

MONITOR

GLOBAL HEALTH

New Remedies for Resilient Health Systems in Africa

Existing progress and further steps for deeper EU-AU cooperation

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- › Until the beginning of 2021 and contrary to all forecasts, the African continent seemed to be coming through the COVID-19 pandemic better than other regions. However, for some months now, this positive outlook has been clouded by fresh waves of the coronavirus. Throughout the pandemic, the structural problems of African health systems have also become apparent.
- › Containing the COVID-19 pandemic in African nations has been difficult, particularly due to the slow start of vaccination campaigns. When compared internationally, the continent is far behind - primarily due to the prolonged unavailability of vaccines.
- › Yet despite the challenging context, the African Union (AU) and its Africa Centers for Disease Control and Prevention (Africa CDC) have achieved remarkable successes in combating the pandemic. There are many new initiatives aimed at continental coordination in the crisis and increasing the resilience of health systems over the longer term.
- › Since the start of the COVID-19 pandemic, the European Union and its member states have stood alongside their African partners, including through the Team Europe approach, to initially help mitigate the immediate impact of the pandemic.
- › Moreover, the EU and AU have jointly launched new partnerships and initiatives to foster and advance sustainable structure and capacity development in the areas of research and innovation, pharmaceutical regulation and production that contribute to the strengthening of resilient health systems.
- › The task now is to implement the projects initiated in the wake of the global COVID-19 health crisis within the time parameters set out for this purpose. The EU initiatives should build on existing AU strategic objectives, as these are based on the challenges and capacities on the ground.

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COVID-19 in Africa: Pandemic waves encounter sluggish vaccination progress

The coronavirus pandemic is putting pressure on health systems worldwide and highlighting more clearly than ever before the need for resilient health systems for sustainable development. Alongside the central role they play in achieving universal and high-quality health care for populations, the need for resilient health systems for global health security has also become more apparent since the outbreak of the pandemic.

Until the beginning of 2021 and contrary to all forecasts, the African continent seemed to be weathering the pandemic better than other regions. Possible explanations for comparatively low infection and death rates range from demographics and climate, to experience with previous epidemics and the prompt and resolute action that was taken by many African states. The Africa Centers for Disease Control and Prevention (Africa CDC) are credited with playing an instrumental role and achieving notable successes in the continental coordination of crisis response.

Yet this largely positive situation has deteriorated considerably throughout 2021. As a result, many African countries have been struggling with a third wave since May. According to the Africa CDC, a total of 46 African countries have been or are currently affected. Meanwhile, a fourth wave is already emerging in some African countries and is currently affecting eleven countries, including Benin, Burkina Faso, Kenya and Somalia.¹ These new waves are subsiding much more slowly than previous waves due to the increased spread of more aggressive variants of the virus, specifically the Delta variant.² According to the Africa CDC, the Delta variant has been detected in 44 African nations, and the Gamma variant in two so far. Cases of the new Omicron variant, which was first identified in South African laboratories in late November, have so far been detected in four countries, including South Africa and Botswana, sparking fears of another sharp increase in the

number of cases.³ Overall, the total number of recorded cases on the continent now exceeds 8.6 million, and the number of recorded deaths has topped 220,000.⁴

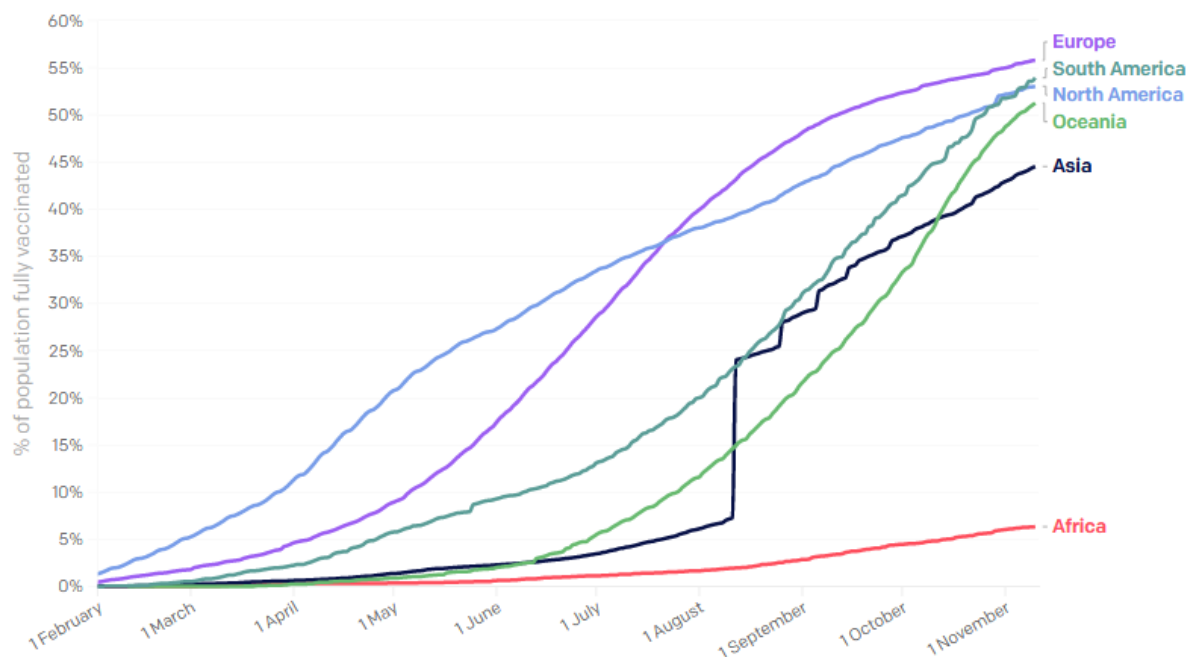
In view of limited testing capacities in some countries and the insufficient data available, a high incidence of unreported infections and deaths also must be assumed. Calculating excess mortality is also only possible to a very limited extent because of the absence of or incomplete registration of deaths in many places. It is therefore only possible to speculate on the number of deaths not caused by the COVID-19 infection itself, but related to the pandemic, for example, because of not receiving treatment due to an overburdening of the health system or out of fear of visiting a hospital.⁵

