

ESG Insights: The Pandemic, Vaccines, and the Importance of Access to Medicine

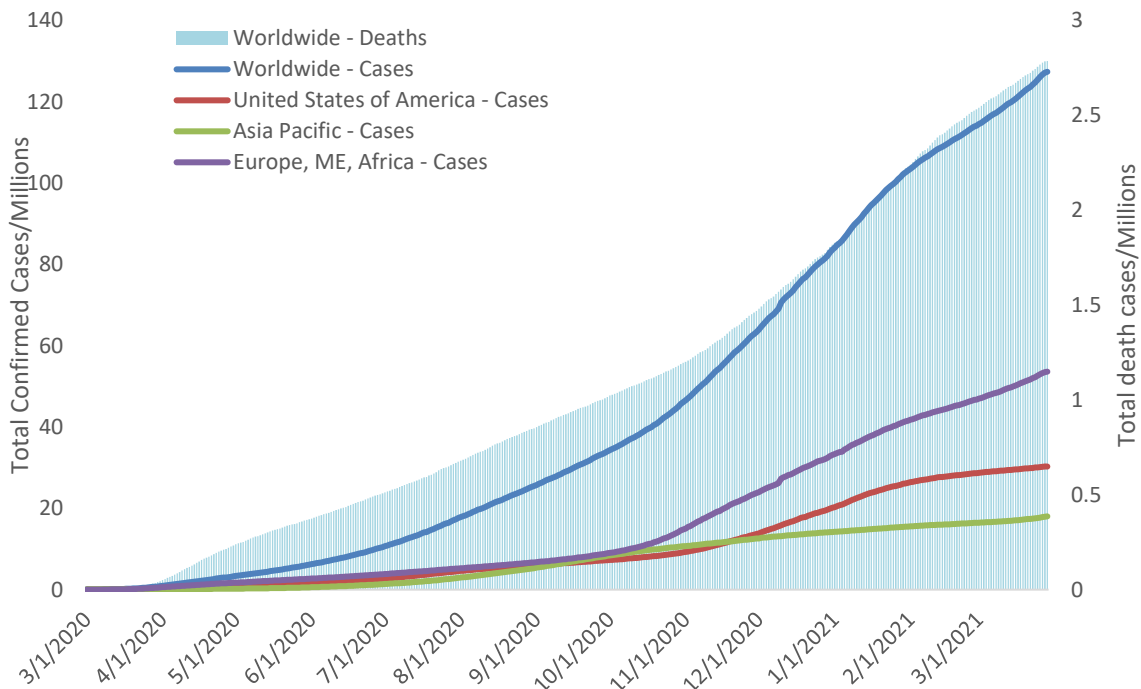
April 2021



Just over a year ago, we partnered with the Access to Medicine Foundation and became signatories to its Access to Medicine Index investor statement. The decision was based on our shared belief that engaging with the global biopharmaceutical industry is crucial to ensuring that modern medicine reaches low- and middle-income countries in an efficient and affordable way. It is the right thing to do for humanity, but it is also critical to maintaining a functioning, globally connected economy. At the time we could never have imagined that within weeks, the COVID-19 pandemic would unequivocally highlight the importance of a global coordinated response and the necessity of providing vaccine access to every country large or small, rich or poor.

