

Cost Analysis Helps Evaluate Contract Profitability

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A cost-accounting analysis can help group practices assess their costs of doing business and determine the profitability of managed care contracts. Group practices also can use cost accounting to develop budgets and financial benchmarks. To begin a cost analysis, group practices need to determine their revenue and cost centers. Then they can allocate their costs to each center, using an appropriate allocation basis. The next step is to calculate costs per procedure. The results can be used to evaluate operational cost efficiency as well as help negotiate managed care contracts.

Cost-accounting analysis as a management tool is a fairly new concept for group practices but one that more practice managers should consider. With accurate cost information, physicians and practice managers can assess the financial viability of their managed care arrangements as well as better manage the overall financial and business operations of the practice. By calculating a practice's per-procedure costs for each CPT code based on relative value units (RVUs), the practice can compare its actual costs with its revenue per CPT code. Also, knowing costs based on an industry standard, such as RVUs, gives group practices a benchmark by which to measure the various forms of payment. Once performed, a cost analysis can be revised to accommodate changes or used in strategic planning.

Determining Revenue and Cost Centers

The first step in a cost-accounting analysis is to establish revenue and cost centers that best reflect the group practice's operational and information needs. Revenue centers are the areas of a group practice that generate income. Cost centers are the areas of a group practice that represent overhead and administration. Cost centers do not generate income but are a viable part of a practice's business.

When establishing revenue and cost centers, considerable thought should be given to how costs will be allocated among the revenue and cost centers to obtain the most useful information for the practice. The practice could, for example, segregate its costs by clinical service categories (see Exhibit 1), location/site, physician/provider, or specialty.

A cost-benefit analysis should be applied to the cost-allocation process.

If the process requires more time and effort to collect the information than the benefit that will be gained from the results, then the information probably is not needed for decision making or control.

Allocating Costs

Once the revenue and cost centers have been determined, direct costs should be allocated to each cost and revenue center. It is important to use an allocation basis that accurately reflects the practice's resource consumption patterns. For example, it would be inappropriate to allocate the costs of medical supplies equally by specialty because the use of various medical supplies differs significantly among specialties. Likewise, billing and collection expenses per physician should not be allocated on the basis of gross charges in a multi-specialty practice in which most primary care physicians are capitated and most specialists are not.

EXHIBIT 1: EXAMPLES OF REVENUE AND COST CENTERS FOR ALLOCATION BY CLINICAL SERVICE CATEGORIES

Revenue Centers:

Office visits

EXC

Cost Centers:

Administration

Center for Health Plan

Cost Analysis

Allocating costs in this manner would result in the primary care physicians being charged for expenses they did not incur.

The practice should attempt to understand how it uses its resources and whether they are used efficiently and effectively. Determining this information may require additional observation and interviewing of staff.

The cost-accounting concepts and theories presented here apply to all group practices, regardless of size or whether they are single or multi-specialty. A cost analysis, however, should take into consideration the group practice's circumstances, such as the level of physician compensation and its impact on the results of the analysis. It may be necessary to analyze costs using various levels of physician compensation, such as current level and median market level, because a physician compensation level far above fair market value will inflate the practice's actual cost of doing business. The physician compensation amount greater than market levels is additional profit and should not necessarily be used to make financial management decisions.

After direct costs have been allocated, the practice's indirect costs should be allocated to the revenue centers. This allocation essentially charges the revenue centers their fair share of the practice's support costs. Again, the basis for allocation is important. For example, it would be relevant to allocate facility and occupancy costs on the basis of square footage occupied by each revenue center rather than, say, gross charges, which may not correlate with amount or type of space occupied.

Determining Costs per Procedure

To determine costs per procedure,

the total costs in each revenue center (direct costs plus the allocated indirect costs) should be divided by the total RVUs produced by each revenue center to determine the cost per RVU. The cost per RVU then is used to determine the cost per CPT code (procedure). Exhibit 2 illustrates how to calculate the cost of radiology services. This calculation is performed for each revenue center in the analysis (eg, office visits, surgery, physician, or specialty).