The battle against the pandemic is complicated further still by the slow start to vaccination campaigns in African countries. For example, only 6.66 per cent of the African population is fully vaccinated⁶ - by comparison, in Germany this rate currently stands at 69.4 per cent⁷ and in the European Union at 66.9 per cent⁸ (as of: 10.12.2021). This is mainly due to the still insufficient availability of vaccines, though the pace of deliveries has accelerated significantly over the past few months. In August 2021, nearly 21 million vaccine doses arrived in Africa through the COVAX Facility - about as many doses as in the previous four months combined.⁹ The deliveries of vaccine doses acquired through the AU initiative African Vaccine Acquisition Trust (AVAT) also began in August. That said, only 15 of the 54 African countries achieved the target of vaccinating the most vulnerable ten per cent of their population by the end of September. By comparison, almost 90 per cent of industrialised countries have achieved this goal.¹⁰ With scheduled vaccine deliveries through the COVAX Facility being cut due to export restrictions in India, manufacturing problems and regulatory delays announced in early September, the goal of vaccinating 40 per cent of the continent's adult population by the end of the year 2021 is now also moving further out of reach. African countries currently have a shortfall of around 275 million doses to reach this target.¹¹ Experts predict that only five African countries - the Seychelles, Mauritius, Morocco, Tunisia and Cape Verde - will reach the 40 per cent target by the end of 2021.¹²

Viewed globally, the African continent is at the bottom of the rankings in this respect, accounting for only around 2 per cent of the vaccine doses administered worldwide as of September 2021.¹³ To date, around 80 per cent of all vaccine doses worldwide have been administered in high-income or upper-middle-income countries. On average, there are now almost 100 doses per 100 people in high-income countries, but only 1.5 doses per 100 people in low-income countries.¹⁴

In addition to the lack of availability, the absence of infrastructure, in particular concerning the required cold chain also impedes the advancement of vaccination progress. Also complicating vaccination campaigns is a considerable level of vaccination scepticism in large parts of the population outside the educated middle class and elites, often resulting from false information regarding the side effects and quality of the vaccines received. While many African countries have now accelerated COVID-19 vaccination with increases in deliveries since August, such challenges contribute to the fact that as of early September 2021, 26 countries had still used fewer than half of their COVID-19 vaccines.¹⁵ By early December, 56.77 per cent of the vaccines available had been administered on the continent.¹⁶

Chart 1: COVID-19 vaccination progress worldwide 2021 (as a percentage of the population that is fully vaccinated)



Source: ONE 2021: Data dive: The astoundingly unequal vaccine rollout, at: <https://bit.ly/3Esz8AA>.

In addition to its immediate impact, the COVID-19 pandemic has also exposed long-standing structural weaknesses in health care provision in many African nations. These include the lack of medical infrastructure and the shortage of trained professionals, but also the largely inadequate capacities for pharmaceutical production and the resulting dependence that most African countries have on imported medicines. Despite declarations of intent to the contrary by the member states of the African Union (AU) within the framework of the Abuja Declaration of 2001, very few states to date provide the necessary financial resources to strengthen their health systems.¹⁷

Consequently, the African continent faces an enormous challenge to minimise further loss of life and negative socio-economic impacts, as well as to draw lessons from the pandemic and make health systems more resilient for the future. Alongside the states, multilateral organisations, above all the AU, play a pivotal role. While there have been remarkable successes in the continent-wide coordinated crisis response, the scale of the challenges means that support from partners is also needed. As a strong partner of its neighbouring continent and the world's largest donor in the field of development cooperation, the EU is a good candidate for this task. In this context, new partnerships have emerged over the past two years to fight the global pandemic and strengthen the resilience of health care systems. The successes that these efforts have already achieved, as well as the potential and challenges that remain for EU-AU cooperation in fostering resilient health systems in Africa, will be discussed in this publication.