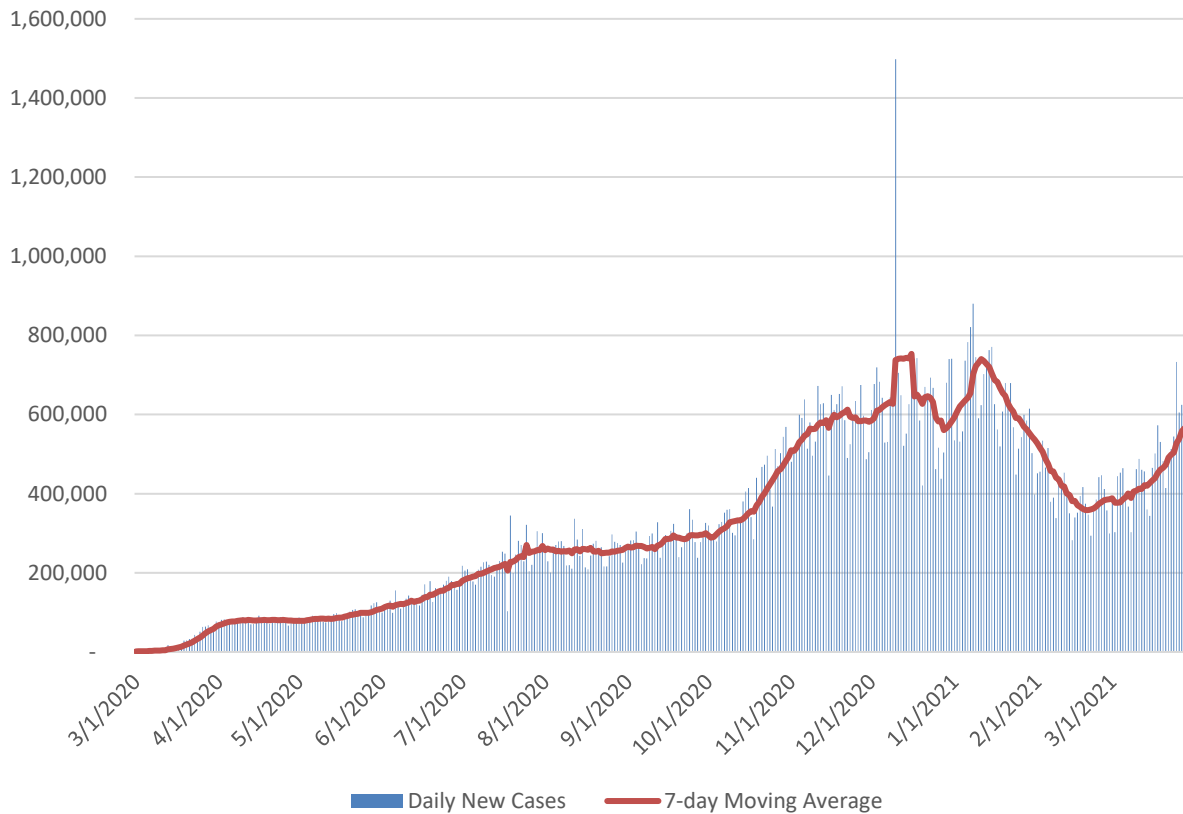
The human impact of the pandemic is the most obvious and most important. According to Johns Hopkins University, there have been over 125 million confirmed cases of COVID-19 worldwide that have resulted in more than 2.75 million deaths. Distressingly, we know that those numbers are out of date as we write them. We could never put a cost on the human toll the pandemic has wrought, but we can attempt to quantify the economic fallout.

