



# COVID-19: What will the future hold for life and health insurers?



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The COVID-19 pandemic has been holding the world hostage for just over a year now. At time of this being written, well over 130 million people have been infected, and almost 2.9 million people have died from the disease<sup>1</sup>. Although mass-vaccination programs have commenced in over 150 countries<sup>2</sup>, there is as of yet no visible timeline telling us when the pandemic will be “over” or losing momentum enough to allow for a return to some level of normalcy.

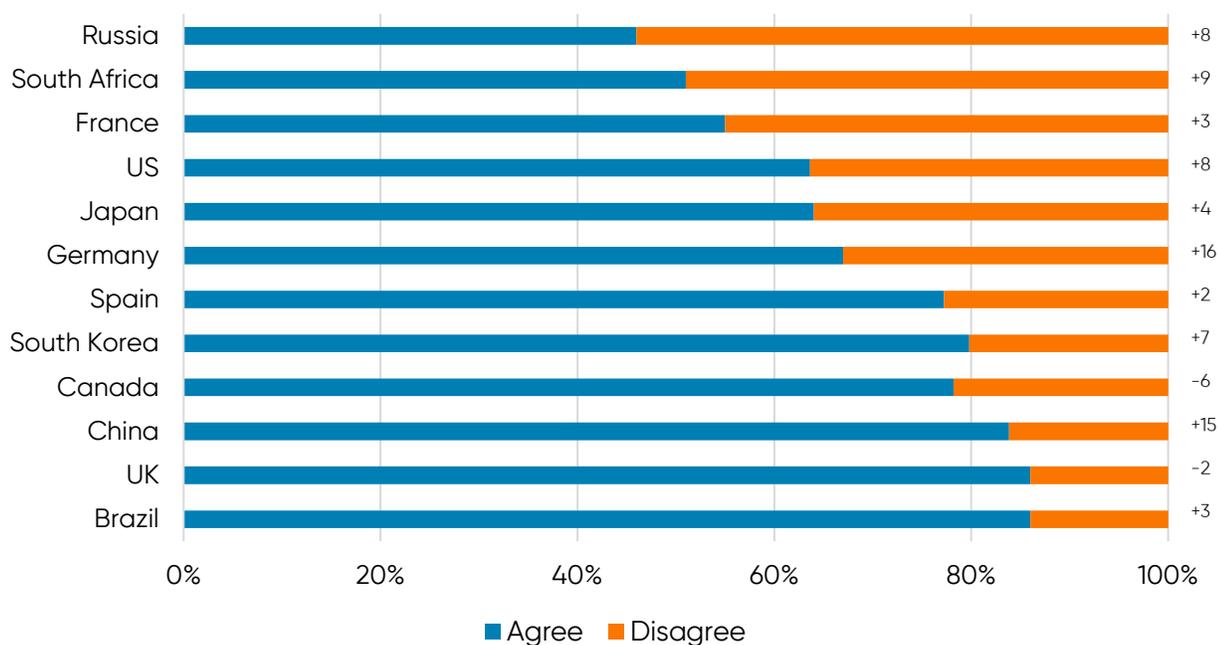
## Vaccinating the world

Globally, the number of new COVID-19 cases is still rising. Confirmed cases per day have declined and stabilized in the Americas, but are rising in South-East Asia and Europe since early this year. It is encouraging that vaccines have been developed in record times and mass-vaccination programs are underway, yet there are still major challenges ahead before we can tame the virus.

### 1. Vaccine hesitancy

A number of vaccines, developed within a short time frame, have now been approved for emergency use around the globe. The eventual objective of vaccinating a large part of the population, besides significantly reducing severe disease and death, is to reduce transmission of the virus and generate herd immunity<sup>3</sup>, a state when the virus cannot easily find unprotected hosts to replicate. Will we get to this state? This depends on various factors including, for example, the percentage of the population that is able or willing to take the vaccines, the effectiveness of vaccines in reducing transmission and the duration of immunity. Among these considerations, the willingness to be inoculated is probably the most challenging as this is a context-specific issue, complicated by cultural and socio-political considerations. Vaccine hesitancy or rejection are not recent phenomena<sup>4</sup>, and their impact on a highly contagious and global disease is yet to be seen. (See Figure 1)

**Figure 1: % who agree/disagree they would take a COVID-19 vaccine if it was available**



Source: [Statista](#) quoting Ipsos MORI



Note: The survey was conducted on 14–17 January 2021 and covered 12,777 adults in 15 countries. Figures on the right-hand side refer to percentage change since December 2020.

