



¹ Oxford, UK

² Geneva, Switzerland

Correspondence to: M Kamal-Yanni
MohgaKY@access2healthcare.net; T
Cueni t.cueni@ifpma.org

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Should covid-19 vaccines and drugs be “not for profit”?

HIV, Ebola, and now covid-19: if a pandemic is not the time for governments to retain control by sharing knowledge and waiving intellectual property rules, then when, asks **Mohga Kamal-Yanni**. But **Thomas Cueni** says that debates about prices and profit are straw men to the real question of why the world failed to provide equitable access to covid vaccines

Mohga Kamal-Yanni,¹ Thomas Cueni²

Yes—Mohga Kamal-Yanni

Inequality in access to medicines and vaccines has been prevalent in developing countries for decades. The HIV epidemic of the 1980s revealed massive faults in the global system of biomedical research—primarily a reliance on market incentives to dictate research and development (R&D) of pharmaceuticals through intellectual property rights. Millions of people died of AIDS, mainly in Africa, for lack of access to the highly priced medicines that could have saved their lives. And when Ebola hit west Africa in 2014, the world discovered that there was no medicine or vaccines because the virus primarily affected poor countries.

Then came covid-19. While over 60% of people in rich countries are vaccinated, less than 20% are vaccinated in Africa. Yet governments maintained the same system, leaving three vital decisions in the hands of drug companies: production, distribution, and price. This allows companies to maximise their profit by supplying countries that could pay the highest price while ignoring poorer ones. For most of 2021 the major problem facing the global Covax initiative was the lack of doses available for supply to low and middle income countries: Covax was able to deliver only the Oxford-AstraZeneca vaccine despite agreements with other companies.¹

Innovation and development

Under the banner of “profit being necessary for innovation,” drug companies fight hard to maintain the current monopoly based system. The situation presented by covid-19 vaccines dismantles this approach and instead calls for a system of manufacturing and distribution of tests, medicines, and vaccines at affordable prices.

Global actions are needed to expand manufacturing sites to ensure universal access to vaccines, medicines, and tests. This in turn requires maximising and diversifying production by sharing technology and know-how and waiving intellectual property rules. Such an approach is totally different from the drug companies’ focus on maximising profit.

A profit based system for vaccines and other countermeasures results in price escalation rather than maximising production to ensure access for all. From research by Imperial College London, the People’s Vaccine Alliance² has estimated that the three mRNA vaccine producers are charging as much as 24 times the potential cost of production. Pfizer made \$36bn (£27.3bn; €32.6bn) from covid-19

vaccines in 2021, and it is expected to have a revenue of \$22bn from its Paxlovid antiviral drug for covid-19 in 2022.³ Moderna and Pfizer are expected to make \$64bn this year from covid vaccines alone. The vaccine apartheid story is being repeated with medicines, as doses are already booked for countries that can pay high prices.

Drug companies claim that high prices and high profits are essential for financing R&D. Yet covid-19 has clearly illustrated that public funding is the cornerstone of innovation. Governments played a key role in funding R&D and manufacturing: the UK public purse funded 97% of the Oxford-AstraZeneca vaccine,⁴ the US government injected \$10bn into the NIH-Moderna vaccine,⁵ and Pfizer and BioNTech received \$800m in R&D funding.⁶ In 11 months, governments paid around \$100bn in funding the development of vaccines and therapeutics.⁷

Moreover, by paying low tax and getting tax breaks, companies benefited from the public purse. For example, despite the US statutory rate of 21% tax, in the first half of 2021 Moderna paid a 7% tax rate and Pfizer 15%. Ordinary people also contributed to R&D through enrolling in clinical trials.

Drug companies claim that they need a high profit to invest in R&D. But the evidence shows the opposite. From 2006 to 2015, big pharmaceutical companies spent 19% of revenue on stock buybacks and dividends but only 14% on R&D, which is also tax deductible. The total payout to shareholders increased from 88% of total investments in R&D in 2000 to 123% in 2018.⁸

The Oxford University agreement with AstraZeneca required the company to prioritise low and middle income countries and sell at non-profit price, and the vaccine was the main one used in Africa for most of 2021. This provides clear evidence not only that products for pandemics should be provided at a non-profit price but that it is feasible to do so.

