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## Editorial commentary

To reiterate our last editorial: if you're responsible for your organisation's COVID response, what do you do? You only need to remember three things:

- vaccines work, so encourage as many of your workforce as possible to get vaccinated;
- variants transmit faster and will transmit even if you're vaccinated so ensure your employees realise that they're not superman/superwoman if vaccinated; and,
- linked to this, reinforce the importance of still wearing masks, social distancing, practicing good hygiene.

This trifecta will decrease your COVID risk. For more detail, read on.

Recent research shows just how much delta virus gets into our systems even when we're vaccinated: almost as much as if we're not vaccinated. The difference is that the vaccines lower our risk of getting symptoms and, more importantly, significantly decrease our chances of hospitalisation or death (a 25 fold lowered likelihood). Which is good.

But what's not so good is that, even when vaccinated, we will still spread the virus for about six days, before our immune response fully kicks in. Remember those non pharmaceutical interventions (NPIs) of masks and distancing which remain so important to decrease transmission.

Non-vaccinated people are at much greater risk of getting a severe infection and ending up in hospital even if they are young and healthy. This risk is even higher when they're less healthy (high BMI, smoker, other health issue) and infected with the delta variant: see the current situation in some States of the US for a sad example of this.

Boosters are getting a bit of publicity at the moment and it's sometimes difficult to separate the science from the politics. The science seems to show that our deep seated cellular immunity (not our early antibody response) remains effective for about 8 months (the maximum trial data at the moment), even with delta although delta is cleverer at decreasing the total effectiveness of vaccines. WHO feels we should vaccinate the world first before giving boosters: some countries disagree. Of course they're all doing different things with different booster criteria, as they have for all of COVID.

Location	Total vaccine doses administered per 100 people	Percentage of population fully vaccinated	Daily new cases per million (7-day average)	Total cases per million	Daily new deaths per million (7-day average)	Total deaths per million people
<b>Global</b>	62.56 (+13%)	24%	84.05 (+8%)	26,941.07 (+5%)	1.18 (+15%)	564.94(+4%)
<b>Asia</b>	68.85 (+15%)	25%	57.07 (+2%)	14,454.86 (+7%)	0.99 (+5%)	212.81 (+8%)
<b>Africa</b>	6.61 (+20%)	2.14%	26.48 (-9%)	5,529.47 (+9%)	0.65 (-10%)	139.62 (+8%)
<b>Europe</b>	95.30 (+7%)	45%	172.24 (+8%)	72,391.25 (+4%)	1.75 (+19%)	1,548.27 (+2%)
<b>North America</b>	90.75 (+6%)	40%	304.28 (+41%)	75,595.62 (+6%)	2.93 (+64%)	1,605.70 (+3%)
<b>Oceania</b>	47.61 (+26%)	17%	26.59 (-16%)	2,476.09 (+19%)	0.34 (+64%)	37.87 (+15%)
<b>South America</b>	74.89 (+16%)	26%	103.59 (-25%)	84,632.27 (+2%)	3.03 (-29%)	2,594.27 (+2%)

Table 1: International SOS, COVID-19 data globally and continental, data from 18-19 August compared with data from 3-4 August (1)

## Global, regional, and local situation

The global trend continues upward at a steady rate: more than 208 million confirmed COVID-19 cases and more than 4.36 million deaths recorded to date. The leading contributors to the total number of COVID-19 cases on a by country basis reflects the resurgence of Delta with the leading contributors now being the USA, India, Brazil, Russia, France, United Kingdom, Turkey, Argentina, Colombia, Spain, Italy, Iran, Indonesia, Germany, Mexico, Poland, South Africa and Ukraine, with Indonesia having surpassed Germany, and Mexico having surpassed Poland.

Worldwide, the total case growth is increasing by approximately 3.25 million cases every 5 days, more than the 2.34 million 2 weeks ago. Hospitalisation and death rates are again rising relatively slowly with 67,778 fatalities recorded for the week ending 15 August compared to 66,631 fatalities recorded for the week ending 8 August 2021.

In Latin America, Brazil continues to see a stabilization in the number of new cases over the past week; while Argentina, Colombia and Peru are experiencing persistent decline. Mexico is, however, experiencing a resurgence.

Number of new cases in Africa continues to grow relatively slowly. The resurgence in South Africa is slowing down similarly to neighbouring Namibia, Zambia, Zimbabwe and Botswana. However, West Africa is seeing increasing cases in Ghana and Nigeria, while East Africa is seeing a rise in Kenya.