## 2. Variants

Another challenge to achieving herd immunity is the emergence of COVID-19 variants that have already changed infection patterns and have shown less predictable responsiveness to available vaccines. Viruses constantly change through mutation. The realistic outlook is that, as the virus keeps replicating, more and perhaps even more “rogue” variants will emerge over time.

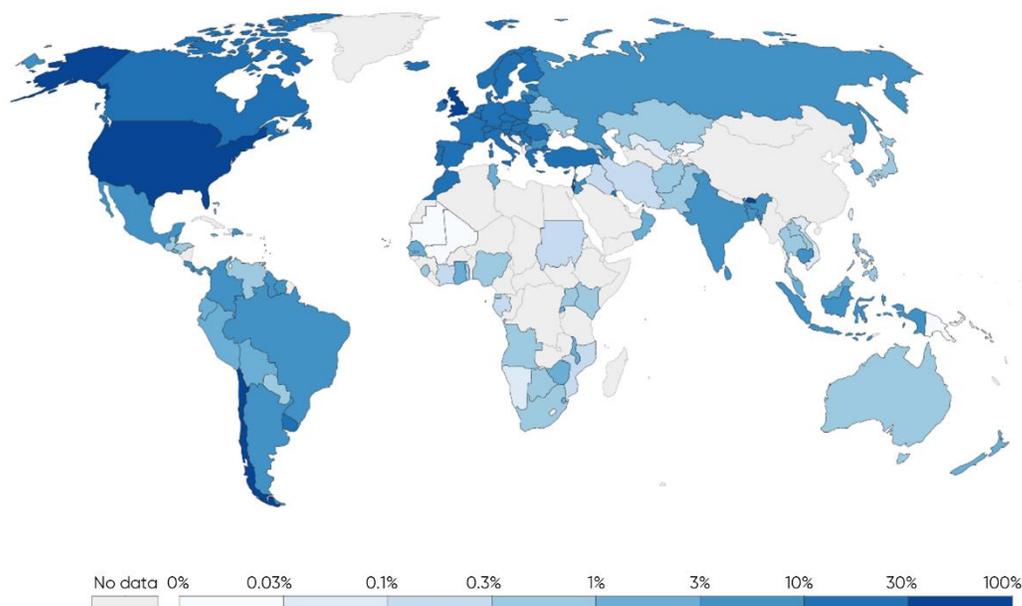
## 3. Vaccination of juveniles

Testing vaccines in children has just started<sup>5</sup>. It remains to be seen if existing vaccines maintain the same level of safety and efficacy in children as in adults. If it turns out to be problematic to inoculate children under 16, there will then be a large population cohort still susceptible to the disease and able to spread the virus. Other than rendering herd immunity difficult to achieve, this will also delay the reopening of schools.

## 4. Geographic imbalances

Furthermore, the world population is not being vaccinated in a synchronized fashion. While some countries, such as Israel and the UK, have a high vaccination rate, in other countries (mostly African ones) vaccination has not even started (see Figure 2). That means there will be areas and regions where the virus can continue to further spread and mutate to perhaps more dangerous variants. Until most of the world is vaccinated, travel restrictions and quarantine measures will have to be applied over the coming months, if not years.

**Figure 2: Share of people who received at least one dose of COVID-19 vaccine, Apr 10, 2021**



Source: Official data collated by [Our World in Data](#). Figures refer to share of the total population that received at least one vaccine dose. This may not equal the share that is fully vaccinated if the vaccine requires two doses.



Given the above considerations, and despite the rapid roll-out of COVID-19 vaccines, experts are generally unified in maintaining a cautious stance on the pandemic outlook, and recommend citizens continue to wear masks, keep physical distancing and maintain good bodily hygiene. Disruptions to our social and professional lives that were meant to be temporary are looking to remain in the long haul. These changes are also leading to considerable challenges for many, if not all sectors of the economy. Many businesses have had to close temporarily or permanently, people have lost their jobs and inequality has widened. Governments around the globe are trying to stem the tide of underwhelming economic news with stimulus and other rescue packages. This helps to cushion the fallout from economic recession while a nascent recovery is emerging. The IMF announced in April an upward-revised global GDP forecast for 2021, at a strong 6%, compared to an estimated 3.3% contraction for 2020.

### Issues relevant to Life and Health Insurers

According to the US Society of Actuaries, the country's high death toll from COVID-19 will have an impact on the bottom line of life insurers<sup>6</sup>. There are currently few reports from other countries indicating a similar result; however, the assumption must be that in highly penetrated markets with relatively high COVID-19 incidence and case-fatality rate, we will see a negative impact on life insurance (and reinsurance) underwriting results. On the other hand, there are indications that health insurance portfolios are relatively light on claims, as people skip routine doctor visits and check-ups, postpone elective surgeries, and generally utilize health care services in a more reluctant manner. Utilization is likely to rebound, if and when life normalizes.