Figure 1 Total Confirmed Cases and Total Deaths¹



¹ Source: Bloomberg, as of date 3/29/2021

Figure 2 Worldwide Daily New Cases²



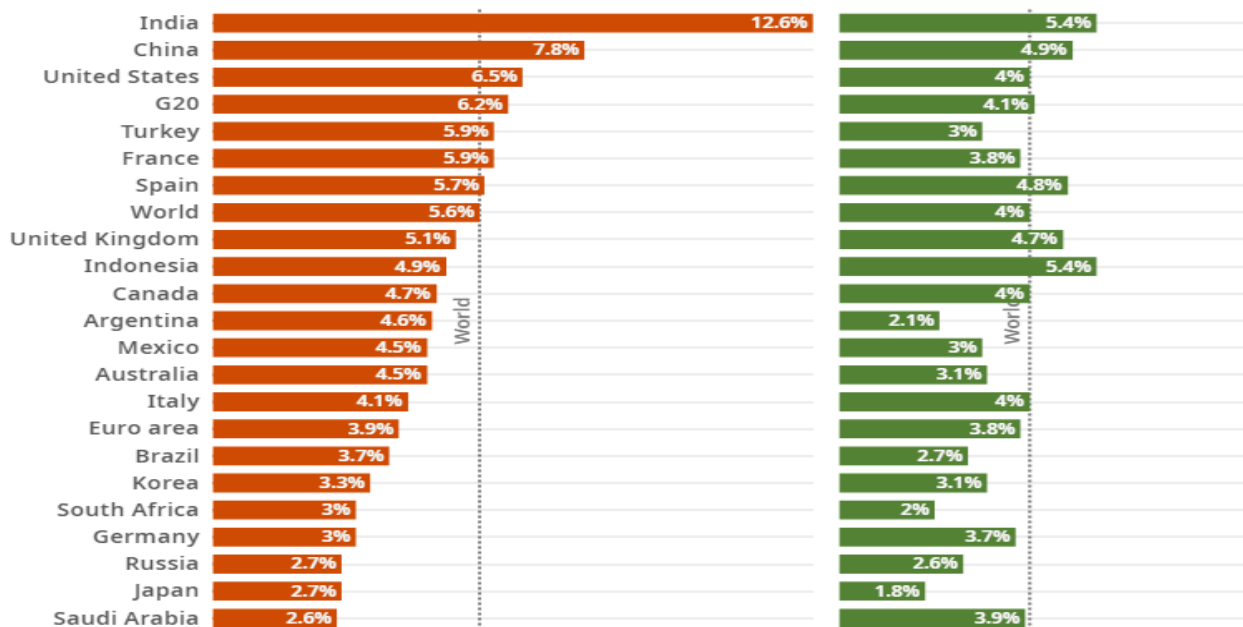
The International Monetary Fund (IMF) estimates the global economy contracted 4.4% in 2020. That is the worst decline since the Great Depression; however, markets are forward looking. Following the announcement of positive clinical trial data last November for Pfizer-BioNTech’s COVID-19 vaccine and a few weeks later from Moderna, the enthusiasm around a rebound gained momentum as economies reopened. Forecasts for 2021 global GDP have risen steadily year-to-date with the IMF projecting the global economy will grow 5.5%, the fastest pace in 13 years.

This robust rebound has to be tempered by a study³ from the International Chamber of Commerce (ICC) Research Foundation that estimates the global economy could lose as much as \$9.2 trillion of economic activity if developing countries cannot gain access to COVID-19 vaccines. Developed countries need to have a vested interest in broad access as the impact to their economies accounts for half of that figure. Materiality is one of the four pillars of our ESG framework at Coho Partners, and this ICC study clearly identifies why investors need to make access to medicine a focus. Widespread global vaccination is a vital component of a sustained recovery and the avoidance of further human and economic costs.

² Source: Bloomberg, as of 3/29/2021

³ ICC, <https://iccwbo.org/media-wall/news-speeches/study-shows-vaccine-nationalism-could-cost-rich-countries-us4-5-trillion/>

Figure 3 Real GDP Growth Projections for 2021 and 2022 (% year-on-year)



Source: OECD (2021), *OECD Economic Outlook, Interim Report March 2021*. © OECD Terms and conditions

Throughout the pandemic, we have been heartened by the myriad ways companies have responded. The collaboration among the world’s scientists, researchers, governments, and corporations has been unprecedented. The level of information sharing among these various constituencies was integral to the speed and efficiency of vaccine development. The virus’ genomic information was shared worldwide in January 2020, and it took the leading companies less than a year to develop highly effective vaccines and to have them approved for emergency use.

