Administrators and owners of ophthalmic practices face a roiling sea of change. Some changes are positive, some negative. Medicare reimbursement rates were scheduled to be cut by 4.4% in 2006, and as Medicare reimbursement falls, most industry analysts expect private insurance companies will attempt to negotiate similar reductions. Falling reimbursement rates reduce clinical revenues, while new generations of medical technology and rising insurance premiums raise costs. Clinical efficiency experts promise to increase capacity, while physicians lament that they would like a more relaxed schedule. Where should administrators put their limited time and energy, and where should owners spend their ever-dwindling dollars to steer the practice to security and prosperity?
This article introduces 3 numbers—the variable cost of a visit, the value of a visit, and the revenue elasticity of profit. These numbers provide a quick assessment of the financial impact of a positive or negative event. They quickly discriminate issues that warrant careful consideration from issues that are safely ignored or deferred. They will also help verify important decisions and policies. I'll explain each number in turn and how to calculate it. Then, I'll apply each to a current issue facing medical practices.

**Variable Cost of a Visit**

How much does it cost to see 1 more patient for a typical office visit? It might be tempting to answer this question by adding up the total expenses for the past year and dividing this by the number of visits completed during the same period. This is the average cost per visit. The problem with the average cost is that it includes many costs that don’t change with visit volume such as staff salaries, janitorial services, and building leases.

To understand how costs change with visit volume, you must calculate the variable cost of a visit. The variable cost of a visit includes only the additional expenses incurred with each visit such as incentive pay, consumables (e.g., disposable instruments and drugs), and any portion of liability insurance that is determined by patient volume. Add up all these costs for the past year and divide by the number of visits for the same period. This is the variable cost of a visit.

Focusing on average costs can lead to bad decisions. I once heard a general physician claim that he was losing money on Medicare patients. He said that because his average costs were $60 per visit and Medicare only paid him $55 per visit, he was losing money on every Medicare visit. He was considering dropping all his Medicare patients. Would that be a profitable decision?

It depends. If this physician were lucky enough to serve an area facing a shortage of physicians and could replace his Medicare visits with higher paying patients, the decision would be profitable. However, if he were to simply eliminate these visits from his schedule without replacing them with other patients, he would give up $55 per Medicare visit while reducing his expenses by about $10 in variable costs, for a net loss of $45 per Medicare visit eliminated.

**Implications of Low Variable Costs**

Medical practices have low variable costs. This is both a blessing and a curse. The blessing of low variable costs is that when revenue rises, almost all extra money flows directly to profits. The curse is that when revenues fall, expenses don’t come down much, so most revenue lost comes directly out of profits. This means that a small percentage change in revenues causes a much larger percentage change in profits. This wouldn’t be so bad if it weren’t for the high fixed costs most medical practices carry. Fixed costs, such as building costs, staff salaries, and equipment leases, don’t change when fewer patients visit. Fixed costs imply there is a minimum production level that must be maintained just to pay the bills. Falling below this level will eventually mean bankruptcy.

One ophthalmology practice with 5 physicians and an ambulatory surgical center (ASC) was earning a nice profit. Two of the physicians unexpectedly approached the owners and demanded to buy in at an unacceptably low price. When the owners refused, the 2 physicians left abruptly, leaving the practice facing an immediate and unexpected 40% shortfall in revenues. Even after eliminating the lost physicians’ salaries, the other fixed costs could not be paid with the revenue that the remaining physicians generated. Fortunately, because the administrator understood the practice’s cost structure,
he recognized that immediate action was required to remain in business. He began
an earnest search for a solution and found it in some very innovative efficiency gains
and voluntary staff reductions. The practice is thriving again.

**Analyzing the Impact of Reimbursement Changes**

When reimbursements swing a little, profits swing a lot more. How much more? The
answer depends on how profitable the practice is. To determine how far profits fall
given a reduction in reimbursement rates, calculate the reimbursement elasticity of
profit, or REP, as follows (see Figure 1 for derivation of formula):

\[
REP = \frac{\text{Annual revenues}}{\text{Pre-tax profits}}
\]

For example, if a practice earned $300,000 before taxes for its owners last year
after covering all expenses and salaries and had total revenues of $2.1 million, its
REP would be 7.

The REP tells how much profits change when overall reimbursement levels change
by 1%:

\[
\text{Percentage change in profits} = \text{Percentage change in overall reimbursement rates} \times \text{REP}
\]

**Figure 1. Deriving REP.**

The formula for reimbursement elasticity of profit, or REP, is derived as
follows:

Let \( p \) represent current before-tax profits, and let \( p' \) represent the new profits.
Let \( r \) represent current revenues, and let \( r' \) represent the new revenues.
Let \( e \) represent current expenses, and let \( e' \) represent the new expenses.

