Slide 1.1.1. **Disclaimer:** No narration.

**Course Overview:** This module will prepare you and your improvement team to use the PDSA cycle to test change ideas before adopting them in your practice. Review the Practice Assessment Tool you completed with Module 3 and what you learned about your practice. Recall what change ideas for improving access and efficiency your team selected on the Decision Tree; these are good starting points. Testing these change ideas before adopting them into practice helps ensure they'll have the impact you desire. Download the PDSA Toolkit from Resources now, it contains everything you need for your QI project including the PDSA worksheet and other tracking forms mentioned in this module.

Maintaining quality improvements is important and contingency planning helps you prepare for natural variations in your practice. We'll review other factors important to sustaining change as well.

**Learning Objectives:** Each module is walking you through the critical steps of your QI project. After completing this module, you and your team will be able to:

- Use the PDSA Cycle to test changes intended to increase access and efficiency.
- Identify sustainable changes that result in a balance between supply and demand.
- Use your data to monitor and manage variations in your practice.

You’ll also find relevant discussion and answers to common questions in the module Forum and you can post a question to a QI Coach should your team need additional support.

**Your Practice Assessment:** In Module 3, you undertook an assessment of your practice to understand how your practice is currently functioning. You collected information on different measures relevant to access and efficiency. Refer to your completed Practice Assessment tool you filled in while completing Module 3 to refresh your memory of your key findings as you answer the following questions.

**Planning for Change:** You've learned balancing supply and demand for appointments is necessary for patients to be able to book an appointment when they need it. While completing Module 3, your improvement team identified areas for improvement and selected change ideas that made sense for your practice. Review your completed Decision Tree now; a printed copy should be in your QI file. Your team can use the Impact/Effort Decision Making Grid to prioritize which change ideas to test first. Simply plot your ideas in the appropriate sections of the grid and determine what change would have the greatest impact and take the least amount of effort and resources. You will then use the PDSA cycle to test those change ideas and we'll review how to do this in detail in this module.

**QI Measures:** You captured several QI measures when completing your Practice Assessment in Module 3. Recommended measures for tracking access over time are Third Next Available Appointment (which is the gold standard for measuring how long patients wait for an appointment) and Continuity. Tracking these two measures, during your QI project and regularly afterwards, helps you monitor whether improvements are being sustained. Recommended measures of efficiency include Cycle Time and Red Zone Time and they should be collected routinely also.

**Plan-Do-Study-Act:** Now that you've reviewed the importance of data collection and the relevant QI measures, let's revisit the PDSA cycle. It's a step-by-step approach that is fundamental to QI
work. By planning and conducting small tests of a change idea with a minimum of risk, your team can build confidence that the changes you’re testing get the results you want and are worth implementing in your practice. Keep the test small scale and achievable - think one or two patients, and one or two team members. Test for weeks or days, not months. Consider what you've learned about your practice, what qualitative and quantitative measures are easily gathered or already available in an existing data collection system, such as an EMR? Getting good data that confirms the change is worth implementing is your goal. The PDSA form presented on the next slide will help you plan well.

**Slide 1.2.5. PDSA Form:** The PDSA worksheet helps you plan what, how, and when you will collect the data you need, consider baseline data you have available for each measure, and how frequently you will analyze the data to assess the impact of any changes as you are testing them. Specifying your target will help you know when you've been successful.

Multiple rounds of PDSA cycles will generate the data that help refine your change idea and ready your team for broader adoption. Everything you need to conduct a PDSA cycle is available in the PDSA Toolkit downloadable from Resources.

**Slide 1.2.6. Run Charts:** Creating a visual display of your data can help your team quickly determine whether or not the change you are testing is leading to an improvement. Start a Run Chart at the beginning of a QI project and add new data as the project unfolds to recognize significant changes over time.

This team collected data on Third Next Available appointment every Tuesday morning. They measured time in one-week intervals plotted on the horizontal axis and their measure of quality, TNA on the vertical axis. They set their target at one day as represented by the blue line. This graph shows the team they are heading in the right direction and reducing the time a patient is waiting for an appointment. This team might review the schedule at Week 8 when the TNA rose slightly.

**Slide 2.1.1. Improving Access:** Let’s revisit the QI Decision Tree you completed in Module 3 and the change ideas your team selected to test using the PDSA cycle. Recall teams can use the Impact/Effort Decision Making Grid to prioritize which of these change ideas to test first to get started. Think least effort and greatest impact.

**Slide 2.1.2. Access Strategies:** Tips: Here are some tips to consider when testing your access improvement strategies. There are more tips in the PDSA toolkit downloadable from resources.

Now let's review an example PDSA cycle to improve access completed by Dr. Edward's team. This will help your team understand how to approach your own PDSAs to test the changes you selected.