We were pleased to see many of the companies in the Coho portfolio play an important role in the global response. Thermo Fisher Scientific’s (TMO) electron microscopes were used to identify the structure of the COVID-19 spike protein. Early in the pandemic, Medtronic (MDT) published open-source design specifications to make its ventilator designs available to manufacturers around the world. Quest Diagnostics (DGX) exited 2020 averaging 140,000 COVID-19 PCR (polymerase chain reaction) and antibody tests per day, and CVS Health (CVS) and Kroger (KR) are both playing a role in vaccine administration at their respective pharmacies. Merck (MRK) and Amgen (AMGN) are engaged in the development of COVID-19 therapeutics, and Johnson & Johnson (JNJ) developed the only single-dose vaccine currently approved for emergency use by the World Health Organization (WHO).

Given its single dose and easier storage and handling requirements, JNJ's vaccine will play a crucial role in the global vaccination effort. The single-dose aspect may be especially beneficial in lower-income countries where medical infrastructure and logistics may not be optimal; however, it will take coordination and collaboration among all vaccine players to successfully inoculate the world. As Dr. Tedros Adhanom Ghebreyesus, Director-General of the WHO said, "The arrival of vaccines is giving all of us a glimpse of the light at the end of the tunnel, but we will only truly end the pandemic if we end it everywhere at the same time."

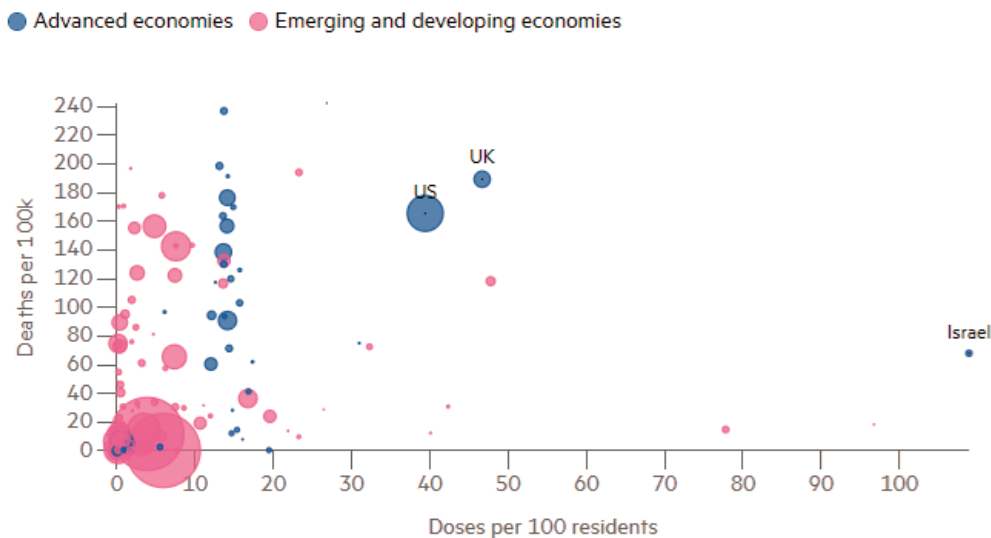
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Director-General of the WHO**

The first step to ensuring access is to ensure supply. Here again we have marveled at the unprecedented level of cooperation among the global biopharmaceutical industry. While we were disappointed that Merck's vaccine candidates failed to meet the high efficacy bar established by other products, we were encouraged by its willingness to partner with JNJ to provide additional manufacturing capacity for the Janssen vaccine. That adds to the growing stable of JNJ partners including Catalent and Grand River Aseptic Manufacturing (GRAM) in the U.S., Biological E Limited in India, ASPEN Pharmacare in South Africa, and Sanofi Pasteur in France. Similarly, Novartis and Sanofi agreed to help boost production of Pfizer-BioNTech's vaccine, and Lonza Group is seeking ways to increase output for Moderna.

