

Key aspects of the global response to the COVID-19 crisis: an inventory one year after the official announcement of the pandemic

The race for vaccines: Nationalist short-term policy and audacity versus human reason and solidarity

The scientific breakthrough in SARS-CoV-2 vaccine research represents a little-hoped-for opportunity to defeat the pandemic in the near and long term. With a concerted effort for rapid production and equitable distribution, the global community could avoid untold deaths, contain the number of infections and thus the emergence of dangerous mutants, reduce the effects of impoverishment, and limit economic losses. However, even in the face of the immense challenge, many responsible people in business and politics are proving unable or unwilling to put the common good and the future of humanity above the selfish pursuit of profit and power. The most cunning among them even go out of their way to exploit the uncertain situation to manipulate the vulnerable sections of society and incite them against human rights and democracy. Even before the pandemic, it was vital to stand up against the destructive forces that are primarily responsible for environmental and climate destruction, social hardship and inequality, political authoritarianism, and anti-human ideologies. But the pandemic makes this commitment even more urgent, because both the scale of the catastrophe itself and the further options for action to address the other global threats will be decisively determined by which side gains the upper hand.

The USA and Brazil alone account for around 31 percent of the more than 2.6 million confirmed deaths recorded worldwide so far. Reason was not the lack of resources for appropriate countermeasures or the unforeseeable impact of the first wave of infection, but the irresponsible and downright toxic policies of the involved government leaders that caused the catastrophic scale of the pandemic to a large extent. After pandemic control was sacrificed for the sake of power and profit, the development of vaccines was the only hope left. The US Government under Trump obviously put all its eggs in this basket and played it out with ruthless chauvinism. To date, the new Government has also been forced to continue along these lines resulting in fatal consequences for global production and distribution, as well as incalculable risks for medium and long-term effectiveness. Brazil's extreme right-wing government, with its indescribable narrow-mindedness and contempt for humanity, also stood in the way of the rapid implementation of vaccination programmes, thus putting more human lives at risk.

In an international context - there are plausible explanations for the relatively low mortality rate from COVID-19 in sub-Saharan Africa and some other economically disadvantaged regions of the world, such as the young population structure or the slower spread of the virus due to less urbanisation and mobility of the population. At the same time, however, the lack of resources leads to significantly fewer testing possibilities and thus to a higher number of unreported cases of infection and death. Furthermore, the lack of suitable studies on the epidemiological development also makes it difficult or impossible to give a more

accurate estimate of the course and the severity of the pandemic. Until the so-called herd immunity is achieved, however, a number of deaths - despite the demographically lower infection mortality rate - would have to be expected in Africa alone amounting to about 0.6 to 1.2 million, depending on the other protective measures, especially for older people. However, not taking into account the emergence of variants with higher virulence, nor mortality due to the deterioration of care for people with other health problems that are particularly common on the continent. By comparison, approximately 1.2 million people died in the African region in 2019 as a result of the three most devastating infectious diseases, namely HIV (440,000), malaria (384,000) and TB (377,000 among HIV-negative people).

In Africa and low-income countries of other regions, the first distribution phase of COVAX is expected to make it possible to immunise around 3 percent of the population by May 2021. For Africa, a good 32 million vaccinations with 2 doses each are planned for this period. This would at least result in more than 80 percent coverage among health workers (1.4 million) and the most at-risk population groups (>60 years and with pre-existing conditions as well as >80 years: 36.6 million). This can be regarded as a first success of the multi-lateral and global cooperation initiatives in crisis management.