It is important to note that costs per RVU are based on specific productivity levels and physicians' compensation. Because productivity is just as important as cost-allocation methods, accurate coding is vital for meaningful results. From a cost-accounting standpoint, the RVU system assumes that a certain level of time and practice resources needs to be expended to provide certain services. Therefore, it is important to use the appropriate CPT codes to properly reflect the practice's expenses associated with each code.

Evaluating Contracts

Once the practice's costs per procedure have been determined, the practice can use the results to evaluate and negotiate managed care contracts.

For purposes of discounted fee-for-service, costs per CPT code can be compared directly with fee schedules to assess profitability. In particular, group practices should compare current costs with current payment structures for their most frequently used CPT codes. Also, group practices should evaluate their costs for procedures that are technically advanced and/or time-consuming to ensure that appropriate fees are negotiated.

Comparisons can be made for individual CPT codes or for a set of CPT codes associated with a specific case scenario. It is recommended that case-scenario comparisons be made for cases for which payment is based on a global rate, such as a normal obstetric delivery. Exhibit 3 illustrates how a hypothetical group practice would calculate and evaluate costs for a specific case scenario.

When evaluating managed care contracts, a group practice can use the cost-analysis results to estimate the practice's costs of servicing a particular managed care plan. A group practice also can use these results to estimate its per-member-per-month (PMPM) cost for servicing a capitation contract. The practice should obtain as much information as possible from the managed care organization regarding assumptions made in