The REP is defined as the percentage change in profits divided by the
percentage change in revenues as follows:

\[
REP = \frac{\% \text{ change in } p}{\% \text{ change in } r}
\]

\[
REP = \frac{[(p' - p)/p] \times 100/[(r' - r)/r] \times 100 = [(p' - p)/p]/[(r' - r)/r]}
\]

Since Profit = Revenue - Expenses, then \( p = r - e \). Substituting \( r - e \) for \( p \)
and \( r' - e' \) for \( p' \) gives

\[
REP = \frac{(r' - e') - (r - e))/p}{[(r' - r)/r]}
\]

Rearranging terms gives

\[
REP = \frac{r' - r + e - e'}/p/[(r' - r)/r]
\]

Because reimbursement changes do not change expense levels, \( e = e' \). Hence, the
term \( e - e' = 0 \) and can be dropped, leaving

\[
REP = \frac{(r' - r)/p}{[(r' - r)/r]}
\]

\[
REP = \frac{r \times (r' - r)}/[p \times (r' - r)]
\]

The term \( r' - r \) cancels out, leaving

\[
REP = \frac{r}{p}
\]
The REP can be used to analyze the impact of the recently proposed Medicare cuts, but with 2 important cautions. First, the REP can only be used with percentages. Don’t try to use it on absolute dollar amounts or you’ll end up concluding that a $1 increase in reimbursements will add $7 to profits. Second, the REP should only be used for an estimate of impact. It’s not accurate for large changes in reimbursement or for very large or negative REP values, but it gives a good, quick sense of how a change in reimbursement levels will hit the bottom line.

With those caveats in mind, let’s use the REP to estimate the impact the proposed 4.4% reduction in Medicare payments would have. Although the Amended Budget Reconciliation Agreement prevented this cut from happening in 2006 by freezing physician payment rates at the 2005 level for 1 year, Medicare reimbursement is likely to decrease in the future. Consider 2 possibilities: First, ophthalmologists successfully negotiate with private insurance companies to leave non-Medicare reimbursement unchanged. Second, insurance companies successfully negotiate a similar reduction in fees.

Because Medicare only makes up a part of reimbursements, the first step is to calculate the overall change in reimbursement rates by multiplying the size of the Medicare

**Medicare: What Can Be Done?**

How should medical practices respond to future shortfalls in Medicare reimbursement? Here are a few guidelines:

- Negotiate hard to hold the line on current reimbursement levels with private insurance contracts. Larger practices in areas facing a shortage of ophthalmologists will have more leverage than smaller practices with abundant competition.

- Busy practices should look for clinical efficiency gains to make up for declining reimbursement rates. Increasing visits by 1% to 2% would offset the losses from Medicare’s reimbursement decline, and increasing visits by 3% to 4% would offset the more serious case in which both Medicare and private insurance reduce reimbursement. Articles in subsequent issues of *Administrative Eyecare* will discuss ways to improve clinical efficiency through better patient scheduling.

- Practices with many unfilled appointment slots should look to marketing activities to boost demand for their services. Efficiency gains will not help practices that aren’t busy enough to use the slots they already have.

- Practices that simply cannot boost visits through efficiency gains or marketing must determine whether they can improve profitability some other way, such as through staff reductions, closing satellite offices, or other means.

- Practices facing losses that cannot be reversed should consider merging with nearby practices. Merging offices can reduce expenses by sharing overhead expenses for information technology, scheduling, reception, and equipment. It can also increase negotiating power with insurance companies.

When leading change, the most difficult obstacle is often the resistance of those who don’t perceive a problem. Help others see the need to take action by showing them what they stand to lose—in lower reimbursements and in lost opportunities—by explaining their REP and the value of an additional visit. They need to perceive a problem and believe it can be solved before they’ll support an effort to change.
cut by the percentage of revenues affected by this change. Then, multiply the result by the REP to get the impact on profits. Here’s the formula:

\[
\text{Percentage change in profits} = \text{Size of Medicare cut} \times \text{Percentage of revenues affected} \times \text{REP}
\]

Consider a practice with an REP of 7 that receives 30% of its revenue from Medicare and another 50% from private insurance. Let’s assume that all revenue types (physician fees, surgery fees, and facility fees) are affected by the Medicare cut.

