

# THE ALCIVAX

**Alcimed** evaluates vaccine & treatment progress as the 1 year anniversary of the COVID-19 pandemic approaches on 03/11/2021!

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## A Year of Change

"It is not the strongest species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change." - Charles Darwin. As of March 11th, we are officially 1 year into the COVID-19 pandemic. So how are we doing?

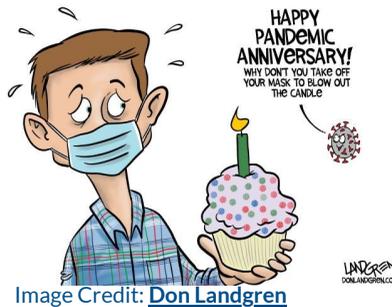


Image Credit: [Don Landgren](#)

## Financial Fallout

According to the IMF, the pandemic has caused the largest global peacetime recession since the Great Depression, with the potential for cumulative per capita income losses between 12-21% between 2020-2022, which could drastically increase income inequality.

### Cumulative change per capita income 2020-2022



Thus the world needs to accelerate its efforts to end the current health crisis and while focuses efforts to step up the fight against the economic crisis, with a third crucial step for advance economies to help maintain the livelihoods of those in emerging and low income economies. The international cooperation seen in developing vaccines in record time, should inspire us to also apply the same collaborative spirit to impending economic recovery.

## Current Economic Recovery Efforts

African economies for example have suffered from falling commodities prices, a collapse in tourism, and lower currency exchange, have shrunk African economies by 3.5%, but the IMF has pledged \$500 B in fresh aid. But Africa is taking advantage of the crisis to streamline economies through digital transformation.

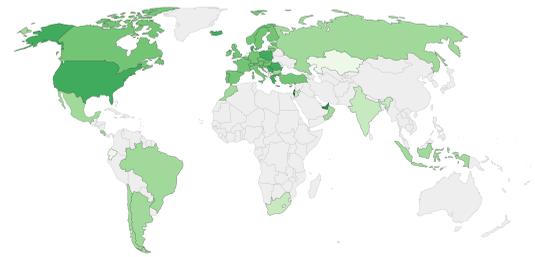
The expectation is that if COVID-19 is not contained by the end of the year, 514 M Africans will fall bellow the extreme poverty line, according to the UN Economic Commission for Africa. But hope is not lost. The World Bank is reading COVID vaccine funds for countries in need, so that vaccine shipments from COVAX can continue ramping up. After a bumpy start having to ship the AstraZeneca vaccine back due to lack of efficacy, J&J vaccines have begun to arrive in South Africa, putting their immunization campaign back on track.

But vaccines aren't the only aid to contain the pandemic on the continent. The Gates Foundation along with Eli Lilly are reserving some COVID monoclonal antibodies (bamlanivimab) for low and middle income countries to use in treating COVID.

## The COVID Vaccine Race In Graphs

56M people globally already fully vaccinated!

Share of the population fully vaccinated against COVID-19, Mar 2, 2021  
Share of the total population that have received all doses prescribed by the vaccination protocol. This data is only available for countries which report the breakdown of doses administered by first and second doses.

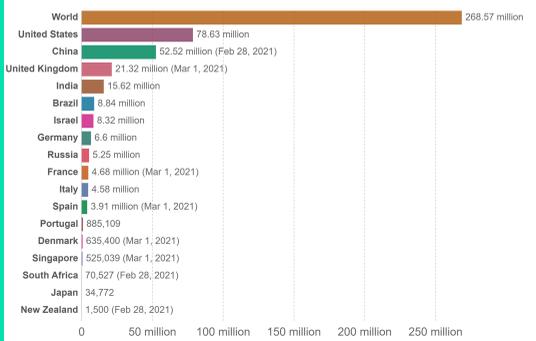


Source: Official data collated by Our World in Data - Last updated 3 March, 10:10 (London time) OurWorldInData.org/coronavirus - CC BY

More than 268M people globally have received at least one dose of the vaccine, 131M in China & US.

### COVID-19 vaccine doses administered, Mar 2, 2021

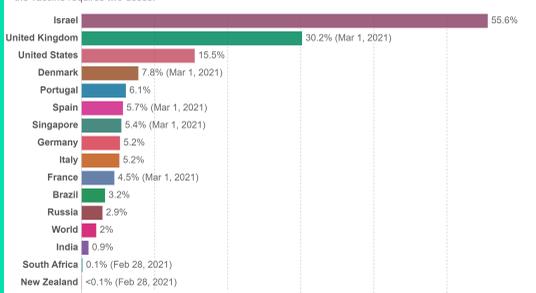
Total number of vaccination doses administered. This is counted as a single dose, and may not equal the total number of people vaccinated, depending on the specific dose regime (e.g. people receive multiple doses).



Source: Official data collated by Our World in Data - Last updated 3 March, 10:10 (London time) OurWorldInData.org/coronavirus - CC BY

### Share of people who received at least one dose of COVID-19 vaccine, Mar 2, 2021

Share of the total population that received at least one vaccine dose. This may not equal the share that are fully vaccinated if the vaccine requires two doses.