Progress in EU-AU cooperation for resilient health systems in Africa

In their coordinated crisis response, the African Union and its member states have demonstrated a remarkable level of solidarity, cooperation, foresight, and determination in containing the virus. Directly after the first COVID-19 case was detected on the African continent, AU health ministers agreed on a joint continental COVID-19 strategy at an emergency meeting in February 2020, which

is being implemented by the Africa Task Force for Novel Coronavirus (AFCOR). From the very beginning, Africa CDC played an important role in coordinating the effort, providing knowledge-based policy advice and communications, training skilled workers, and providing technical support to member states in the form of materials and personnel.¹⁸ This collaborative crisis response has so far largely prevented a catastrophic spread of the coronavirus, which many expected, despite the not very promising conditions given the state of the health care systems in most African countries.

Since the outbreak of the COVID-19 pandemic, the European Union has stood alongside its African partner countries to initially help mitigate the immediate economic, social and health impacts of the pandemic in the affected countries. As part of the Team Europe approach¹⁹, material, technical and personnel support was provided, in addition to funding for the pandemic response. In April 2020 for example, the EU and its partners announced at least 8.1 billion euros under Team Europe for aid activities in Africa. 6.7 billion euros of this sum had already been made available by April 2021.²⁰

In addition to taking appropriate emergency measures to combat the pandemic and mitigate its effects, it is now important to continue to support the efforts of the AU and its institutions and, in collaboration with African partners, create structures that will strengthen the resilience of African health systems in the long term. The pandemic has illustrated the need for a resilient health infrastructure by highlighting various deficits, such as the lack of diagnostic capacity or the dependence of African partner countries regarding vaccine production. Key instruments for enhancing resilience include strengthening disease outbreak prevention systems, building domestic capacities for pharmaceutical production, training medical staff, promoting skills through the sharing of expertise, technology transfer, and the expansion of research capacities.

The pending strategic reorientation of the partnership and the rescheduled EU-AU Summit in early 2022 offer an appropriate framework to build and strengthen solid and sustainable partnerships between the EU and the AU in the health sector.

Key developments in the above-mentioned fields and further potential points for a deepened partnership in pivotal areas are analysed in the following sections.

Strategies and partnerships

Building on the lessons learned from the first months of the pandemic and in view of new challenges - most notably the threat posed by new and generally more aggressive variants of the virus and the inadequate supply of vaccines - the AU and Africa CDC's approach has also evolved. At an emergency meeting on 8 May 2021, AU health ministers adopted **a revised version of the continental strategy, the Adapted Africa Joint Continental Strategy for COVID-19 Pandemic.**

Alongside the coordination of all relevant stakeholders, this strategy emphasises improved prevention, monitoring and treatment (PMT) of COVID-19. Measures in these three areas include promoting the availability of safe and effective vaccines, helping to ensure effective supply chain management, expanding testing and sequencing capacity, more stringent reporting by member states, and creating appropriate training and guidelines to address all variants of COVID-19. The Africa CDC's core functions of coordinating member states and building the capacity of health workers are maintained.

The meeting of the health ministers also saw the launch of the new **4D Partnership**, which brings together Africa CDC, the Secretariat of the African Continental Free Trade Area (AfCFTA), and several departments of the AU Commission to better control future disease outbreaks by taking a

more holistic approach and to better address the socio-political dimensions of health in the context of Agenda 2063. The multidimensional partnership is grounded in technological innovations, particularly African ones, in the fields of big data, machine learning, and artificial intelligence. It reflects on the one hand, the endeavours of a continental and multi-sectoral fight against the pandemic as well as a longer-term recovery in Africa and, on the other hand, reform steps within the AU that are intended to contribute to a better use of synergies. The initiative brings together several projects, including the **Trusted Travel and Trusted Vaccine platforms**. However, little is currently known about the new initiative beyond this information. So, it remains to be seen to what extent this lever will succeed in bringing together the diverse dimensions and stakeholders.

With the aim of supporting the AU, and Africa CDC in particular as key players in these efforts, the EU and the AU launched the **EU for Health Security in Africa: ECDC for Africa CDC** project on 7 December 2020, an initiative to strengthen the AU, its health-related institutions, and its member countries in the prevention, detection, and mitigation of health threats.²¹ The four-year project, funded by the European Development Fund, aims to strengthen Africa CDC's capacity in pandemic prevention and response, promote harmonised surveillance of disease outbreaks on the continent and support the implementation of Africa CDC's Public Health Workforce Development Strategy.²² From 2022 onwards, after a one-year kick-off and implementation phase in 2021, three thematically-corresponding work packages will be implemented. Given that the project is still in the start-up phase, any evaluation at this stage would be premature. Nevertheless, this project has the potential to promote a transfer of knowledge and experience between the European Centre for Disease Prevention and Control and its African counterpart over a reasonable period of time, from which both partners can ultimately benefit.

