

BENCHMARKING IN 2007?

If your health plan is considering an in-depth analysis of its operating performance, perhaps it would consider participation in our Tenth Annual SEER Performance Benchmarking Study. Like all benchmarking studies, our efforts are designed to help you identify how you are performing relative to your peers.

We are distinguished in that our efforts reflect deep experience, freedom from conflicts of interest and a process that assures high insight-to-effort and comparability. Our costs are also very low.

So far, forty-four health plans have already committed to participate in our studies. They will be submitting 2006 data. These plans include most Blue Cross Blue Shield Plans. Available universes include independent (often provider-sponsored) plans, larger health plans, Medicaid Plans and Medicare Plans, in addition to Blue Cross Blue Shield Plans. We are considering other universes such as dental or other specialty organizations.

Since we are launching the studies by the end of March, please contact us immediately if you are interested. For questions or to initiate participation, we can be reached at sherlock@sherlockco.com and 215-628-2289.

IF NOT SCALE, THEN WHAT?

Over the past several months, we have written about scale as a driver of administrative costs. We have noted that scale effects are limited to a minority of functional areas and that even scalable functions appear to have significant variable costs. Also, somewhat counter-intuitively, smaller Provider-Sponsored plans continue to have costs that are lower than their larger Blue Cross Blue Shield counterparts. Finally, in January's *Navigator* we showed that larger Blue Cross Blue Shield Plans only a modest, and by no means universal, cost advantage over their smaller sister Blue Cross Blue Shield plans.

This month, we consider what factors other than scale impact cost performance. In summary, staffing costs per FTE, staffing costs PMPM, FTEs per 10,000 members and non-staffing costs per member per month all seemed to be important drivers of costs. By contrast, a number of factors that could reasonably be associated with low administrative costs seemed to have an immaterial effect. These included members served, the rate of change in membership, and the product focus of the organization.

In short, it is possible that a culture of conservative administration is at least as important as technical substitution or scale.

Background

In January, we noted that scale effects are remarkably modest for health plans, once the impact of product mix is removed from the comparison. While the larger Blue Cross Blue Shield Plans generally displayed lower costs, this advantage diminishes greatly when

product mix is taken into account: On a product mix adjusted basis there was less than a 3% difference. This reinforces the conclusions in the September edition of *PULSE* in which scale had only a limited effect on costs, and the continuing lower costs of smaller Provider-Sponsored plans compared with their larger Blue counterparts.

This should not be entirely surprising if one considers the types of administrative costs that health plans incur. Functions like claims and customer services grow with volume. Moreover, health plans have used management contracts, business combinations and outsourcing as strategies to achieve economically beneficial scale. For instance, health plan participants in the 2006 Blue Cross Blue Shield edition of *SEER* outsourced 75.0% of their Mental Health, and a median of 6.0% of all FTEs and equivalents were outsourced.

Indeed, it is possible that the scalability of functions has diminished in a way analogous to the advantages of just-in-time manufacturing. From 2002 to 2005, it appears that the scaleable portion of administrative expenses decreased significantly.

Procedure

To make identify the drivers of health administrative costs, we excerpted cost data from our *Sherlock Expense Evaluation Reports (SEER)*. We then adjusted the reported data to eliminate cost differences that were solely attributable to product mix. The Mix Adjusted Relative Costs were then statistically measured against a number of possible drivers of administrative expenses.

DATA USED IN ANALYSIS

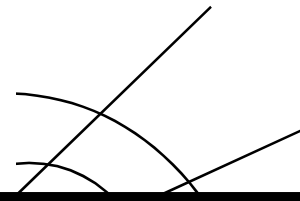
SEER is a rich data set of administrative expenses compiled of surveys from 42 health plans, in four universes, all with 2005 data. Last year, participating health plans served one in every five or six insured Americans. Sherlock Company is now in the midst of its tenth consecutive annual edition. We included thirty plans in the universe for this analysis, which excludes Medicaid or Medicare focused plans. The plans consisted of 13 Provider-Sponsored plans and 17 Blue Cross Blue Shield Plans.

Health coverage products sold by health plans vary in their resource requirements. Since administrative service only products are typically sold to groups large enough to self-insure, marketing costs tend to be less. By the same token, medical management costs tend to be relatively high to match the higher health care requirements of Medicare Advantage members. Accordingly, participants in *SEER* must submit data to us segmented by product as well as functional area.