Source: Official data collated by Our World in Data - Last updated 3 March, 10:10 (London time) OurWorldInData.org/coronavirus - CC BY



# The Pandemic Endgame

There are three main pillars to a successful end of the pandemic:

## 1. Vaccines



## 2. Treatment



## 3. Herd immunity



All three will be essential to bring this global crisis to a close end. This week we summarize the progress made to date and the major remaining challenges.

# 1. Vaccines

With recent authorization of the J&J vaccine, the total number of approved vaccines rises to 6. The Sanofi/GSK vaccine has also moved to Phase 2 after reformulation challenges last year. The J&J vaccine, is between 61-72% effective but only requires one dose and can be stored for up to 3 months in the refrigerator, which should greatly increase the speed with which people can be vaccinated in order to significantly begin controlling the pandemic globally.

The current struggle for vaccines is the effectiveness of the available vaccines at protecting against variants that have arisen in certain populations. The new J&J vaccine is 57% effective against the South African variant and Novavax is only 49% effective. Moderna and Pfizer have already launched trials to potentially provide booster shots to cover variants for which the efficacy is not sufficient. The main benefit of mRNA vaccines will be in full display here in how quickly updates to the stains covered by the vaccine can be made. The current antibodies derived from the Moderna vaccine should still provide protection against the South African strain.

The UK variant is largely covered by the available vaccines with no significant drop in efficacy for any of the vaccines on the market. However, little is known so far on the efficacy of the current vaccines against the P.1 variant that is circulating in Brazil.



# 3. Herd Immunity

As vaccine programs are ramping up globally, those that are vaccinated will start to feel more confident about returning to normal life, even if those who are not yet vaccinated cannot. This has reinvigorated debates about whether vaccination should be used as a criteria for returning to in person work and whether vaccine passports should be implemented to allow for travel to resume for those who are already vaccinated. The ethical and practical concerns that accompany these concepts are still being actively debated.

In getting out of the current pandemic, it will be important to not land ourselves into another! That will really kill all our efforts to create enough widespread immunity to allow normal life to resume.

- Seven people in southern Russia have been diagnosed with an avian influenza strain (H5N8) that has been circulating in European birds since late last year.
- Seventeen cases of Ebola have now been reported in Guinea in the last month. But vaccination efforts to control the outbreak, in parallel to an Ebola outbreak in the Congo.



Image Credit: [Darkon](#)



# 2. Treatment

The current state of COVID treatment 1 year in is as follows:

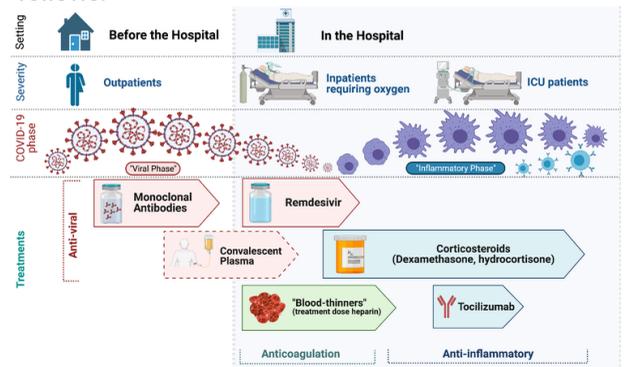


Image Credit: [PBS](#)

As for symptom relief, in hospitalized patients, prone positioning, ventilation, and supplemental oxygen are widely used, but outside of the hospital symptom relief has been highly variable between countries. China approved 3 traditional Chinese medicines, this week, for clearing congestion from the lungs.

With the global Solidarity Trial now on pause and the NIH canceling a convalescent plasma trial, the speed of treatments entering the market will slow. As an upside, doctors can now treat your long term COVID headache with vagus nerve stimulation.



# All Joking Aside



Country music star, Dolly Parton, who helped fund the Moderna COVID-19 vaccine trials, received her first dose of the approved Moderna vaccine yesterday in Nashville. In order to encourage people to get the vaccine, the singer even rewrote the words

Image Credit: [Dolly Parton](#)

to one of her most iconic songs, "Jolene" to encourage people to take the vaccine. Click the photo above to watch the video and in the words of Ms. Parton, "Don't be such a chicken squat, go out there and get your shot."

Nasa and SpaceX aren't letting the pandemic get in way of space exploration.

Four new crew members and Baby Yoda were welcomed aboard the international space station, bringing the total crew to 7. Mandatory pre-flight quarantines, in place since the 1970's remain the same even in a pandemic.



Image Credit: [CNN](#)

# Wait, but I want to Travel!

## The Queen of Vaccines



Image Credit: [Martin Rowson](#)

## NHS travel restrictions expand



Image Credit: [Morten Morland](#)

## Germany locks out Austria



Image Credit: [Chappatte](#)

## Maybe you just need a passport



Image Credit: [Warren Brown](#)