PICK Prioritization Matrix. They ended

up with a list of three measures and the one that rose to the top of their short list was a hypertension quality measure as the clinic has been trying to improve the cardiovascular health of its population. There are also concurrent efforts going on with some community 'healthy heart month' and other state and national campaigns such as those coming from CMS, Center for Disease Control, and the American Heart Association.

Slide 5:
The selected QI project, improving a specific hypertension measure, met many of the considerations that identified the improvement needed as a project rather than a quick fix or task to complete:
•   Low performance based on data - yes, their choice indeed met this criterion
•   Potential harm to patients exists – left undiagnosed with no treatment their patient's health is at stake
•   The number of patients impacted is high – they believe and will confirm that this is also true by looking at the data
•   Multiple/broad priorities are covered by tacking this one project. – hypertension is indeed broad in its reach and a factor in many patient's comorbidities
•   Alignment with national, state or regional level quality initiatives exists – once again, their selection met another criterion
•   Alignment with the mission at your facility makes sense – their leadership has confirmed that this topic and work supports the clinic's mission and strategies
•   Enthusiasm among your staff for the topic– the clinic identified a few staff that have interest and expertise as well as some additional training on the topic of hypertension

Slide 6:
What are the gaps between knowledge and practice when it comes to how our fictitious clinic identifies, diagnoses and treats patients with hypertension?

Leadership at the clinic has requested that the QI team start looking into the specifics of how their processes works around the identification and treatment of hypertension.

To help keep our example 'real world', let's imagine that the clinic is seeking to improve performance on the National Quality Foundation 0018 measure: Controlling High Blood pressure: Increase the % of patients 18-85 years of age who had a diagnosis of hypertension and whose blood pressure was adequately controlled (<140/90) during the measurement year.

Simply put, a higher percentage on this measure indicates that the clinic is both identifying, diagnosing and helping patients to control their blood pressure. There could be many underlying factors in the processes at the clinic that contribute to underperformance on the measure. Remember that many processes combine to make a system…and our clinic's system and processes are not producing the desired outcomes for patients. It will be the work of the team to identify some root causes, make changes and test changes by using the Model for Improvement methodology.

Slide 7:
The clinic leadership completed the QI Project Charter which details the purpose and goals of their improvement project

You can access this sample project charter document from the web page for this course. Let's read through the fields that have been filled out.

- Name of project: NQF0018 Hypertension diagnosis and treatment measure improvement

- Problem statement: Our organization is performing at a low rate (at least 10-20% below our peer group) this calendar year on our NQF0018 hypertension measure. We'd like to focus on this to improve the performance score which will reflect a higher percentage of our patients being diagnosed and properly treated. We know we are also below the national and state level on this measure.

- Background: We have had off and on success and varying (low) performance rates. We have had visits from American Heart Association consultants and participated in initiatives to improve our processes, but they have always been temporary improvements, especially with staff turnover and competing priorities.

- Goals: We will document how we do our current blood pressure checking process (as a first step) and wish to improve our 45% NQF 0018 measure by 10 percentage points at the end of a one-month test period for our location.

- Time line: We will allow for a month of meeting, planning and organization time and then start the 1-month trial implementation and measurement period where we test out process improvements.

- Team roles and responsibilities: We will engage one of our providers as a project champion and assign roles to several staff who were educated around hypertension improvement and/or may have had previous training in this area. We also want to pull in new staff who may have worked at other organizations and can bring some new thinking into our quality improvement team.

- Resources required: Primarily, we'll need to allocate meeting time and pull staff out of their normal encounter and patient care schedules. All other resources (meeting room, IT, etc.) are available and ready for use.

- Barriers: Our primary barrier will be finding time to meet. Secondarily, our challenge may be the culture barriers (restraining factors according to the Lewin Force Field model) of adapting to new ways of doing our work and reordering our workflow.

- Approvals: Our project team leader will be responsible for approval for engaging in this work and determining the amount of time we can allocate to meetings. Leadership approval has been obtained as they requested work on this topic, and we know from prior clinic meetings that the NQF0018 score has been frequently identified in provider meetings as a target for improvement as well.

Slide 8:
As a refresher from all the modules you've worked through, here is a list of the tools and templates that will help organize and guide the QI team in our example. They will use many, but not all listed here.