Another instrument through which the EU supports its African partners in the field of health system strengthening is the **Sustainable Healthcare Industry for Resilience in Africa (SHIRA) financing platform**, newly created in May 2021 as part of the Team Europe approach. This initiative is on the one hand about mobilising private sector investment through the provision of long-term funding, such as investment grants and innovation grants to improve access to basic health care. These include, for example, investments in diagnostic and treatment facilities, as well as in medical research. On the other hand, it is hoped that investments from the European Investment Bank, European Development Finance Institutions, African and international partners, and the private sector will be better coordinated with the help of the platform. As part of a broader Team Europe initiative, SHIRA will also support the creation of manufacturing capacities for medicines, vaccines, and health technologies in Africa.²³

EU and AU foreign ministers also underlined their commitment to deepening cooperation in the field of health at their meeting in Kigali on 26 October 2021. Among other things, they stressed the necessity of mobilising investments in strengthening health systems and health research in Africa, as well as in the expansion of local production facilities for vaccines, medicines and health technologies, even after the coronavirus crisis has subsided. The importance of resilient social and health systems, comprehensive health care provision and access to quality health services in coping with future disease outbreaks was also emphasised. On an institutional level, cooperation between Africa CDC and its partner organisations in the EU is also to be developed further.²⁴ The challenge in the coming months and years will be to translate these declarations of intent into concrete commitments and health system-strengthening projects, based on African strategies and priorities.

Research and innovation

In the area of research and innovation, which is important for strengthening health systems, the EU and AU had already created a platform for regular exchange on research and innovation at their third Summit in 2010 by establishing the **AU-EU High Level Policy Dialogue (HLPD) on Science, Technology and Innovation**. The two partners have expanded their cooperation in this area in the context of the COVID-19 pandemic and declared health one of four core priorities in their research cooperation at a first meeting of the ministers responsible for research from the EU and AU countries in July 2020.²⁵

A concrete outcome of the summit was the launch of the so-called "**Africa Initiative**" in June 2021. This initiative, for which 350 million euros are being allocated from the EU's Horizon Europe research programme, is intended to strengthen long-term research cooperation between international scientists with a view to global challenges in the field of health, as well as to enhance capacity development in research and create synergies with other EU-funded projects, such as the **European and Developing Countries Clinical Trials Partnership (EDCTP)**.²⁶ In order to facilitate scientific exchange between African and European experts, and to help keep policymakers and other stakeholders up to date on EU-AU research cooperation, the European Commission also launched an online portal, the **EU-Africa (EU-AU) cooperation in research and innovation (R&I) portal**, in June 2021.²⁷

A further platform for specialist exchange between scientists from the two continents was the **Africa-Europe Science and Innovation Summit** which took place in June 2021. The summit involved stakeholders from the health sector, among others, who drafted recommendations on how sustainable structures and capacities can be created in the field of clinical research for pandemic prevention and control. These recommendations were used as input for consultations with the **Advisory Group on Research and Innovation for Africa-Europe Cooperation**.²⁸ The advisory group, comprising six African and European experts, was established in May 2021 with the objective of advising the European Commission on how to more efficiently conduct its research cooperation with African partners in various areas, including in the strengthening of health systems. The group will present its recommendations in four science-based policy papers, which are not available at this stage.²⁹

In May 2021, the European Commission also presented a new strategy for its international research cooperation with its **Global Approach to Research and Innovation – Europe's strategy for international cooperation in a changing world**. One of the priorities of the approach is to support science and research in "accelerating sustainable and inclusive development in low- and middle-income countries".³⁰ In the framework of this new strategy, and as part of the EU's comprehensive strategy with Africa, the EU has launched several initiatives to strengthen cooperation and networking between the two continents in the field of research and innovation. These initiatives include the **ENRICH in Africa** project, launched in June 2021 and funded by Horizon 2020. The project aims to promote strategic networking among stakeholders from the fields of business, innovation, and research.³¹ In December 2020, the **ARISE project - African Research Initiative for Scientific Excellence** - was launched to offer support to young scientists in the field of cutting-edge research.³²

In addition to these new European-African platforms in research and innovation, the AU has launched a number of new initiatives since the beginning of the pandemic to mobilise further research capacities. These also relate to existing African strategies regarding health-related research, including the **Health Research and Innovation Strategy for Africa (HRISA)**.³³

As early as March 2020, the **African Academy of Sciences (AAS)**, in collaboration with the AU Development Agency (AUDA-NEPAD), initiated a series of discussions with over 1,400 African scientists and the Africa Task Force for Novel Coronavirus (AFTCOR) technical working groups to generate a priority list for COVID-19 related research in Africa. As well as six broad priority areas, this list also sets out concrete "policy items" that outline the most urgent and feasible research projects against the backdrop of limited financial resources for research in African countries. These include studies on the role of asymptomatic COVID-19 cases in disease transmission, and the further development of clinical data collection systems to support the sharing, comparison and meta-analysis of this data.³⁴ This overview provides important guidance for continental coordination and can also be the basis for partners such as the EU to define common research goals.

