



# How Management Accountants Make Physicians' Practices More Profitable

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THE KEY TO PROFITABILITY IS TO USE COST ANALYSIS BY DETERMINING A PRACTICE'S COST STRUCTURE AND USING THOSE COSTS TO EVALUATE CONTRACTS, ALLOCATE BONUSES EQUITABLY, AND MAKE STRATEGIC DECISIONS ABOUT THE FINANCIAL FUTURE OF THE PRACTICE GROUP.

This year the healthcare industry is expected to account for 15.6% of GDP, and expenditures for physician services are expected to be \$347.9 billion. A large part of that goes to physician practices, and, because they are such a large part of the economy, they represent an opportunity for management accountants to assist physicians in evaluating contracts with third-party payers and providing financial information for strategic decisions. To do so, management accountants need to understand the unique revenue, cost, and contractual intricacies of physician practices.

While most businesses' sources of revenue are sales and fees, physician practices depend on the organizational structure of the healthcare revenue reimbursement relationships among provider, patient, and third-party insurer. Revenue reimbursements can come from indemnity, preferred provider organizations (PPOs), and/or healthcare maintenance organizations (HMOs). In particular, to advise a physician or evaluate profits, a management accountant must understand the relationships between a practice's revenues and its costs.

Because these revenue reimbursements are contractually determined, controlling costs is critical to the survival of a physician's practice. A management accountant can help a physician calculate costs, select the appropriate cost structure to manage costs, and help make tough strategic decisions about the financial future of the practice. Once a management accountant understands the source of revenues and the cost constraints, he or she can then help a physician evaluate a revenue reimbursement contract. For example, if the contract is from an indemnity plan or a PPO, evaluation is relatively straightforward if the management accountant understands a practice's organizational structures and cost control. But if the revenue comes from an HMO capitation contract—that is, a fixed rate of payment to cover a specified set of health services and procedures—evaluating the contract requires additional analysis because revenues are based on anticipated services.

## PHYSICIAN GROUP REVENUES

In order to consult with a physician group, a management accountant must have a good understanding of

the sources of practice revenues. As noted previously, there are three types of organizational structures for healthcare: indemnity, PPOs, and HMOs. Each organizational structure utilizes distinct methods of revenue reimbursement: Indemnity uses fee for service, PPOs use discounted fee for service, and HMOs use salaries, capitation, and other financial controls.

### **Indemnity Plans**

Under an indemnity plan, physicians historically have been reimbursed primarily through third-party payers such as insurance companies. The actual payers—consumers and businesses—have insurance companies handle reimbursement for two reasons. First, the insurance company is able to handle the overwhelming administration of the plan more efficiently, and, second, it can spread the financial risk over a large pool of individuals. These plans are called indemnity because they reimburse physicians after services are rendered, and the reimbursement method is known as fee for service. Payment is production based: the more services provided, the greater the revenues to the physician. Because the payer is responsible for the cost of the services, the payer assumes the financial risk. Notice that under an indemnity plan there are no ties between the payer (insurance company) and the provider (physician).

But spiraling physician costs led payers to institute managed care plans that, for the first time, linked physicians who provided medical services with the parties who paid for those services. Under managed healthcare, third-party payers, including insurance companies and the federal government in some of its Medicare and Medicaid programs, would control the flow of monies by third-party payers to providers. It also dictated the number of services that could be provided to the patient, who could provide those services, and how much physicians and hospitals would be paid for those services. The strongest form of managed care is the HMO, and the weakest is the PPO.

### **PPOs**

In response to rising medical costs during the 1970s, insurance companies developed a form of payment known as the PPO. This type of healthcare plan differs from traditional indemnity insurance in that payments

to physicians are based on a reduced fee schedule, discounted from 10% to 40%. Other controls, such as larger co-payments and deductibles for out-of-network services, are instituted by third-party payers to encourage patients to use PPO networks.

The system is, however, still production oriented like traditional indemnity plans. Because revenues are related to the number of services provided, PPOs are basically a form of discounted fee for service. Although PPOs are less costly than indemnity plans, the payer is still responsible for the cost of the services and assumes the financial risk. Today, discounted fee for service plans are the dominant method of revenue reimbursement.