- Project Charter – provides scope, goals and overall definition of our project
- Project Work Plan – this tool keeps our tasks organized and team members accountable for work and deadlines
- PICK Prioritization Matrix – helps us look at many project options and identify those that will be our highest priority.
- Team Roles and Responsibilities – organizes 'who is doing what' on our team and helps to insure needed roles are filled
- Communication Plan – keeps us on track with how we are messaging with stakeholders throughout our organization and keeping them abreast of our work and accomplishments
- Force Field Analysis – helps us determine what the driving and restraining factors are and by identifying them, reduce the restraining factors and utilize and benefit from driving factors
- 5 Whys – this will aide you in getting at the root cause of what you are trying to improve
- PDSA Worksheet– the key form that keeps track of our incremental, rapid cycle tests of change
- Measures Collection and Monitoring Plan – a listing of the measures we have chosen or created to know whether our proposed changes lead to improvements
- Data Collection Plan – identify specific data that we'll need to track and collect for our measures

Think of all these forms and templates as your quality improvement toolkit which you'll add to as you gain experience with quality improvement.

Slide 9:
As we move the next chapter of our QI story, keep in mind how the elements of QI (tools and methods) fit and work together… with the Model for Improvement and use of the PDSA tool being the focal point that enables QI teams to take action and test out changes.

Slide 10:
Teams and Facilitation

Slide 11:
Our clinic has their project charter in hand and has appointed a QI team leader who has been empowered to select team members for the project.

Here again are the high-level topics we covered in the Teams and Facilitation module:
- Building your QI Team
- Ensure that the needed roles are filled on your team
- Ensure Team Communication
- Addressing Facilitation Challenges & Solutions (we are going to make the assumption we don't have any facilitation challenges in our example).

Slide 12:
Think back to this slide from the Teams and Facilitation module. How would you populate these roles or combine some roles and assign them to a single team member? You can start by penciling in the names you would think most likely be the best candidates for the positions and leave open the roles may be up for discussion or can be rotated at each meeting.

The clinic in our example chose to staff their project as follows

- Project sponsor. This will be an MD who is also part of the clinic leadership team
- The Team leader is their clinic manager who will also be initial meeting facilitator (a role that is sometimes rotated)
- Group contributors: they will have a few Medical Assistants, one who has had some special hypertension training. As they get into the project, they may find that they need to add a person or two based on what they discover about their processes and root causes of their performance issues.
- The Data specialist and Systems specialist roles will be covered by a single super-user and the 'go-to' person for EHR and IT questions
- and the Scribe / Note taker role will simply rotate for each meeting.

Slide 13:
Here is a sample of the Team Roles & Responsibilities document that our team leader filled out for their hypertension QI project. The team will start off with 5 members and additional subject matter experts and/or process experts will be added or brought into specific meetings as needed.

Slide 14:
You may not have all the specifics to fill out the detail of your communication plan at the outset of your project, however, start with the document and fill out what you can and what communication efforts you believe your team will need to undertake. You can add and modify what you'll be communicating, who the audience will be, the frequency, method of communication and so on as get deeper into your QI work.

Let's look at the first couple of rows that the clinic in our example filled out:

The first key message will be to communicate the intention to form a QI project team around hypertension improvement for the NQF 0018 measure. This will be done via email and sent to all staff by Dr Jane Polinski, the project sponsor at the outset of their project.

Next, there will be a bulletin board posting for all staff from her informing that the team intends to recruit staff for the hypertension project work, also to be done as the project starts up. While they already had the names in mind for their team roles, they want to be transparent and offer the opportunity for others to share their expertise and keep the clinic abreast of what is happening on their project.

The sample communication plan also includes rows to remind themselves to announce the team formation, publish monthly project updates and share project data results and findings at the completion of their work.

Slide 15:
In addition to the project plan and communication plan, the team leader has created a Work Plan to keep track of all the tasks and follow up items that they'll be dealing with. This document will keep the team and especially the team lead abreast of each task's current status, who is assigned to items on the work plan and other details such as deadlines. It's good to have the work plan created up front along with the communication plan as you'll start using them at your first meeting. The QI team leader, Juan

Melendez, has created this document and entered a few initial tasks that he knows his team will need to address in the first few weeks of their work, which include:

- Hold initial project kickoff meeting
- Create communication plan
- Hold Process Mapping exercise to document hypertension encounters and utilize the 5 whys tool
- Create PDSA document based on process mapping and 5 whys analysis
- Report back to leadership on QI team progress after 2nd week of work

While they didn't enter each task, such having the team answer the 3 questions from the Model for Improvement methodology, the team leader will include this and others as they start their work. At a minimum they've got the document started and can add to it and modify it as they go along.

