

Pandemic treaty talks are stalling – countries cannot give up

Compromise is needed to ensure progress, but there can be no wavering on access to vaccines and drugs.

Proclamations of equity and solidarity will be heard this week as diplomats meet at the United Nations headquarters in New York City to talk about preparing for future pandemics. But these will be hollow sentiments. In spite of a promising start to talks on the world's first treaty on pandemic prevention and preparedness, negotiations have stalled. Tensions between countries are so high that an agreement by the target date of May 2024 is now unlikely.

Compromise must be found. Without a treaty, the world will remain as unprepared for the next pandemic as it was for COVID-19, which killed roughly 7 million people and cost the global economy more than US\$12 trillion. But there can be no compromise on one thing: there must be equity in access to vaccines, medicines and other supplies needed to save lives.

This issue has been the chief sticking point in the negotiations so far. To break the deadlock, countries must commit to licensing the intellectual property (IP) and sharing the knowledge needed to make vaccines and drugs with qualified manufacturers in low- and middle-income countries (LMICs) in a pandemic. Then, all regions of the world will be able to produce their own vaccines and drugs rather than relying on promises of supplies from other countries that, predictably and understandably, will prioritize protecting their own populations.

But the United States and the European Union have been reluctant to make concrete commitments that would ensure that vaccines and therapeutics are distributed more equitably. And yet, they have pushed strongly for the treaty to include a binding provision that all countries share samples and genomic sequences of pathogens.

Eswatini, on behalf of 47 African countries, has proposed a trade-off. It states that these countries would consider rules on sharing genetic data and other outbreak information provided all member states of the World Health Organization (WHO) agree on an "access and benefit sharing mechanism". It would be a system promising access to data in return for the benefits developed on the basis of those data – such as medicines and vaccines.

The logic of this proposal is compelling. Under existing international regulations, all nations must sound the alarm

and share pathogen data in the event of a disease outbreak. Wealthy countries have the upper hand because they have the research and biotechnology capacity to act swiftly on the information and put it to use making lifesaving products. Countries with less capacity must wait for action by others, and then hope for goodwill.

This imbalance was on display during the COVID-19 pandemic. Take what happened in the case of the Omicron variant of the coronavirus SARS-CoV-2. South African researchers alerted the world to the emergence of Omicron and rapidly shared its genome sequence. And yet the country was unable to obtain COVID-19 vaccines made by US and European pharmaceutical companies for much of 2021.

Make access binding

To lessen the reliance on goodwill, many middle-income nations in Africa, Asia and Latin America are also pushing to make more medicines and vaccines themselves and to expand their own research-and-development capacity. One way to do this is for the pandemic treaty to contain binding stipulations around sharing patents and transferring technology during emergencies. Another way is through concrete commitments from high-income countries to help fund the building of scientific expertise and infrastructure in lower-income countries, along with funding for strengthening regulatory institutions.

A number of countries have also put forward the idea of attaching conditions to taxpayer-funded research to ensure that the results are openly available, that IP is licensed and that international collaborations are enhanced.

Predictably, opposition to all such options is fierce. The International Federation of Pharmaceutical Manufacturers and Associations, based in Geneva, Switzerland, has said it opposes any mechanism that links access to samples and genomes with the distribution of pharmaceutical products. It warns that provisions that mandate IP licensing in an emergency will hamper innovation, and stresses that agreements on drug and vaccine sharing must be voluntary.

Last year, the group created a separate, non-binding agreement called the Berlin Declaration, under which pharmaceutical and biotechnology companies promise to reserve an allocation "of real-time production of vaccines, treatments and diagnostics for priority populations in lower income countries" during a pandemic.

The United States and the European Union, which have historically backed pharmaceutical-industry positions in such negotiations, have also asserted that any effort to transfer technologies to LMICs needs to be voluntary. At pandemic-treaty negotiation meetings, the US representative at the talks, Pamela Hamamoto, has suggested that IP conditions don't belong in the pandemic treaty and are better handled by the World Trade Organization (WTO).