Europe has seen total cases continuing to decline in some countries over the past month, but Russia is experiencing a continued reporting of cases between 20-30,000. The UK, France, and Spain are seeing a persistent reporting of high case numbers.

The Middle East is showing a decline overall, but with the main contributor, Iran, experiencing a continued marked resurgence. Iraq is also continuing to experience a resurgence.

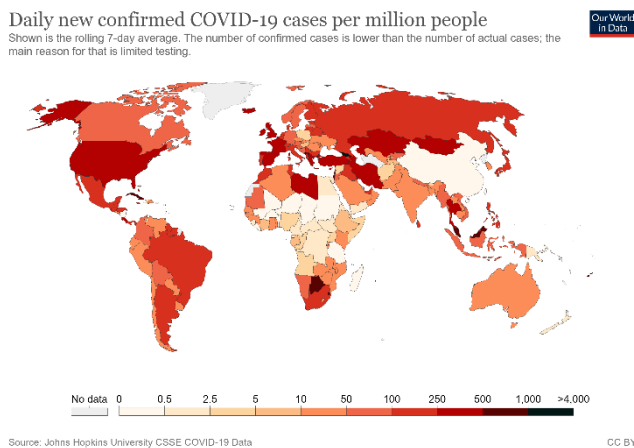


Figure 1: Our World in Data, Daily new confirmed COVID-19 cases per million people (1).

## Vaccines

There are currently 21 vaccines being used in at least one country (2). Seven of these vaccines have been approved for emergency use by the World Health Organisation (WHO), and 42 other vaccines are currently at the latest stage of clinical development worldwide.

So far, 192 countries have begun vaccinating people using approved vaccines and have collectively administered more than 4.7 billion doses of the vaccine. More than 31% of the world population has received at least one dose, with more than 23% fully vaccinated. However, disparities in the international distribution of vaccines continue to compromise global progress, and only 1.3% of people in low income countries have received at least one dose.

Europe and North America are the continents with the highest vaccination coverage with 52% of the population having received one dose at least. Vaccination coverage reached 50% in South America but remains less than 4.5% in Africa (figure 2).

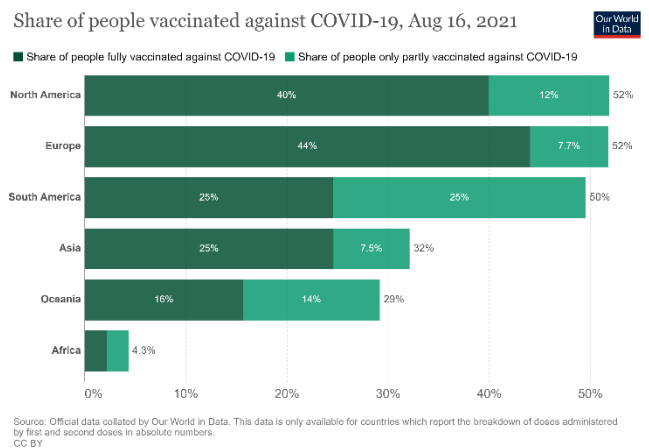


Figure 2: Our World in Data, Share of people who have been partially and fully vaccinated (1).

## The situation in the UK

The UK has the thirtieth highest percentage of fully vaccinated people in the world. Strong evidence show that vaccines protect against illness, hospitalization and death associated with COVID-19. This contributed to the recent decision to ease most social restrictions in the UK.

However, the UK still has a very high number of new COVID-19 cases. On the 17<sup>th</sup> August, it had the twelfth highest number of new cases per million of the population in the world, and the highest number in Europe after Kosovo and Montenegro. This is strongly related to the spread of the highly infectious delta variant and to having most restrictions lifted.

### UK COVID-19 Cases and associated deaths:

According to the Office of National Statistics (ONS), in the week ending 7 August 2021, the estimated percentage of the community population that had COVID-19 was:

1.33% in England (1 in 75 people, 31 July to 6 August)

- 0.46% in Wales (1 in 220 people, 1 to 7 August)
- 1.88% in Northern Ireland (1 in 55 people, 1 to 7 August)
- 0.53% in Scotland (1 in 190 people, 1 to 7 August)

An estimated 1.46% of the UK population were experiencing self-reported long COVID in early July 2021 (3).