Beyond claims, insurers should also pay attention to the various health impacts and implications of COVID-19 particularly on survivors but also the general population.

#### 1. Acute organ damage

COVID-19 is primarily a respiratory disease, with the upper and lower respiratory tract being the organs most likely to sustain damage. Cough is one of the primary symptoms of COVID-19. In one in about seven patients, the disease will affect the alveoli of the lungs, where gas exchange between the airways and the blood takes place. The alveoli may fill with mucus, and a wider infection (pneumonia) may set in. One in 20 patients may suffer critical lung disease with significant difficulties breathing and reduced oxygen uptake into the blood.<sup>7</sup> If the patient survives, there is a chance that the lungs recover, but some scarring may be seen long after the subsiding of acute symptoms.

Other common short-term symptoms of COVID-19 include fatigue and fever. There are some less common but sometimes quite disabling features like aches and pains, diarrhea, conjunctivitis, headache and loss of sensory functions (taste or smell). It is observed that these symptoms often improve within several weeks.

#### 2. Long haul disabilities

Of particular concern are the long-term effects and complications of COVID-19 infection. Lung function may not return to normal in the long run.<sup>8</sup> There are also reports about persistent neurological symptoms such as brain fog and fatigue, as well as conditions like anxiety, depression



and Post Traumatic Stress Disorder (PTSD).<sup>9</sup> In some cases, structural damage to the brain may occur, mostly as a result of an ischemic stroke.

### **3. Collateral health damage**

We should not overlook other health issues that are indirectly related to the COVID-19 crisis. They are relevant to the health of the general population, including the insured policyholders.

#### **a. Under-serviced chronic diseases**

A considerable proportion of the population, at least in the older age brackets, has some sort of chronic health conditions that require regular medical attention, e.g. blood tests and calibration of drugs. It is understandable that some of these regular arrangements were dropped out of fear of being infected in a doctor's office or due to some community-wide lock-down measures. This in turn can result in worse health outcomes, for instance in terms of a higher number of complications.

#### **b. Missed routine medical check-ups**

One key element of preventative healthcare is regular medical check-ups, often sponsored by employers or insurance companies. They help detect risk factors and diseases in early stages, where intervention can be highly successful. The pandemic and resulting imposition of lock-down measures could have resulted in more people missing their regular health checks.

#### **c. Mental health issues**

The COVID-19 pandemic, which imposed isolation and movement restrictions, has left individuals faced with threats and uncertainties, and forced most to a different work- and life-style, has undeniably had a detrimental effect on people's mental health. It is reported that cases of anxiety and depression have increased since the outbreak. For example, in the US, the average share of adults reporting symptoms of anxiety disorder and/or depressive disorder increased to 41% from 11% between January-June 2019 and January 2021.<sup>10</sup> It is likely that the effects of this will be felt in the years to come.

The impact on the population's health condition will remain a long-term legacy of COVID-19 that will probably pan out over years. This will necessarily impact on how insurers are going to analyze and price risks in the future. At the same time, the pandemic also brings new trends and accelerates some existing ones.

### **1. Product evolution**

Many insurers have worked hard to reassure their customers that known diseases caused by SARS-COV-2, the virus that is responsible for COVID-19, are covered under their medical covers, whilst some even offered extra benefits under existing policies for the case of COVID-19. Some other insurers, notably those in mainland China, have started marketing covers that protect against the financial burden caused by side effects (or ineffectiveness) of a COVID-19 vaccination.

### **2. Accelerated digitalization**

Integrating technology in the life and health value-chain was well underway when the COVID-19 pandemic hit; and the disease arguably brought about an acceleration of that general strategic



activity. This is particularly relevant for insurance distribution at a time when face-to-face contact is not encouraged, which renders reaching the customer by digital means critical to the development of new business. At the same time, customer demand for online services and the ability to purchase products online (including the entire underwriting process) significantly increased. The digitalization of the customer journey is likely to be a prominent and extending element of insurance business in the years ahead.

### 3. Telemedicine

We also noted an increasing demand for online consultations. It was for the insurers to decide whether this service is equivalent to a face-to-face consultation, and hence claimable. Most companies responded in the affirmative (subject to certain quality criteria), and some even went further and integrated telemedicine in their value-add servicing catalogue.

### 4. Internet of Things

Along with the accelerated general digitalization and the introduction of telemedicine, came multiple concepts as to how the Internet of Things (IoT), in particular wearables and connected health monitoring applications, are considered for life and health insurance services. It is probably fair to say that this novel effort to collect, analyze and utilize data (so-called Big Data) is a significant part of how insurance companies will work in the future. Again, it may be said that the COVID-19 pandemic has helped to crystallize the utility of IoT.

