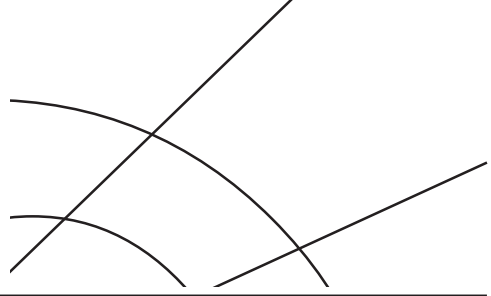


Plan Management Navigator




Analytics For Health Plan Administration

Late April 2010

SEER PARTICIPATION AS INDICATOR OF ADMINISTRATIVE COST FOCUS

Weak economic trends and health care reform have focused health plan managements' attention on administrative cost management. One indicator of this is the increase in intended participation in our benchmarks, as shown in the Figure 1.

Total and new participants are indications of interest and, in the case of already initiated surveys, memorialized by contracts. However, they are subject to change and after the March series of surveys began, one Independent / Provider-Sponsored plan joined and one Blue Cross Blue Shield plan withdrew. The TPA universe is new this year and we have limited experience with its continuity.

So qualified, this is nevertheless a surge. Plus, acceptance by firms who do not participate has also increased. Combined, participating and licensing health plans serving more than one-half of all insured Americans are users of our benchmarks. *Let us know if either alternative would be of interest to you.* 

GENERAL NOTE REGARDING NAVIGATOR

Health care reform's most immediate and direct impact will be on government programs such as Medicare and Medicaid. Both will face pressures on top lines, which will require more aggressive management of administrative expenses of health plans serving those markets. Because of this, we have focused several issues of *Plan Management Navigator* on operational issues affecting health plans doing business with these public benefit programs.

Figure 1. Plan Management Navigator
SEER Participation as Indicator of Administrative Cost Focus

	<i>New Participants</i>	<i>Total Participants</i>	<i>Survey Distribution</i>	<i>Benchmark Released Beginning</i>
Blue Cross and Blue Shield	3	24	March 2010	July 2010
Larger Plans	1	6	March 2010	July 2010
Independent / Provider-Sponsored	5	17	March 2010	July 2010
Medicare	2	Pending *	June 2010	August 2010
Medicaid	3	Pending *	June 2010	August 2010
TPA	8	Pending **	May 2010	August 2010

* These universes each had 11 participants in 2009.

** This universe is new.

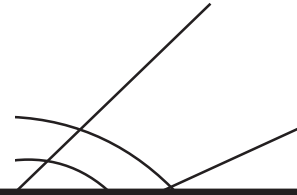
INTERACTIONS BETWEEN CLAIMS PROCESSING COSTS AND OTHER FUNCTIONS FOR MEDICARE AND MEDICAID PLANS

Claims processing is perhaps *the* core administrative activity of health plans serving Medicare and Medicaid members. After all, the very term "third-party payor" is a central role of claim and encounter capture and adjudication. This edition of *Navigator* identifies and tests some of the potential interrelationships between claims and other associated functions.

A few intuitive examples may be helpful here. As shown later, these relationships are only conjectural.

- If a health plan has a high number of claims, it could lead to high medical management costs, reflecting a very high number of members enrolled in medical management programs, because people enrolled in medical management programs are usually sicker.
- If a health plan has a high number of claims, and some of those claims inevitably could lead to questions by members, customer service costs should increase as well.
- If a Medicare or a Medicaid plan is highly automated and its claims are heavily autoadjudicated, then there may be lower manual intervention. This could lead to lower claims processing costs and higher information systems costs.

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To perform this analysis, in 2009, we surveyed 22 health plans, whose focus was on Medicare or Medicaid, concerning their operating activities. This was part of an annual enterprise-wide benchmarking study, which we have found helpful in assuring the accuracy and completeness of the data of the participants.

The intermediary role of health plans implies that there are multiple portals to health plans. These multiple portals mean that health plans are complex organizations with many interactions between the functions. In this analysis, we quantify these relationships.

In this analysis, we measured the relationships between metrics associated with Claims costs and metrics of Provider Network Management and Services, Medical Management, Customer Services and Information Systems. Figures 2-5 summarize the low p-value relationships. In other words, these figures show the values of the relationships in cases where the probability of there being no relationship was minimal. For the sake of brevity we omitted relationships that are not significant.

Provider Network Management and Services

Provider Network Management and Services function was examined to see how it is affected by the number of claims processed and claims costs. A possible theme throughout this functional area was if a health plan's membership submits a high number of claims, some of these claims lead to inquiries by the plan's providers, and therefore provider relations costs increase as well. Another possible theme is that if the functional areas Provider Network Management and Services and Claims reflect common practices, then when it is efficient in

one functional area, the plan will most likely be efficient in another.