One specific strand that has gained relevance in the wake of the pandemic is the issue of capacity for clinical trials on the African continent, particularly over the development of safe and effective vaccines. Globally, fewer than six per cent of vaccine clinical trials are conducted in Africa. The same is true for clinical trials of COVID-19 vaccines - as of June 2021, only 17 of 301 trials were taking place in Africa. In addition, the majority of clinical trials are being conducted in only two African countries - South Africa and Egypt.³⁵ Data on the effectiveness of vaccines for populations in Africa lags behind other regions for this reason, despite considerable experience in conducting clinical trials on the continent, including in South Africa, Kenya, Nigeria and Cameroon.³⁶ However, the shortage of funding is often problematic, as is the uneven development of the necessary infrastructure and regulatory uncertainties.³⁷

To address this, the AU created the **Consortium for COVID-19 Vaccine Clinical Trials (CONCRACT)** in July 2020 to ensure that clinical trials for at least six promising COVID-19 vaccine candidates are conducted, as well as to strengthen the conditions for clinical vaccine trials on the continent in the longer term, including by establishing appropriate infrastructure in all African regions.³⁸ So far, seven African countries have been included in clinical trials for new COVID-19 vaccine candidates through the consortium.³⁹ The European Union is supporting the AU's efforts to scale up clinical research on the continent through the **European and Developing Countries Clinical Trials Partnership (EDCTP)**, a public-public partnership established in 2003 that currently includes 16 African and 14 European countries. The EDCTP provides support for research projects that aim to help identify, treat, and prevent poverty-related infectious diseases.⁴⁰ The African Union, Africa CDC and EDCTP underlined their commitment to continued and deepened cooperation in a joint declaration of intent as recently as September 2021. This deeper collaboration centres on emerging and re-emerging infectious diseases, disease surveillance, capacity building in pandemic preparedness and response, and the One Health approach and data processing. To implement these projects, the AU and EDCTP intend to develop a joint work programme.⁴¹

The AU has also established a number of innovative approaches to improve the application of health-related data, such as the **Africa Pathogen Genomics Initiative (Africa PGI)**. This public-private partnership aims to contribute to public health surveillance, disease outbreak investigation and improved disease control and prevention in Africa through the improved application of genome sequencing technology. Particularly in mostly resource-limited settings, the insights gained from genome sequencing can be used to allocate valuable medical commodities such as diagnostics, medicines, and vaccines more efficiently.⁴² The significance of this initiative is now clearly demonstrated in the case of the new Omicron variant of the coronavirus, which was quickly identified and transparently communicated thanks to the relevant capacities in South Africa. The **Partnership for Evidence-Based Response to COVID-19 (PERC)** has also proven to be an important tool in crisis response. The consortium consisting of international organisations and

private sector players was initiated in March 2020 with AU and Africa CDC as member organisations. Since then, it has been providing social, economic, epidemiological, population and security data analyses from 20 AU member states at regular intervals. In doing so, it contributes to determining the impact and effectiveness of public health interventions and enabling evidence-based decision-making by AU member states and AU institutions. In view of such initiatives, the innovative power of African stakeholders should not be underestimated, and EU support for these projects could better exploit mutual potentials in terms of technology and knowledge transfer.

Vaccines

An important role in Africa's pandemic prevention and response efforts is also being played by endeavours to acquire and distribute COVID-19 vaccine doses for the population, as well as to improve the future situation over access to vaccines by, among other things, building up domestic production capacities. The corresponding targets and measures were set out in the **Continental COVID-19 Vaccine Development and Access Strategy** in August 2020.⁴³

Procurement

As a reaction to the shortage of medical supplies in the first months of the pandemic, the AU and Africa CDC created the **Africa Medical Supplies Platform (AMSP)** in June 2020, a joint digital procurement platform for African countries. Hardly a year after its creation, more than 600 providers are already represented on the platform, many of whom are from African countries. The platform's success has not gone undetected in other regions - the 15 states of the Caribbean Community (CARICOM) have now gained access to the platform at their request, while some Latin American and Pacific countries are seeking to develop their own platforms following the AMSP model.⁴⁴ Since January 2021, in the context of global competition for COVID-19 vaccines and AU efforts under the **African Vaccine Acquisition Trust (AVAT)**, the AMSP's offer has been broadened to include vaccines and necessary equipment for vaccination campaigns, such as syringes and refrigeration units. The platform opened pre-orders for African countries for vaccines in January 2021. The **African Export-Import Bank** (Afreximbank) is providing purchase guarantees for vaccine manufacturers as well as financing options for governments.