As difficult as it is to develop vaccines and ramp up manufacturing to such a large scale, the equitable distribution of those vaccines may be the hardest step in fighting the pandemic. It is still early in the rollout of vaccines, but we are already seeing stark disparities in the ability of countries to get shots into the arms of their citizens. Developed economies like Israel, the United Arab Emirates, and the United Kingdom are leading the world on a per capita basis at 109, 79, and 47 doses per 100 people, respectively. The United States leads in absolute number of doses given at 129 million (equal to 39 doses per 100 people). Compare those per capita numbers to developing and emerging markets like Kenya, Afghanistan, or Uganda where the rate stands at 0.1 or less; or to Namibia, Somalia, or Ethiopia where it sits at zero. The chart below helps to visualize the disparities.⁴

Figure 4 Vaccine Doses per 100 Residents



⁴ Financial Times, <https://ig.ft.com/coronavirus-vaccine-tracker/?areas=gbr&areas=usr&areas=usa&areas=eue&cumulative=1&populationAdjusted=1>

It was with an eye towards encouraging the closure of these gaps, that we joined with many of our investor colleagues around the world to issue a statement in support of the Access to COVID-19 Tools (ACT) Accelerator.⁵ The ACT Accelerator was launched by the WHO in April 2020 to support a global, coordinated response to the pandemic among governments, academia, international organizations, and the private sector. COVAX, as the vaccine pillar of the ACT Accelerator, plays an essential part in facilitating the global allocation and equitable access to vaccines regardless of a country's income level. There are 190 countries participating in the COVAX program today, with 92 low- and middle-income countries that are eligible to receive free or highly subsidized COVID-19 vaccine supply through COVAX and its associated partners. The first of these doses began shipping out at the beginning of March and have ramped up steadily since, with AstraZeneca providing most of the initial doses followed by Pfizer. Apart from the humanitarian necessity of this effort, a study commissioned by the Bill & Melinda Gates Foundation reflected on the economic materiality as well⁶. It found that equitable vaccination distribution would translate into a \$466 billion economic benefit by 2025 in just 10 major economies.

Nana Akufo-Addo, President of the Republic of Ghana, was the first recipient of COVAX distributed vaccines. He and his wife wanted to set an example for every Ghanaian and others around the world of the importance of vaccination in controlling the pandemic. He echoed our thoughts here at Coho when he stated that "through these challenges, we have seen the best of humanity exemplified through strong multilateral cooperation." The vaccination of President and Mrs. Akufo-Addo was the beginning of the ambitious-but-achievable COVAX goal of distributing two billion doses by year-end 2021 and improving access to this very important tool in the fight against COVID-19. JNJ has committed a quarter of those two billion doses. Moreover, on March 29, 2021 JNJ entered into an agreement with the African Vaccine Acquisition Trust (AVAT) to make available up to 220 million doses to the African Union's 55 member states with delivery beginning in the third quarter of 2021.

The COVID-19 pandemic has demonstrated the need for collaboration among numerous stakeholders across the value chain to address global health crises. It has also shown the economic consequences of not doing so or being ill-prepared. As investors we will lean into a second pillar of our ESG framework, engagement, and advocate for increased attention, disclosure, and action on equitable access to medicine for the health care companies within our portfolio. We also incorporate the rankings from the Access to Medicine Index as part of our proprietary ESG scores for the pharmaceutical industry. We will continue to work collaboratively with those companies that score below peers and encourage a heightened commitment toward innovating low-cost solutions for high-need regions. Together, we can elicit change while increasing access to health care globally.

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⁵ Access to Medicine Foundation, <https://accesstomedicinefoundation.org/news/investors-issue-urgent-call-for-fair-and-equitable-global-response-to-covid-19#:~:text=The%20Access%20to%20Medicine%20Foundation's,risk%20of%20exacerbating%20the%20ongoing>

⁶ WHO, <https://www.who.int/news/item/03-12-2020-global-access-to-covid-19-vaccines-estimated-to-generate-economic-benefits-of-at-least-153-billion-in-2020-21>