



SOCIETY OF ACTUARIES

Article from:

# Health Section News

August 2000 – No. 38

# Benchmarking to Maximize Managed Care Performance

By Sue McQuillian

Today's managed care marketplace is extremely competitive. Plan sponsors insist upon measurable value from managed care organizations (MCOs) in return for their health care dollars. In addition to fulfilling a role as a yardstick for plan sponsors, targets for medical management and network reimbursement can help MCOs identify weaknesses within the organization, develop an action plan and set incentives for performance.

The value of benchmarking is in its creation of a basis for action. The keys to successful benchmarking are:

- Analysis at a level specific to what the user wants to measure
- Follow-up by appropriate personnel to research the reasons behind undesirable results
- Formulation of alternate strategies for improvement

This article will show how benchmarking actual performance to a published source is a useful tool in assessing the value added by a particular program or MCO. It will examine uses of benchmarking, as well as the actual benchmarking process.

## Uses of Benchmarking

Benchmarking can be done at numerous levels, depending upon the purpose of the analysis. Table 1 is a directory designed to assist a plan sponsor or MCO in determining the type of benchmarking relevant to the organization's specific situation.

One consideration in determining the appropriateness of benchmarking at any of these levels is credibility, both in terms of reliability (i.e., accuracy and consistency) of the data being used for the analysis and of having enough data to produce meaningful results. Benchmarking should be performed only when the volume of data is such that results will not be unduly affected by a few chance fluctuations.

## The Benchmarking Process

Benchmarks are only meaningful if they have as their basis accurate, consistent data in sufficient volume to ensure credibility. There must be some flexibility to allow, for example, adjustments to reflect different member cost-sharing provisions and varying reimbursement structures.

Cost and utilization targets for the plan under analysis can be set somewhere in between benchmarks representative of a loosely managed healthcare system — characterized by plans with significant member cost sharing and little medical

management intervention — and well managed benchmark standards — representative of best practices for utilization management and reimbursement contracting. Comparison of plan experience data to the two extremes (minimal versus optimal medical management and provider contracting) shows the analyst where the plan lies in the managed care spectrum. The final targets will be based upon the current level of health care management and the goals of the plan.

To compare benchmark utilization and cost data to the actual experience of the

**Table 1  
Directory  
Benchmarking Types**

Benchmarking Type	Why Perform This Type of Benchmarking?	What is Being Measured?
Benefit Plan Type	<ul style="list-style-type: none"> <li>• Align benefit plans</li> <li>• Compare one MCO's plan to another</li> <li>• Assess plan viability</li> </ul>	<ul style="list-style-type: none"> <li>• Utilization</li> <li>• Reimbursement levels</li> <li>• Cost per member per month</li> </ul>
Provider Network	<ul style="list-style-type: none"> <li>• Determine effectiveness of medical management by network</li> <li>• Measure effect of discount arrangements</li> <li>• Create tool for provider incentive programs</li> </ul>	<ul style="list-style-type: none"> <li>• Utilization</li> <li>• Reimbursement levels</li> <li>• Cost per member per month</li> </ul>
Plan Sponsor	<ul style="list-style-type: none"> <li>• Test experience of membership against targets</li> <li>• Determine effectiveness of initiatives</li> <li>• Assess impact of pilot programs</li> </ul>	<ul style="list-style-type: none"> <li>• Utilization</li> <li>• Reimbursement levels</li> <li>• Cost per member per month</li> </ul>
Medical Management Entity	<ul style="list-style-type: none"> <li>• Assess performance of separate medical management entities within an MCO</li> <li>• Develop employee/subcontractor incentive programs</li> </ul>	<ul style="list-style-type: none"> <li>• Utilization</li> </ul>
Provider Group	<ul style="list-style-type: none"> <li>• Assess performance of a specific provider group</li> <li>• Create tool for provider incentive programs</li> <li>• Use in capitation development</li> </ul>	<ul style="list-style-type: none"> <li>• Utilization</li> </ul>
Vendor	<ul style="list-style-type: none"> <li>• Determine whether outsourcing is cost effective</li> <li>• Assess vendor performance</li> </ul>	<ul style="list-style-type: none"> <li>• Cost per member per month</li> </ul>

plan to be benchmarked, the benchmark data must be modified so that the effects of network and medical management are isolated from other, unrelated influences. Adjustments must be made to account for:

