Plan Management Navigator
Analytics for Health Plan Administration

Healthcare Analysts

Douglas B. Sherlock, CFA
sherlock@sherlockco.com

Christopher E. de Garay
cgaray@sherlockco.com

Erin Ottolini
erin.ottolini@sherlockco.com

John Park, CFA
jpark@sherlockco.com

Andrew L. Sherlock
asherlock@sherlockco.com

(215) 628-2289

As a reminder, if you are participating in this year's Sherlock Benchmarks, *we encourage you to provide health care utilization and medical management activities as a means of better understanding this key function.*

Why Do Health Plans Commit to Medical Management

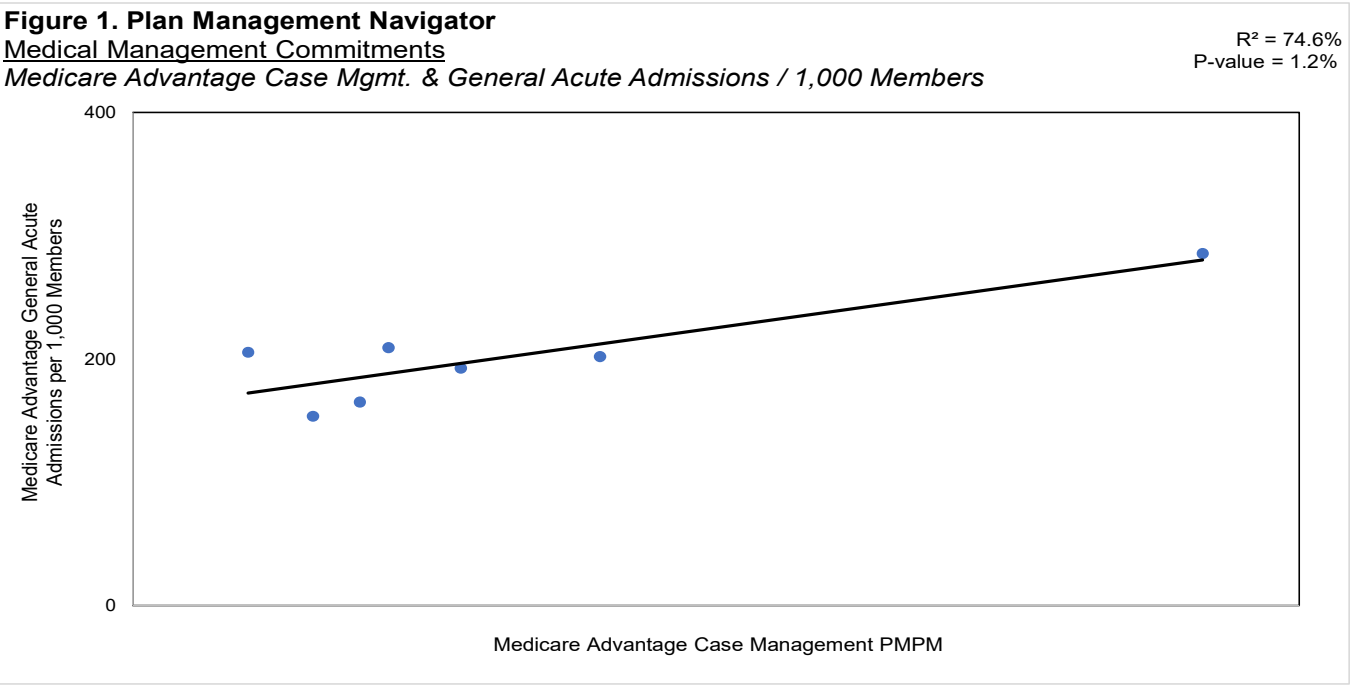
Medical management activities entail significant financial commitments by health plans. These activities include case management, precertification, utilization review, disease management, medical informatics and other activities and, as a function, it is among the largest of health plans. From an external perspective, it is hard to know how they determine their return on their investment though the size of the expense is significant enough that it seems likely that they believe it exists.

In this edition of *Plan Management Navigator*, we try to draw inferences about the realization of ROI from the behavior of health plans as reported in *Sherlock Benchmarks*. In summary, health plans tend to spend more on medical management when their health care utilization is high. In other words it appears that, for these plans, spending on medical management is an effort to mitigate high utilization.

This positive relationship appears corroborated by the tendency for plans with higher proportions of members 55 and over to spend more for medical management in product designs conducive to more intensive medical management.