EXHIBIT 2: CALCULATING THE COST OF RADIOLOGY SERVICES PER CPT CODE

Radiology Revenue Center
Calculating Cost per RVU

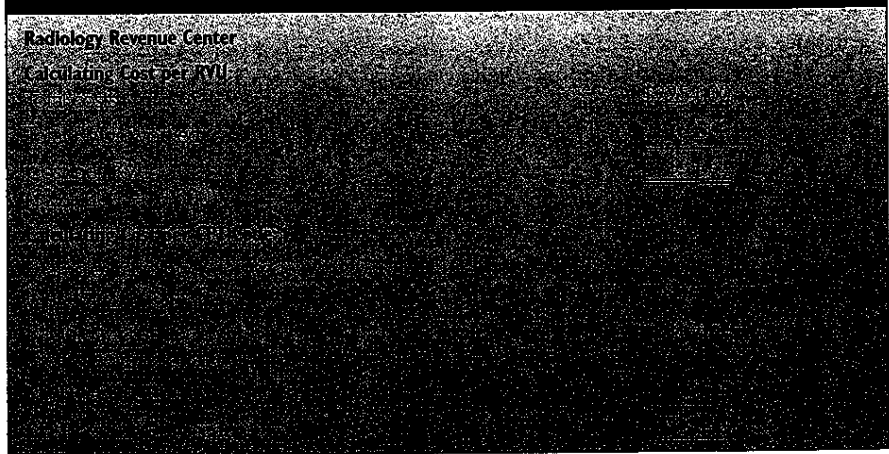


EXHIBIT 3: CALCULATING CASE SCENARIO COSTS

CPT Code	Cost per RVU	Relative Value Unit	Cost per Procedure	Typical Frequency	Total Cost of Case
99201	100	1.0	100	1	100
99202	150	1.5	150	1	150
99203	200	2.0	200	1	200
99204	300	3.0	300	1	300
99205	400	4.0	400	1	400
99206	500	5.0	500	1	500
99207	600	6.0	600	1	600
99208	700	7.0	700	1	700
99209	800	8.0	800	1	800
99210	900	9.0	900	1	900
99211	1000	10.0	1000	1	1000
99212	1100	11.0	1100	1	1100
99213	1200	12.0	1200	1	1200
99214	1300	13.0	1300	1	1300
99215	1400	14.0	1400	1	1400
99216	1500	15.0	1500	1	1500
99217	1600	16.0	1600	1	1600
99218	1700	17.0	1700	1	1700
99219	1800	18.0	1800	1	1800
99220	1900	19.0	1900	1	1900
99221	2000	20.0	2000	1	2000
99222	2100	21.0	2100	1	2100
99223	2200	22.0	2200	1	2200
99224	2300	23.0	2300	1	2300
99225	2400	24.0	2400	1	2400
99226	2500	25.0	2500	1	2500
99227	2600	26.0	2600	1	2600
99228	2700	27.0	2700	1	2700
99229	2800	28.0	2800	1	2800
99230	2900	29.0	2900	1	2900
99231	3000	30.0	3000	1	3000
99232	3100	31.0	3100	1	3100
99233	3200	32.0	3200	1	3200
99234	3300	33.0	3300	1	3300
99235	3400	34.0	3400	1	3400
99236	3500	35.0	3500	1	3500
99237	3600	36.0	3600	1	3600
99238	3700	37.0	3700	1	3700
99239	3800	38.0	3800	1	3800
99240	3900	39.0	3900	1	3900
99241	4000	40.0	4000	1	4000
99242	4100	41.0	4100	1	4100
99243	4200	42.0	4200	1	4200
99244	4300	43.0	4300	1	4300
99245	4400	44.0	4400	1	4400
99246	4500	45.0	4500	1	4500
99247	4600	46.0	4600	1	4600
99248	4700	47.0	4700	1	4700
99249	4800	48.0	4800	1	4800
99250	4900	49.0	4900	1	4900
99251	5000	50.0	5000	1	5000
99252	5100	51.0	5100	1	5100
99253	5200	52.0	5200	1	5200
99254	5300	53.0	5300	1	5300
99255	5400	54.0	5400	1	5400
99256	5500	55.0	5500	1	5500
99257	5600	56.0	5600	1	5600
99258	5700	57.0	5700	1	5700
99259	5800	58.0	5800	1	5800
99260	5900	59.0	5900	1	5900
99261	6000	60.0	6000	1	6000
99262	6100	61.0	6100	1	6100
99263	6200	62.0	6200	1	6200
99264	6300	63.0	6300	1	6300
99265	6400	64.0	6400	1	6400
99266	6500	65.0	6500	1	6500
99267	6600	66.0	6600	1	6600
99268	6700	67.0	6700	1	6700
99269	6800	68.0	6800	1	6800
99270	6900	69.0	6900	1	6900
99271	7000	70.0	7000	1	7000
99272	7100	71.0	7100	1	7100
99273	7200	72.0	7200	1	7200
99274	7300	73.0	7300	1	7300
99275	7400	74.0	7400	1	7400
99276	7500	75.0	7500	1	7500
99277	7600	76.0	7600	1	7600
99278	7700	77.0	7700	1	7700
99279	7800	78.0	7800	1	7800
99280	7900	79.0	7900	1	7900
99281	8000	80.0	8000	1	8000
99282	8100	81.0	8100	1	8100
99283	8200	82.0	8200	1	8200
99284	8300	83.0	8300	1	8300
99285	8400	84.0	8400	1	8400
99286	8500	85.0	8500	1	8500
99287	8600	86.0	8600	1	8600
99288	8700	87.0	8700	1	8700
99289	8800	88.0	8800	1	8800
99290	8900	89.0	8900	1	8900
99291	9000	90.0	9000	1	9000
99292	9100	91.0	9100	1	9100
99293	9200	92.0	9200	1	9200
99294	9300	93.0	9300	1	9300
99295	9400	94.0	9400	1	9400
99296	9500	95.0	9500	1	9500
99297	9600	96.0	9600	1	9600
99298	9700	97.0	9700	1	9700
99299	9800	98.0	9800	1	9800
99300	9900	99.0	9900	1	9900
99301	10000	100.0	10000	1	10000

calculating its offered rates.

