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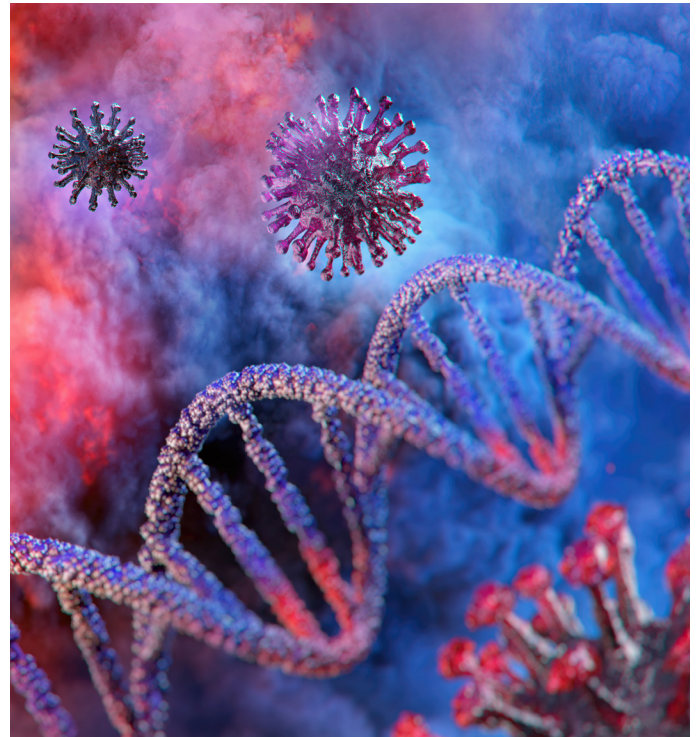
***Reinsurance Section News***

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# Medical Reinsurer’s Reaction to COVID-19

By Mehb Khoja

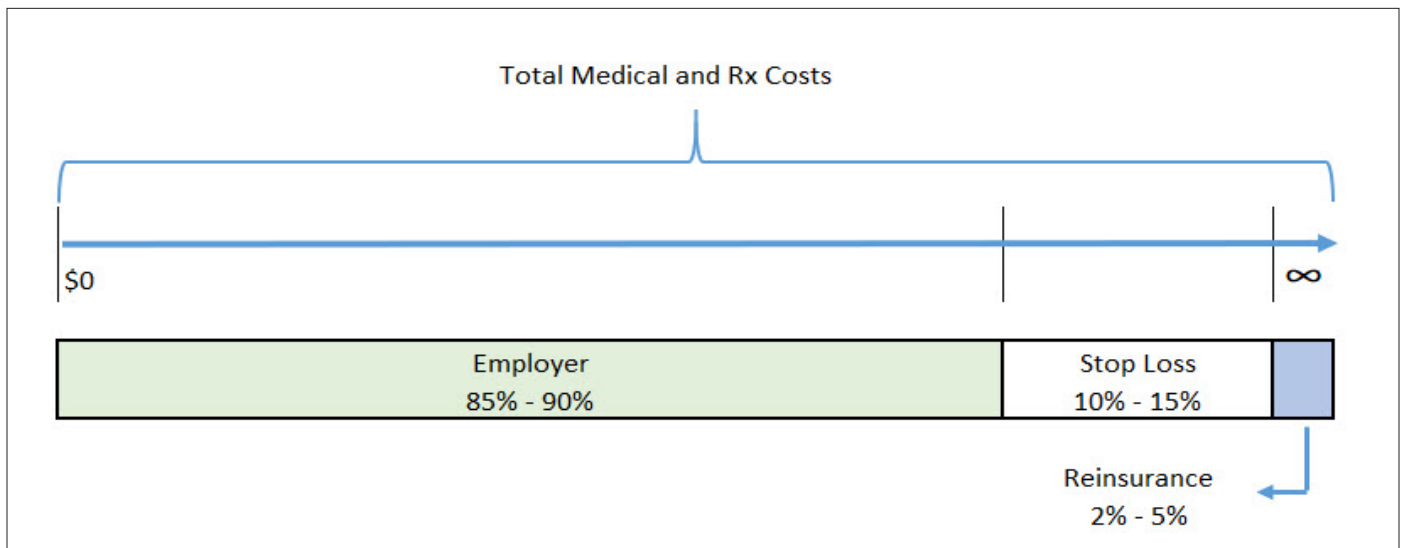


The coronavirus pandemic has the health care market in a volatile place and rightfully so. Health care utilization/outcomes and costs are largely predictable with the right population size, but COVID-19 has introduced an extreme volatility that no one could have predicted. As actuaries, it is our role to make these predictions. Sometimes we’re right and sometimes we’re not, but there is no honor in indecision!