**Case 1: Medicare drops while private insurance remains unchanged.**

If other payers leave reimbursement unchanged, only the 30% of revenues that come from Medicare is affected.

\[
\text{Percentage change in profits} = \text{Size of Medicare cut} \times \text{Percentage of revenues affected} \times \text{REP}
\]

\[
\text{Percentage change in profits} = -4.4\% \times 30\% \times 7 = -9.0\%
\]

In other words, if physicians manage to hold the line on non-Medicare reimbursement, this practice will see a reduction in profits of approximately 9%.

**Case 2: Medicare and private insurance both drop.**

If insurance companies negotiate similar cuts in reimbursement, the percentage of revenues affected equals 30% Medicare revenues plus 50% private insurance revenue, or 80%.

\[
\text{Percentage change in profits} = \text{Size of Medicare cut} \times \text{Percentage of revenues affected} \times \text{REP}
\]

\[
\text{Percentage change in profits} = -4.4\% \times 80\% \times 7 = -25.0\%
\]

Thus, if private insurance reduces reimbursement by the same 4.4% that Medicare proposed, this practice should expect a whopping reduction in profits of 25%.

**What This Means**

As these examples illustrate, small changes in reimbursement have a large impact on profitability—a 4.4% cut in reimbursement does not mean a 4.4% cut in profits. Practices that don’t understand this concept will be in for a rude surprise when these Medicare cuts materialize.

**Value of a Visit**

Once, while discussing clinical efficiency with a friend, he confided, “I don’t really want to see any more patients. I enjoy taking time to talk with my patients and getting to know them. I just wouldn’t enjoy what I do as much if I had to go faster.”

There’s nothing wrong with choosing a pace that’s comfortable; however, most physicians and optometrists have no idea what they give up by deliberately throttling back. Even a small increase in the number of patients seen each day has a big impact on profits. If doctors understood how quickly adding a few visits per week increases profits, I believe most would choose a faster pace. To help them understand the value
of efficiency gains, calculate the value of an extra office visit. This must be done individually because each doctor’s particular mix of appointment types will alter the result. For example, an ophthalmologist performing a large volume of cataract surgeries will earn a lot more per visit than an optometrist dispensing eyeglasses.

For each physician, calculate the total revenues for the past year, including revenues for office visits, tests, and surgeries. If the practice has its own ASC, include facility fees, too. Divide this total revenue figure by the total number of office visits, not including surgeries. This is the value of an office visit. On average, adding a single office visit will add this much to revenues.

One might question why surgery revenues are included. The answer is that office visits drive surgeries. If a physician sees fewer patients in the clinic, he or she will soon perform fewer surgeries. If the physician sees more patients, he or she will perform more surgeries. Because the volume of office visits determines the volume of surgeries, the value of these surgeries should be included, assuming the practice has more capacity for surgeries available.

An experienced ophthalmologist with a heavy surgery schedule and his or her own surgical center used this method to correctly estimate the value of an office visit as $236. With 50 workweeks in a year, this means that adding 1 visit per week adds $11,800 to revenues, and because the variable cost of a visit is low, most of this would flow directly to profit.

My friend has a similar value per visit. He sees about 120 patients per week. A 10% increase in efficiency would increase his annual income by about $120,000. I wonder whether he really enjoys his extra talk time that much.

Fortunately, he may not have to choose. There are several excellent ways to improve efficiency without shortening visits including eliminating wasted time between visits, reducing the number of empty slots that expire unused, and redirecting appointments from physicians who are overutilized to physicians with light schedules. In subsequent articles, I’ll discuss ways to increase efficiency without shortening visits.

**Conclusion**

Practice administrators and owners need not be driven aimlessly by regulatory, legal, and technological forces. By knowing their REP, they can translate any reimbursement change to its impact on profits and thus recognize when a change in course is urgently needed. With a correct understanding of their variable costs, they will never turn away profitable business. And by fully comprehending the power of an additional visit to propel them forward to increased profits, they will hoist the appropriate sails to capture all the visits that they can, piloting their practice to profitability and security.

**Footnote**

1. Elasticity defines the relationship between 2 variables in terms of percentages. When 1 variable changes by 1%, the elasticity tells how many percent the other will change. For example, the price elasticity of demand tells the percentage that demand changes with a 1% change in price.

Brett Gerlach is president of Brevium, Inc., Duvall, Washington. Telephone: 425-844-2703; facsimile: 425-844-2703; e-mail: brett@brevium.com; web site: www.brevium.com.