While the results of *SEER* are provided to participants segmented by product, to compare the costs of health plans with potential factors of costs necessitated the use of a single point describing costs. Optimally, such a comparison should eliminate differences between the plans that are solely attributable to their product mix.



Navigator



DEPENDENT VARIABLE:

MIX-ADJUSTED RELATIVE COST (MARC)

We then constructed a standard metric of Mix-Adjusted Relative Cost (MARC) to permit cost comparisons between plans, while eliminating the effects of product mix. To understand how we adjusted for product mixes, recall that each plan reports expenses by functional area and by product. We are thus able to segment costs into function / product expense cells. For example, we can have information to directly compare marketing costs for HMO products sold on a commercial insured basis, regardless of the proportion of the plan's business in the HMO product.

Each plan's total administrative costs effectively represent a membership-weighted total. So, in order to adjust for product mix differences, we had to re-weight the universe's product/function expense cells so that the universe had an identical product mix to a given plan. We expressed the difference between the plan and its universe in dollars, which we termed the MARC for the purposes of this analysis.

To compare the plans to each other we calculated the MARC value for each of the plans. So while product mix differences limited direct comparability between plans, the MARC calculated for each plan was directly comparable between them. Because of this advantage, MARC was employed as the dependent variable in determining what factors were especially important drivers of administrative costs.

INDEPENDENT VARIABLES

We limited independent variables to a few that we considered to be comparable across health plans. The independent variables either represented market-related attributes or were based upon components of two simple cost models.

The market-related attributes were Total Membership, Rate of Change in Membership, and Concentration Index. They are defined as follows:

Membership: The average number of members served in hospitalization / physician care products. This excludes costs and membership in ancillary health products and other business lines.

Rate of Change in Membership: This is calculated as the percent change in Membership between 2005 from 2004.

Concentration Index: This is calculated as the sum the squares of the percentage of members in each product offered by the plan. It calculated the same way as the Herfindahl-Hirschman Index.

The first cost model upon which the other independent variables were based decomposes Total Costs per Member Per Month into factors such as primary demand, productivity, unit cost and so forth. FTEs per 10,000 Members, Total Costs / FTE, Staffing Costs/FTE and Non-Staffing Costs/FTE were each used as independent variables.

A second cost model, found below, decomposes Total Costs per Member Per Month into factors of staffing and non-staffing costs. The independent variables that were used were Staffing Costs Per Member Per Month and Non-Staff Costs Per Member Per Month.

Total Costs Per Member Per Month	=	FTEs / 10,000 Members	x	Total Costs/ FTE	=	Staffing Costs/ FTE	x	Non-Staffing Costs/FTE
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In all cases, the cost-model related independent variables were ratios were computed by us, based on raw data supplied by the plans themselves.

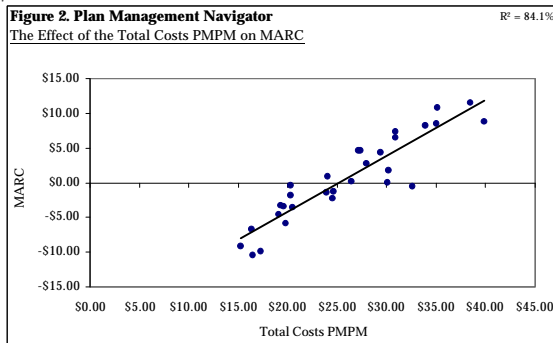
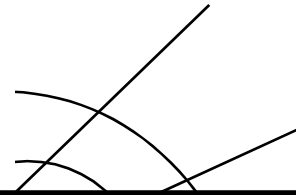
Total Costs Per Member Per Month	=	Staffing Costs/ Member Per Month	+	Non-Staff Costs Per Member Per Month
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We performed regression analyses between the independent variable and each dependent variable to determine the degree to which the MARC was explained by that factor. We also computed p-values to determine the likelihood that any given factor had no causal relationship to the cost ranking.

Results

Figure 1 displays the results of the regressions, as described above. The factors varied greatly in their affects on MARC. A notable result is that the relationship between MARC and the costs per member per month has an R2 of 84.1%, with a p-value of 0.0%. That they explain 84.1% of each other and since the MARC reflects costs adjusted for product mix, it indicates that a complete picture of costs should consider the effect of product mix.