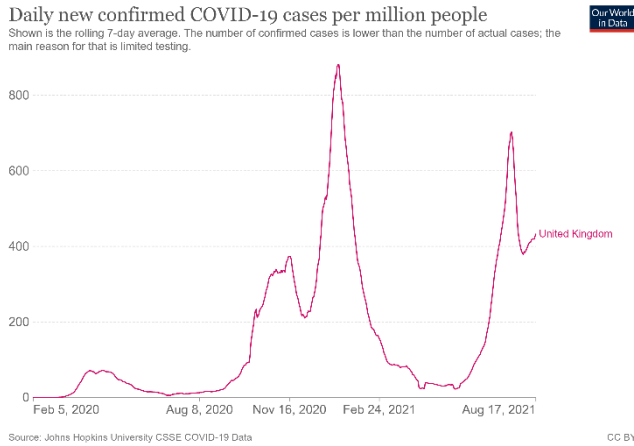


Figure 3: Our World in Data, Daily new confirmed COVID-19 cases per million people (1).

The total number of new confirmed cases in the UK have been slowly increasing since the beginning of August. However, it has been falling in England and Scotland, and it has recently plateaued in Wales and Northern Ireland. The majority of new cases recorded during the recent peak have been in people

**UK Vaccination:**

More than 86 million doses have been administered in the UK. More than 69% of the UK population had received at least one dose of a COVID-19 vaccine with the lowest level of vaccine uptake in Northern Ireland at 85.3% of adults compared to more than 90% in Scotland and Wales. More than 59% of the population is now fully vaccinated.

However, the growth of these figures has been slowing down since June with decreased number of daily administered doses: 0.29 does per 100 of the population on August the 9th. This might be the result of vaccine hesitancy amongst young people as most people in old age groups have already been vaccinated. Since February, the link between infections, hospitalisations and deaths had been weakening in the UK due to increased vaccination rate.

In a recent study by Imperial College London (4), PCR test results from June-July this year showed that people who were unvaccinated had a three-fold higher prevalence than those who had received both doses of a vaccine, at 1.21% compared to 0.40%. Based on these data, the researchers estimate that

In addition, double vaccinated people were less likely than unvaccinated people to test positive after coming into contact with someone who had COVID-19 (3.84% vs 7.23%). Building on the above mentioned results, low vaccination rates amongst young people compared to people in older age

who are younger than 30 years old. This might be a result of them being unvaccinated and due to increase social mixing after restrictions had been eased on the 19th July. The delta variant is very transmissible and accounts to almost all cases in the UK. Despite the huge increase in number of cases in the last peak with 2,891% increase in two months (between May and July), COVID-19 related deaths have not increased at a similar rate (recorded 857% increase). This could be due to high vaccines effectiveness against hospitalization and death as well as the spread between young people where the risk of being severely ill is lower than older age groups.

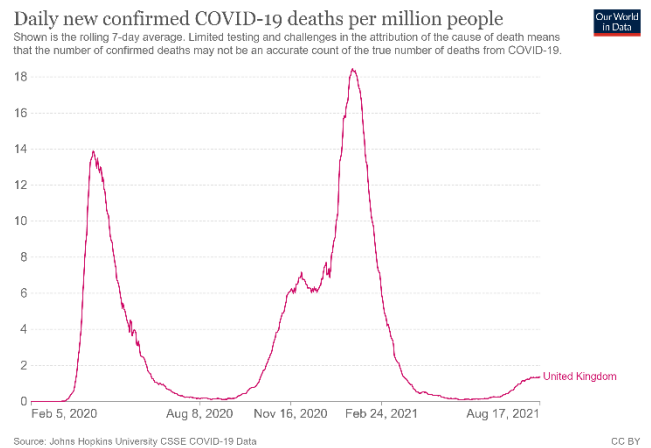


Figure 4: Our World in Data, Daily new confirmed COVID-19 deaths per million people (1)

fully vaccinated people had between around 50% to 60% reduced risk of infection, including asymptomatic infection, compared to unvaccinated people.

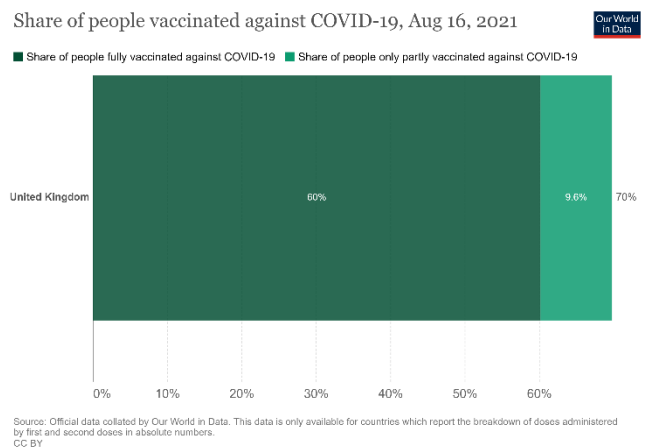


Figure 5: Our World in Data, proportion of the UK population who have been partially and fully vaccinated (1)

groups could be the reason why the highest infection prevalence was found in young people aged 13-24 at 1.56%, or 1 in 65 infected, while the lowest was in people aged 75+ at 0.17%.