Overall, coverage in Africa is currently expected to be 60 per cent when incorporating African Union (AU) procurements and COVAX deliveries, as well as approved vaccines or those vaccines that are very likely to be suitable according to study results (AstraZeneca/Oxford, Pfizer/BioNTech, Johnson & Johnson/Janssen, Gamaleya Research Institute, Novavax). Consequently, considerable costs will incur, as the AU purchase contracts account for over 60 percent of the total vaccine volume currently planned for Africa. Gamaleya Research Institute's Sputnik V is by far the most expensive offer at US\$ 19.50 per vaccination. US\$ 2.9 billion alone would be due for the above-mentioned 300 million doses or 150 million complete vaccinations. In total, the AU procurements would mean a per capita expenditure of more than US\$ 4 (out of a total investment of US\$ 4.5 billion) for participating countries. According to current economic forecasts, this corresponds to 0.6 percent of the Gross Domestic Product in the poorest countries of the continent (low-income countries).

In particular, some middle-income countries in the Balkan region and the Southern Caucasus (Bosnia and Herzegovina, Montenegro, Northern Macedonia, Georgia, Armenia) currently depend almost exclusively on COVAX vaccine supplies, despite high COVID-19-related mortality there. Here, the European Union's neighbourhood assistance is needed in terms of speedy delivery, but also in terms of strengthening the fragile institutional structures responsible for procurement and distribution.

The promptness, stupid! - Saving lives first and "the economy" second

However, the most important factor in combating a pandemic spreading so rapidly and causing devastating health, social and economic consequences has to be swift and simultaneous far-sighted action. Given these challenges, it must be a central goal of the global community to use all available strategies and mobilisable resources to accelerate the production and distribution of vaccines to reduce the immense and incalculable threats. These include the emergence of resistant or even more dangerous mutants, the

considerable mortality risk even among age groups under 80 and people without pre-existing conditions, the additional mortality from other diseases such as HIV in the event of further overloading of underfunded health systems in the case of uncontrollable Corona outbreaks, as well as the further impoverishment especially in the disadvantaged regions of the world and of socially excluded population groups with the consequence of additional health risks.

After one year of disaster, with 2.6 million confirmed deaths, it should by now have become clear to any reasonable person that all obstacles that could hinder a decisive and effective crisis response really need to be scrutinised and removed. In addition to overcoming financial constraints, it is a matter of removing self-imposed legal restrictions that prevent democratically legitimised governments from taking all necessary measures to protect public health. Patents and other so-called intellectual property rights, which have been enforced internationally since the turn of the millennium with the WTO TRIPS Agreement, are a measure to secure a monopoly for the owners to produce and market of even vital products and technologies for at least 20 years. Even before the pandemic, this repeatedly led to inflated prices of essential medicines, so that poorer countries remained excluded from access. In times of the pandemic, however, this also entails a fatal delay in the expansion of production capacities as well as an increased risk of supply disruptions. It can also not be coherent to declare these so-called intellectual property rights to be inviolable while the effective rollback of the pandemic requires severe restrictions on fundamental personal rights. Such blatant preferential treatment and obvious contradictions of governmental action undermine the trust of the population and thus arguably the most important resource of pandemic control at home.

There is no time to defend monopoly rights

The fastest and most effective way would be to follow the suggestion of numerous developing countries to suspend these legal hurdles by WTO decision for all pandemic-relevant technologies and the corresponding know-how until the global threat is overcome. Germany and the EU member states must no longer stand in the way of this solution approach, but should actively support it and thus consistently contribute to the success of international cooperation. This means not only enabling middle and low-income countries to produce their own drugs (as is predominantly the case with the production of HIV drugs), but also boosting the development and production of vaccines and therapeutics at the European level through joint initiative of as many actors as possible, thus making an urgently needed contribution to global supply. Thus, the EU institutions and the government leaders of the member states should immediately set about creating a network of scientific research institutions, government authorities and the cooperating private sector – of course with civil society participation and full transparency - that is both capable of producing the medical technologies already available in large numbers and also competent to develop innovative products in line with demand. The main tasks should also include technical and scientific support for the development of decentralised manufacturing capacities in the disadvantaged regions of the world.