### **HMOs**

Unlike indemnity and PPO reimbursement plans, the HMO links the payer and provider together as a team to guide the patient through the healthcare system. The HMO collects a premium from the enrolled member and contracts with him or her to provide the necessary healthcare services during the period of enrollment. The HMO then contracts with the physicians and pays them to provide the anticipated services as needed for the period of enrollment. By agreeing to accept reimbursement on a prospective basis, the provider assumes the financial risk for the cost of future services. Physician revenue reimbursement in an HMO network is more complex and may be in the form of salary, capitation, and/or other financial controls.

Salary is used frequently in HMOs. Straight salaries are used in more than 10% of the groups, and guaranteed base salaries are used by about 20%. Under indemnity or PPO structures, salaries are used only in certain scenarios or sectors, such as the Veterans Administration or, possibly, a hospital for a doctor such as a hospitalist. A hospitalist is an inpatient physician who directs the flow of care for hospitalized patients and is paid by the hospital. HMOs have much greater financial control because they provide the physician with either a salary or bonus tied to the HMO's physician productivity goals.

HMO capitation is a method of physician revenue reimbursement based on a negotiated contract. The provider receives a set amount of revenue calculated per member per month for providing the necessary services during the covered period of time. The capitation

rate is commonly a fixed amount per member per month. Most HMO capitation rate calculations take members' actuarial data, such as age, gender, geography, and historical utilization rates, and costs to serve members into account to predict the expected costs of services. The HMO will then determine the average monthly cost of services and an average cost of services on a per member per month basis, which is the capitation rate. Each month, the total revenue reimbursement to the physician is the per member per month rate times the number of members actually enrolled for the month. This per member per month payment means that a physician is obligated to provide specified services to enrolled members as frequently as necessary. If a member uses more services than expected, the physician usually is not paid an additional amount. Likewise, if a member uses fewer services, the physician does not refund the capitated amount.

HMO contracts for revenue reimbursement may also include other financial controls, such as withholds and/or bonuses. These controls are the two major types of incentives designed to influence physician behavior regarding ancillary services, such as laboratory tests and referrals to specialists. A withhold involves keeping a percentage of the capitation fee to be released only if the physician group attains HMO productivity goals. Withholds invoke partner risk, which is the possibility that one physician's performance will negatively affect the group's compensation. Another financial incentive HMOs may use is bonuses based on the productivity and quality of services the physicians provide.

#### **PHYSICIAN GROUP SERVICE COST**

Medical office management has changed significantly with the implementation of managed care. Today physicians operate primarily in a managed care environment, receiving reimbursement for their services based on PPO and/or HMO contractual relationships or in the form of salary an HMO pays. It is estimated that about 85% of all patients today participate in some form of managed care. Prior to managed care, physician billing was based on the actual number and type of procedures performed on patients and was known as fee for service. In this type of financial environment, physicians' revenue was related directly to the number of procedures

and services they provided. The more the physician did to the patient in terms of diagnostic and treatment procedures, the greater the revenue. In a fee-for-service environment, low profit margins or, in some cases, negative profit margins could be offset by increasing the volume of other, more profitable services and procedures. In essence, the actual cost of providing a service was not particularly relevant as long as the physician group could control the volume of all services provided. This is not the case today because most physicians receive reimbursement based on discounted PPO rates and fixed capitation HMO contracts. Under these systems it becomes crucial that the physician group knows the cost of providing services in relation to the revenue generated by those services.

For example, in a PPO contract, certain procedures and office visits will provide much higher profit margins than others. A surgeon might find that one type of surgery is much more profitable than another even though he or she may feel that each required a similar amount of time, expertise, and diligence. Also under a capitation contract, the fewer services rendered, the greater the profit margin because, as noted above, revenues do not vary with the volume of services performed, only with the number of enrolled members. As revenues are determined only by the number of enrollees, profit margins will depend on how well the group is able to control costs. In essence, the more services and time spent per patient than is medically prudent, the lower the profit margin.

Therefore, under managed care it is crucial that the physician group knows the relative cost of its physicians' time and procedures to be able to make informed decisions about how it wants to focus its practice. For example, a surgery group may make a strategic decision based in part on financial considerations to concentrate its efforts on a well-defined group of patients. In order to make informed financial-based decisions, physicians need crucial information about the cost structures of their practice that management accountants can provide.

#### **DETERMINING THE COST OF SERVICES**

To make informed decisions about contracts or the strategic direction of the practice, physicians need, at a

minimum, information about the average cost of services they provide. In fact, to evaluate the contract effectively, physicians should know the average cost of services, the marginal costs of treating the new patients, and whether any additional fixed costs will be incurred by accepting the contract.