Health plans often report health care utilization to us in connection with the *Sherlock Benchmarks*, usually segmented by products. Similarly, they may also report an age segmentation of their commercial product members, usually by product. In all cases, they report Medical Management costs segmented by sub-functions such as Case Management and by product. This provides a rich data source for analyses.

Figure 1. Plan Management Navigator
Medical Management Commitments
Medicare Advantage Case Mgmt. & General Acute Admissions / 1,000 Members



Positive Relationships between Costs and Health Care Utilization

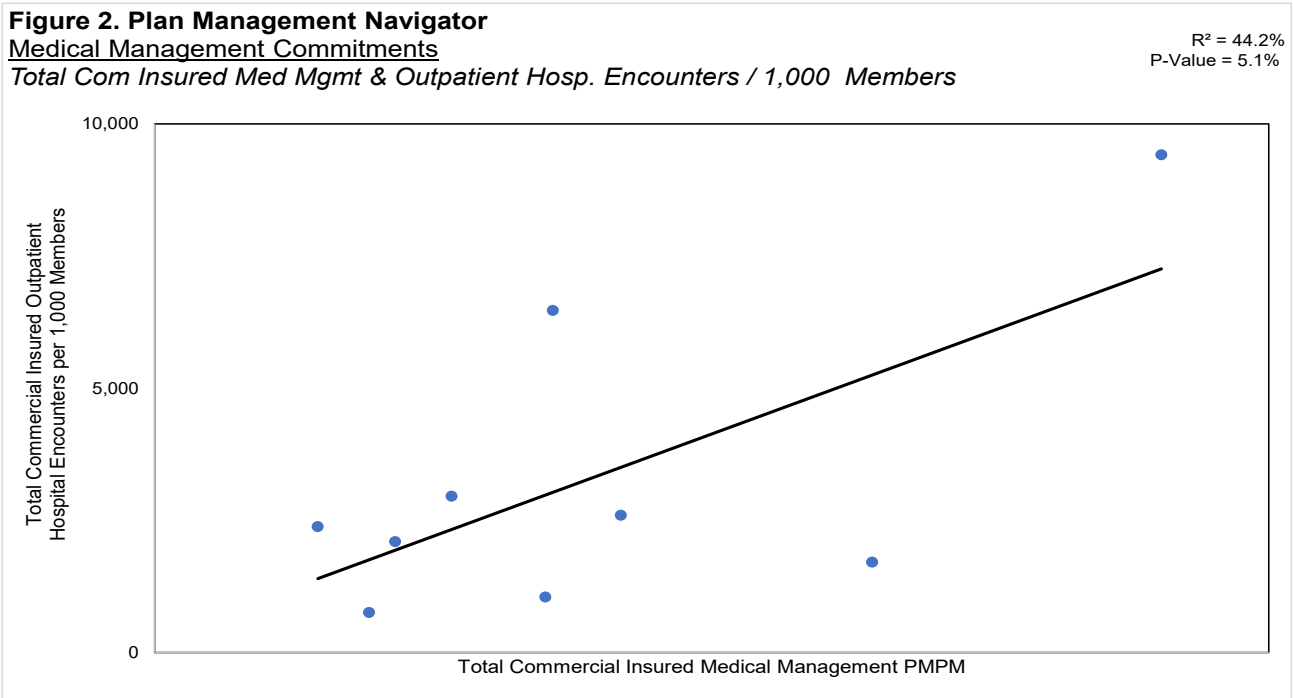
We performed 60 regression analyses on specific utilization measures and costs. We selected the utilization measures as those most susceptible to medical management activities. They were General Acute Admissions per 1,000 Members, Outpatient Surgeries in a Hospital Setting - Encounters per 1,000 Members, Total Outpatient Hospital Encounters - Encounters per 1,000 Members and Non-Inpatient Specialist Physicians - Encounters per 1,000 Members. We employed utilization of health services rather than their costs to avoid the potential distortion of prices.

Costs were expressed per member per month, and were segmented by type of medical management costs and, within them, by product. We analyzed Total Medical Management and its largest subcategories: Case Management, Precertification and Utilization Review. The products were Total Commercial Insured, Commercial HMO Insured, Medicare Advantage and Medicaid. Those products were selected since the plan is entirely responsible for health care cost variances, unlike ASO products or Medicare Supplemental products.

Figures 1 and 2 illustrate the results we often found. Medicare Advantage Case Management expenses and General Acute Admissions in that product appeared linked, as did Total Commercial Insured Medical Management and Outpatient Hospital Encounters.

