

How to Use SCHEDULING DATA to Improve Efficiency

Much has been written about managing an appointment schedule, but little has been written about using data from an appointment schedule to gather valuable information about a practice. By applying some basic business concepts to the analysis of appointment-schedule data, physicians and administrators can use the data to improve practice efficiency and profitability and identify opportunities for growth.

Gathering the data

The goal of appointment-schedule analysis is to maximize the number of patients who are seen when the practice is open for business while maintaining quality of care, patient satisfaction and patient access. Determining your practice's "fill rate" can show you how close you are to achieving this goal.

The ideal fill rate in a primary care practice is usually about 90 percent to 95 percent. The type of practice, the physicians' practice styles and the scheduling method used by the practice must be taken into account when determining the optimal fill rate. Practices that rely heavily on same-day or urgent-care visits and require more scheduling flexibility may find that a slightly lower rate is best.

A fill rate higher than 95 percent (for example, during flu season), may indicate a high level of staff stress and patient-access problems. If the fill rate is much lower than 90 percent, too few patient visits or too many missed appointments may be negatively affecting the practice's bottom line.

To determine and evaluate your practice's actual fill rate, you'll need to conduct a simple but systematic review of your appointment-scheduling data each month. It's relatively easy to collect the necessary data and calculate your fill rate, which is simply the total number of appointment slots filled or double-booked divided by the number of slots available for scheduling. (See the sample

The first step is simply to take a closer look at your appointment book.

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The goal of appointment-schedule analysis is to maximize the number of patients seen while maintaining quality of care, patient satisfaction and patient access.



A practice's "fill rate," which is ideally 90 percent to 95 percent in a primary care practice, shows how close it is to achieving this goal.



You can stay on top of your practice's efficiency level by studying its fill rate and other scheduling data each month.



A high or increasing fill rate and efficient appointment usage may mean it's time to expand the practice, while a low or stagnant fill rate may mean it's time to reduce excess capacity.

analysis below.) If you have a computerized appointment system, this should be as simple as running a few monthly reports.

Taking action

Once you've calculated your actual fill rate, you can compare it to your desired fill rate, gain some insight into your practice's current efficiency level and decide what, if any, action should be taken as a result. If your practice has the capacity to handle your current and predicted appointment demand, changes may not be needed. On the other hand, you may find that some relatively small changes in your scheduling practices can help you to meet your goals. (See "Appointment analysis in practice" on page 29 for examples of how some practices improved their efficiency with appointment-schedule data.)

It's also possible that your practice needs to make some big changes. If you have a high or increasing fill rate and efficient appointment usage, it may be time to

KEY POINTS

- Physicians can use scheduling data to help improve practice efficiency and profitability.
- A practice's "fill rate" shows how close it is to maximizing the number of patients seen.
- Other useful scheduling data includes the number of unfilled or missed appointments.

expand your practice; if you have a low or stagnant fill rate, it may be time to reduce excess capacity.

Practices that show a need or opportunity for expansion can grow externally (by adding office space) or internally (by adding provider or appointment slots to the existing office). In either case, appointment-schedule data can be a useful tool to help guide you through the strategic planning process. For example, your appointment-schedule data can show you the best time to add providers or appointment slots. Often, this will be at a time of peak demand (when the current

A SAMPLE APPOINTMENT-SCHEDULE ANALYSIS

Here is a simplified example of an appointment-schedule analysis performed on three different practices over one month. Each practice's fill rate is calculated by dividing the total number of appointment slots booked or double-booked by the number of slots available for scheduling.

	Practice 1	Practice 2	Practice 3
A. Appointment slots available for scheduling	3,000	3,000	3,000
B. Appointment slots booked including double-booked slots (slots used for double-length appointments)	2,250	2,850	2,850
C. Appointment slots available but not booked	750	150	150
D. Fill rate (B/A)	75 percent	95 percent	95 percent
E. Number of double-booked (double-length) appointments	400	400	500
F. Appointment slots booked but missed by patients	50	300	50
G. Patients seen (B-E-F)	1,800	2,150	2,300

In this example, practices 1 and 2 are not achieving maximum efficiency for different reasons. Practice 1 data shows a relatively low fill rate, which is likely because of the relatively high number of unfilled appointment slots. Practice 2 data shows a good fill rate but a high number of missed appointments. Practice 3, on the other hand, appears to be operating at an optimal level of appointment efficiency. The fill rate is high but not too high, missed appointments are at industry norms (typically 5 percent for primary care practices) and the number of double-booked appointments is not excessive. This means that operating revenue is maximized and, although doctors and staff are busy, patients still have access to appointments.