Slide 16:
Change Management

Slide 17:
We learned about the importance of including and considering Change Management factors and how change and transition impact the organization and individuals. Change Management is not an explicit step that you will address in your QI work, but an underlying and foundational set of concepts that you'll need to consider as you move through your work.

As you think about the goal to improve the hypertension measure in our example …reflect on some of the key components of change management that might apply to the clinic and their staff:

- Leadership's role is key, and they must be committed for the long haul…what is leadership's perspective on our QI work around hypertension? … they are fortunate that one of their leaders is a champion of hypertension work and has special interest in the topic. In your work, enlist leadership early and engage a project sponsor that supports your QI goals.
- There must be a focus on the goals and how to get there. Think about prior improvement projects at your facility…was it difficult to navigate the project process and was there a clear roadmap to achieve the intended results?
- Be attentive to both the technical and the personal aspects of change. The clinic in our example may find specific steps of the process that need to be changed (maybe new equipment, the BP recheck process and steps) but how are we appreciating and considering individual's willingness to change and what is our culture of change? Are we innovators, early adopters, the late majority, or a bit behind the curve and slow to change?
- Recognize how each person adapts to change…including yourself…where would you rank yourself and your QI team members on the spectrum of adaptability to change?

Slide 18:
The Lewin force field model is a good method to help organize your thinking around factors that will help implement change…and recognize those that are holding you back.

Think about the factors on both sides of the fence. Remember, you can't affect change unless the driving forces are sufficient to overcome the restraining forces, meaning that in order to be successful, either driving forces need to be enhanced or restraining forces need to be decreased…otherwise you

maintain the status quo or equilibrium as Lewin describes it. The general recommendation is start by addressing the restraining factors, and either reduce their impact or, if possible, turn them around into a driving factors.

For our example, the clinic did a quick Force Field Analysis, itemizing some top driving and restraining factors and we'll see those on the next slide.

Slide 19:
The clinic has had an initial meeting where they discussed the QI project and they have talked about restraining and driving factors surrounding their hypertension measure and improvement work.

Here are the top 4 factors (both restraining and driving) that the clinic identified, and they'll have further discussions on how to address each factor:

Retraining factors:
•   Clinic has been slow to make QI changes in the past
•   While they now have improved EHR analytics, do they know how to use them?
•   Lack of time for QI team meetings and taking staff away from patient care
•   Some clinicians have negative attitude toward measures and feel they do high quality work…the numbers are just wrong

Driving factors:
•   Peer clinics that are performing higher than them…they have a comparison they'd like to do better than
•   Project sponsor who is motivated to improve the hypertension measure
•   Improved analytics capabilities in their EHR
•   The clinic has also chosen the NQF 0018 measure for a national reporting program

Slide 20:
Let's now think through the Kotter model of the '8 steps to change' with respect to our clinic QI example and translate these eight steps into practical actions to accomplish our hypertension improvement goal:

1. Create a sense of urgency. The clinic recognizes that they are performing well below where we'd like to be on their hypertension measure…they certainly have some urgency from that perspective and are motivated to make these changes to benefit their patients as soon as possible.
2. Pull together a guiding coalition. The guiding coalition in this case is leadership support along with the QI team enthusiasm to make needed changes.
3. Develop a vision and strategy. The vision and mission of the clinic is to provide the best possible and individualized care and the strategy of learning Quality Improvement methods is one of several strategies to take the first steps.
4. Communicate the "change vision". As the clinic moves forward with their work, they will want to share what they are doing with all process stakeholders and their patient population as well.
5. Empower action. Through support from leadership, the QI team has been empowered to determine what improvements are needed and test out the needed changes. Once positive results are achieved, they'll seek leadership approval to scale and spread the improvements.

6. Generate short-term wins. Short term wins will be achieved by utilizing the QI Model for Improvement and doing rapid cycle tests of change with the Plan Do Study Act tool. Those short-term wins will be the success the team can point to which will generate additional support and buy-in for the next series of improvements on this project or the next.
7. Consolidate gains and produce more change. Here again, the QI team will rely on multiple PDSA cycles and our plans to spread those improvements as they are tested and proven successful.
8. Anchor new approaches in the culture. The team will write up new policies and procedures to ensure that the improvements are maintained. They will also make the changes part of their training for new hires. They will also plan on closely monitoring their NQF 0018 measure for the coming year or longer.