In order to safeguard technology transfer, to facilitate the research process and to accelerate the worldwide production and distribution of needed medical products, the

general rule has to be set that participating companies, institutions and individuals have to release their intellectual property rights via the patent pool for COVID-19 technologies (C-TAP) of the World Health Organisation (WHO), thus providing the entirety of relevant data material and know-how available to all qualified actors in the field of research, development and production of urgently needed medical products. So far, neither private pharmaceutical companies in Western countries nor government-owned corporations or institutes (Russia, China) have signalled willingness to support this initiative for open science in the service of humanity. A democratically constituted Europe committed to the common good must exert the political and legal pressure to revise this harmful and reckless adherence to self-interest.

Moreover, the suspension of so-called intellectual property rights is fully in line with WTO rules and, in particular, the Doha Declaration, which explicitly confirms the right of WTO member states to make full use of the safeguards provided for in the TRIPS Agreement in order to promote public health and ensure access to medicines. However, a temporary but comprehensive waiver allows for much greater speed and leeway for Government action than would be the case if compulsory licensing were applied. According to the relevant provisions of the WTO agreements – this would require a multitude of individual procedures and decisions. This approach also does not contradict cooperative approaches to action aiming to achieve comprehensive cooperation among all actors. On the contrary, it would make it possible to implement all steps of action quickly without having to conduct lengthy negotiations on the recognition and remuneration of such rights beforehand. This also becomes quite apparent in the historical experience in dealing with the HIV crisis. The willingness of the pharmaceutical companies to cooperate in the worldwide provision of antiretroviral drugs only got going when the competition from generic drug manufacturers that was still possible during the transitional period of the TRIPS provisions - in combination with the global mobilisation of financial resources - made broad access possible in the particularly affected developing countries and the successes thus achieved in reducing the number of deaths gave the lie to all the previously cited pretexts. In the face of an absolute crisis situation facing the world community, the pull of a global initiative will carry even the waverers along, if only because they do not want to risk the rest of their public reputation.

Medicine as the domain of private corporations - a fatal and expensive dependency

The objection that the temporary suspension of monopoly rights would impair the financial and scientific efforts for the development of future medical products needs to be regarded as unsustainable from any point of view. This is a grave insult to all those working in science linking their efforts first and foremost to humane progress. Thus, a profit-oriented incentive system leads to a completely perverse orientation of research interests towards solvent demand instead of the basic needs of humanity. Furthermore, it would cement the dependence of Governments and their populations on powerful and barely controllable private interests, even for the provision of essential goods and services, being in blatant contradiction to fundamental human rights and political democracy.

A closer look at the financial figures of the vaccine providers quite concretely illustrates that the argumentation with the allegedly necessary financial incentives for private investors clearly misses reality. According to its own financial reports, Pfizer, BioNTech's collaboration partner, increased its R&D spending by US\$1.2 billion in 2020, from US\$7.7 billion to US\$8.9

billion, an increase that very likely corresponds to the investment in studies related to the development of the BioNTech vaccine. However, in the same year, profits of US\$12.5 billion were achieved and a total amount of US\$8.4 billion was paid out in dividends. In 2021, sales revenues are expected to increase to more than US\$60 billion, up from US\$41.9 billion in the previous year. With this expansion of around US\$18 billion, the existing contracts for the BioNTech vaccine alone account for around US\$15 billion. However, despite these exorbitant profit prospects, an increase in research expenditure to US\$ 9.2 to 9.7 billion only is planned for the current year - although a massive demand for adapted vaccines or even novel solutions for vaccines, drugs and diagnostics is foreseeable. From this, with the assumed profit rate of 25-30 per cent and the effective tax rate of around 15 per cent, it can be calculated that additional expenditure on research and development in 2021 will at best be equivalent to a quarter of the net profit generated by the BioNTech vaccine, and perhaps less than a tenth of the same.