As shown in Figure 2, the number of claims processed is associated with the number of provider manual inquiries and provider relations costs. For each additional claims processed per member, the number of provider manual inquiries per member increases by 0.16. Similarly, an additional claim processed per member is associated with a \$0.51 increase in PMPM provider relations costs.

Claims costs also had a positive relationship with provider manual inquiries per member and provider relations services costs PMPM. Both of these relationships had a low p-value and high R². For each additional dollar increase in claims costs PMPM, the number of provider manual inquiries per member increase by 0.45. An additional dollar spent in claims leads to a \$1.38 increase in provider relations services costs per member per month.

Medical Management

Medical Management also relates the claim and encounter capture and adjudication function for Medicaid and Medicare plans. When health plans offer medical management to its members, they do so under circumstances that relate to the number of claims and claims costs. An association of high medical management and claims cost may occur because members that are enrolled in medical management programs are sicker and likely to be responsible for submitting more claims.

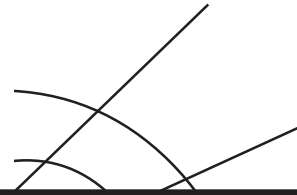
As shown in Figure 3, when Medicare and Medicaid plans have an additional dollar increase in medical management costs per member, the number of claims processed per

Figure 2. Plan Management Navigator
Statistical Relationships between Claims and Provider Network Management and Services

Independent Variable	Dependent Variable	R ²	p-Value	Slope	Observations
Claims Processed per Member	Provider Manual Inquiries per Member	75.2%	0.0%	0.161	18
Claims Processed per Member	Provider Relations Costs PMPM	53.0%	0.2%	0.514	15
Claims Costs PMPM	Provider Manual Inquiries per Member	84.7%	0.0%	0.456	18
Claims Costs PMPM	Provider Relations Services Costs PMPM	55.0%	0.1%	1.383	17

Figure 3. Plan Management Navigator
Statistical Relationships between Medical Management and Claims

Independent Variable	Dependent Variable	R ²	p-Value	Slope	Observations
Medical Management Costs PMPM	Claims Processed per Member	46.2%	0.1%	1.621	15
Case Management Costs PMPM	Claims Processed per Member	39.5%	0.3%	2.541	14
Medical Management Costs PMPM	Claims Costs PMPM	43.6%	0.2%	0.571	20
Case Mgmt. FTEs per 10,000 Members	Claims Costs PMPM	27.5%	3.1%	0.758	17
Case Management Costs PMPM	Claims Costs PMPM	41.1%	0.6%	0.976	17



member are higher by 1.62. Similarly, an additional dollar increase in case management costs per member is linked with a 2.54 increase in claims processed per member. (Case management is an important subcategory of medical management.) Other subcategories not reflected here include pre-certification, disease management, nurse-based counseling, and health and wellness.

Medical management costs and case management costs both have a positive relationship to claims costs. These relationships have low p-values and relatively high R². An additional dollar per member spent in Medical Management is associated with a \$0.57 increase in claims costs per member. An additional dollar per member spent specifically in case management is associated with a \$0.98 increase in claims processing costs per member. It seems reasonable to suppose that as number of claims submitted increases, leading to increased costs, the more spent in managing the care of the sick.

Customer Services

Customer Service has a significant association with the cost of Medicare and Medicaid claims functions. For instance, one possible mechanism is that an inefficient claims function can increase Customer Service costs and inquiries. This relationship would occur because when claims are not processed in a timely way, the member will call the customer service department, which increases customer service inquiries and costs. Even when processes are strong, some portion of claims procedures would likely to result in a customer service inquiry. These relationships are examined further below.

As shown in Figure 4, the strongest relationship between the claims function and customer services was claims costs on customer services costs. This relationship has a R² of 78.2% and a p-value of 0.0%. An additional \$1.00 increase in claims cost per member is associated with a \$0.76 increase in customer services costs per member. It seems reasonable to suppose that if a plan has elevated claims costs, the customer services costs could also be higher simply due to the greater volume of claims.

Since customer services costs are associated with higher claims costs, looking deeper into the customer services cost drivers,

the primary demand driver, manual inquiries per member, also shows a positive effect on costs. An additional dollar increase in claims processing costs increases manual inquiries per member by 0.69 inquiries. The p-value of this relationship was 0.1% and the R² of 49.8%.

The relationship between claims processed per member on customer services manual inquiries per member has a R² of 53.7% and a p-value of 0.0%. An additional claim processed per member leads to a 0.23 increase in customer services manual inquiries.

Overall, these relationships show a close relationship between Medicare and Medicaid plans claims processing and customer services. Members may have increased customer services costs and inquiries due to members calling with questions about claims.