In the same study, PCR analysis suggested that fully vaccinated people may be less likely than unvaccinated people to pass the virus on to others, due to having a smaller viral load on average and therefore likely shedding less virus. The results of Imperial College study are in line with a recent CDC recent report about the current situation in the US (5).

The report concluded that 96% of hospital admissions and deaths have occurred among unvaccinated people. Additionally, vaccinated people who did get infected had less viral load, shorter duration of infection, lower risk of having symptoms and shorter duration of symptoms.

## News and literature updates

### Long COVID and vaccination in children

A recent study by ZOE COVID project at King's College London (6) published earlier this month examined how age affects the severity and duration of COVID-19 illness. The study results showed that symptomatic COVID infection in children aged 5–17 years is usually of short duration (6 days compared to 11 days in adults), with less severe symptoms.

Long COVID can occur but is infrequent (it is three times more frequent in adults). The study also showed that children who continue to have symptoms after four weeks of infection have an average of two symptoms (the most common symptoms are fatigue and headache) compared to five for adults. The study confirms what scientists have predicted: age correlates with illness duration; the younger the patient is, the shorter the illness will be.

Despite evidence on the efficacy of two vaccines so far, Pfizer and Moderna, against COVID-19 illness in children, most medicine authorization bodies have been very cautious when deciding whether to expand national vaccination programmes to healthy children or not. The main reasons behind this are that benefits are minimal on children's health in addition to shortages in global vaccines supplies and the need to prioritize the most vulnerable. Some countries such as the US, France and Germany offer Pfizer vaccine to children aged 12 and over, while the UK took a more cautious approach by offers it only to clinically vulnerable children and to 16-17 years old young people.

### Seasonal flu and COVID-19 interplay

COVID-19 and influenza viruses have a similar disease presentation. They both cause respiratory disease, which presents as a wide range of illness from asymptomatic or mild through to severe disease and death. Moreover, both viruses are transmitted by contact, droplets and fomites. As a result, the same public health measures, such as hand hygiene and good respiratory etiquette (coughing into your elbow or into a tissue and immediately disposing of the tissue, wearing a face masks), are important actions all can take to prevent infection.

However, the speed of transmission is an important point of difference between the two viruses. Influenza has a shorter incubation period (the time from infection to appearance of symptoms) and a shorter serial interval (the time between successive cases) than COVID-19 virus. The serial interval for COVID-19 virus is estimated to be 5-6 days, while for influenza virus, the serial interval is 3 days. This means that influenza can spread faster than COVID-19 (7).

Furthermore, transmission in the first 3-5 days of illness, or potentially pre-symptomatic transmission –transmission of the virus before the appearance of symptoms – is a major driver of transmission for influenza. In contrast, while we are learning that there are people who can shed COVID-19 virus 24-48 hours prior to symptom onset, at present, this does not appear to be a major driver of transmission.

Seasonal flu vaccines have been widely available for years. A flu vaccine is needed every season for two reasons. First, the immune protection from flu vaccination wanes over time, so

an annual vaccine is needed for optimal protection. Second, because flu viruses are constantly changing, flu vaccines may be updated from one season to the next to protect against the viruses that research suggests may be most common during the upcoming flu season. It is not yet known if a similar model of annual vaccination will be needed for COVID-19 because we do not have sufficient evidence yet on how long-lasting immunity will be.

In 2020 and 2021, seasonal flu rates have been reported to be lower than annual baselines in most regions of the world. One of the potential reasons behind this drop is that protection measures against COVID-19 transmission have the added benefit of protecting against flu transmission (8).

A lab study from last year (9) observed a potentially protective role of the seasonal flu vaccine on COVID-19 incidence. This means that receiving flu vaccine could increase the effectiveness of COVID-19 vaccines through enhancing the resulting immunity. Another study from Brazil concluded that the flu vaccine may protect against some medical problems caused by COVID-19 (10). According to the study, COVID-19 patients who were not vaccinated against the flu were significantly more likely to have medical complications and to be admitted to an intensive care unit and to have more frequent visits to hospital emergency departments. The evidence emerging from these studies alongside others are positively highlighting the importance of receiving the flu jab when eligible.

## Additional information

Go to the International SOS Pandemic site to get the latest newest data and information on the Covid-19 pandemic: [COVID-19 \(internationalosos.com\)](https://internationalosos.com)

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