



## Evaluating the Impact of COVID-19 in Latin America – Why a BIG Response Was Necessary

by Emilia Agis, Gen Re, Mexico

It is not news to anyone that the Latin American region has been hit particularly hard by the COVID-19 pandemic. Since first landing in Brazil, Mexico, Peru and Colombia, the virus has spread rapidly to all 20 countries, affecting more than 650 million people, directly or indirectly.

The insurance industry has not been immune to the impact of the pandemic, which has delivered a sizeable blow to both the Life and Health sectors. The need for thorough, ongoing analysis of this situation, and how it affects both our business and that of our clients, was clear. Indeed, as international reinsurers, many of the cedants we work with in Latin America asked for our support and insight on how COVID-19 is impacting insurance portfolios across the globe.

### Clarity through collaboration

Since the beginning of the pandemic, we have conveyed the importance of being prudent and approaching each risk by analyzing it in detail, including the exposure to COVID-19. However, a lack of information made it difficult to accurately assess the overall impact of the pandemic on cedants' portfolios.

This frustration was the catalyst that led our Latin America unit to create the BIG Project – Biometric Impact Global Project – last year. In an unprecedented effort in the region, our team reached out to all of our clients, inviting them to contribute to a data pool on COVID-19 Life claims. For each claim, information – such as date of birth, gender, date of occurrence, date of notification, currency and claimed amount – was requested. To date, we have received information from 20 companies and 31 different portfolios across the continent, which translates to over 13,000 COVID-19 claims.

In return for the data, we share regular reports with cedants on how COVID-19 is impacting each of the updated portfolios, viewed from different angles. For example, for age and sum insured, we mainly analyze trends in the average claim, and the qx per mille (deaths per thousand). Regarding gender, we observe the differences in average claim and the split of claims between women and men. To track the evolution of the pandemic, we plot the number of claims and the average claim per month of occurrence, to make it easier to spot and monitor trends. We also compare the portfolio's mortality by COVID-19 against national and industry statistics.

Figure 1 – Example cedent report – claims per sum insured and mortality rate



We also provide clients with analysis of their IBNR (incurred but not reported) factors, which can be tremendously high compared to regular IBNR behavior, and our predictions for the following months based on three different scenarios.

Our system allows the data from cedants to be incorporated simply, alongside official national COVID-19 figures from countries in the region and the respective closing dates. The reports are updated semi-automatically, with new ones able to be created in a matter of minutes.

### The rough road in the quest for rich data

As one might expect, we did run into some complications when setting up the BIG project. Firstly, the accumulation of claims per person became a wearisome task as the pools grew. For example, we came across cases where the same insured person holds more than one policy within a company and falls into several reinsurance contracts. There were other cases where a single person held policies in different currencies or even with different insurance companies.

While this doesn't present a problem regarding the reports sent to cedants, it can lead to wrong conclusions when analyzing the reinsurance effect. Creating a key that considers all these scenarios when accumulating claims was therefore essential (though results must still be closely monitored and revised where necessary). We tackled the problem by sending cedants a template for the required data, so that the format is homogeneous between companies and easier to integrate into the pool.

A second issue we noticed is that IBNR factors can become artificially inflated for the most recent periods. Because of how exaggerated the IBNR factors were for the entire last month of data submitted, the monthly calculation of factors was insufficient for the purpose of the reports. Moving to a bi-weekly reporting cycle has helped significantly, though factors can still be overstated. This is especially the case for small portfolios, where a bi-weekly analysis might translate into overfitting issues. Keen actuarial judgement is required to differentiate a realistically high factor from an overstatement for every two-week period.

Finally, creating different scenarios for our predictions has also proved challenging, mainly because of the ever-changing social governance landscape. When constructing scenarios, it's of course essential to consider seasonal events, such as the Christmas or Spring break, but one must also take into account and predict the development of public policies, such as vaccination roll-out, lock-down and social distancing rules. A new scenario might have a very short shelf-life if significant developments with regard to such policies unfold. We have also needed to be mindful of discrepancies in the reporting of official statistics when analyzing the pandemic's behavior across the entire region.

### The next BIG thing?

The BIG Project data pool has become an important tool for assessing the impact of COVID-19 across Latin America and we are grateful to all of our clients for their mutual trust and close collaboration. We plan to dig deeper into how the project has helped us with our internal processes, such as the calculation of reserves or quotation of contracts. If you would like to find out more about the BIG project in the interim, including how to get involved, please don't hesitate to reach out to your Gen Re representative.

#### About the author

**Emilia Agis** joined Gen Re in 2019 as an Actuarial Associate in the Life/Health Latin American Department based in Mexico City. She studied for a bachelor in Actuarial Science at ITAM, in Mexico City. She is currently responsible for the actuarial analysis and quotation of contracts, along with the analysis of the COVID-19 pandemic impact on the Latin American industry.



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