

THE ALCIVAX

Alcimed is exploring how vigilance, vaccination, and variants, continue to surprise us as we navigate year 3 of the pandemic.

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Edition #50 - 15 March 2022

So Long, Farewell, Auf Wiedersehen...

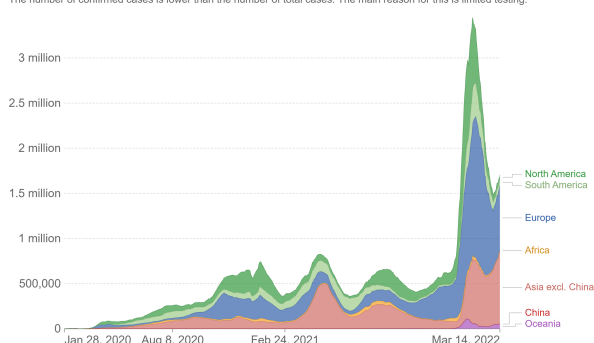
Two years and 4 days ago on March 11th, 2020 the WHO declared COVID-19 a global pandemic spurring the world into strict lockdowns and the ever-present mask mandate. In many places around the world, people seem to be making a final push towards resuming normal life. In France, this is the first week being back to semi-normal, with no need to show a vaccine pass to enter a public space and being inside most buildings without a mask. Austria is officially suspending its vaccine mandate, and the World Travel and Tourism Council (WTTC) is pushing for the removal of all COVID-19 travel restrictions inside the European Union. 6 countries including Iceland, Norway, Slovenia, Hungary, Ireland, and Romania have already done so. The UK is even suspending funding for its REACT COVID surveillance study and weekly COVID testing will no longer be free as of April 1st.

This of course doesn't mean that everything is actually over. Despite the push to release the public from COVID restrictions, COVID cases are once again rising in places throughout the world, including Europe. The upswing in cases is due to a new subvariant of Omicron BA.2 that has become the dominant strain. There is no evidence that the subvariant causes more severe disease, but it spreads faster than the first Omicron variant BA.1. This has led to the largest outbreak of COVID-19 cases in China since the original Wuhan outbreak. Similar high infections rates have been seen in South Korea as well.

Unlike Europe, China has not let go of its Zero Case Policy and has instead

Daily confirmed COVID-19 cases by world region

The number of confirmed cases is lower than the number of total cases. The main reason for this is limited testing.

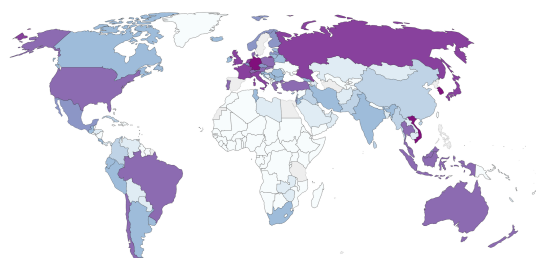


Source: Johns Hopkins University CSSE COVID-19 Data - Last updated 15 March, 08:04 (London time)

OurWorldInData.org/coronavirus • CC BY

Daily new confirmed COVID-19 cases, Mar 14, 2022

7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.



No data 0 100 500 1,000 5,000 10,000 50,000 100,000 500,000 1 million

Source: Johns Hopkins University CSSE COVID-19 Data

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instituted a new wave of lockdowns in response to the new wave of COVID-19 cases.

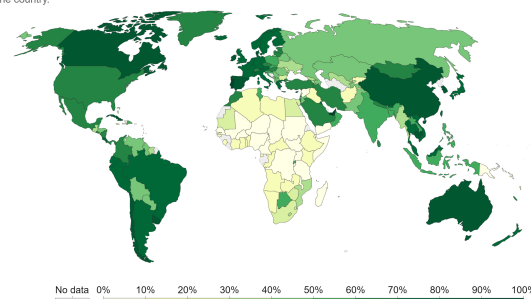
Of the consequences of these zero-tolerance policies, the most likely to impede the end of the pandemic is the low vaccination rates it encourages in those populations. The prime example of this hesitation is seen in Hong Kong, where vaccination rates for people over the age of 80 are only 33%. Similar rates of vaccine complacency have been seen across other zero-tolerance locations such as Taiwan, Macau, the Chinese mainland, Tonga, and Western Australia. It is perhaps time to rethink these policies in hopes of still driving vaccination.