Change management is a deliberate consideration for each QI project and working through the Eight Steps to Change and the Force Field Analysis will help to consider factors that influence organizational change in your Quality Improvement work.

Slide 21:
The Model for Improvement & Plan Do Study Act tool

Slide 22:
The Model for Improvement is designed to organize your team's quality improvement project work and insure that QI work is done in a systemic way by first asking the three question:

1. What are we trying to accomplish (this sets the scope and aim)?
2. How will we know that change is an improvement (measuring the baseline or current performance provides context for the changes made)?
3. What change can we make that will result in an improvement: (are we confident that our improvements will help us achieve our goals?)

Let's now answer the three questions for our hypertension example.

Slide 23:
The clinic responded to the three questions as follows:

What are we trying to accomplish?

1. We are trying to improve our NQF 0018 measure and improve our clinic's ability to properly identify and diagnose patients with hypertension. Our goal will be to improve our facilities current performance rate from 45% to 55% within 1 months starting the first day next month. We believe that we are doing well with the treatment portion of our measure and we will not focus on this as part of our PDSA cycle of improvements.

2. How will we know that change is an improvement?
   Here is the chosen measure for our work:
   • National Quality Foundation 0018 measure: Controlling High Blood pressure: Increase the % of patients 18-85 years of age who had a diagnosis of hypertension and whose blood pressure was adequately controlled (<140/90) during the measurement year.

- Denominator: Patients 18-85 years of age who had a diagnosis of essential hypertension within the first six months of the measurement period or any time prior to the measurement period

- Numerator: Patients whose blood pressure at the most recent visit is adequately controlled (systolic blood pressure < 140 mmHg and diastolic blood pressure < 90 mmHg) during the measurement period

3. What change can we make that will result in an improvement?

- We made updates to our workflow based on our process mapping and we will start to test the new workflow with one provider/nurse team for one week. Changes will include a higher level of accuracy when taking BPs based on American Heart Association guidelines and best practices, along with a focus on improving the accuracy of documenting them in the EHR (getting hypertension on the problem list and entering BPs consistently in the same fields (not in the notes field, for example).

- The answer to question 3 can certainly incorporate multiple changes, but it's best to narrow and test change on an item by item basis when it comes to applying the Plan Do Study Act tool, so that the test will confirm which of the changes are creating the desired change.

- To arrive at the answer to question 3, our team utilized the 5 Why's tool and we'll see how that was done in the next few slides.

Slide 24:
To answer question 3 of the Model for Improvement, "What change can we make that will result in an improvement" …the clinic decided to use the 5 Why's tool. The Five Whys root cause tool starts with a problem statement (which is posed by the 1st question in the Model for Improvement 'What are we trying to accomplish'…it may need some small amount of wordsmithing to put in the form of a problem statement) and then has the team ask 'Why' repeated times to identify the root cause. This doesn't have to by exactly 5 Why's …it could be 3, 4, 6 or seven…it all depends on whether the team feels they gotten to a root cause that can be translated into a plan of action for the PDSA tool.

Here's are the results of the clinic running through the 5 Why's Worksheet:

- Problem Statement: Our project goal (response to question 1 of the Model for Improvement) could be translated into the simple question of: Why isn't our hypertension process working to produce an optimal result or high performance on the hypertension 0018 measure?

- The team responded as follows:
  - First Why: We don't have regular training as well as policies and procedures around BP checks and documentation.

  - Second Why: We don't have consistency around how we document and implement our policies and procedures, especially not around hypertension.

- Third Why: We have a culture of letting all providers practice independently and they instruct the nurses and medical assistants to adapt to their individual practice approaches.

- Fourth Why: Our clinic doesn't have a culture of consistency among all providers and staff on how our workflows are carried out.

- The clinic felt that they had narrowed in on a couple root causes after asking 'Why' four times:
- Root Cause:
  1. Blood pressures may not be documented correctly due to variations in practice among providers and staff

  2. There may be inconsistencies in the documentation which are impacting our numerators and denominators on the NQF 0018 measure (and probably other measures as well)

As mentioned previously, you'll need to consider when to pull in certain tools for your work and, for our example here, this is the right time to map out the current state process. The QI team has completed the 5 why's and narrowed in on a specific process or part of the process: a typical encounter with a patient and how the BP is taken, documented and addressed for most patients. The team felt confident that the clinic was actually doing much better than the measure truly reflects and their theory is that they were having issues with documentation of the blood pressure as well as inserting the diagnosis into the problem list…for some providers. Next, the clinic will map out and analyze their current process.

