The exam rooms aren’t stocked, I can’t find the nurse when I need help, the check-in process takes too long, we’re behind schedule, and there’s too much paperwork to complete. Sound familiar? These are all situations that raise our blood pressure as physicians. Often, they are symptoms of a larger office workflow problem, and fixing it requires that we review the symptoms, diagnose the problem and apply treatment, just as we do with our patients.

Most problems within a practice can be traced back to a process problem, as opposed to a people problem.

But while we know how to diagnose and treat our patients’ problems, we don’t always know how to diagnose and treat our office’s problems. The key is to employ proven quality improvement techniques used throughout the business world to increase efficiency and quality while decreasing costs. Many of these techniques originated decades ago in the manufacturing industry but have...
gradually made their way into service industries, including health care. Using these tools in your office can improve your efficiency, quality and bottom line as well.

**Map your current process**
Most problems within a practice can be traced back to a process problem, as opposed to a people problem. Efficient processes are important because they require less time, effort and resources to produce better outcomes. For each process in your practice, such as checking in patients or making referrals, a series of steps must be accomplished correctly, in the right order and at the right time to produce the best outcome. Drawing a picture (or flow map) of exactly how the process currently occurs can be a powerful tool in helping you understand the symptoms.

To create a **flow map**, use whatever format is most comfortable to you and simply list the current steps in order of completion. It’s usually best to begin at the point where the patient engages the process. For example, if referrals are a headache in your office and you decide to map the flow of referrals, start at the point where the patient relays symptoms to you that justify referral. Use “baby steps” to identify every subsequent step that occurs, and soon you will end up with a detailed description of the current process. (See an example on the next page.)

Flow mapping will help you clarify and standardize complex processes, and it can reveal complexity in seemingly simple processes. In one clinic, patients weren’t able to reach the triage nurse in a timely manner. Over a period of weeks, the clinic staff and physicians added sticky notes to the wall of the break room to demonstrate each step that occurred from the moment a patient called the office until he or she reached the triage nurse. To the staff’s amazement, the flow map ended up covering most of the wall. Once they saw all of the steps and the complexity of the process, they were able to begin thinking of ways to simplify and improve it.

**Identify bottlenecks and waste**
Once you have identified each of the steps in your current process, you can begin to identify what is wrong with the process. Quality experts James Womack and Daniel Jones advise organizations to challenge each step of a process and consider whether it is valuable, capable, available, adequate and flexible. In other words, does the step create value for the customer, or is it just a necessary step in the process? A flow map of key processes can help you understand where your office’s problems lie.
Challenge each step of a process and consider whether it is valuable, capable, available, adequate and flexible.

As you identify problems with the current process, you’ll need to eliminate steps that are simply waste and implement changes in your practice to make the remaining steps effective. For example, one of the most common process problems is a bottleneck, which is a blockade to increased output. Bottlenecks may occur all of the time, or they may be episodic. (An example of an episodic bottleneck is a staff shortage when a key staff member calls in sick or takes vacation.)

If your bottleneck is the result of a staff shortage, the solution may be to cross train your staff to perform key functions or cultivate relationships with other sources of staffing, such as temporary agencies. If your bottleneck is constant, you may need to devote more staff or resources to that step or find a better way of accomplishing it.

Another common process problem is unnecessary motion, such as leaving the exam room to look for equipment, supplies, your nurse or a certain reference. Stocking your exam rooms on a regular basis and in a standardized way is one solution. Having an electronic pharmacy tool can enable you to check drug interactions and dosages without leaving the exam room. If you don’t have access to electronic tools, posting an up-to-date drug reference in each exam room can be useful.

If you are having difficulty determining where your process is breaking down or why a process takes so long to complete, you may need to perform some time measurements. Measuring the amount of time for each step in a mapped flow chart can help identify bottlenecks and waste. To measure the cycle time of a process, have a staff member follow several patients through the entire process.
You may find that the process takes significantly longer than the actual work involved. For example, the entire process of seeing a patient (from check-in to check-out) may take 40 minutes in your practice, although the actual amount of work in that process may require just 20 minutes. In other words, there may be 20 minutes of waste and waiting involved in each visit.

If you encounter a process that is continually problematic, you may need to be more formal about evaluating the causes of the breakdowns in the process. One graphic way to evaluate the possible causes is to develop a cause and effect diagram, also known as a fishbone diagram.

To create a cause and effect diagram, identify the problem (or effect) you want to address and ask yourself why this problem occurs. Using the format shown on the next page, begin to write down your answers. For each answer, ask “why” again and again until you have enough detail to improve the process. For example, you may have a problem getting laboratory results into the chart in time for the patient’s next visit. If you ask why this problem is occurring, one answer may be that the reports are still with the physician waiting for sign-off. Again, ask why. Perhaps the physician doesn’t know he or she has the reports because the reports are getting buried in the physician’s in-box. Once you identify the root causes, you can begin to brainstorm solutions. One solution may be to create a centralized location for lab and test reports in the physician’s office.

Another way to create a cause and effect diagram is to post a large piece of paper in your break room. Draw the basic structure of the diagram, and ask your staff members to add their answers to the question, “Why did this problem occur?” Over a period of one or two weeks, you and your staff may have a new understanding of the reasons that the process breaks down. At that point, you can agree on and map the new and improved process.

Help the new process succeed
Once you have mapped your current process, identified its problems and agreed on an improved process, your work isn’t over. For the new process to succeed, you’ll need to take additional steps.

Staff education.
Educating your person-
To create a cause and effect (or fishbone) diagram, write the problem inside a small box on the right hand of a sheet of paper. Draw a horizontal line to the left of the box and diagonal lines on each side of the horizontal line. Then, list possible causes on each diagonal line. For each cause, list any subsequent causes, and so on. The diagram shown here illustrates the reasons a test result may be missing from a chart during a patient visit.

**Medical records clerk hasn’t filed report.**
- Clerk is sick or on vacation.
- No one is cross-trained to cover for clerk.
- Clerk has a backlog of other records to file first.
- Clerk has been covering for other back-office staff.

**Lab never sent the report.**
- Lab report is missing from chart.

**Patient never went for the lab test.**
- Patient is noncompliant.
- Patient has no insurance.

**Physician hasn’t signed off on the report.**
- Physician doesn’t know he/she has the report.
- Report buried in in-box.

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Copy the text below to your document:

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thoroughly explain a process in advance, or it can be fairly simple, such as a sign or visual cue. For example, if you need patients to stop by the nursing station to schedule their referral appointments before they leave, a well-worded sign in the exam rooms can improve the process.

Preparing patients for upcoming activities can also improve flow. If you order an ECG, make sure you give the patient a gown before exiting the room. This allows the patient to change clothes while the nurse is preparing the ECG machine, thus minimizing delays.

**Teamwork.** Improving office flow requires everyone, from the front desk staff to the physicians, to be involved in the improvement process. You cannot mandate a new process and expect it to succeed, so make sure your physicians and staff believe in it.

To develop a culture of teamwork, help your team see the mission of your office and the vision for what you want it to become. If your vision is for your office to become the quality leader among primary care practices in your area, articulate that clearly to your personnel. When you make decisions about the management of your office, tell your staff how that decision will further your mission and vision. This will bring a shared sense of purpose to your workplace.

**Dream big, start small**

Every office has the potential to achieve efficient flow throughout all of its processes. However, doing so requires deliberate efforts and hard work. Start by tackling just a few key areas within your practice, those one or two processes that cause continual headaches for you, your staff or your patients. Even a small process improvement can yield enormous gains in productivity, patient satisfaction and quality of care.

Send comments to fpmedit@aafp.org.