Frequently Asked Questions About Professional Caregiver Insurance Risk

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What is "Professional Caregiver Insurance Risk"?

Professional caregiver insurance risk is a mathematical theory about the effect of insurance risk disaggregation. Risk disaggregation occurs when insurers, either public or private, not-for-profit or commercial insurers transfer insurance risks from health insurance policies they have underwritten, to health care providers. Managed care operations routinely transfer insurance risks to health care providers. The typical process for doing this is the 'capitation contract'. The risk transferror pays the health care provider a monthly premium in lieu of the actual costs the providers will bear when they care for the policyholders they have agreed to treat.

Why does size matter?

Large insurers have several advantages compared to their smaller competitors. Large insurers, because they write more insurance policies, have more stable underwriting results from year to year compared to smaller insurers. A large insurer's underwriting loss ratios (Losses and Loss Adjustment Expenses divided by Earned Premiums) may vary between $0.65 and $0.75 over a 20 year long period while a much smaller insurer may have underwriting loss ratios that vary between $0.60 and $0.80 over the same 20 year period. Since the larger insurer can predict its needs for cash better than the smaller insurer it can invest more of its assets in higher yielding instruments.

Large insurers also benefit by reduced operating expenses, discounts from providers of goods and services, and more efficient use of office space, advertising, utilities, and other operating expenses that tend to incur large startup costs and lower marginal operatings costs as the number of policies issued rises.

All of these considerations mean that the larger the insurer is the better and more efficient it is at managing risk. The benefit to consumers in this is that the non-loss expenses associated with writing one additional insurance policy are smaller for large insurers, so the premium paid by the policyholder can be reduced as the insurer writes more policies.

Since the operating results are more stable, the larger insurer could, though few will, charge less for the "risk aggregation and management" services it provides to society as well as policyholders. If the larger insurer wanted to be sure that its loss ratio will be no higher than $0.70 it could charge its policyholders an additional $0.05. This, coupled with the fact that its long term loss ratios have not exceeded $0.75 would probably satisfy the management and stockholders. However, the smaller insurer, with operating results between $0.60 and $0.80 would have to charge its policyholders and additional $0.10 in order to have a shot at not exceeding $0.70.

While this in itself ought to have triggered great concern by the designers, regulators, and analysts of managed care and capitation, it did and has not had that effect. Regulators, researchers, and analysts have routinely ignored the most fundamental principles of risk management and insurance as the quality of heath care services has dropped, physicians and other health care providers have taken obvious steps to reduce the level of services they provide and large headlines about managed care patients who were not diagnosed and treated in a timely manner.

Despite strong signals that managed care and other risk transfers to health care providers were resulting in dramatic declines in the quantity and quality of health services available, little effort was made to curtail this slide. In fact, faced with burgoning numbers of litigants suing managed care companies, capitating insurers, and capitated health care providers, Congress chose to move these cases from the more activist State courts to the Federal judiciary. As well, ERISA, the legislation that was supposed to protect consumers as retirees, was modified to protect managed care operations from civil suits.

If size matters, how much does it matter?

Insurance is a lot like a baseball players batting average. A batter goes to bat and either gets a hit, walks, or is out. Hank Aaron, one of the most dependable and prolific hitters of all time ended his professional career with a batting average of .305. But, if you look at the 23 years that comprised his major league record, he varies between a low of .229 (1976) and a high of .355 (1959). If we imagine all 23 years as an insurer's portfolio for a single year, we can see that each season Aaron played is like the experience of a health care provider that accepts risk transfers. Some providers will have higher than expected costs and some will have lower than expected costs, just as some small insurerswill have higher than expected costs and some will have lower than expected costs.

If, in fact, a managed care organization divides its full set of risks among 23 capitated providers the variability in their outcomes will be higher than the year to year variability for the full portfolio if retained by a traditional insurer. The explanation for this is a bit difficult. Technically there are two measures of variation that play an important role in how insurance operates. The"population" or "sample" variance is one measure and the "standard error of the distribution of sample means" is another. Confusion about these terms is pervasive and goes to the heart of the failure to correctly appraise the risks assumed by capitated health care providers.