The growth of the infection and its effect on the American economy, including health insurance, is still in its infancy. The first confirmed case in the U.S. was on Jan. 21, the first death was reported on Feb. 29, and President Trump declared a state of emergency on March 13. Between mid-March and mid-April, individual state governors started closing schools, shuttering businesses, and ordered “shelter-in-place.” During this same

time, we saw insurers and reinsurers react in different ways to the potential impact of COVID-19 on health care costs and we should expect adjustments to those first reactions as new data emerges.

Figure 1  
Risk Share Under Excess of Loss Program



How should a health reinsurer respond to a pandemic? Are they equipped with the right tools and resources to understand the impact of a pandemic on the liabilities they assume? Let's start by defining the reinsurer's liability, and because my background is in employer stop-loss coverage, I will focus on the commercial/self-insured market. In a typical arrangement where a reinsurer participates in risk and premium, there is a self-insured employer, an employer stop-loss carrier, and a reinsurer who assumes quota share and/or excess of loss coverage over the stop-loss carrier. Figure 1 describes a typical risk share under an excess of loss program (for carriers who quota share risk with a reinsurer, the "stop loss" section would be proportionately shared amongst the carrier and reinsurer).

We've already mentioned the two forms of reinsurance seen in the employer stop loss space: quota share and excess of loss. Quota share coverage is a significant risk transfer, however, I will first focus on excess of loss.

Excess of loss coverage is a per person, per year risk transfer at very high attachment points: \$1M–\$2M for example. This means the front-line insurance carrier will assume risk up to the excess of loss level and then outsource the remaining risk to a reinsurer. This risk transfer provides volatility protection to the insurance carrier while using a reinsurer's capacity. In Figure 1, you can see the self-insured employer assumes most of the risk (usually between 85 percent to 90 percent) and they purchase employer stop-loss coverage that outsources 10 percent to 15 percent of the risk. The stop-loss carrier purchases excess of loss coverage and transfers unlimited liability to the reinsurer. The reinsurer collects small dollars, but assumes big risk.

Now, let's talk about quota share coverage. This is where the reinsurer partners with the stop-loss carrier to share, proportionately, in risk and premium. So, if an employer elects a \$100,000 deductible and the carrier and reinsurer split the risk/premium 50/50 to an excess of loss of \$1M, the share of risk looks like this:

1. Claims \$0–\$100,000 belong to the employer.
2. Claims \$100,000–\$1M are shared 50/50 by the carrier and reinsurer.
3. Claims above \$1M are assumed by the reinsurer.

In this scenario, the reinsurer is counting on the underwriting practices of the employer stop-loss carrier to appropriately price the quota-share risk. The reinsurer uses its tools/resources to price out the excess of loss exposure, but they primarily rely on the employer stop-loss carrier to price the employer product. Why is this important? Because the types of claims seen predominately by the employer, employer stop-loss carrier, and reinsurer are vastly different.

Employers are used to seeing claims such as preventive care, wellness, sick visits and immunizations. They also see some high-cost/low-frequency events like surgeries. Generally, employers and their advisors are experts at high frequency but generally low cost services. The advisors will spend time with the employer helping them understand the first-dollar value of provider networks and cost containment programs. These are claims the employers know a ton about, but the stop-loss carriers know very little about because the deductible is well above these sort of claims. Conversely, the stop-loss carrier knows a ton about cancer, high cost drug treatments, and congenital anomalies because these are the types of claims that attach (exceed the stop loss deductible). The provider reimbursement models also vary significantly between low dollar and high dollar services.

Historically, a very small percentage of claims have exceeded levels such as \$1M or \$2M and as such the reinsurers have had little line of sight towards these claims. Reinsurance, for the most part, has always been a financial exercise based on experience results: evaluate a large block of business by projecting claims forward, applying margin and expenses, and comparing to today's premium in order to set tomorrow's premium. But claims exceeding reinsurance levels have skyrocketed over the past few years. According to Sun Life<sup>1</sup> "the number of patients with more than \$1.5 million in claims went up 54 percent, from 46 in 2015 to 71 in 2018, and the number of patients with more than \$3 million in claims rose 140 percent, from five in 2015 to 12 in 2018." Not only have high cost claims increased, they're expected to grow further due to the costs of cell and gene therapy solutions that will cure patients (mostly children) of issues such as hemophilia, spinal muscular atrophy, and blindness. These are remarkable achievements in health care, but they'll come at price tags between \$2M<sup>2</sup> and \$3M<sup>3</sup> dollars.