The AMSP is thus providing support to the **African Vaccine Acquisition Trust (AVAT)** initiative, which was launched as part of the African COVID-19 vaccination strategy and aims to pool the purchasing power of AU member states to facilitate access to COVID-19 vaccines for African populations. In a combined effort, the AU, through AVAT, secured 220 million vaccine doses from Johnson & Johnson in March 2021, with an option for an additional 180 million doses. These 400 million doses are enough to vaccinate around one third of the population of Africa.⁴⁵ Deliveries of the vaccines provided through AVAT started in August; by the end of November, 33 African countries had received a total of around 21.7 million doses of vaccine from this quota.⁴⁶ Nearly 50 million more doses of vaccine are expected to be delivered to AU member countries by the end of December 2021.⁴⁷

Through AVAT, the AU is demonstrating that African countries are collectively able to secure vaccine doses for their populations on the global market. Nevertheless, the vaccines obtained through the AVAT initiative are insufficient to vaccinate sufficiently large parts of the population. In this context (and due to the lack of their own production facilities), African countries depend on additional vaccine supplies from bilateral contracts and the global distribution mechanism COVAX.

The **COVAX initiative**, jointly launched by WHO, France and the EU Commission in April 2020, aims to equitably distribute two billion doses of vaccine worldwide by the end of 2021, reaching

20 per cent of the population in low-income countries. This target has since been revised downwards to 1.4 billion vaccine doses because of a lack of deliveries. Overall, COVAX is not expected to reach its vaccination targets by the end of the year due to a lack of financial support as well as supply shortages and delays. As things stand (10.12.2021), only 653.6 million vaccine doses have been delivered worldwide via COVAX to 144 countries, including 32 African countries.⁴⁸ In September, the initiative also announced that, with regard to Africa, it will deliver 150 million fewer vaccine doses this year than originally planned. Consequently, the goal of vaccinating 40 per cent of the African population by the end of 2021 is receding further into the distance.⁴⁹

Although COVAX helps to support low-income countries in the procurement of vaccines, Africa CDC has voiced significant criticism against the mechanism. This is primarily because a large proportion of the vaccines made available via COVAX are licensed products that have not yet been approved in the EU by the EMA.⁵⁰ This complicates entry into the EU for people who have been vaccinated with these vaccines and fuels the aforementioned vaccination scepticism in some parts of the African population.

The European Union is one of COVAX's largest donors and pledged a total of 1 billion euros in financial support at the beginning of 2021. When combined with EU member states and EU financial institutions, Team Europe's COVAX contribution amounts to 2.47 billion euros.⁵¹ Additionally, at the World Health Summit in Rome on 21 May 2021, Commission President von der Leyen announced that Team Europe will work towards donating at least 100 million vaccine doses to middle and low-income countries by the end of the year.⁵² According to the vaccination alliance Gavi, a total of 334 million vaccine doses from Team Europe via COVAX are in prospect for 2021 and 2022. However, only a fraction of these - 73 million doses (as of 8 December 2021) - has been delivered to date.⁵³

To advance the global immunisation campaign beyond COVAX, the European Commission also proposed in mid-October to increase the budget of the European Neighbourhood, Development, and International Cooperation Instrument (NDICI) by 450 million euros. An additional 200 million vaccine doses for middle- and low-income countries are to be financed from these additional funds by mid-2022.⁵⁴ However, whether these additional funds will be made available still hinges on the approval of the European Parliament and the EU member states in the European Council.

Regulation

In addition to procurement, a key prerequisite for attaining immunisation coverage and vaccine production targets on the African continent is the establishment of robust regulatory frameworks and well-functioning national regulatory authorities. In the past, severe delays of ten to twenty years in the market introduction of existing vaccines, such as those against hepatitis B and rotavirus in Africa, were partly due to weak and fragmented regulatory systems.⁵⁵ Reliable regulatory frameworks are also essential for public confidence in licensed vaccines and the related willingness to be vaccinated.⁵⁶