AstraZeneca's investment decisions and public pronouncements seem even more curious. In 2020, this company reports a stagnation in research spending compared to the previous year, while net profit after tax increased more than two and a half times to US\$ 3.1 billion. A cross-check of the (unredacted) contract texts also shows that the off-take agreement with the EU was concluded two days before the actual agreement with the UK (26 August and 28 August 2020 respectively). This contradicts the submissions of the Chief Executive Officer, who sought to justify the delayed supply to the EU as opposed to the preferential supply to the UK with an earlier conclusion of the contract. The definition of the to be achieved "best reasonable efforts" is also identical in wording in both documents. At any rate, it is quite revealing of the pharmaceutical industry's behaviour if the efforts described herein - "which a company of similar size with similar infrastructure and resources to AstraZeneca" - would implement in the face of the urgent need for a vaccine, de facto implies the altogether unreliable fulfilment of contractual obligations. These are certainly good enough reasons to cast considerable doubt on the trustworthiness of the company's management. All this has to be seen in the light of limited profit prospects compared to the usual margins of the pharmaceutical industry, which are conditioned by the cooperation with the University of Oxford and its branch campuses. The latter, as developers of the platform technology and the vaccine, hold the patent rights and have announced that they will not seek excessive profits from the exploitation of intellectual property rights, at least for the duration of the pandemic. The above facts suggest that the company's priorities will more likely focus on those activities that can generate the highest sales revenues and returns under the prevailing conditions. Efforts that contribute to addressing the global challenge will thus take a back seat.

Thus, despite the immense urgency, pharmaceutical companies have not shown any kind of reaction that would have even come close to the dimensions of the pandemic and the integrity required for its effective control. Investment in research and development of urgently needed technologies remained very limited, and the risk involved was shifted overwhelmingly to public scientific institutions, smaller companies and government budgets. Also, from an economic point of view, the financing of medical research through monopoly prices of the pharmaceutical industry proves to be a highly questionable approach, which in essence leads to the private appropriation of profits and to any losses being borne by the general public.

However, incomprehensibly, the pharmaceutical industry repeatedly succeeds in fooling the public and by saying that profit maximisation is the best driving force behind health research. Superficial or obviously one-sided reporting also serves the ideological narratives of the alleged incompetence of Government authorities and political bodies. In reality, the crux of these decision-making bodies lies in the influence of the pharmaceutical lobby, which ensures a limitedness of thought and action among many of those responsible that is apparently not even reconsidered or overcome in a global emergency. Instead, they look on or willingly join in when internationally positioned corporations perform yet another another act of the equally undignified and monotonous procedure by playing off Governments against each other without having to fear any significant opposition.

The key lesson from the global crisis: Those who help others also help themselves

In parallel, the massive funding gap in the Initiative for Rapid Access to Tools to Fight COVID-19 (ACT Accelerator or ACT-A for short) needs to be addressed as soon as possible. While at least US\$ 33 billion is needed by the end of 2021, only US\$ 11 billion in funding commitments are currently available - despite recent replenishments by Germany, the US, the European Union and other donors. The vaccine pillar, the so-called COVAX facility, still meets needs best with a total amount of almost US\$ 8.3 billion.

On the other hand, those contributions pledged for therapeutics, diagnostics and the necessary empowerment of health systems to implement the measures against the pandemic are completely insufficient. However, as long as vaccination cannot yet provide sufficient protection, these components are most urgently needed to contain infections, to provide treatment options and to generate data and analysis on essential parameters such as epidemiological trends and particularly vulnerable populations. This is also a prerequisite for appropriate prioritisation in the planning of vaccination campaigns and other counterstrategies on the basis of potential endangerment.