#### Longer term outlook: How can we be better prepared?

How likely is it that we are going to experience yet another global virus outbreak similar to what humanity is going through now? The simple answer, supported by many epidemiologists and virus experts (e.g. Edward Holmes at the University of Sydney<sup>21</sup>) is that it is not a question of *if* that will occur, but *when* we will have to face this scenario. Whether the next lethal virus will come from an animal or other source is hard to predict, but it is unlikely that – even with better precautions in place – the human outbreak of a virus (then unknown to the human immune system) can be effectively avoided.

Will the public health space be better prepared next time around? It is probably not overly optimistic to answer that question in the affirmative. COVID-19 has taught a multitude of lessons: from transmission-reducing measures, to availability of protective gear for health care and other frontline workers or availability of Intensive Care beds to the support for vaccine research and control of logistic challenges for vaccination programs. Of course, getting well prepared for events of this proportion is a complex and expensive exercise, and there is certainly a risk that not all countries will put in enough resources to enforce that effort.

Once the pandemic is under better control, economies will recover, but still being vulnerable to resurgences in incidence or case fatality rates. Furthermore, not all economies around the world will trend upwards at the same time, some countries and regions will lag behind others. And even within countries we cannot expect a harmonious picture of improvements; in other words, the recovery is likely to be multi-speed and uneven, which will impact on inequality and protection gaps.



## Conclusion

SARS-COV-2 has “conquered” large parts of Planet Earth. At this stage it cannot be ascertained where we are in pandemic’s course. Are we more than halfway through? Do we still have major surges, devastating experiences ahead of us? And once we are at the end of the tunnel, what will the world look like? Coming out of the tunnel, we could face a strikingly different world.

Of course, given the nature and consequences of a worldwide active viral infection, the life and health insurance industry is affected in a major way. This paper tries to crystallize some of the aspects insurance players need to think about now and plan for going forward, in order to sustain and perhaps even enhance their business. Technological transformation is definitely part of the journey, and so is creativity in providing effective insurance protection. But all along it will be paramount to observe and swiftly react to the ever-changing patterns of the pandemic and its aftermath, be it related to health, the economy or other societal facets, as well as to manage preparedness for what seems to be an almost unescapable next corona virus outbreak.

## Footnotes

[1] Source: [WHO Coronavirus \(COVID-19\) Dashboard](#), World Health Organization, data accessed on 9 April 2021.

[2] So far 153 countries have administered a total of 710 million jabs, accounting for around 10% of the world’s adults. Source: [Tracking covid-19 across the world](#), the Economist. Data accessed on 9 April 2021.

[3] It still remains unclear about what percentage of people who need to be vaccinated to achieve herd immunity. See [Coronavirus disease \(COVID-19\): Herd immunity, lockdowns and COVID-19](#), WHO.

[4] See for example [Catalogue of interventions addressing vaccine hesitancy](#), Technical Report, European Centre for Disease Prevention and Control, April 2017.

[5] See [“Pfizer begins testing its vaccine in young children”](#), The New York Times, 25 March 2021.

[6] [“2020 Excess Deaths in the U.S. General Population by Age and Sex”](#), Society of Actuaries, February 2021.

[7] According to the WHO, 5% of the cases are critical, 15% are severe, 40% are moderate, and 40% are mild. Source: [Coronavirus disease \(COVID-19\) 2019-2020](#), Update #18, 20.03.2020, World Health Organization.

[8] Mattia Bellan, Daniele Soddu, Piero Emilio Balbo et al, [“Respiratory and Psychophysical Sequelae Among Patients With COVID-19 Four Months After Hospital Discharge”](#), JAMA Network Open, 27 January 2021.

[9] The adverse neurological and psychiatric outcomes occurring after COVID-19 were studied through a large electronic health records network. See Maxime Taquet, John R Geddes, Masud Husain, Sierra Luciano, Paul J Harrison, [“6-month neurological and psychiatric outcomes in 236379 survivors of COVID-19: a retrospective cohort study using electronic health records”](#), Lancet Psychiatry 2021, Published Online, April 6, 2021.

[10] Nirmita Panchal, Rabah Kamal, Cynthia Cox, and Rachel Garfield, [“The Implications of COVID-19 for Mental Health and Substance Use”](#), KFF.org, 10 February 2021.

[11] See [“Next Pandemic: Scientists Fear Another Coronavirus Could Jump From Animals to Humans”](#), NPR, 19 March 2021.

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