**Slide 2.1.3. PDSA Example: Access:** Dr. Edwards, a solo provider, has a receptionist, Carla and Jane, an RN, who works 3 of the 5 days. He has 1700 patients and has a revisit rate 3.8 which generates a demand for 6,460 appointments. Dr. Edwards provides 5,980 appointments annually. He needs to add or reduce his appointments by 480 in order to be in balance.

The team used the Backlog Calculator and determined they had a bad backlog of 80 appointments. To reduce this backlog they eliminated 10 duplicate appointments and temporarily opened 15 appointments during the week including 2 Saturdays. The team reviewed their backlog to ensure it was eliminated before moving on to test strategies to improve access.
Slide 2.1.4. Using the Impact Effort Grid: The team considered several improvement ideas and focused on the ones they felt would fall into the major improvement category. The team adjusted the schedule to ensure Jane was present for visits that required her assistance, such as female periodic health reviews, OB and well-baby visits. And a few appointments were added to the schedule. Carla noted that 6 to 10 patients per week requiring regular immunizations, vaccination, allergy or hormone injections were booked into 10 minute slots in the middle of the week. They wonder if these patients can be seen solely by Jane in a group visit. Strategies that defer work to the most appropriate member of the team increase supply closing the gap between supply and demand in their panel size equation.

The team will use the PDSA cycle to test whether having Jane administer the injections in a group on her own would improve access.

Slide 2.1.5. PDSA: Group Visit:

PLAN: The team decided to trial a 1-hour open slot one day per week for patients requiring regular injections. The test was planned for a Friday morning; a slower time in the practice when Jane was present. The team predicted 6 patients would accept Jane's invitation to receive their regular shot although a maximum of 10 can be scheduled. They want to know how patients would respond to the clinic and if this would open some appointments for Dr. Edwards. The team decided they needed to track their Supply/Demand Activity and Third Next Available. They planned the test using the PDSA from they downloaded from the PDSA toolkit.

DO

Two weeks before the clinic was held Jane and Carla identified and contacted patients that would be appropriate for the clinic. They prepared the room with the appropriate seating and supplies the day prior to the clinic and Jane prepared all of the injections 30 minutes prior to the clinic start.

STUDY:

The team compared the data they collected to their predictions. 6 patients showed up for the clinic as scheduled and were positive about the experience when asked. One patient requested to see Dr. Edwards and was squeezed in at 11:15. Dr. Edwards explained the purpose of the clinic and recommended that he attend for his next injection. The team decided that the clinic was a success based on the overall positive reaction of patients. All team members felt that they were able to spend more time with patients would work to maximize attendance to 10 patients with the next clinic to increase supply. The team started a run chart to visually track the impact offering the group visit has on the Third Next Appointment measure.

ACT: The team decided Dr. Edwards needed to communicate to patients during their regular visits prior to referring them to the injection clinic. This would ensure their comfort with the injection clinic. The team will collect the number of patients seen in the injection clinic on a weekly basis. The team felt this strategy would enable them to stay on time and add supply to the clinic. The team agreed to trial this strategy for 6 more weeks and then plan for seasonal changes that would impact schedules. The team understood they need to track the demand for regular injections across seasons to determine if the strategy can be effective throughout the year.
Slide 2.1.6. PDSA Worksheet: Group Visits: Scroll through the completed PDSA form for this example for ideas on completing your own.

Slide 2.1.7. Measuring and Monitoring Access: As you complete your PDSA cycles to test changes you are making, consider the target you are trying to reach. A Third Next Appointment of 0 or 1 is a target that indicates appointments are available to patients on the same day they call in or the next day. Some practices may not, despite efforts to increase supply and reduce demand, be able to establish balance because demand exceeds supply by too large a margin. They may; however, be able to reduce their Third Next Appointment time significantly, resulting in reduced wait times for patients and improved patient and provider satisfaction. Think about your target when planning your PDSA. Once you've reached it you'll need to measure TNA and Continuity periodically to make sure you remain on track.

Slide 3.1.1. Improving Efficiency: Being more efficient with office processes leading up to, during, and after a patient's appointment goes hand in hand with improving access. Just as visit supply and demand must be measured, understood and balanced, it is equally important to identify waits, and inefficiencies in non-appointment work. Improving efficiencies can have a positive impact on the practice's ability to provide timely access for patients. Remember the team can work to be more efficient while working on balancing supply and demand; just do what feels feasible.

Managing communications, standardizing message taking and follow up, and doing things electronically where possible, helps ensure the most appropriate person responds to non-appointment work.