If we calculate the sample variance for all of Hank Aaron's seasons combined and for each of his 23 seasons separately, we get 24 unbiased estimates for the population variance. This is a difficult concept for most people to understand. Obviously the 24 numbers are unlikely to all be the same, but their "expected values" are all the same, the true population variance.

The problem with risk transfers to health care providers is that while

each of the 23 capitated health care providers has the same expected value for the population variance, this is not the important consideration in risk management through insurance. Instead, the critical measure of variation that impacts insurers and explains why large insurers manage risk better than small insurers, is the standard error of the distribution of sample means, also called the "standard error". While the variance is the same regardless of sample size, the standard error varies by sample size, specifically by the square root of the sample size.

The standard error is a measure of how far from the true population mean, that is, the average loss ratio on identical insurance products for the population of all possible policyholders, the loss ratio of an insurer that writes "n" policies might fall. If we had 100,000,000 policyholders and the variance in loss ratios for all 100,000,000 policyholders was a large number, say $200 (this is because policyholders either have negligible costs or very high costs). An insurer writing 10,000 policies would be drawing from a population of loss ratios for portfolio sizes of 10,000 and would have a standard error of $0.20. An insurer writing 1,000,000 policies would be drawing its portfolio from the population of all portfolios of sample size 1,000,000 and the standard error for this set of loss ratios is $0.02.

Just as larger sample sizes improve estimates of population means compared with estimates derived from small samples, the loss ratios on insurance portfolios are closer to the population loss ratios for large insurers when compared with smaller insurers. If the population loss ratio is $0.70, the insurer with 1,000,000 policyholders has a high probability that its actual loss ratio will be no lower than $0.66 and no higher than $0.74 (approximate probability = 0.95) while the smaller insurer will face losses as low as $0.50 or as high as $0.90 with exactly the same probability. In short, the small insurer has a much higher risk of higher than average losses than the large insurer.

In capitation the smaller insurers are risk assuming health care providers and just as is true for Hank Aaron, and small insurers in general, capitated health care providers tend to have high losses some years and low losses other years.

Don't all insurers select from the same population?

Ideally all insurance companies are sampling from the same population and charge their policyholders premiums that are actuarially fair. But this rarely happens. Every insurance company wants to insure the lowest possible risk from each class. By doing this the insurer will charge the average rate for each class, and if their selections are in fact the better risks in each class they will suffer lower levels of losses. This leads to larger profits, greater financial stability, appreciating stock prices, or higher policyholder dividends

Can't health care providers manage these insurance risks during the routine course of their work?

Insurance is a complex field. Insurance companies hire experts and spend years training staff to sell insurance policies and manage claims. Claims management is particularly difficult because nobody likes telling policyholders that the insurer is not going to pay their potentially legitimate claim. As well, unless the claimant is a very poor risk, claims personnel want to deliver this bad news without having a good risk policyholder stop buying policies. Claims departments, unlike sales departments which get bonuses for selling lots of policies, do not get a lot of credit for processing high volumes of claims. the reason is simple. When claims departments settle, and pay, claims the money is flowing out of the company. When new policies are sold, money flows into the company. While a company can publicly honor the salesperson who sells the most policies, the company cannot publicly reward the claims person who denies the most claims.

When health care providers become insurers they assume new roles as claims agents as well as their traditional clinical roles. The doctor who prescribes a pill for a headache is also a claims agent honoring a claim for an office visit by seeing the patient and prescribing treatment. But suppose the patient comes in with 3 complaints rather than 1 complaint? Suppose the patient's knee hurts, they have a chronic headache, and they feel listless? If the doctor prescribes a pill for the headache and tells the patient to come back next week for a full exam, the doctor is honoring a claim for diagnosis and treatment of the headache but denying equally legitimate claims for

diagnosis and treatment of their knee and their general listlessness. One visit, one claim approval, and two claim denials all by the same doctor and for the same patient.