Traditionally, physician groups have tracked costs on a line-item basis by classifying costs in functional categories such as salary, equipment costs, depreciation, cost of materials, and drugs. Unfortunately, this type of information is not particularly useful in relating a practice's costs to the services it provides. In fact, for any cost accounting system to be effective it must fulfill the following criteria:

- ◆ A product must be carefully defined,
- ◆ The type and quantity of inputs required for products must be defined, and
- ◆ The costs must be attached to the inputs and the product costed out.

Traditionally, physician groups have been concerned only with tracking costs on a line-item basis, so there has been no effective way to attach these costs to the services produced. The problem is that, under this system of accounting, there has been no defined product measure, no measure of inputs, and no way to attach the cost of inputs to the product. Fortunately, all this changed in 1992, when Medicare changed the way it reimbursed for physician services. Instead of paying on a fee-for-service basis, it began to base its payment on a resource-based relative value scale system. Under this methodology, the amount of payment is tied to the amount of resources that are expected to be used to provide the service rendered. The actual product, service, or office visit rendered is defined by the CPT (common procedural terminology) code, the accepted procedural codes used to bill patients. Each CPT code represents an office visit, a service provided, a lab test, or a procedure.

Relative value units (RVU) are the inputs required to provide the service. A relative value unit takes into account the amount of physician work required to provide the service, the practice expense, and the expense of liability insurance. The code values were created relative to value of a standard office visit, which has a code value of 1.00 RVU. A code allowing reimbursement for

four RVUs implies that it took an average of four times more effort and cost to provide that service.

Today, most physician software billing systems will allow the practice to link its billing codes to a database that contains the number of RVUs allowed for each procedural billing code. By using such software, the practice can keep a running total of the number of RVUs generated for any time period. The management accountant can use these RVU totals to calculate the cost per RVU and then calculate the cost per procedure provided. For example, if it is determined that an average RVU costs \$30 to provide, then an uncomplicated office visit with an RVU of one would cost \$30. In summary, by costing out the inputs (RVUs) required to produce a service (CPT code), a management accountant can determine the actual cost to the practice of providing that service. This information can then be used to evaluate PPO and capitation contracts and to make strategic decisions.

### Calculating Costs

To carry out an analysis of costs, the management accountant must first calculate the average and marginal costs per RVU. With the number of RVUs required by the contract per CPT code known, a management accountant can calculate the total average cost and the total marginal cost per CPT code. He or she can use this information to help the physicians make informed decisions.

The following is a discussion of the steps required to analyze physician group practice costs.

#### Step 1. Calculate the average and marginal costs per RVU.

In cost accounting, there are two primary methods for analyzing costs: the high-low method and regression. The high-low method is an approximation based on two points, and regression is a statistical method requiring at least 30 points and one or more independent variables. Because medical practices typically do not capture information that lends itself to regression analysis, the high-low method is usually more appropriate. We will use it to illustrate a cost analysis, as follows.

High-low cost analysis of monthly data requires several procedures.

*Procedure 1. Determine the Variable Cost for the Production of One RVU:*

- Select the high production (the month with the highest volume of RVUs).
- Select the low production (the month with the lowest volume of RVUs).
- Subtract the difference between the total cost incurred during the highest production ( $Y_2$ ) and the total cost incurred during the lowest production ( $Y_1$ ). Total costs will include all costs of the practice, such as salary, depreciation, insurance, drugs, supplies, etc.
- Take the difference between the total RVUs incurred during the highest production ( $X_2$ ) and the total RVUs incurred during the lowest production ( $X_1$ ).
- Divide step c (the cost difference) by step d (the RVUs difference).
- The result is the variable cost for one RVU.

*Procedure 2. Determine the Total Fixed Costs:*

- Take the total cost incurred during the highest production ( $Y_2$ ) and subtract the estimated total variable costs for the highest production (total variable costs equals the variable cost per RVU times the number of RVUs).
- The remainder is the total fixed cost.

*Procedure 3. Determine the Total Cost Formula:*

Total Costs = Total Fixed Costs plus (variable cost per RVU times number of RVUs).

*Procedure 4. Calculate the Average and Marginal Costs per RVU:*

The average cost per RVU is calculated as follows: Using the total cost formula determined in Procedure 3 and the number of RVUs expected, a management accountant can calculate total costs expected for that level of RVUs. The average cost per RVU is simply the total costs as calculated above divided by the expected level of RVUs. The marginal cost per RVU is the incremental costs of producing an RVU. At a minimum, marginal costs are the variable cost per RVU as calculated in Procedure 1(f). If a new contract requires additional fixed or variable costs, then those incremen-

tal costs will be averaged over the new contract RVUs and increase the marginal costs.