- Differences in the demographic composition of the population under study
- Geographic location of the population
- Member cost sharing
- Capitated services
- Industry
- Underwriting and pre-existing exclusions
- Network discounts
- Trend
- Special populations not included in the benchmark data

**An Illustration**

The Sample Plan, a hypothetical HMO, was concerned about losses incurred by its Medicare HMO product and the product's competitive position. The Plan was already charging a premium to its members, in addition to payments received from Medicare, and was concerned that an increase would make the product unsalable. A reduction in reimbursement was not considered politically expedient, and Medicare payments are not subject to the Plan's control.

The only other option available to the Plan was to effect a change to utilization of services; that is, to shift care to more cost-effective settings and eliminate unnecessary utilization. The Plan reasoned that the best approach would be to assess the performance of their medical management against best practices to determine if more effective patient management was possible, to the extent that losses could be eliminated.

This is an example of benchmarking by benefit plan type where actual experience is compared with a best practice standard; in this case, utilization for a well managed healthcare system model. Benchmark costs are determined by combining well managed utilization targets with the Sample Plan's provider reimbursement levels. These costs are then compared to a competitive net premium.

Per member per month (PMPM) output from a cost model containing experience of the Sample Plan for calendar

Type of Service	Actual Plan Experience	Illustrative Loosely Managed Benchmarks*	Illustrative Well Managed Benchmarks*	DoHM
Inpatient Hospital	\$125	\$138	\$45	14%
Outpatient Surgery	21	35	18	82
Professional/Other	198	214	180	47
Mental Health/ Substance Abuse Capitation	3	7	7	100
Skilled Nursing Facility, Home Health, Ambulance	40	63	36	85
Total Claims Cost	\$387	\$457	\$286	41%

\*Sources: Milliman & Robertson, Inc. *Healthcare Management Guidelines™* and *Health Cost Guidelines*.

	Plan Experience	Illustrative Loosely Managed Benchmarks*	Illustrative Well Managed Benchmarks*	DoHM
Annual Admits/1,000	294.00	264.00	142.00	0%
Length of Stay	5.89	7.11	4.31	44%
Annual Utilization/1,000	1,732.00	1,877.00	612.00	11%

\*Sources: Milliman & Robertson, Inc. *Healthcare Management Guidelines™* and *Health Cost Guidelines*.  
The Plan's net premium for 1998 (member plus Medicare premium, less administrative expenses) was \$346.

year 1998 is shown in Table 2, along with the adjusted cost models for loosely managed and well managed healthcare. Table 3 compares utilization for inpatient services. The Sample Plan was unable to identify utilization separately for service types other than hospital inpatient, so comparisons for the other coverage categories were made only at the PMPM level.

Tables 2 and 3 also present the calculated Degree of Healthcare Management (DoHM). The DoHM is a statistic that compares the Sample Plan's actual experience results to both a well managed and loosely managed standard. It illustrates numerically where the results of the Sample Plan fall in the spectrum of loosely managed to well managed healthcare.

Analysis at a more detailed level or a different split by service type than that shown in Table 2 is possible. The detail level chosen will depend upon the data

available for the Plan being examined and the purpose of the analysis.

**Results**

As a general guideline, the analyst must look at experience for the entire Plan before conclusions can be reached about any one service category. This will be evident as we explore some observations based on the results shown in Tables 2 and 3:

- Total medical costs for the Plan are \$387 PMPM, versus \$346 available from member and Medicare premiums. The result is a \$41 PMPM loss.
- The DoHM in the last column of each table varies significantly by service type. In this example, the DoHM for the Plan as a whole is 41% [(\$457 - \$387) / (\$457 - \$286)]. The DoHM for inpatient care using cost PMPM is

*continued on page 6*

## Benchmarking to Maximize Managed Care Performance

continued from page 5

- only 14%, while the DoHM for skilled nursing facility, home health, and ambulance is 85%. This kind of variation between coverage categories is not unusual. Breaking the DoHM analysis down by service type can help to pinpoint the cause of a low overall DoHM and illuminate some possible solutions.
- The DoHM required for the Plan to reach a breakeven position is 65%  $[(\$457 - \$346) / (\$457 - \$286)]$ . An improvement in the Plan's financial position is certainly possible, with a potential reduction of \$101 PMPM ( $\$387 - \$286$ ) in costs, with medical management at the well managed level.
  - It is apparent that there is an excellent opportunity for improvement in inpatient days/1,000, particularly by focusing on unnecessary admissions. The Plan's admission rate exceeds that of a loosely managed system, making it, in essence, unmanaged. Since this is the category with the greatest potential for cost reduction, this is where the Plan should focus its medical management efforts.