Such arguments show how little has been learnt from the COVID-19 pandemic, and how quickly memories are fading. South Africa and India did indeed co-lead a campaign at the WTO for IP to be relaxed during the pandemic. Although the move eventually had partial backing from the United States, the EU was opposed. And there was a voluntary

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mechanism, called COVAX, to ensure that vaccines and therapeutics reached poorer countries. As *Nature* and others reported, it largely failed because high-income countries and pharmaceutical companies did not keep their side of the bargain (*Nature* 592, 165–166; 2021). In addition, bilateral donations of vaccines promised by wealthy countries often showed up late and near their expiry dates, leaving low-income nations to face surges unprotected. More than one million people are estimated to have died as a result of vaccine hoarding.

A legally binding pandemic agreement is required precisely because promises of equity do not translate into equity in practice when there is a crisis. Some compromise will be necessary. There might need to be provisions that, for example, incentivize innovation by pharmaceutical companies alongside commitments to share IP. But any agreement must put protecting people – no matter where they live – at its heart. There will be another pandemic, and when it comes, the world will again be made to suffer if those who have money and research power repeat their behaviour during COVID-19.

Rich countries must align science funding with the SDGs

Research in poor countries maps closely to the UN Sustainable Development Goals – wealthy nations must follow if the goals are to be met.

This week, New York City is buzzing with scientists. A Science Summit is being held at the United Nations, to coincide with the UN General Assembly. The summit's overall theme revolves around the UN Sustainable Development Goals (SDGs), which aim to end poverty and protect the environment.

Research is crucial for all of the goals, as the Nature Portfolio of journals has been reporting in a series of editorials on the SDGs – from improving how the goals' smaller targets are measured to designing evidence-based methods to achieve them. So far, none of the SDGs is on track to being achieved by the 2030 deadline. To spur science that will help to accomplish the goals, summit organizers are keen to build more research collaborations, across nations and between scientists working in different sectors – universities, businesses, governments and campaign groups.

Science is explicitly recognized in two of the goals: international partnerships are a theme of SDG 17; and SDG 9 includes targets to increase spending on research and development as well as expand the number of researchers.

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But for the world to truly benefit, science-funding agencies in high-income countries need to place a much stronger emphasis on the SDGs for projects they fund.

Low-income countries spend about 0.5% of their gross domestic product on science, whereas high-income countries spend around 3%. But research in low-income countries is much more likely to be aligned with the goals: 60–80% of these nations' scientific publications have some connection to the SDGs, compared with 30–40% in upper-middle and high-income ones. This contrast was highlighted two years ago by the UN science and cultural organization UNESCO, and its report was followed by a 2022 study by researchers at the University of Sussex near Brighton, UK, University College London and the United Nations Development Programme based in New York City. It is hugely encouraging that the poorest countries embrace the SDGs in research, yet it will not have the desired impact because low-income nations accounted for just 0.2% of globally produced science at the time of the study (see go.nature.com/44r28yw).

In July, the International Science Council, a Paris-based network representing research academies around the world, published a report appropriately called *Flipping the Science Model* that was co-chaired by New Zealand's former prime minister Helen Clark and UNESCO's former director-general Irina Bokova (see go.nature.com/48aozg6). Science is mainly funded through national budgets and is often led by influential investigators.

The report's authors propose that countries also create a global fund (worth US\$1 billion). Proposed projects would be assigned to regional 'hubs', enabling researchers to collaborate across borders on global challenges. Studies would be designed by both scientists and affected stakeholders – ensuring that communities are included in the process as partners and that they benefit from the outcomes. The current UN Science Summit similarly heard repeated calls for a global research agenda.

This re-prioritization of funding will need both governments and national funding agencies to think more globally, and to not see national priorities as competing with global ones. The European Union provides one model for how this could be done. EU member states have their own research programmes, but they also contribute to the EU Horizon Europe research-funding scheme (worth around \$100 billion between 2021 and 2027), which explicitly prioritizes international collaborations on global challenges. As of 2022, the fund had disbursed more than \$10 billion to 39,000 researchers in 142 countries. Although 39% of grant recipients are from universities, 29% are from businesses – all working together on projects in health, inclusive societies, climate, energy and food.

SDG advocates must now deepen conversations with national and regional science-funding agencies. Some do not see the SDGs as a priority; others think there are obstacles that are too difficult to tackle. Designing collaborative and participatory funding schemes will be complex, but funding agencies as well as researchers should remember that the SDGs are not optional. If the world doesn't meet them, the consequences will be severe and their progress is everyone's responsibility.