Slide 25:
Process Mapping

Slide 26:
The project goals, the answers to the 3 main questions in the Model for Improvement, and root causes from the 5 Why's tool all help us progressively narrow down and identify the process which we need to better understand and map out. By creating a visual diagram, our team will be better equipped to determine which specific changes to make and document in the Plan portion of the PDSA tool to run a rapid cycle improvement test to determine if the changes will be effective.

The clinic will now take a look at their process around hypertension care and determine how it truly works, not how the clinic thinks it works. Process mapping will engage the QI team in discussions about how they carry out their blood pressure checking process and will be the next step before using the PDSA tool and running rapid cycle tests of their proposed change. The exercise of mapping out the process will lead to discoveries and inform which actions and tests the clinic needs to undertake when using the PDSA tool.

The steps in our process mapping work follows this general order:

- Current state: Review the existing process
- Determine changes needed
- Future state: map out the desired process
- Test the future state process (this requires using the PDSA tool)

- Optimize the new process (This step is based on decisions from the 'Act' step of PDSA…whether to adapt, adopt or abandon the tested change).

Slide 27:
As a quick refresher, we want to frame the process by identifying:

- Boundaries (Process Input or trigger and Output)
- Major steps in the process from the trigger event on through to the end result or output
- What is included and what is not in the scope of this process?
- Who are the Stakeholders and Customers?
- Do we have any Process inputs (reports, data, forms, etc.)
- Keep thinking "Who/ Does/ What/ When?" as you visually build your process
- And Consider interdepartmental handoffs!

For the purpose of our example, the clinic focused on the process that identifies patients who may be hypertensive, but remain undiagnosed, so they looked at their routine BP check procedure as patients come in for encounters.

The clinic could simply focus their efforts on patients who already have the diagnosis of hypertension and make sure those patients' blood pressures are adequately controlled. For our example, we are taking the perspective of the clinic looking at their whole patient population age 18-85 to make sure that no one is falling through the identification gap. Keep in mind that there are likely multiple factors influencing our NQF0018 measure and the clinic is trying to address and isolate changes to one or two factors that may be influencing the measure.

Slide 28:
As you'll recall from the process mapping module of this course, we start by naming the process start or 'trigger' and end points also known as framing the process. In our example, the patient arriving for and leaving from their encounter signifies the process boundaries.

Slide 29:
When you diagram your process, it will be a gradual, step by step exercise with discussion of tasks (square or rectangular boxes) and decision points (diamond figures). For simplicity sake, we'll jump ahead to where the clinic's QI team documented the general process with sticky notes and arranged them on a white board and now has their basic process mapped out. The next step is for them to draw the connectors.

Let's follow how the clinic documented the process:
Our first step in the process is to state that the patient comes in for an encounter, regardless of whether it is routine or emergent in nature. Each patient will have their blood pressure checked by the MA, and a second check will be done by the provider if the initial check exceeds 140/90, which will be done by the provider after the MA has roomed them and taken the initial BP. If the second BP check proves to be high, then the provider will make the hypertension diagnosis and determine a course of treatment. The patient then receives the after-visit summary document and leaves the clinic. This is a bit oversimplified, but the point is to identify the major steps in the process and use the process map as a catalyst for discussion about how the work is actually done.

Slide 30:
…and now that the QI team is in agreement about the flow of steps in the process, they draw their connectors. The second and the fourth sticky notes need to be swapped (when the MA checks the patients' blood pressure and when the patient fills out a form), but that is the flexibility of using this method and you'll see that the clinic corrected this in their final process diagram on the next slide. A brief tip…Take a picture of your process diagram and use that for either doing your electronic process diagram and you'll also have that in your project files to pull up whenever needed.

The clinic's current state process is yielding a 45% for their NQF0018 performance rate and they'll discuss what is going on and where to make improvements. Remember that our example or your actual QI work will not always be sequenced one tool or technique right after the other, and the clinic would be doing a 5 whys exercise at this point, which we already touched on and was used for input in the PDSA tool.

Slide 31:
Once the clinic completed the process documentation with a whiteboard and sticky notes, they then documented it using Microsoft Visio, although this could have been done in Word or PowerPoint, Google 'Documents' etc. Additionally, there is no requirement to over-formalize the process diagram, it entirely depends on how you'll use the diagram with your QI team or possibly, to communicate with process stakeholders, your leadership team for example. Having the current state process in electronic format has some added benefits when it comes to quickly and easily modifying the diagram with any changes, you'll make for the future state process.