It has to be acknowledged that Germany, with a total contribution of almost US\$ 2.8 billion or 2.2 billion euros (including the imputed co-financing of the EU contribution), plays an extraordinarily positive role, especially in comparison to the completely incomprehensible reluctance of many other donors. In terms of financial efforts in relation to economic capacity, Germany ranks second behind Norway (0.109 per cent), with an expected contribution of about 0.062 per cent of the Gross National Income (2021). However, this should also be seen in the context of Germany's underperformance in international cooperation efforts for global health evident in the years and decades before the crisis. As recently as 2018 and 2019, Germany contributed only €1.4 billion per year to public development cooperation in health - notwithstanding significant increases from earlier periods. Yet, around 3.5 billion euros would have been required in order to meet WHO's recommendation of 0.1 per cent of the Gross National Income. In this respect, the current ACT-A contribution just makes up for the deficit for one of these years. Finally, it should be noted that Germany's contributions do not exceed a fair contribution level.

The pioneering role that the German Government has now been actually awarded would give the necessary credibility to launch an initiative for the full funding of the ACT Accelerator. For this purpose, cooperation could first be sought with the relevant

international organisations as well as the European Union in order to realise a new edition of the donor summit of June 2020 and to mobilise the necessary financial resources to overcome the pandemic.

Laying the foundations and creating perspectives for Global Health

The devastating pandemic, which has not spared even the privileged parts of the world, has raised awareness, at least in the short term, of the fundamental importance of health for human development. It should also be a reminder that global crises can only be overcome through the consistent cooperation of all actors. Germany and Europe should take up these insights and use the momentum to support and actively promote a legally binding global agreement - similar to the Paris Climate Accord - for the realisation of the health goals of the 2030 Agenda.

In his statement on the occasion of the UN General Assembly Special Session on the Corona Pandemic in December 2020, Charles Michel, in his capacity as President of the European Council, already outlined broad features of a possible international treaty on pandemics. The G7 Leaders' Declaration of 19 February 2021 notes a commitment to explore the potential of a global health treaty. It is also possible to build on the initiative of German Chancellor Angela Merkel and the government leaders of Norway and Ghana, who wrote to the WHO Director-General in April 2018 to encourage the development of a Global Plan of Action for Healthy Lives and Wellbeing for All. Unfortunately, this process stopped halfway, as the Global Plan of Action presented in September 2019 was limited to improved coordination and collaboration among the 12 health-related international organisations involved in its development. While this is a significant element in improving global health, many fundamental conditions can only be created by the Member States of the United Nations.

This renewed start to address global health problems must not be limited to a narrowly focused approach to controlling international health threats. Unilateral commitments to economically disadvantaged countries lacking dramatic and sustainable improvement in health services and outcomes for their populations would be neither equitable nor effective. Underfunded and poorly staffed health systems will not allow the identification of new risks in a timely manner and will hinder the containment of emerging outbreaks of infectious diseases. Such an agreement can only be successful if it is founded on the basic principles of shared responsibility and international solidarity.

The provision of financial contributions is one cornerstone to bridge the huge resource gaps, especially in low-income countries, both through international cooperation and through the efforts of the countries concerned themselves. This requires a clear and consistent policy for the redistribution of resources and capabilities in favour of disadvantaged countries and population groups. Furthermore, all necessary measures must be defined in order to end economic and political practices leading to adverse health effects on a global and regional level. This includes destructive tendencies of the prevailing social and economic system, ranging from climate change and biodiversity loss to social polarisation and political authoritarianism. So-called intellectual property rights, such as patent regulations and data exclusivity in particular, need to be subjected to a thorough scientific assessment in order to make the necessary adjustments for the sake of public health. In addition, there is need for

increased and coordinated efforts to research and develop health technologies that are publicly funded and primarily focused on the needs of economically disadvantaged countries with a high burden of disease and vulnerable populations. To identify the most pressing health needs and understand the causes of health threats, but also to better target technical and financial resources, independent and comprehensive surveys are required on health-related issues that are based on sound scientific criteria, respect human rights and involve target groups. Beyond health, efforts are needed to enable governments to increase public revenues and to invest additional resources in essential human development interventions.

This is the only way to create the necessary conditions for overcoming the multitude of serious health risks and the causes of exclusion from life-saving services in order to narrow instead of widening the gap in chances of survival.

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