	MARC	P-Value
Rate of Change in Membership	0.6%	67.7%
Concentration Index	1.8%	48.5%
Staffing Costs PMPM	55.8%	0.0%
Non-Staff Costs PMPM	53.7%	0.0%
Total Costs PMPM	84.1%	0.0%
Costs / FTE	0.1%	87.3%
FTEs per 10,000 Members	49.0%	0.0%
Staffing Costs/FTE	15.2%	4.3%
Non-Staffing Costs/FTE	0.8%	65.0%
Members	0.1%	84.2%



Factors that Made Little Difference

Members: It is conventional wisdom that scale makes a difference in administrative costs. This intuition is supported by the direct experience of many managers who have witnessed a form of operating leverage in situations in which their membership has surged or diminished in a brief period.

Over the long term, though, this relationship is not evident. A classic measure of economies of scale is membership versus per member costs: When we tested the relationship of membership on the MARC, only an R² of 0.2% was calculated. The p-value was 81.6%, reflecting the high probability there was no relationship between the variables.

This is consistent with our previous analyses indicating that scale has only a modest affect on PMPM costs. Please see the insert to *PULSE* September 2006 for more information on the type of functional areas that are subject to scale, and the magnitude of the effect.

Rate of Change in Membership. As previously noted, many health plan managers have witnessed the short-term affects on per member costs that accompany major swings in membership. The plans in our universe had generally relatively little change of that magnitude. They also had relatively muted short-term scale effects in that there was little to no relationship between the rate of change in membership when regressed against the MARC. The relationship had an R² of 0.6% and a p-value of 67.7%.

Concentration Index. The tendency for smaller Provider-Sponsored plans to operate at lower costs than their larger Blue Cross Blue Shield counterparts has led us to speculate that specialization, measured by product concentration, might keep costs low. After all, Provider-Sponsored Plans are far more likely to focus on a few pure managed care products. Presumably, a more narrow scope of products would require much simpler infrastructure, such as a less elaborate (and costly) information systems capability.

However, when we tested the relationship between concentration index and the MARC, we found an R² of 1.8%, and a p-value of 48.5%. There was, accordingly, not strong relationship between the concentration index and costs.

Total Cost per FTE. Total Costs per FTE, when regressed the MARC, had an R² of 0.1% and a p-value of 87.3%. As discussed

below, one of components of Total Cost per FTE has a stronger relationship than its combination.

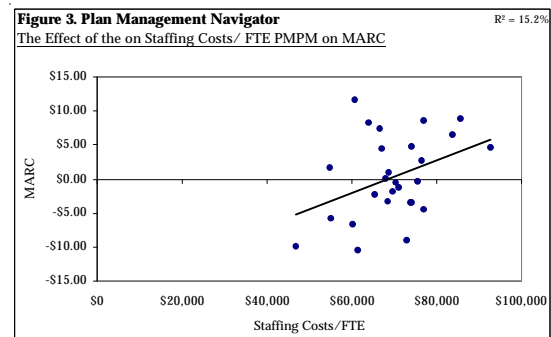
Non-Staffing Costs per FTE. There was not a strong correlation among non-staffing costs per FTE and the MARC, with an R² value of 0.8%. The p-value of this was 65.0%, so we think that the *mix* of labor versus non-labor costs is a relatively modest driver of health plan administration. Non-staffing costs include everything from desks to depreciation to hard drives.

Factors that Made a Difference

Staffing Costs per FTE. This metric is intended to capture the compensation paid to employees. It reflects the mix in the types of employees, management versus associate, as well as compensation levels for each type of employee.

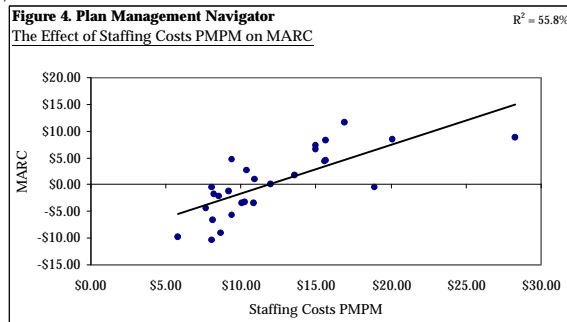
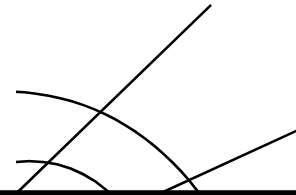
The Staffing Costs per FTE and the MARC explained 15.2% of the differences between the various MARC values. This relationship had a p-value of 4.3%, as shown in Figure 3. The off-shore outsourcers increasingly cite process improvements as a competitive advantage. Quality as well as costs are increasingly cited. However, this relationship illustrates that mere costs could alone be an important contributor.