Slide 32:
The process map, along with the 5 why's has created the understanding needed for our clinic QI team to start proposing changes they'd like to test out using the PDSA tool.

The clinic will review the many possibilities where there is room for improvement in the blood pressure checking and documentation process. To get their conversation started, they'll look at their process for each of the most typical possibilities listed on the slide here:
• Bottlenecks / Sources of delay – patient wait times are a concern, but not directly related to the measure (something the team will look into on a future project)
• Rework due to errors – there were no errors that stood out, except some concerns about blood pressure checking accuracy and getting the systolic / diastolic numbers as accurate as possible
• Role ambiguity – no disagreement came up as to 'who should be doing what'
• Unnecessary duplications – nothing was identified in the process from this perspective.
• Long cycle times – like bottlenecks and delays, this time factor will be looked into in the future (how long does it take for the patient from beginning to end of their clinic visit?)
• Lack of adherence to standards – there is some question as to how the BP checks are being done…if all clinicians are doing this in the same manner and adhering to the documentation standards at the clinic…using the right field in the right screen/window to record the initial and any 2nd BP check
• Lack of information – the team didn't spot and information issues other than the previous one related to standards and adherence
• Lack of quality controls – the only question that the team had here is whether the BP checks are being done according to required standards. There may be a need for training.

Slide 33:
Plan Do Study Act (PDSA)

Slide 34:
Let's pick up with the PDSA form where the clinic left off … now that the clinic has completed the 5 Why's tool and created a process map with conversation as to what changes should be made to improve the NQF 0018 hypertension measure.

The clinic QI team devised a Plan to move from problem and process analysis to actions which will implement and test their prosed changes. Let's read what they put in their PDSA form:

- First row:
- Describe Test of Change:
  - o QI Team leader to present and will emphasize importance of proper BP checking techniques and documentation

- Person Responsible
  - o Team Leader

- When to be done
  - o At next provider meeting

- Other notes:
  - o None

- Second row:
  - o Describe Test of Change:
  - o MD / MA teams will utilize the updated blood pressure workflow which will include a higher level of accuracy and documenting BPs in the EHR

- Person Responsible
  - o MD/ MA teams

- When to be done
  - o Monday through Friday during specified date ranges

- Other notes:
  - o MAs will be responsible for double-checking that the process was followed and noting any deviations from workflow

- In this case, the clinic's 'change' and improvements don't impact the order of steps in our process or 'who is doing what when'? They relate primarily to the accuracy and quality of the work that is already being done in the current state process map. What came out of the process diagraming exercise, in this case, were team recommendations relating to improvements in specific tasks of the current state process which could impact their 10% improvement goal. They didn't see a need to redesign or reorder steps in the process. Each process mapping exercise will achieve different results and require that you employ different QI tools and

techniques while using the core techniques of answering the 3 questions for the model for improvement and utilizing the PDSA tool.

- Your plan may be less complicated or a bit more so…whatever your plan, simply be clear about the actions and 'who does what and when' to create specific responsibilities for carrying out your tests. You can also document the task in your project work plan and review your progress at each QI team meeting.

Slide 35:
Let's take a look at what the clinic documented in the "Describe what actually happened when you ran the test" box for the 'Do' portion of the PDSA form:

There were some challenges the first few days in remembering the standardized process to document BPs in the EHR (challenge in altering documentation behavior) and finding the correct spots in the EHR, but once the team were on the same page and the EHR bugs were worked out, the process went smoothly

The team then entered a brief summary in the: What happened? Surprises? Challenges? box
Over the initial test cycle, BPs were getting documented correctly and there were fewer questions after the first few days. All providers improved their documentation and utilized the correct fields in the EHR for systolic and diastolic blood pressure readings. Clinicians were making sure the proper BP check techniques were consistently done and recorded (which they provided as feedback in a provider/staff meeting). New HTN diagnoses were recorded in the problem list with the exception of one provider. Follow up training is being done with this individual.