The COVID Vaccine Race In Graphs

64% of the world is at least partially protected.

Share of people who completed the initial COVID-19 vaccination protocol, Mar 14, 2022

Total number of people who received all doses prescribed by the initial vaccination protocol, divided by the total population of the country.

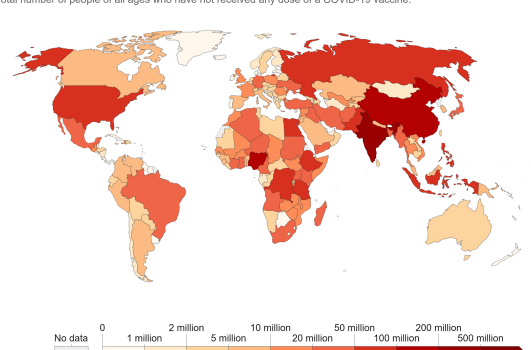


Source: Official data collated by Our World in Data - Last updated 15 March 2022, 10:00 (London time) OurWorldInData.org/coronavirus • CC BY

This still means that there are more than 2.6 B people who remain unvaccinated, ~60% reduction.

COVID-19: Where are the world's unvaccinated people?, Mar 14, 2022

Total number of people of all ages who have not received any dose of a COVID-19 vaccine.

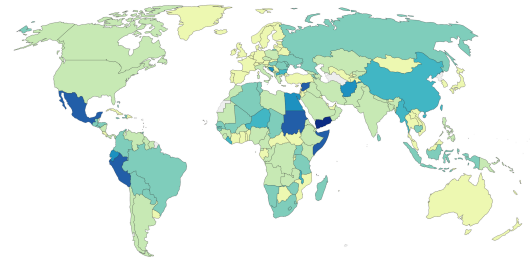


Source: Official data collated by Our World in Data - Last updated 15 March 2022, 10:00 (London time) OurWorldInData.org/coronavirus • CC BY

However, case fatality rates are not simply a reflection of who is or is not vaccinated.

Case fatality rate of COVID-19, Mar 14, 2022

The case fatality rate (CFR) is the ratio between confirmed deaths and confirmed cases. The CFR can be a poor measure of the mortality risk of the disease. We explain this in detail at OurWorldInData.org/mortality-risk-covid



No recorded deaths No data 1% 2% 3% 4% 5% 10%

Source: Johns Hopkins University CSSE COVID-19 Data

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COVID Vaccine Manufacturing

After a long series of debates over how to the WHO's COVAX strategy could have access to the more highly effective mRNA vaccines, Moderna has announced that it will not enforce its COVID-19 vaccine patent in any of the low and middle income countries that are still struggling to sufficiently vaccinated their populations. This patent exemption would cover all 92 of the Gavi COVAX Advance Market Commitment countries. While South Africa is not part of the 92 countries involved in the COVAX commitment, Moderna has granted the WHO and Afrigen Biologics, the CapeTown Based mRNA vaccine hub access to its COVID-19 IP. Patent enforcement will remain in place in all other countries.