Slide 3.1.2. PDSA Example: Efficiency: Dr. John and his team have been working on reducing their Third Next Available appointment and managed to get it down to 2 days. The team recognized they needed to improve communication and better prepare for their day. Despite starting on time, by 10am they were often behind and had a number of no-shows that disrupted the flow of the day. They collected data using the Minutes Behind Collection sheet and plotted it on a run chart. This helped them determine why they were often behind schedule. Their Cycle Time, a key measure of efficiency, revealed that the appointment length of 10 or 15 minutes was appropriate, as Red Zone Time (the time the patient spent with a provider) typically matched the appointment time. However, due to delays patients were often waiting therefore the Red Zone Time hovered around 40% of their total visit. Dr. John agreed that he often left a patient to look for blood work or answer calls from patients and the number of no shows impacted the flow of his day also. The team decided to trial a morning huddle to improve communication and coordination of overall patient flow. The huddle would be tested for one week in the reception area. If it proved valuable, a huddle would become part of the regular day. As the RPN and receptionists were key in the planning of the day, they lead the group huddle. Faxes that had come in the evening before were pulled for reference. The receptionist agreed to Chair the meeting using the Huddles Agenda template to collect the data. Dr. John was the timekeeper. Kate, the RPN was responsible for analyzing the data. They used the Supply Demand and Activity sheet to note any changes in activity. The Minutes Behind Sheet was used to collect data to compare to their 'pre-huddle' Minutes Behind data. The team agreed to meet again at the end of the day to discuss the effectiveness of the huddle and make any adjustments to the agenda or timing. One appointment slot was opened due to a cancelled patient and another was saved for the following week by eliminating a redundant visit. Dr. John was prepared for all visits, did not have to search for results and had time for a conference call. Typically the clinic runs 30 minutes behind at the end of the day but the week of the huddle it averaged only 15 minutes behind. The team decided to continue to 'huddle" daily as they saw improvements
considering the minimal set up and planning required. The team really wanted to know if the huddle would improve their preparation for visits and decrease the wait time for patients so they decided to collect Cycle Time in addition to the other measures on the next round of the test.

You can review the team’s completed PDSA worksheet on the next screen for some additional ideas of testing a daily huddle to improve efficiency. The tools mentioned in this PDSA are included in the PDSA Toolkit available in Resources.

**Slide 3.1.3. PDSA: Daily Huddle:** Scroll through the completed PDSA form for this Daily Huddle example.

**Slide 3.1.4. Measuring Efficiency:** By improving efficiency, primary care practices can improve patient flow to manage patient demand while also reducing the strain on resources. Improving efficiency can improve supply as you find areas in your schedule that may free up due to the elimination of waste in your processes. While planning your PDSAs for improving efficiency, consider your targets for cycle time and your third next available appointment.

**Slide 4.1.1 Sustainability:** One of the most frequent challenges to sustaining improvements is assuming that all gains will continue without monitoring. It is important for you to continue to hold regular QI meetings to review performance measures and identify ongoing adjustments that may be required; it’s easy to slip back into old habits. Consider these seven key factors that impact on whether gains achieved from an improvement project can be sustained. You can also download the sustainability planner in resources.

**Slide 4.1.2. Tracking Access: TNA:** It is recommended that Third Next Available appointment and Continuity be tracked over time to monitor access and to identify system problems that may require adjustment and more detailed measurements to be resumed to get teams back on track.

Changes in TNA will alert you to changes in the practice affecting access and efficiency so you to get a handle on them early. Collect your TNA on the same day of the week, Tuesdays are usually a good day to do this. The Third Next Appointment Tracking Form is included in the PDSA Toolkit. You can then place your data into a run chart for easy tracking.

**Slide 4.1.3. Monitor Continuity:** This Continuity Tracking form is included in the PDSA Toolkit. It is recommended practices monitor the percentage of time patients see their own provider instead of another provider of the same discipline in the practice. Recall the target is 85% of patients see their own provider. Tracking continuity as a key measure of access enables your team to respond promptly to changes in your practice. You may be able to track Continuity through your EMR as well.

**Slide 4.1.4. Contingency Planning:** Do you have a plan for vacation scheduling, end of day management, no shows, late patients, variation in seasonal demand, and return visits? Variations may occur in patient demand or provider supply. Planning for unexpected but predictable variations such as flu season or vacations helps the practice to be proactive in meeting patient needs and keeping supply and demand in balance. Daily huddles to review office flow and planning for staff away time or extra family members at visits can help you keep on top of the schedule. Chronically late patients can be flagged and anticipated.

Download the Front Desk Strategies Sheet and Post-Vacation Scheduling Planner from Resources for ideas on managing contingencies. The Predict the Unexpected Contingency Plans document is another Resource available to teams.
**Slide 4.2. Next Steps:** Your team should be comfortable with using the PDSA worksheet and other tools to complete small tests of change to determine which ideas are worth implementing in your practice. Other change ideas are presented in the PDSA Toolkit and you are encouraged to continue with your quality improvement efforts. Small changes can have big impacts. Taking the time to review the strategies shared in the Toolkit can go a long way to planning effective improvement projects. Visit the program Forum for support from a virtual QI coach and read answers to common questions or post a question yourself. Be a champion, share your QI success stories with colleagues striving to achieve the same gains and be sure to sign up to receive email newsletters which provide helpful information, tips, and tools on all aspects of quality improvement work including sustaining the improvements you’ve worked hard to make.

**Slide 4.3. Acknowledgements:** No narration.