**Step 2. Determine the number of RVUs required.**

The contract will specify the number of RVUs per service CPT code. The number of RVUs allowed will be defined by the contract under consideration or the governmental healthcare reimbursement scheme, such as Medicare.

**Step 3. Calculate the total average cost and the total marginal cost per CPT code.**

The full cost of a visit or procedure is calculated by multiplying the average cost per RVU times the number of RVUs that are allowed per procedure. The marginal cost of a visit or procedure is simply the variable costs per RVU times the number of RVUs that are allowed per procedure.

**Step 4. Assist the physicians in using these costs appropriately in making informed decisions.**

Management accountants can provide a wealth of information to physicians to assist them in evaluating contracts and making strategic decisions.

The following is an example of the four steps management accountants can use to analyze a physician's practice.

Assume that during 20X1, U.R. Well, P.C.'s costs were historical \$672,000 when 10,000 RVUs were produced and \$782,000 when 12,000 RVUs were produced.

**Step 1. Calculate the average and marginal costs per RVU.**

*Procedure 1. Determine the Variable Cost for the Production of One RVU:*

$$Y_2 - Y_1 = \$782,000 - \$672,000 = \$110,000$$

$$X_2 - X_1 = 12,000 \text{ RVUs} - 10,000 \text{ RVUs} = 2,000 \text{ RVUs}$$

Variable cost per unit = Cost difference divided by production difference

$$= \$110,000 \div 2,000 \text{ RVUs} = \$55 \text{ per RVU}$$

*Procedure 2. Determine the Total Fixed Costs:*

$$\text{Fixed Costs} = \$782,000 - (\$55 * 12,000 \text{ RVUs})$$

$$= \$782,000 - \$660,000 = \$122,000$$

*Procedure 3. Determine the Total Cost Formula:*

Total Costs = Total Fixed Costs plus (variable cost per RVU times number of RVUs).

Total = \$122,000 + \$55 per RVU times number of RVUs

*Procedure 4. Calculate the average and marginal cost per procedure.* The average cost per relative value unit is determined using the projected number of RVUs for the coming month in the above formula. For example, if during the coming month it is expected that the practice will generate 11,000 RVUs, the average cost would be as follows:

Average cost per RVU =  $\{ \$122,000 + (\$55)(11,000) \} \div 11,000$  RVUs = \$66.09 per RVU.

The marginal cost per RVU is simply the variable costs or \$55.00 per RVU.

**Step 2. Determine the number of RVUs required by the contract per CPT code:**

For example, the contract may state that a particular CPT code allows six RVUs.

**Step 3. Calculate the total average cost and the total marginal cost per CPT code.**

The cost per procedure is the cost per RVU times the number of relative value units allowed per procedure. For example, if a procedure allows six RVUs then the average cost for the procedure would be  $6 * \$66.09 = \$396.55$ , and the marginal costs would be  $6 * \$55 = \$330.00$ .

**Step 4. Assist the physicians in using these costs appropriately to make informed decisions.**

The management accountant can help the physician group make informed financial decisions about potential contracts. The nature of the decision will depend on whether it is a PPO or HMO contract under consideration.

**CONSIDERATIONS OF CAPITATION CONTRACT**

Once the cost of the RVU has been calculated, this information can be used to evaluate PPO contracts. If the group is operating at full capacity, then any additional contracts either will have to replace existing con-

tracts or will require the practice to expand. In order to justify accepting a contract, the proposed reimbursement per procedure should generate an acceptable margin in excess of the average practice cost per procedure. Any reimbursement less than the average cost per procedure will result in lower margins and will endanger the recovery of fixed costs. If the practice is considering adding physicians, the contracts must provide adequate volume and reimbursement to cover these incremental costs. In any case, if the group does not receive a fair recovery of its cost in delivering its services, the other considerations of the contract are irrelevant.

If the practice is operating at less than full capacity, the contract must provide reimbursement in excess of the marginal costs per procedure. In this situation, the group may be willing to forego expected profit margins in order to cover existing fixed costs. In either case, a physician practice cannot make an informed decision without the type of cost information that only a management accountant can provide.