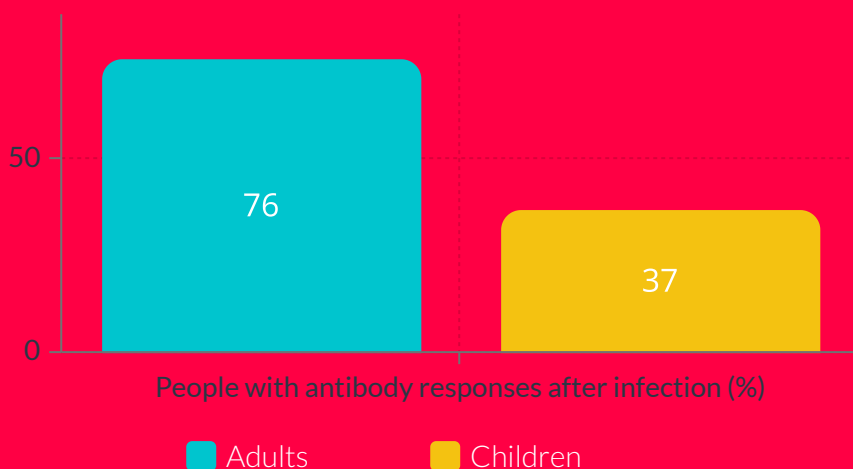
The Things We Still Need to Know

While the last years have driven some very intense research on the SARS-CoV-2 virus that drives the COVID-19 pandemic, but it is interesting to take a look at what we still don't understand. The first thing we really don't understand is the speed at which new variants develop.



Coronaviruses mutate between $\frac{1}{6}$ and $\frac{1}{2}$ as often as something like influenza or HIV. But SARS-CoV-2 have made extraordinary evolutionary leaps, catching the world by surprise.

Kids don't make COVID antibodies



When kids get infected the response to the infection is vastly different to what is seen in adults. Only 35% have antibodies to COVID-19 after the infection compared to the 76% of adults. This is well in line with previous studies that show that adults also make a broader response, i.e. different types of antibodies.

So why then don't kids seem to get as sick?

The answer seems to be that the innate immune response elicited by children upon infection is rapid and stronger than the response that is driven by the infection of an adult. Therefore, more virus cleared early on leaving less virus to stimulate an adaptive immune response.

This leads to several lingering questions, such as does this leave kids more vulnerable to reinfection? The jury is out. The studies coming out now rely on samples collected from earlier variants. Similar studies are underway on Omicron, which has higher viral loads. So we'll just have to wait.



History Repeating

Two full years into the pandemic, one of the questions that we have to ask ourselves is "Have we learned anything?" The answer is yes and no. To gain some perspective on this, historians have compared the current pandemic to the 1918 global influenza pandemic. There are some interesting parallels.

- National and local government responses to pandemics are always patchy and fluid.
- Anti-maskers always come out to protest.
- Pandemic fatigue always pushes to release the public from restrictive measure before the pandemic is really over.
- There is always a good deal of confusion about when to go back to normal.

What is strikingly different this time around is the collection of information around the pandemic. There is little data concerning how the 1918 pandemic actually ended as most of the data collected is prior to 1920. This pandemic however, has been tracked extensively down to the progression of variants, leaving the COVID-19 pandemic distinctly more likely to provide the key learnings necessary to help to prepare us for the next pandemic.



All Joking Aside

We have been at this long enough that even the funnier issues are starting to repeat themselves. This month, we would have to do another round-up of world leaders who have tested positive for COVID-19 which now includes: the UK's Queen Elizabeth, Greece's Prime Minister Kyriakos Mitsotakis, and former US president Barack Obama.

Novak Djokovic is also once again disrupting tennis tournaments as he was entered into the draw for the US Open but was denied entry into the US as he remains unvaccinated. This has not necessarily hurt his tennis career as his rival Daniil Medvedev lost in the US Open returning the number one ranking to Djokovic. Djokovic lost the number one seed earlier this year to Medvedev because he lost a tournament in Dubai in February. So perhaps the new strategy is to continue his anti-vax stance as a way of protecting perch atop men's tennis. But this strategy isn't likely to get him very far in the French Open set to start in May.

COVID Headlines Taking a Backseat

COVID Justifies Everything



Image Credit: [Chappette](#)

Variant Singing in the Rain



Image Credit: [Steve Sack](#)

The World's Attention Span



Image Credit: [Osama Hajjaj](#)

New Season, New Outbreak



Image Credit: [Paul Dorin](#)