Note that in a complete analysis, this information should be further analyzed by doctor and day to uncover trends that are masked by aggregate data (see "Appointment analysis in practice" on page 29 for some examples), and seasonal variations should be expected and predicted.

APPOINTMENT ANALYSIS IN PRACTICE

The reasons for inefficiency in a practice's appointment schedule and the ways of addressing them can vary greatly from practice to practice. Here's how some practices used data from their appointment schedules to improve their overall practice efficiency:

- One practice had a suboptimal fill rate, yet patients were waiting a month or more for a Pap smear (or going elsewhere). So, the practice reduced the number of appointment types to allow more scheduling flexibility. The result was an increased fill rate, increased patient access and an increased total number of well-woman evaluations performed.
- To increase his productivity, one physician began adding an additional appointment slot per hour to his schedule. After a couple of months, he didn't see the increase in his numbers that he had expected. The physician discovered that his staff had started double-booking most of his follow-up appointments, since they noticed that he got considerably behind when he scheduled all of his appointment slots. This physician's appointment-schedule data showed that although he had more slots available on the books he also had a high number of blocked slots, which was leading to a net decrease in total patients seen. The physician went back to his previous schedule, removing the additional appointment slots he'd added, and improved productivity simply by staying on time.
- One practice noted that the fill rate was always a little too high on Monday and a little too low on Thursday. Further analysis revealed that the practice was one provider short on Monday due to weekend comp time for the on-call physician, and, not surprisingly, Monday also had the highest demand for acute-care appointments. So Monday same-day visits were increased to improve access that day, and Thursday routine appointments were increased to improve the fill rate that day. Finally, part-time provider staff was shifted to match the patient demand that resulted from these changes.

providers are too busy) or at a time of office underutilization (when the current providers aren't busy enough or, in some cases, when the practice isn't offering enough weekend or evening hours).

In some cases, the best way to increase your practice's efficiency and profitability may be to reduce excess capacity. However, before you make this determination, you should take your appointment-schedule data one step further by tracking it daily as well as monthly. If you discover that your fill rate is low on a daily basis, it may be necessary to reduce some of the providers' hours or even to cut some of them from your staff. How-

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ever, if you discover that the fill rate is only low on certain days, you may just need to reorganize your providers' existing schedules to make supply and demand match better.

Specialized appointments vs. open access

Is one scheduling method better than another when it comes to maximizing the number of patient visits? We have found that our practice philosophy and office processes do not allow for a total open-access model – the closer the office gets to full capacity, the harder it is to accommodate the unpredictability of open access. At the other end of the spectrum, some practices may have specialized appointments for so many types of visits (e.g., physicals, well-baby exams, Pap smears, procedures) that efficient scheduling becomes difficult. The bottom line is that if an analysis of your schedule demonstrates an efficient fill rate, whatever scheduling process you're using is likely working. And if an analysis shows a low fill rate or a high rate of fluctuation, your practice's entire scheduling process should be revisited.

A wealth of information

Using data gleaned from your practice schedule, you can work toward improving operations and efficiency and, consequently, patient service and patient care as well. You can also make more informed decisions about your practice processes and your plans for the future growth of your practice.

There is a wealth of information in your appointment book that is ready to be accessed, analyzed and tracked for the betterment of your practice. Use it. 

Send comments to fpmedit@aafp.org.

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Regardless of whether you see a need to expand or reduce your practice, scheduling data can be a useful strategic planning tool.



Scheduling data should be analyzed not only by practice but also by doctor and day to uncover trends that may be hidden otherwise.



This type of analysis can be useful in any practice with any type of scheduling method.



The data gleaned from your schedule can help you to improve operations and efficiency and, consequently, patient service and patient care.