



## 2021: a year in review

COVID-19, climate, conflict, and good news for malaria. Farhat Yaqub looks back at the major stories in health and medicine in 2021.

For more on the **COVID-19 pandemic** see **Comment** *Lancet* 2021; **398**: 2126–28

For more on **disagreements between vaccine manufacturers and countries** see **World Report** *Lancet* 2021; **397**: 655–56

For more on **COVID-19 vaccines** see **Articles** *Lancet* 2021; published online Dec 2. [https://doi.org/10.1016/S0140-6736\(21\)02717-3](https://doi.org/10.1016/S0140-6736(21)02717-3)

For more on **COVID-19 vaccination coverage** see <https://ourworldindata.org/grapher/share-people-vaccinated-covid?country=High+income~Upper+middle+income~Lower+middle+income~Low+income>

For more on **Donald Trump** see **Lancet Commissions** *Lancet* 2021; **397**: 705–53

For more on **Joe Biden** see **World Report** *Lancet* 2021; **397**: 362–63

For more on **Ethiopia** see **World Report** *Lancet* 2021; **398**: 1558

For more on the **UK's aid cuts** see **World Report** *Lancet* 2021; **397**: 1697

For more on **COP26** see **Comment** *Lancet* 2021; **398**: 939–41

For more on the **extreme weather and climate events** see <https://www.theweek.co.uk/news/environment/953574/worlds-most-extreme-weather-events-2021>

For more on the **situation in Afghanistan** see **Editorial** *Lancet* 2021; **398**: 1851

For more on the **Argentina abortion law** see **World Report** *Lancet* 2021; **397**: 82

For more on the **Honduras abortion law** see **World Report** *Lancet* 2021; **397**: 360

For more on the **Texas and Mississippi abortion bans** see **World Report** *Lancet* 2021; **398**: 2137–38

### COVID-19 pandemic

From Jan 1 to Dec 10, 3·3 million people died from COVID-19, a much higher number than in 2020. The delta variant of SARS-CoV-2 established itself as the dominant variant globally. India had a devastating second wave of infections, peaking at more than 2·7 million on May 3. Shortages of hospital beds and supplemental oxygen resulted in needless deaths, reaching almost 29 000 on May 17. Similar scenarios played out in many Latin American countries, including Brazil and Peru. Mexico's third and most severe wave peaked on Aug 19, with more than 28 000 new cases. Europe is in its fourth wave, which began in September. South Africa is also experiencing a fourth wave of infection, driven by omicron, a variant of concern first detected in November, which is now spreading worldwide.

### COVID-19 vaccination

Widespread COVID-19 vaccination began in earnest this year, after the UK was the first country in the world to have clinically approved COVID-19 vaccines. More than 1 million doses were administered globally on Jan 1, 2021, increasing to more than 44 million on June 28. Notwithstanding some heated disagreements between countries and manufacturers, more than 8·4 billion doses of COVID-19 vaccine have been administered worldwide as of Dec 11. However, this number belies the inequitable roll-out of the vaccines. At the 148th session of the WHO Executive Board, in January, 2021, WHO Director-General Tedros Adhanom Ghebreyesus warned that “the world is on the brink of a catastrophic moral failure”. COVAX, which aims to ensure equitable access to vaccination, has shipped more than 610 million doses of vaccine.

But according to Our World in Data, 75% of the population in high-income countries have received at least one dose of a COVID-19 vaccine compared with 46% in lower-middle-income countries, and just 7% in low-income countries.

“...‘the world is on the brink of a catastrophic moral failure’.”

### Trump out: Biden in

On Jan 20, US President Donald Trump, whose time in office brought “misfortune to the USA and the planet” according to a *Lancet* Commission, did not attend Joe Biden's inauguration as the 46th president of the USA. Kamala Harris was sworn in as vice president; she is not only the first woman but also the first Black and Asian American to hold the post. President Biden's first action was to sign several important executive orders, which included rejoining the Paris Climate Agreement and WHO. Biden has since signed orders to tackle the climate crisis and a memorandum on protecting women's health at home and abroad, as well as proposing a US\$1·9 trillion COVID-19 economic relief package.

### Conflict and health in Ethiopia

The ongoing fighting, which started more than a year ago, between the Ethiopian Government forces and the Tigray People's Liberation Front, saw a systematic blockade of the delivery of supplies, including cash, food, fuel, medicines, and telecommunication to Tigray. Aid agencies documented killings, rape, and destruction of the health system. Tony Blinken, US secretary of state, described the atrocities as ethnic cleansing. An estimated 9·4 million people need food assistance in northern Ethiopia,

and there is a funding gap of more than \$1·2 billion for the emergency response. In Tigray, an estimated 888 000 children younger than 5 years have not been vaccinated against polio and 790 000 children have not been vaccinated against measles, and people need medicines for dysentery, malaria, and scabies. In a neighbouring region, Amhara, HIV treatment has been interrupted for nearly 30 000 patients and more than 360 000 children have not received their polio vaccination.

### Effects of UK aid cuts

In November, the UK Government confirmed that its cut to foreign aid spending in 2020 from 0·7% to 0·5% of the gross national income would continue until at least 2024. The £4 billion to £5 billion in cuts will affect the lives of people worldwide who are helped by the charities and organisations that receive the foreign aid. The WHO Global Polio Eradication Initiative will receive just £5 million compared with £110 million in 2020. The International Rescue Committee will have its funding slashed by up to 75% for Syria and from £139·1 million to £87·2 million for Yemen; and without funding, 11 000 girls in rural Pakistan might not get to go to school. UNAIDS will have its funding reduced by about 80%. The UN Population Fund will have its funding cut by about 85% (£130 million) for family planning. UNICEF's funding will be decreased by about 60%. And there are several other agencies that will be affected by the funding cuts.