Given the dispersion of risk between employers, employer stop-loss carriers and reinsurers, we should expect reinsurers to be the experts at cell and gene therapy, employer stop-loss carriers to be the experts at cancers, congenital anomalies and high cost drugs, and for employers (and their advisors) to be the experts on claims below traditional stop loss deductible thresholds.

So how do COVID-19 claims fit into this picture? Costs for testing range between \$50 and \$100. Cost for treatment will vary from \$0 (quarantine and self-isolation) to several thousands of dollars for hospital inpatient stays. According to FAIR Health,<sup>4</sup> the average allowed charges for hospitalization could range between \$20,000 and \$40,000 depending on complications and comorbidity. In the most extreme cases (approximately 1 percent of those infected) we can assume 20 days in the inpatient setting at \$7,500 per day in billed charges (\$150,000). After network discount, even the highest cost COVID-19 treatment could run at most \$100,000 to \$115,000. If we use a \$75,000 deductible as an average (most deductibles for our business range between \$75,000 and \$150,000), this means most of the COVID-19 treatment cost is an employer expense. It has little impact to

the employer stop-loss carrier which means it has little impact to the quota-share reinsurer and virtually no exposure at all on excess of loss. So, are reinsurers in a position to advise about COVID-19 liability when they're as far removed from the underlying expense as they are? In mid-March, we saw many reinsurers expressing conservatism and risk aversion. We heard reinsurers wanting to pad trend rates by 5 percent to 6 percent. We also saw reinsurers increase aggregate corridors from 125 percent to 135 percent in some instances (meaning an employer's claims would need to run at an approximately 40 percent trend year over year in order to see an aggregate claim event). This was based on the notion that countrywide infection rates could range between 20 percent and 40 percent (at the time of this writing, the national infection rate is about .3 percent with just under 2 percent of the country tested). The reinsurers were bracing for the worst.

Fast forward one month to mid-April and we've seen some of the risk aversion settle down. There have been plenty of articles and media coverage regarding the impact to hospital revenue seen from deferred elective surgeries. Not only have surgeries been deferred, but diagnostics such as CTs, MRIs, and x-rays have been postponed. Diagnostics are the precursor to surgeries or other treatments and with their deferral, the hospitals are gearing up to only serve COVID-19 patients. Even if that wave of activity comes, the costs above suggest hospitals will not see nearly the revenue they had anticipated and that translates to lower costs for the employer, employer stop-loss carrier and reinsurer. This hypothesis has already been confirmed by several first-dollar health care insurers on recent earnings calls where the insurers have stated the reduction in deferred expenses outweighs the increase in COVID-19 expenses and will lead to higher profits.

Why were the reinsurers so conservative in mid-March? It could be due to the small premiums they collect in the risk transfer which means the margin for error is much smaller. It could also be due to a lack of tools/resources for truly measuring impact of first-dollar expenses. Reinsurers do not typically have resources that understand provider networks, value-based contracts, or population health. Again, these are issues that the first dollar carrier has to deal with and not typically an issue for the reinsurers. But reinsurers will need to adopt these skills if they want to help their clients price a competitive product. Conservatism may keep your risk down, but it could also keep your sales down—especially if other carriers/reinsurers are not nearly as risk averse, and that could spell trouble for the enterprise. As new data emerges, we can expect positions on the claims impact of COVID-19 to change. It's only been a few months, so we need to cut everybody some slack. ■



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#### ENDNOTES

- 1 Sun Life 2019 High-cost claims and injectable drug trends report press release: [https://www.sunlife.com/us/News+and+insights/Press+releases/2019/ci.3+milion+medical+claims+rose+104+from+2015+to+2018.mobile?vgnLocale=en\\_CA](https://www.sunlife.com/us/News+and+insights/Press+releases/2019/ci.3+milion+medical+claims+rose+104+from+2015+to+2018.mobile?vgnLocale=en_CA)
- 2 Zolgensma: <https://www.fiercepharma.com/pharma/zolgensma-for-free-novartis-global-access-program-plans-up-to-100-doses-per-year-lottery>
- 3 Biomarin's hemophilia gene therapy: <https://www.wsj.com/articles/biomarin-explodes-pricing-experimental-gene-therapy-at-2-million-to-3-million-11579190318>
- 4 FAIR Health Research Brief: <https://s3.amazonaws.com/media2.fairhealth.org/brief/asset/COVID-19%20-%20The%20Projected%20Economic%20Impact%20of%20the%20COVID-19%20Pandemic%20on%20the%20US%20Healthcare%20System.pdf>