As taxpayers have been paying the fundamental cost of innovation for pandemic vaccines and medicines, should the public continue to allow drug companies to charge high prices and make obscene profits? If now is not the time for governments to retain control by diversifying production, sharing knowledge, and waiving intellectual property rules during a pandemic, when will they act?

No—Thomas Cueni

Framing the discussion of whether covid-19 vaccines and drugs should be “not for profit” or “non-profit”

is misleading, as these are proxy terms used to tackle the real and important issue of ensuring equitable access to these tools. Reducing the problem to a debate about price is to miss the point, and it directs energies away from the very pressing problems of equitable access to vaccines and treatments.

With the remarkable speed at which covid-19 vaccines have emerged, it's easy to forget that many small and some big drug companies with the longest experience in the vaccine market have thrown in the towel. Of more than 300 vaccine projects, only nine vaccines have cleared the hurdles to get an emergency use license from the World Health Organization.⁹

Biopharmaceutical innovation remains a risky endeavour, where financial incentives are necessary to drive investment in research and development (R&D) and manufacturing scale-up. For example, mRNA technology was successful only after 30 years of trial and error. The R&D pipeline for covid-19 shows that most R&D efforts are still ongoing.

Yes, many of the successful vaccines received public funding to help manage the heightened risk of vaccine development and to scale up during the pandemic, which took place in parallel—without the benefit of knowing whether the vaccines being developed would be approved.

Since the turn of the year the ground has shifted, with supply constraints easing significantly. Acknowledging this, the International Monetary Fund, the World Bank Group, WHO, and the World Trade Organization are now calling for a shift “from vaccines to vaccinations”¹⁰—allaying concerns around the scarcity and supply constraints of vaccines and rightly shifting the focus onto getting vaccines into the arms of people who need them, wherever they are in the world.

As a result of the successful scale-up and trebling of pre-pandemic vaccine manufacturing capacity within a year, we are now confronted with demand constraints that hinder access, owing to a lack of absorption capacity and countries' readiness. As we progress in 2022, companies involved in vaccine manufacturing are committed to working with stakeholders to tackle three priorities to urgently increase access to these vaccines.¹¹

Access to funding

We need to have a debate about why the world failed to provide equitable access to covid-19 vaccines. For instance, a lack of sufficient and early funding for the Covax partnership¹² put it at a disadvantage when rich countries moved from hedging—not knowing which vaccines would work—to hoarding, in securing as many as 10 doses of the early covid-19 vaccines for each citizen.¹³ More than pricing, the biggest hurdles to an equitable vaccine rollout were arguably vaccine nationalism and a lack of early Covax access to funding.

From the first days of the pandemic, having a strong, sustainable, and diverse innovation sector to build on has enabled unprecedented partnerships to tap into the manufacturing capacity in industrialised and developing countries.¹⁴ During the pandemic most companies have been using voluntary licensing, technology transfer, and differential pricing to help improve access. We have seen them price their vaccines and therapies in a way that can help governments ensure little to no out-of-pocket cost for their populations, based on the principles of volume, advanced commitment, equity, and affordability. This approach has been applied to all agreements—whether bilateral or with organisations such as Covax, which has a best price clause as a standard in its contracts.¹⁵

Similarly, we have seen companies step up to fill the gap when supplies to Covax were not arriving from their initial contracts. In February 2022 the global health community celebrated the first billion doses of covid-19 vaccines delivered through Covax, four in five of these vaccines having been developed by Pfizer-BioNTech, AstraZeneca-Oxford, Moderna, or Johnson & Johnson.¹⁶

Drug companies have been vital and essential partners in the largest and most rapid global vaccine rollout in history. While we must urgently tackle the bottlenecks in vaccine administration, it is indisputable that we all need to do more and go further. This includes reflecting on how to achieve more equitable allocation more quickly in the future, with more geographical dispersion of manufacturing capacity as an important component.

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