### COP26

The Paris Agreement was finalised at the 26th UN Climate Change Conference of the Parties (COP26) in Glasgow, UK, Oct 31–Nov 12, 2021.

COP26 concluded with the Glasgow Climate Pact: nearly 200 countries agreed to keep alive the hope of limiting the increase in the global temperature to 1.5°C, as extreme weather and climate events showed the risks to health and wellbeing.

In China, more than 300 deaths were caused by severe rainfall and flooding in Henan province in 2021, and a dust storm led to the closure of schools and the grounding of flights. The tropical cyclone Seroja killed 160 people in Indonesia, and landslides and flash floods displaced at least 22 000 people. Storm Filomena caused the heaviest snowfall in 50 years in Madrid, Spain. Storm Christoph caused flooding in the UK. More than 10 000 people sought refuge in evacuation centres in Fiji because of cyclone Ana. In the USA, temperatures dropped to -13°C in some areas of Texas, leaving 3.5 million businesses and homes without power due to winter storms, and an extreme heatwave in the Pacific Northwest killed hundreds. Temperatures in Moscow, Penza, Petrozavodsk, and Vologda, in Russia, reached record-breaking highs in June. In Germany, homes and bridges along River Ahr were destroyed by floods. In New South Wales, Australia, heavy rain caused rivers and dams to overflow.

### Afghanistan crisis

Described as “the world’s worst humanitarian crisis” by David Beasley, head of the World Food Programme, Afghanistan has been deserted in its time of need. The US Federal Reserve and Europe’s central banks froze the financial assets of Afghanistan after the Taliban seized control, following the withdrawal of US troops in August. Overseas grants financed three-quarters of the public spending in Afghanistan and these have been greatly reduced. 95% of the population do not have enough food. Nearly 24 million people have been pushed into acute hunger with

the combined effects of conflict, droughts, COVID-19, and economic crisis. Because most of the wheat crops were ruined by drought, prices are increasing. Millions of people, including young children and older people, will go hungry during the winter because delivery of food and other essentials will not be possible in a large part of Afghanistan. 3.2 million children younger than 5 years could have acute malnutrition by the end of 2021. This dire situation is likely to lead to an increase in the number of people fleeing Afghanistan. The gross domestic product of the country could shrink by up to 30%. The European Commission announced a €1 billion support package on Sept 15.

### Abortion laws

Abortion laws are in a state of flux. On Jan 24, abortion in the first 14 weeks of pregnancy became legal in Argentina. Later in the year, Honduras not only banned abortion, but also ratified a legislation for the requirement for at least three-quarters of the Congress to vote in favour to make any future changes to the law. The ban carries a 3–10 year jail sentence for the woman or the medical practitioner. Emergency contraception is also banned in Honduras.

On Sept 1, Texas enacted the most strict anti-abortion law (Senate Bill 8) in the USA, banning abortion after 6 weeks of pregnancy. Its design means that federal courts would find it difficult to block it; private citizens can bring lawsuits against providers and anyone assisting a woman in obtaining an abortion. Also, in Texas, on Dec 2, a law prohibiting the use of abortion-inducing medication after 7 weeks of pregnancy went into effect; to even send the medication in the post would be breaking the law. In December, the US Supreme Court heard arguments on the 2018 Mississippi law to ban abortion after 15 weeks; the court’s decision, which is due in June, 2022, could overturn *Roe v Wade*.

According to the State Council’s new guidelines issued on Sept 27, China, because of its shrinking population, will aim to reduce the number of abortions for non-medical reasons, and men will be encouraged to share responsibility for avoiding pregnancies.

### Malaria vaccine approval

Based on the results of a programme that was piloted among more than 800 000 children in Ghana, Kenya, and Malawi, WHO, on Oct 6, recommended the widespread use of the RTS,S/AS01 malaria vaccine for children in sub-Saharan Africa and in other regions that have moderate to high transmission of *Plasmodium falciparum* malaria. Four doses of the RTS,S/AS01 vaccine should be given to children from the age of 5 months to reduce malaria disease and burden. The vaccine showed a favourable safety profile, was highly cost-effective, and led to 30% reduction in deadly severe malaria. Gavi, the Vaccine Alliance, has approved investment to roll out the vaccine.

### Midwifery 2021

The Year of the Nurse and Midwife was extended into 2021 because of the COVID-19 pandemic. According to *The State of the World’s Midwifery 2021* report, released on May 5 by the UN Population Fund, the International Confederation of Midwives, and WHO, the equivalent of 1.1 million additional full-time sexual, reproductive, maternal, newborn, and adolescent health (SRMNAH) workers are needed worldwide. It warned that the potential to meet the essential SRMNAH care need is lowest in the WHO African and Eastern Mediterranean regions. 1.3 million new dedicated SRMNAH-equivalent worker posts need to be created to close the gap between low-income countries and high-income and middle-income countries by 2030.

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For more on malaria vaccine see [World Report Lancet 2021; 398: 1394](#)

For *The State of the World’s Midwifery 2021* report see <https://www.unfpa.org/sites/default/files/pub-pdf/21-038-UNFPA-SoWMy2021-Report-ENv4302.pdf>