There is good reason for such a pattern of diagnosis and treatment. Before capitation doctors who diagnosed and treated aggressively earned more money. Since capitation, doctors who diagnose and treat aggressively earn less money because they are paying the costs of providing more service rather than increasing their revenues.

To protect themselves from the adverse impact of a very high loss year, health care providers could, some analysts argue, simply become more efficient. But what if they were already efficient before they accepted these insurance risks? If, as we ought to, we assume that the health care providers were already operating as efficiently as possible, the adverse impact of their risk exposure can only be mitigated by reducing the expected value of their loss ratios: denying or delaying diagnostic and treatment services. Even if we assume that health care providers were inefficient in the past, and that managed care induces greater efficiency, shouldn't we have achieved all the benefits of managed care induced efficiency after three decades?

When insurers believe their losses are going to be higher than expected, either through calamities such as Katrina or perhaps because policyholders are submitting more justified or more fraudulent claims they do the same thing. The claims department personnel all get memos detailing new claims handling policies that will stretch out the time before claims are settled, deny payments for claims that would have been routinely paid earlier, and, the legal department will be advised to institute more aggressive defense strategies for particularly large claims. If insurance companies paid every claim they would go broke. If insurance companies pay too few claims, word will get around that they do not honor their policies, and they will lose policyholders. Every insurance company has to walk along a narrow path, honoring some claims, delaying action on others until more information is available, and aggressively resisting claims that they believe they do not need to pay. Insurers do this without a conflicted role.

Risk assuming health care providers, on the other hand, have an inherent conflict. They aren't just insurers. Capitated health care providers also know all the intimate details of their patient's/policyholder's medical records. This knowledge means that they can, and do, make decisions about diagnosis and treatment that determine the costs they will bear as insurers. Gone are the days when health care providers could be expected to act as their

patient's advocates. In the context of capitation and managed care, health care providers benefit when they deny both legitimate and illegitimate claims presented by their patients/policyholders.

Don't health care providers always have to make modifications in diagnosis and treatment based on their patient's insurance coverage?

This is a particularly difficult area to understand. While most health care providers have learned not to prescribe top of the line, just developed, drugs to poor patients who cannot afford them, there is a profound difference between a health care provider discerning between two patients in terms of their out-of-pocket costs and ability to follow the treatment protocol and a health care provider who benefits directly by choosing a less expensive alternative, even more so when the health care provider routinely chooses least expensive alternatives. Using less expensive diagnostic tools and treatment protocols, and delaying diagnosis and treatment have consequences for patients: unnecessary stress, pain, morbidity, debility, and mortality. They also have consequences for health care providers: Higher profits if they limit services and lower profits, even operating losses, if they provide more services.

Some may argue that ethical practice behavior prevents health care providers from benefitting inappropriately by offering less than customary standard of practice care. This argument is specious because entering into a risk assuming relationship is itself a fundamental breach of a health care providers duty to their patients. Furthermore, ethical practice would certainly dictate that the health care provider disclose their tainted status be informing their patients, on each relevant occasion, that their decisions are not biased by their impact on revenues and expenses. Rather than blaming treatment strate-

gies on a distant, faceless insurance worker, the ethical health care provider would, in face-to-face meetings state something like:

> "Ms. Jones, I am both your physician and insurer, I could send you for a mammogram every year, but instead of doing that I am going to send you for a mammogram every other year. In the process, based on doing this with all my female patients I expect to save about $150,000 each year. This decision does have clinical consequences. Repeated dozens of times it is quite likely that you, or another of my patients, when you develop breast cancer, will die, be permanently disfigured, or suffer needlessly because of the delayed diagnosis and treatment of your breast cancer. I consider this risk acceptable even if you may not."

No health care provider is ever likely to fully disclose the basis of their clinical and financial decisionmaking to each and every patient in such coolly analytical terms, but this would be the only possible ethical practice in a situation where the health care provider benefits financially from delayed diagnosis and treatment.