Additionally, the RVU cost data for a physician's group can be used as a method for allocating bonuses based primarily on PPO revenues. When a physician group receives the bulk of its revenues from a PPO, it may distribute bonuses equitably based on office productivity. Typically, physicians receive salaries from the practice and share in year-end bonuses if the practice has a net profit and if they are partners in the medical group. Allocation of such bonuses can be a point of contention in a partnership. This problem can be especially troublesome if the relationship between physician-generated revenues and their associated costs are unknown. Allocating profits based on the ratio of physician revenue to total practice revenue or as a percentage of treated patients can be grossly unfair, particularly if there are significant differences among the physicians based on either the type of patients they treat or services they perform. This problem can exist in a single specialty group if physicians have different preferences in regard to types of patients they treat. The problem will always exist in a multispecialty practice setting where physicians with different specialties are practicing.

With the same software used to calculate RVU costs, the management accountant can track the total RVUs generated over any time frame by each physician. The

ratio of physician RVUs to total practice RVUs is an excellent measure of productivity and can—at least in part—be used as a measure for determining year-end bonuses. Alternatively, one could calculate the gross margin generated by each physician:

Revenue per physician – (Physician RVUs \* average cost per RVU) = Gross margin per physician.

This is a much more equitable method for allocating bonuses than simply an equal distribution.

### **CONSIDERATIONS OF A CAPITATION CONTRACT**

A physician's profit management under an HMO capitation contract is unique to the healthcare industry. Management accountants and physicians are more attuned to analysis for discounted fee for service or salary revenues, but capitation is a totally different scenario.

Evaluation on an HMO capitated contract requires both financial evaluation of the capitation rate and examination of the procedural aspects of the contract. There are two factors to consider in a capitation rate: (1) the structure of the plan and (2) the practice's costs of the covered services.

#### **Financial Evaluation**

The structure of the relationship between the HMO and a practice depends on whether the contract involves a closed HMO network or point-of-service providers. In a closed HMO network, enrolled members will have no out-of-network coverage, only pre-authorized services, fixed-dollar copayments, and service limits. In an HMO with a point-of-service option, patients may utilize network and out-of-network physicians and some nonauthorized services with percentage copayments. Because of out-of-network utilization, deductibles, and copayment variation, the capitation rate is more difficult to calculate for point of service. One factor in analyzing the capitation rate is that both copayments and deductibles are subtracted from the service cost, so the lower the copayment or deductible level, the higher the capitation rate. An increase in either will decrease utilization. Management accountants will need to be able to discuss in broad terms how these various factors will impact the practice financially.

The second factor in analyzing the capitation rate

is the cost of the covered services from the practice's perspective. In determining the number of covered services, the management accountant should provide the group with a rough estimate of the costs that may be incurred in providing medical treatment for the enrolled population. This will involve projecting the number of procedures that will be provided to the enrolled population times the average cost per procedure. In order to do this, the management accountant will have to make use of historical data generated by the group from previous capitation contracts or may need to work with other consultants such as actuaries.

#### **Procedural Issues**

After the management accountant has determined the financial viability of the capitation contract, he or she may also want to consider procedural issues such as terms of the contract, risks, and reporting requirements. While a management accountant will not have all the needed expertise to evaluate these issues, he or she should be aware of their importance for evaluating any potential contract. Capitation contract terms should include:

- a. Clearly stated terms and conditions for payment.
- b. Definitions of how patient eligibility is to be determined. Determination of when and who is eligible should be assumed by the payer, preferably online and in real-time.
- c. Requirement that the payer provide a policies and procedures manual and agree to revisions by mutual consent only.
- d. Specification of how and when rates may be renegotiated.
- e. Allowance for terminations with and without cause. "With cause" means a breach in the terms; "without cause" means giving notice. Some obligations will continue after termination, so it is important to understand the provisions.
- f. A requirement for a minimum amount of paperwork and time to administer it.
- g. Clear explanation how withholds and bonuses are to be determined.

### **COST ACCOUNTING NEEDED**

Today the majority of physician groups are dependent for their revenues on third-party payers such as insurance companies and state and federal governmental healthcare organizations. Under managed care plans such as PPOs and HMOs, the financial and strategic success of physician group practices is dependent on successful contract negotiation and cost control. In this environment, management accountants have a vital role to play in helping physicians determine the costs of the services they provide and in assisting them in evaluating potential contracts. Management accountants can provide these services by using traditional cost accounting techniques such as cost-volume-profit analysis and product costing. Today most physicians have software in place that can provide a wealth of useful but underutilized information for anyone with appropriate analytical skills. ■

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