Slide 36:
In the Study portion of our PDSA document the clinic relied on the data analyst to help pull the numbers and confirm results of their process improvements:

Overall, the test was very successful. We saw an 15% increase in patients diagnosed with hypertension (NQF 0018) who also had their diagnosis under control and the team was able to follow the updated workflow consistently. ·

Here's what the team put in their PDSA form:

- Week 1: 47% at end of week ·
- Week 2: 54% at end of week (*close to 55% goal after 2 weeks) ·
- Week 3: 58% at end of week ·
- Week 4: 62% at end of month (& 1-month test period) (*exceeded 55% goal at end of test period) ·

The QI team further added to their report:

The biggest issue with the EHR was addressed during this test, which was staff and provider knowledge about how are where to document BP readings and confirming the diagnosis in the problem list, and we expect that this success can be spread throughout the clinic. ·

The clinic data analyst and super user was able to determine that our clinic had 24% of our population with elevated BPs (greater than 140/90) without a hypertension diagnosis in their problem list. Clean up work was done with providers and we got this down to 7% (fewer is better) after the 1-month test. We expect that this will go below 2 or 3% now that providers are getting the documentation done correctly

This is great news and indicates a successful test of the changes made by the clinic. But they haven't come to the end of their PDSA work yet…they still need to complete the Act step, the final step of the PDSA tool... and in this case, determine how they are going to maintain those gains, possibly improve further on them and disseminate them as needed.

Slide 37:
The final step of the PDSA document, Act, requires the QI team to make a decision about the changes they tested:

• Adapt – modify the changes and repeat using a new PDSA test cycle. (they would either fill out a new PDSA form or modify their existing form as needed)

• Adopt – consider expanding the changes in your organization to additional residents, staff, and units.
• Abandon – change your approach and repeat PDSA cycle.

Due to the success of the first PDSA test cycle, the clinic chose to Adopt the changes and test with additional MD/MA teams in the following week.

They describe what they will do with their Adopt step by detailing their next steps:

Describe what modifications to the plan will be made for the next cycle from what you learned:

(the QI team wrote:)
We expect that we can improve the NQF0018 metric by continuing education and ongoing training, making the new procedures part of our new hire process and recurrent annual training.

Given that we have experienced success in our first round of PDSA testing, we will discuss spreading these successes to other locations beyond our initial set of MDs and MAs. We will do additional PDSA test cycles and NQF0018 data pulls to confirm effectiveness.

Slide 38:
Using Data

Slide 39:
The clinic needs to understand what is going on with their NQF0018 measure and what process steps and documentation in their EHR are leading to the numbers they have been reporting. To support their PDSA goal and course of action (the Do step), the QI team knows that their current performance is at 45% and the goal is to achieve 55% after the 1-month test period.

The QI team needs to communicate the current state data and 'tell the story of their process', so we'll need to not only look at the clinic's NQF0018 performance percentage, but at the provider level detail as well, which is where they believe changes are needed. By stratifying the data (breaking it out at the provider level and into a weekly view), the team will be able to gain valuable insights and make decisions about what changes to propose that will improve the measure.

Keep in mind that while we are covering the 'using data' topic toward the end of our QI story, this is an activity that is happening concurrently with the other work. The data analyst can make recommendations and bring this into the conversation at the same time as the process mapping and 5 Whys tool are being employed. The data is a critical component to getting a well-rounded understanding of what truly is happening and needs to be acted on and changed.

As part of our overall QI story, the clinic's QI team wants to be sure they used their data to help reinforce and tell their story using the proper data visualization tools (chart, graphs and tables).

Slide 40:
Let's quickly review the reasons why we (and the clinic in our example) need to focus on data before, during and after we implement process changes:

Doing so…
- Separates what is thought to be happening from what is really happening
- Establishes a baseline for improvement
- Indicates whether changes lead to improvements
- Identifies ineffective solutions
- Allows monitoring of system changes to ensure that improvements are sustained
- And Allows comparisons of performance across sites

In other words, the data the clinic's QI team is collecting and analyzing about the NQF0018 measure is informing them about what is happening in their process and sheds light on why their previous year performance rate was at 45%.

Slide 41:
When you suspect that whatever you are measuring may differ based on some characteristic of the data, this time to stratify, or break the data out into finer levels of detail. Here are just a few reasons to stratify your data:

- The data may differ by age groups
- The overall quality measure might be skewed depending on individual clinician performance
- The underlying data may vary seasonally, monthly or by some time factor

In our example, the clinic has chosen to stratify their measure data at the provider level.

Slide 42:
As the clinic considers their NQF0018 data, they need to determine how they are performing over time and look at, for example, how providers are doing on a monthly basis. This led them to choose a line graph which shows their NQF0018 performance over a selected historical time period (the entire year prior to the 1-month test) and during the PDSA test cycle period. The graph here has been extended a

few months past the PDSA test to emphasize continued improvement beyond the test month. The vertical red line indicates where the historical data stops, and the new data begins which reflects the changes made to their process.