Is this practice of having health care providers assuming insurance risks legal?

Here again, misunderstanding about the nature of risk assumption plays a very big role. If this relationship were correctly characterized as an insurance arrangement, risk assuming health care providers would be required to obtain licenses as insurers in every state they operate in. They would, as are all insurers, be regulated as insurers. They would have to meet statutory requirements for assets, the amount of insurance they have in force, prepare GAAP and SAP annual financial statements, and fully disclose their insurance operations to the public and their patients. Because they do not consider themselves to be insurers and because of widespread ignorance about their roles as insurers among the public, researchers, insurance professionals, and market analysts, risk assuming health care providers are doing few if any of the things that small insurers have to do. Many health care providers are accepting more capitated patients than they have the ability to service. An insurer must meet reserve requirements that reflect their ability to manage the risks they assume. Health care providers are precluded from meeting the same sorts of requirements.

If an insurer does not have sufficient resources to write additional policies, this will be revealed in annual statements and in the future they may be required to either build up their assets or to limit the number of policies they write. There are few tangible guidelines that prevent health care providers from accepting more capitated patients.

How can you tell if your health care provider is taking on too many patients?

This is probably one of the easiest things to identify. A well managed health care provider is one in which patients can obtain appointments in a timely fashion, scheduled times are adhered to with little delay, and the practitioner is able to adapt to an occasionally excessively long office visit or treatment session. They have sufficient equipment, staff, and professionals to manage routine service levels and, in a pinch, the staff can handle rare demands for additional service such as might occur during flu season or if there is a local accident. Whether a physician's office, a hospital emergency room, or a long term care facility, a well managed facility is not stretched to the breaking point on a regular basis.

Poorly managed health care providers have large and crowded waiting rooms, patients wait long periods to get appointments, and patients wait long periods to see their health care providers or btain services once they arrive at the facility. Poor practices have overloaded phone lines, overloaded receptionists, overloaded para-professional staff, and overloaded professional staff. Poorly managed facilities are stretched to the breaking point at all times. Each day is like the worst days faced by well managed practices and people adapt to the dysfunctions that result.

There is no clear standard for how many patients a health care provider ought to manage. One physician may feel that 100 patients is too much while a physician a few blocks away may have a patient roster of 15-20,000. Current practice standards do not require physicians to disclose the number of patients they are managing, and this contributes to the problem of evaluating the quality and quantity of care provided.

Health care providers are every smart and well educated, certainly they can manage these risks?

If health care providers were as smart as they would need to be, they wouldn't have gotten caught behind this particular 8-ball. Understanding insurance is difficult. Most providers do not think in terms of the costs of 5,000 of their capitated patients, balancing no costs for some against high costs for others. To do this requires an understanding of the fact that you are an insurer and most providers do not accept the fact that they are insurers.

Instead, health care providers tend to view each patient in isolation. Patient A comes to the office and the provider vaguely recalls that the patient is a capitated patient. The thought may occur succinctly as: I get paid $100/month for this patient. What is less likely to be recalled is that the $100/month is part of a larger payment of $500,000/moth for all 5,000 capitated patients. As the costs incurred for the patient in the office right now rise, the provider is likely to begin to feel the pinch. A single office visit may generate porescriptions for drugs, referrals to specialists, hospitalization, expensive treatments, and more office visits in the future. Perhaps $5,000 will be incurred for the care of this patient and the monthly capitation payment of $100 seems paltry in comparison with the costs incurred during today's visit.

Health care providers see such patients as "outliers". People who cost too much and they tend to believe that special arrangements should be made for such costly patients - certainly they ought not bear such large costs all by themselves. But this is exactly what health care providers should be willing

to do when they agree to accept insurance risks.

Once again, insurance is a complex enterprise. Health care providers are ill-suited temperamentally and intellectually, for these dual roles as insurers and clinicians.