Note that the explanatory power of per FTE staffing costs are not as strong as some of the other relationships. This may mean that geographic disadvantages in compensation costs can be overcome in other ways.

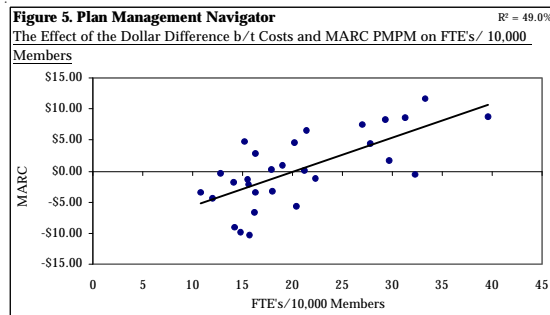


Staffing Costs PMPM. Illustrating the combined power of both low costs per employee and low ratio of staff to members, this had among the strongest relationships that we analyzed. When staffing costs PMPM were regressed against costs as a percent of the MARC, there was a strong relationship with an R² value of 55.8%, and a p-value of 0.0%, as shown in Figure 4. Success in keeping costs low may be achieved through low staffing levels and low per employee staffing costs.





FTE's per 10,000 Members. When we tested the relationship between FTE's per 10,000 members and the MARC, there was an R^2 of 49.0% and a p-value of 0.0%, displayed in Figure 5. The global metric of employee productivity is apparently a key driver of costs; the lower the staffing the lower the MARC. This factor, combined with the Staffing Costs per FTE, contributes to the strong relationship between Staffing Costs PMPM and the MARC.



Non-Staffing Costs PMPM. There was a strong correlation between non-staffing costs and the MARC with an R^2 value of 53.7%, as shown in Figure 6. The p-value for this is 0.0%. The slope is positive so that the higher the staffing costs, the higher the MARC. What this may illustrate is the limitations of technical substitution – If investments in technologies were certain to drive down costs then the slope might go the other way. Instead, low non-staffing costs drive down total costs.

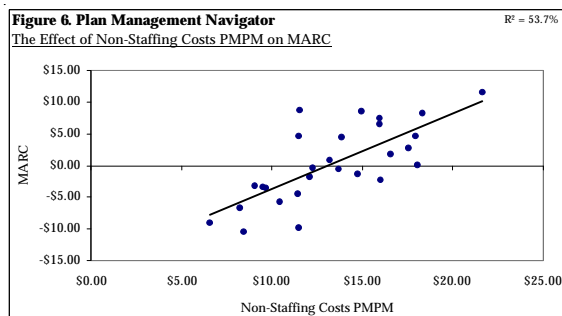
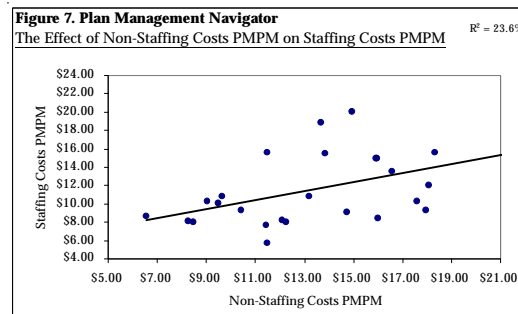


Figure 7 elaborates on this. While the R^2 is relatively low at 9.3%, if one outlier is removed, the R^2 goes to 23.6%. The p-value of this relationship is 0.4%. This correspondence between Staffing Costs PMPM and Non-Staffing Costs is almost as if health plans have a global philosophy that is either lean or permissive, and it applies across all the resources of the firm.



Conclusion

Again, it is notable that scale is not the principal factor in health plans achieving low costs. Technical substitution also does not appear to be a factor. Rather, a culture of conservative administration may be manifest in low cost plans, in much the same way that a plan's culture of conservative medicine can contribute to lower health care costs. Also, from a measurement perspective, adjustments for product mix provide for a more complete picture of the costs of health plan administration.

The plans that are the source of data for this analysis are committed to performance measurement, because they participate in SEER. SEER implicitly provides a "forum" for process improvement. Accordingly, the plans in this study may well be more effective in their performance than their peers that are without these tools.