Exhibit 4 illustrates two examples of how a hypothetical group practice would use cost data to evaluate managed care contracts. Example 1 shows a calculation for evaluating the cost of servicing a specific health plan using expected utilization for one procedure. The group practice should evaluate the costs of all the major CPT codes it expects to use in servicing the plan's population to obtain realistic cost data for evaluating the contract. Example 2 illustrates a calculation for estimating the practice's PMPM cost for a specific plan. In both examples, the group practice should use data from both the managed care organization and the practice to analyze costs.

It is important for group practices to obtain information such as utilization and patient demographic data from managed care organizations to make the most informed decisions. Group practices also should implement processes to collect their own internal utilization and patient demographic data. The more data group practices have, the more useful and accurate the plan evaluation process can be.

Data such as expected utilization of the plan's population, together with a group practice's costs per procedure, will help the practice estimate per-patient treatment costs. If

the managed care organization's utilization data are in this calculation and differ significantly from the group practice's typical utilization patterns, however, a decision on whether to accept the managed care organization's contract will be difficult.

Both examples in Exhibit 4 assume that the costs per procedure

are based on a specified historical or current productivity level and physicians' compensation and physician productivity will remain relatively stable. During the analysis, these variables may be changed to reflect additional levels of costs and utilization. When evaluating managed care plans that will result in a significant increase

EXHIBIT 4: USING COST DATA TO EVALUATE MANAGED CARE CONTRACTS

Example 1
Estimating the total cost of service for a specific plan based on historical practice utilization or the plan's projected utilization by CPT code

Step 1: Calculate projected utilization
 Estimate annual historical utilization for PMPM covered lives

Example: 10000 covered lives x 1.0 utilization = 10000 procedures

Step 2: Calculate total cost of service
 Total cost of service = number of procedures x cost per procedure

Example: 10000 procedures x \$1000 cost per procedure = \$10,000,000

Step 3: Calculate PMPM cost
 PMPM cost = total cost of service / number of covered lives

Example: \$10,000,000 / 10000 covered lives = \$1000 PMPM cost

Step 4: Calculate total cost of service for a specific plan
 Total cost of service = number of procedures x cost per procedure

Example: 10000 procedures x \$1000 cost per procedure = \$10,000,000

Step 5: Calculate PMPM cost for a specific plan
 PMPM cost = total cost of service / number of covered lives

Example: \$10,000,000 / 10000 covered lives = \$1000 PMPM cost

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EXHIBIT 5: CALCULATING COSTS OF ADDITIONAL UTILIZATION USING FIXED AND VARIABLE COSTS

Radiology Revenue Center
Calculating Cost per RVU:

	Fixed Cost Component	Variable Cost Component
Facility Costs	\$22,000	\$50,000
Personnel Costs		
Supplies		
Utilities		
Depreciation		
Other		
Total	\$22,000	\$50,000
Number of RVUs	100	100
Cost per RVU	\$220	\$500

Calculating Cost of Additional Utilization:

	Fixed Cost Component	Variable Cost Component
Additional RVUs		
Additional Fixed Costs		
Additional Variable Costs		
Total	\$0	\$0

in patient visits and utilization, however, the cost analysis should examine separately fixed and variable costs, which are likely to increase as the practice grows. Variable costs will rise with increased utilization and patient visits.

Group practices also should understand how fee-for-service and capitation each affect the results of a cost analysis. Under fee-for-service, production determines costs. Thus, in general, the more procedures that are performed, the lower the cost is per procedure. Under capitation, the optimum scenario is for physicians to minimize the number of patients seen in the office. Therefore, fewer patient visits skew the cost per procedure.

These fee structures also affect a practice's fixed and variable costs (see Exhibit 5). As productivity increases, fixed costs decrease per

procedure but remain the same overall. The opposite is true with variable-cost behavior. With each increase in productivity, there is an incremental increase in variable costs associated with the additional production.

Conclusion

Conducting a cost analysis can help group practices understand how much it costs them to provide health-care services. With this information, practices will be in a better position to negotiate favorable managed care contract terms. The information obtained from a cost analysis also can help group practices operate more cost-effectively. ■

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