Of the 60 regression analyses, 48 had positive slopes. Of these regression analyses, 12 had P-Values of less than 10%. (The P-Value is measure of the chance that the modeled relationship could have occurred through sampling error.)

Figure 2. Plan Management Navigator
Medical Management Commitments
Total Com Insured Med Mgmt & Outpatient Hosp. Encounters / 1,000 Members



The number of respondents is a limitation on these studies, but we think that they are suggestive that, generally, higher medical management expenses of various kinds was associated with higher utilization rates. Half of the negative slopes were found in Medicaid though the numbers of respondents were quite small.

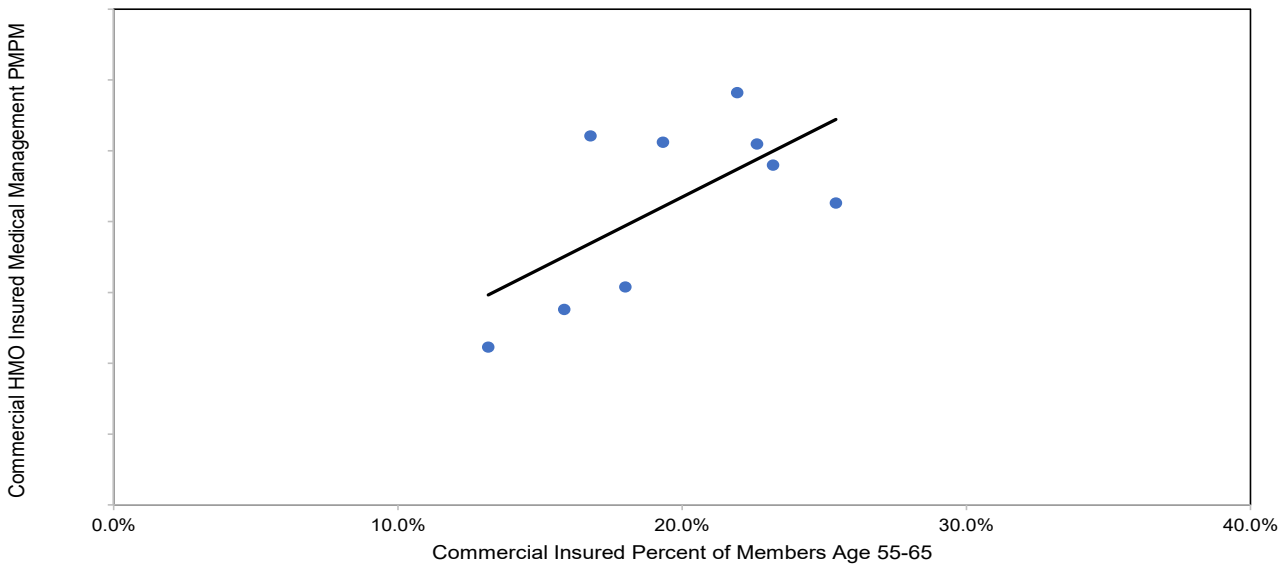
From one perspective, this result is a problem: how can a return on investment be calculated if the more that a plan spends on Medical Management the greater its utilization? Our initial thought was that perhaps the effect of medical management activities is realized in lower utilization during the following year. In testing this, we found that those relationships were quite similar to the ones shown above, notwithstanding the smaller sample size. Put a different way, the costs were stable over time.

Medical Management Commitment Based on Population Need?

In addition to the utilization information, the plans often also provide limited demographic information on the age brackets of their members in various commercial products, and is so segmented.

We analyzed the relationship between spending on Medical Management and the percent of members in the 55-59, 60-65 and 55-65 age brackets. For the most part, slopes were positive. That is, the greater the proportion members in these older age brackets, the greater the PMPM costs for Medical Management in that product. The results were stronger in the HMO products in which medical management is part of the benefit design.

Figure 3. Plan Management Navigator
Medical Management Commitments
Commercial HMO Ins Med Mgmt & Com Ins % of Members Age 55-65



Conclusion

While the results reflect the limitations of a relatively small sample, they are consistent with medical management commitments stemming from the needs of the population that the plans serve. The PMPM costs tend to rise with health care utilization, and also with the proportion of the membership 55 and older. The ROI on such commitments may be achieved through this from their focus.

Please reach out to us for additional information on this analysis. We encourage plans participating in the Benchmarks *to consider providing the detailed health care utilization and medical management. While these are not required elements, we think that they are valuable to the management of this crucial function.*