- The effect on cost from a reduction in days/1,000 is dependent upon the Plan's hospital contracts. If reimbursement is on a *per diem* basis, a reduction in inpatient days, whether in admissions or length of stay, will have a direct impact upon total cost. A reduction in admissions in a system that reimburses on a DRG-basis would also see a direct cost reduction. A shorter length of stay only will have no effect, as the same payment is made per admission regardless of length of stay. A capitated system will see no immediate cost reduction regardless of the source. However, through physician education and other initiatives, hospital capitations can be reduced as days/1,000 are decreased.
- The Plan's results look good for outpatient surgery with a DoHM of 82%, but this could be misleading if taken alone. It is very important when benchmarking not to do it in a vacuum;

that is, not to isolate one item for analysis at the exclusion of all others. The analyst must look at experience for the entire Plan before conclusions can be reached about any one service category. Often, the poor or exemplary performance of one service category will be due to a problem or clinical action taken in another category.

The low DoHM in the illustration for inpatient care could indicate a need to shift some inpatient surgery admissions to an outpatient setting, thereby increasing the inpatient DoHM and, to a lesser extent, decreasing the outpatient surgery DoHM. Such a shift may also result in an increase in the average inpatient length of stay, necessitating closer examination of this benchmark category and possibly skilled nursing and home health as well, as the DoHM for that category is very high compared to the Plan's overall DoHM. This could be indicative of a need to review criteria for transfer of patients to recovery care.

- The Plan's mental health and substance abuse capitation appears to have been a very effective cost management initiative.

### Plan Options

Several avenues are available to the Sample Plan as a result of the analysis shown above:

- First, it can take action based upon the information it already has. Inpatient admissions are too high. One way to reduce them might be to use treatment guidelines for admissions by condition. If guidelines are currently in place, they should be reevaluated in terms of their effectiveness and whether they are indeed even being followed. Implementation of new guidelines should be preceded by an organizational assessment to review current structure and processes to determine how the proposed guidelines may be used to effectively manage care.

Successful execution of any treatment guidelines requires a buy-in from physicians, the Plan's medical management team and hospital staff. Communications between affected parties while evaluating proposed guidelines

and during implementation is essential to success.

- Another possibility for the Plan to consider is further research and analysis to identify the reasons behind the high admissions rate and high overall days. To accomplish this, the Plan might want to consider a retrospective chart review by a physician or a nurse of inpatient records. This process includes an evaluation of patient status and care for a sample of actual admissions on a day-by-day basis with comparison to benchmark standards.

A chart review can help a Plan determine whether it is experiencing inappropriate admissions or perhaps a high re-admission rate due to early discharge. It can also help in obtaining physician, medical management staff, and hospital buy-in necessary for implementation of any medical management program.

### Conclusion

Real, attainable goals are essential for any organization if progress is to be made. It is very easy to continue to "maintain the status quo" if objectives are not identified and communicated. On the other hand, setting goals that are unrealistic because information about internal cost and utilization levels and the competitive environment was not fully understood and used in the goal-setting process can yield frustrating and even counterproductive results.

An assessment of a plan's current Degree of Healthcare Management, combined with an analysis of current reimbursement levels in the targeted marketplace, can provide a plan sponsor with a tool to measure plan performance and a managed care organization with benchmarks, enabling it to achieve its goals of competitiveness, profitability, and growth.

*Sue McQuillian, FSA, MAAA, is a health-care management consultant in the San Diego office of Milliman & Robertson, Inc. This report is an excerpt from a Milliman & Robertson, Inc. Research Report. The full version of the report can be found on Milliman & Robertson, Inc.'s Web site, [www.milliman.com](http://www.milliman.com).*