Information Systems

We would have guessed that claims processing costs and information systems costs could have a negative relationship. If a plan is highly automated, its claims are heavily autoadjudicated. Thus, claims would require less manual intervention. This would result in lower claims processing costs and higher information systems costs. Indeed, health plans commonly state that their support of claims processing activities represent nearly one-half of the total activities in information systems. However, our results actually illustrate a positive relationship between claims processing and information systems costs.

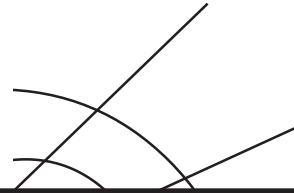
As shown in Figure 5, the higher claims costs PMPM, the higher PMPM information systems costs. This was the strongest relationship with a R² of 51.3% and p-value of 0.0%. For each additional \$1.00 increase in claims processing costs, information systems costs per member are higher by \$0.76. This relationship contradicts our hypothesis that perhaps these functions are substitutes.

We worried that perhaps this apparent complementary relationship may have been the result of other factors. Therefore, we tested whether the high cost of Medicare Advantage could have skewed both claims and information systems data. To do this, we performed this analysis on just

Figure 4. Plan Management Navigator
Statistical Relationships between Claims and Customer Services

Independent Variable	Dependent Variable	R ²	p-Value	Slope	Observations
Claims Processed per Member	Customer Services Manual Inquiries per Member	53.7%	0.0%	0.231	15
Claims Costs PMPM	Customer Services Manual Inquiries per Member	49.8%	0.1%	0.695	20
Claims Costs PMPM	Customer Services Costs PMPM	78.2%	0.0%	0.761	20





the Medicare and just the Medicaid plans: the results were similar and showed positive relationships between the variables. We also worried that these results could have been distorted by occasional misclassifications of costs between information systems and claims, say by the reporting of a claims system in the claims areas rather than in the information systems area. We tested this by regressing the sum of information systems and claims costs against claims costs: the results of this test confirmed the positive relationship. Therefore, our conclusion regarding the relationship is that when a plan has high costs in one function, it will have high costs in the other function.

Looking further into the sub-functions of Information System, such as Information System Operations and Support Services, Information Systems Application and Maintenance, Information Systems Applications Acquisition and Development, and IT Security Administration and Enforcement, all showed positive relationships similar to Total Information Systems Costs, as shown in Figure 5.

The relationship between claims FTE's per 10,000 Members and IS FTE's per 10,000 Members also showed a positive relationship, but not as strong predictive power with a R² of 21.9%. For each additional claims processing FTE per 10,000 Members, IS FTE's per 10,000 Members increase by 0.21.

Another similar regression analysis showed a relationship between Information System Costs and Claims FTE's per 10,000 Members. With a R² of 31.6% and p-value of 0.0%, a \$1.00 increase in Information Systems Costs PMPM is associated with 0.89 additional Claims FTE's per 10,000 Members.

Conclusion

Claims processing activities are central to third-party payors, including Medicare and Medicaid plans. In the more challenging environment of health care reform, claims processing costs, as well as those of other functional areas, are under increasing scrutiny to assure that they are optimally delivered.

Because of its central role, the claims function displays numerous interrelationships between other functions. For example, if a plan experiences a high number of claims, some of the claims may lead members to inquire about the claim, driving an increase in customer services inquiries and costs. Similarly, if a health plan has a high number of claims, some of these claims lead to inquiries by the providers so provider relations costs would increase as well. There is also some indication that, for Medicare and Medicaid plans, when more money is spent on medical management to its members, the number of claims and costs are higher, perhaps because members in medical management programs are sicker and therefore incur more claims. Finally, information systems costs appear to complement, rather than substitute for claims processing costs.

Figure 5. Plan Management Navigator
Statistical Relationships between Claims and Information Systems

Independent Variable	Dependent Variable	R ²	p-Value	Slope	Observations
Claims Costs PMPM	Information Systems Costs PMPM	51.3%	0.0%	0.757	20
Claims Costs PMPM	Information Operations & Support Services Cost PMPM	26.9%	0.1%	0.210	20
Claims Costs PMPM	Information Systems Application & Maintenance Costs PMPM	41.1%	0.1%	0.236	19
Claims Costs PMPM	Information Systems Application Acquisition & Development Costs PMPM	26.0%	0.2%	0.290	17
Claims Costs PMPM	IT Security Admin. & Enforcement Costs PMPM	10.2%	4.5%	0.356	11
Claims FTE's per 10,000 Members	Information Systems FTE's per 10,000 Members	21.9%	0.8%	0.213	17
Information Systems Costs PMPM	Claims FTE's per 10,000 Members	31.6%	0.0%	0.893	17