For this reason, even prior to the COVID-19 pandemic, the AU had taken steps to improve the regulatory framework for the approval of clinical trials, medicines, and vaccines and to harmonise regulations. A pivotal instrument in this regard is the **African Vaccine Regulatory Forum (AVAREF)**, which was established in 2006 as a platform for exchange and capacity building for African regulators. AVAREF created a common assessment and authorisation process for medicines and vaccines in 2017 in response to the Ebola epidemic, which has since been used regularly and helps to reduce inefficiencies and any overlap or duplication of the work carried out by national authorities. In the current pandemic, AVAREF is working to reduce emergency licensing processes

to a duration of 10-15 days to help ensure that the population has timely access to vaccines.⁵⁷ If this important coordination and harmonisation function is to continue and be scaled up, it requires not only adequate funding from African states and the AU, but also support from international partners. Through the European and Developing Countries Clinical Trials Partnership (EDCTP), for instance, the EU provided financial support for the establishment of a platform that helped to train a total of 30 African regulators who conceptualised the work of AVAREF.⁵⁸ African countries' efforts to strengthen and harmonise their regulatory authorities should continue to be supported from the European side. First steps in this regard, such as the support of the African Vaccine Regulatory Forum by the EDCTP, should be deepened.

There are also hopes for improved continental harmonisation for medical products through the creation of the **African Medicines Agency (AMA)**. The ratification of the 2018 agreement to create the AMA by 15 African states in August 2021 now paves the way for the AMA to be operationalised as a specialised agency of the AU. At present, the required institutional and personnel structures are being created to fulfil the mandate - better regulatory oversight for medicines and vaccines and better continental coordination.⁵⁹ Observers assume that the establishment of the AMA - coupled with the launch of the African Free Trade Area (AfCFTA) - could also make Africa more attractive as a location for the production of medicines and vaccines.⁶⁰ Its European equivalent and role model, the European Medicines Agency (EMA), should continue to assist its African partners with expertise and experience in building the new agency. Already in May 2017, an exchange between representatives of the EMA and representatives of regulatory authorities from East African countries took place. The aim of the exchange was to gather information and experience with a view to establishing a medicines authority in the East African Community (EAC), for which the EMA could serve as a template.⁶¹ With respect to the African Medicines Agency, such exchange formats should be pursued, and knowledge shared.

Production

More than other health crises, the COVID-19 pandemic has highlighted the serious implications of the African continent's dependence on imported vaccines. Presently, only one per cent of the vaccines administered in African countries are produced in Africa; 99 per cent are imported, many of them as part of aid programmes funded by international organisations.⁶² In the current pandemic, Africa is therefore reliant on vaccine imports, which arrive in Africa too late, and in insufficient quantities in times of limited availability and high competition on the market, as well as a partial lack of global solidarity. To avoid such a situation in future crises, the AU and Africa CDC have set a goal of producing 60 per cent of the vaccines needed in Africa by 2040 and have launched the **Partnerships for African Vaccine Manufacturing (PAVM)** to this end.⁶³

To reach this goal, in addition to the strengthening of the regulatory framework already discussed, massive investments in research and development are necessary, as is the establishment of production facilities, the acquisition of licences and the training of qualified personnel. At present, only five African countries have the capacity to produce or fill and finish vaccines or are actively developing such capacity. These are South Africa, Senegal, Egypt, Tunisia, and Ethiopia. Six other countries are currently in talks with international partners about setting up the necessary capacities, and a further six countries have expressed their interest in participating in the production or filling of vaccines.⁶⁴ However, in addition to international partnerships, Africa CDC also emphasises the key importance of regional cooperation in scaling up African vaccine production. The intention is thus to establish five regional centres for vaccine production in Africa and to ensure supplies to African countries from these locations. The AU has so far mentioned Senegal, South Africa and Rwanda as possible locations for this.⁶⁵

The African Development Bank (AfDB) and the African Export-Import Bank (Afrexim) are providing financial support for efforts aimed at establishing African vaccine production. Yet, in addition to African funding, expertise and coordination, the AU and African states depend on the support of international partners, such as the EU, to achieve the ambitious goal. Alongside the provision of funding and expertise, this also involves the granting of licences to produce vaccines and medicines. It was in this context that EU Commission President von der Leyen announced the **Team Europe initiative on manufacturing and access to vaccines, medicines and health technologies in Africa** at the G20 World Health Summit in May 2021.⁶⁶ Initially, this will be allocated 1 billion euros from the EU budget and European development finance institutions such as the European Investment Bank and will subsequently be increased further by the EU member states. This funding will be used, among other things, to establish several regional sites to produce medicines. Investment will also be made in infrastructure, training, and supply chain management.

Taking a first step towards implementing the initiative, Team Europe and Senegal, together with other partners, agreed in July 2021 to jointly build a vaccine production facility in Senegal. The new production facility will be integrated with existing research facilities on the grounds of the Institut Pasteur in Dakar. It is expected to be completed within 18 months and will help reduce the African continent's dependence on imported vaccines and medicines. Once the facility has been commissioned, a monthly production of 25 million vaccine doses is planned for the period up to the end of 2022. In this context, Team Europe not only provides financial support, but also technical support for the implementation of the project with the assistance of its partners, such as the European Investment Bank.⁶⁷

In the long run, these efforts to build up the African continent's own health industry are important steps towards more health autonomy and will reduce Africa's dependence on costly pharmaceutical imports. This contributes to improved health care for the local populations and is an important basis for being better prepared for future pandemics and for strengthening the health systems in these countries. At the same time, the establishment of production facilities generates new jobs and contributes to the diversification of the economy.