The yellow horizontal line shows the clinic's 45% prior year benchmark and the blue line shows the 55% targeted QI goal. The purpose of this line graph is to show how the QI team stratified their data by providers A, B and C. The data is helping to confirm that the QI team's changes are having the intended impact to meet their goal or exceed it. They may learn other things about their process which support using different data visualization tools and present a different perspective gained from the data. This line chart was developed in Excel and the red line was a simple graphical addition when copying it into PowerPoint.

This visualization tool (the line chart) is what the QI team needs to bring to meetings and share with the staff…rather than just communicating performance numbers from the prior year and during their PDSA tests. When colleagues and team members can see the performance over time and improvements that were achieved based on QI team work, it helps convince their audience of the effectiveness of the changes that were tested. The small or incremental success will help lead to additional QI work application of the QI methodology and tools.

Lastly, as you are sharing this line chart or other data visualization tools with your colleagues or with external partners, it's respectful to anonymize and use labels such as we've done here: Provider A, B and C. It may be obvious to some which provider is associated with a certain label, but at least consider how you will communicate your findings and not inadvertently publicly identify individuals unless you intend to do so.

Slide 43:
Conclusion and Tips

Slide 44:
As you have learned in our hypertension quality improvement example, the steps and tools are designed to rely and build on one another. The use of the Quality Improvement tools may and does happen concurrently, rather than one tool or technique being used only after a prior one is completed. You may be doing process mapping at the same time while applying the 5 Whys tool. Some tools are used throughout the project, such as the work plan and communication plan and others are used when you need to accomplish a specific task, such as identifying the top priority projects with the PICK Prioritization Matrix..

Slide 45:
As the concepts and tools of Quality Improvement start to stir some thinking about how you might begin to implement the Model for Improvement and related tools, here are some tips to help you keep your QI work focused and avoid a few common pitfalls:

- If you can't measure it, you can't improve it. This is a well-worn cliché in quality improvement but is a foundational concept to help keep your choices and decisions data-driven.
- Manage the processes, not the health care providers. You learned in the Change Management modules that we each adapt to change in different ways and at a different pace. It's better to focus on the creating and modifying the processes and environment in which health care

providers work that will lead to predictable, high quality results and, at the same time, appreciate that individuals adapt to change in different ways and on different schedules regardless of role or title.
- The right data at the right time in the right hands. Always stay focused on the data and facts to understand your processes.
- Engage the people who do and understand the work. Your QI team will produce the best results when you have the right people at the table who can provide the needed detail and understanding of the day to day work.

Slide 46:
There are factors that must be present in an organization's culture for QI methods, techniques and tools to be effective. Without these factors, QI efforts not likely to be effective, sustainable, or embedded in the organization.

- Leadership that supports learning and drives and reinforces process for organizational change
- Systems and process thinking – recall the importance of how changing process can unintended impact on the overall system that produces outcomes
- Balancing safety and choice…and
- Fairness and accountability – think back to the 'just culture' concept which focuses on the three duties and organizational values that creates expectations around individual behavior
- Engaging customers/patients and staff in quality work – look at your quality improvement work through their eyes and make them part of the process and team
- Structured method to make improvements – the structure comes from utilizing the tools and methods you have learned in this course.

Confirm that these factors are present and the likelihood of success of your QI projects will be greatly increased.

Slide 47:
I'll leave you with a few motivational quotes to get you started on your QI work:

Start were you are, use what you have, do what you can. Arthur Ashe

Start your quality improvement work with the basics that you've learned in this course, use the resources that you have at your facility and take those initial steps in areas that are in need of improvement. Each QI project that you work on will lead to much learning and experience and position you well for your future QI work. You don't need to know everything about Quality Improvement to get started!

A good plan today is better than a perfect plan tomorrow. General George S. Patton

Take what you've learned and get started and don't let the perfect get in the way of the good. As you start your QI work, and apply the Model for Improvement, the fact that you simply got started will provide needed momentum as you work your way through repeated PDSA improvement cycles and use the basic QI tools presented here. Your first project and efforts may not be the straightest path to your desired results, but with repeated application and learning, you will master Quality Improvement with each successive project.

Slide 48:
Thank you for taking time to educate yourself about Quality Improvement Basics and for working through all the modules in this course. Best of luck to you and your organization in your quality improvement work!