Conclusion

This analysis has shown that in the context of the current pandemic, the African Union has launched a number of actions and initiatives with a view to strengthening partnerships and developing continental strategies to improve pandemic preparedness and build medical research and production capacity. The AU and its member states do not rely exclusively on external support but are capable of developing projects of their own, of defining and implementing continental strategies and of expanding the necessary capacities. Nevertheless, given the magnitude of the challenges on the path to building resilient health systems, African countries also rely on support from international partners. This is partly because the required financial resources for the strengthening of health systems are not available in sufficient quantities and there is a lack of expertise and technology in certain areas.

The European Union, for its part, has taken both urgent emergency measures to mitigate the most immediate effects of the pandemic in its African partner countries - notably through the Team Europe initiative - and long-term impact projects, such as the initiative to produce and provide access to vaccines, medicines, and health technologies in Africa. The coordination of European efforts in the new Team Europe approach presents an opportunity to better align bilateral programmes to reduce overlaps and duplications and make better use of potential synergies. However, too often the conception and implementation of EU projects in support of Africa do still

not adequately take into account the priorities and existing strategies of the partner side. According to a study by the German Development Institute, this also applies to the Team Europe approach, which is seen to place the priorities of the EU above those of developing countries.⁶⁸

In many cases, this one-sided prioritisation detracts from the success of the projects and reduces the ability to act or the credibility of the responsible stakeholders on the partner side. The efforts and initiatives from the African side in the wake of the COVID-19 pandemic, which yielded remarkable results in a wide-ranging crisis situation with extremely limited resources, ought to be a clear signal in this regard. The EU should therefore build on these initiatives and the engagement from the region, as the initiatives launched by African partners are specifically grounded in the concrete challenges and capacities that exist on the ground. They also define priorities in relation to health system development in line with their own strategies. Such goal-oriented support requires not only the recognition of African solutions and initiatives, but also improved exchange and the definition of joint areas of action.

At the general partnership and strategic level, the partnership between the European Centre for Disease Control ECDC and Africa CDC is a particularly welcome development, reflecting Africa CDC's remarkable achievements in pandemic response and continental coordination. The support of the EU, both financially and through knowledge sharing, can help to further strengthen Africa CDC's role as a key player in the coming years and build necessary capacity. It will be important that this support builds on the strategic objectives of Africa CDC and its local partners. If this is the case, the partnership can also serve as a model for EU-AU partnerships in other areas.

As far as research and innovation is concerned, the first summit of EU and AU ministers responsible for research in July 2020, which defined health as a priority for research cooperation between the two partners, was an important signal. The initiatives and exchange formats subsequently created should now be actively used by European and African scientists to expand and establish a mutually beneficial transfer of knowledge on important research areas such as clinical or COVID-19-related research. Transparency and commitment are essential in the implementation of promised activities, so that the new momentum created by the COVID-19 pandemic is used to best possible effect for efficient and coordinated research cooperation between the EU and the AU. The danger of fragmentation of research cooperation in view of the many different projects and research endeavours that have been launched in recent months should be prevented by setting out clear priorities and creating synergies between joint projects already in existence.

On vaccine procurement, regulation and production capacity building, the COVID-19 pandemic has provided the impetus for sustainable improvements on the African continent. If resilient health systems are to be strengthened in the long term, both partners need to continue and expand their engagement in this area. The construction of the production facility in Senegal, financed by EU funds, should be followed by further concrete projects as soon as possible to help reduce the African continent's dependency on pharmaceutical imports in the medium to long term. Initiatives created by the AU, such as the Africa Medical Supplies Platform, are already serving as a model for other countries and regions and should be fostered beyond the current pandemic. Particular attention should be paid to the creation of reliable regulatory frameworks for the authorisation of medicines to expedite their entry into the market and to improve the confidence of people at local level in medical products. The EU should continue to provide professional and technical support to its African partners in this area.

Since the outbreak of the COVID-19 pandemic, EU-AU cooperation has gained new momentum in many areas that are relevant to the strengthening of resilient health systems. The will to deepen

cooperation in a spirit of partnership at the thematic, technical and institutional levels was expressed on both sides. The challenge now is to implement and breathe life into the numerous initiatives and projects that have been proclaimed to achieve a genuine improvement in health care on the African continent. This must include a continuation and further development of the cooperation, with due consideration of the respective specific interests of both sides. In view of continuing global health challenges and the health-related Sustainable Development Goals of the 2030 Agenda, EU-AU cooperation on health system strengthening should remain a priority in relations between the two partners, even beyond the current COVID-19 pandemic.

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