ACTaccelerator
ACCESS TO COVID-19 TOOLS

Hosted by World Health Organization

ACT-ACCELERATOR REFLECTIONS COMPENDIUM

Foreword

Dr Tedros Adhanom Ghebreyesus,
Director-General of the
World Health Organization

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The Access to COVID-19 Tools (ACT) Accelerator was conceived as the world faced an unprecedented and escalating crisis, which we did not have the tools to stop. Together with key global health partners, we launched a novel collaboration that repurposed huge parts of the global health architecture to accelerate the development and production of, and equitable access to, COVID-19 tests, treatments, and vaccines. It has been a truly extraordinary and humbling collaboration, demonstrating the power of partnership in the midst of the worst public health crisis in generations.

On 24 April 2020, we launched ACT-A at a special event co-hosted by President Macron of France, President Von der Leyen of the European Commission and Melinda Gates, which brought together dozens of heads of state and government, heads of international organizations, civil society, NGOs, industry and others. We shared a common ambition to do things very differently to previous epidemics and pandemics, to harness the power of close collaboration to ensure that everyone, everywhere could access the tools needed to fight COVID-19.

We established new ways of working, with integrated teams pulling together to evaluate, regulate, procure, allocate, and deliver over 1.9 billion doses of vaccine and nearly 180 million tests, as well as lifesaving therapeutics, oxygen and personal protective equipment (PPE). Ultimately, ACT-A deployed 80% of the tests used in Africa in the first year of the pandemic, and the vaccines pillar, COVAX, supplied 80% of the vaccines delivered in low-income countries.

Reading the reflections in this compendium, from the broad range of partners that make up ACT-A, makes me immensely proud of this partnership, and of WHO’s role as its secretariat. I am thankful to the thousands of people and organizations behind ACT-A’s impact, from the health workers who are delivering vaccine doses, rapid tests and lifesaving oxygen in over 100 countries, to the leaders and staff of our ACT-A agencies, our ACT-A Special Envoys, civil society colleagues, industry representatives and more who have come together on Zoom calls every Thursday night for three years, to help drive our push for equity.

As host of the ACT-A Hub, and through our involvement in every pillar of ACT-A, WHO itself has played a key role in this collaboration, from setting target product profiles, through managing regulatory processes, developing policy, providing technical guidance, establishing the innovative COVAX No-Fault Compensation programme, administering product allocation mechanisms, and working with our more than 150 country offices to help countries deliver the tools that were so desperately needed.

We are not finished; ACT-A partners will continue to make COVID-19 tools available to all countries, with a particular focus on high-risk populations, as part of our regular work. We will also continue to coordinate and connect until COVID-19 is over as a public health emergency of international concern – and beyond, as needed.

Our collaboration has faced significant challenges, from insufficient and late financing, to supply shortages, export bans, nationalism and misinformation. As we look to how we can best fight the next pandemic – which we know will come – we have vital lessons to take forward from ACT-A about what works and what needs to be improved.

The ACT-A partnership has demonstrated that when the need arises, our global health organizations, countries, scientists, civil society organizations and industry can pull together in pursuit of equity. Now we are also embarking on the next phase of our work, to build on the legacy of ACT-A by addressing the shortcomings in its design to ensure that when the next pandemic emerges, we have even more robust ways of working together for a safer, healthier and fairer world.

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Cyril Ramaphosa,
President of South Africa

The ACT-Accelerator has been an unprecedented partnership in the fight against COVID-19, bringing together governments, scientists, businesspeople, civil society, philanthropists and global health organizations. This partnership ensured the delivery of more than 1.9 billion vaccines, almost 180 million COVID tests and over US$ 2 billion worth of personal protective equipment, as well as brokering landmark agreements to increase the supply of medical oxygen to low and middle-income countries (LMICs). As the end of the ACT-A Transition comes, we are adapting to a new reality, and crucially, have learned lessons on what we need to do to be fully prepared for the next pandemic.

Building on the ACT-A experience, we need a permanent medical countermeasures platform that operates within a global collaborative framework. Its work must be underpinned by principles of transparency, inclusivity, equity and accountability. We also need stronger health systems, as the bedrock of future pandemic prevention, preparedness and response, with countries and regions empowered to declare public health threats and request technical and financial support. All regions should have pharmaceutical manufacturing and distribution capabilities, and most importantly, we need legally binding mechanisms for collaboration. This will facilitate priority setting, collective investment, the sharing of know-how and trade policies related to research and development (R&D). There needs to be contingent financing to support countries immediately after a public health emergency is declared. None of these goals is attainable without global leadership that is inclusive, representative, transparent and above all, accountable.

I thank the ACT-A Facilitation Council, and in particular its working groups, for the great work that has been done in responding to this pandemic. Together with Norway, I have been proud of the role played by South Africa in co-chairing the Council. We have worked well to coordinate this important part of the international COVID-19 response, and I believe that this experience has shown that only through meaningful partnerships between countries can we tackle a global crisis of this nature and scale.

Jonas Gahr Støre,
Prime Minister of Norway

Three years in, the COVID-19 pandemic is in a new phase. COVID-19 will stay with us, but we now have the tools to deal with it. The Access to COVID-19 Tools Accelerator (ACT-A) was set up as an ad-hoc mechanism during an acute crisis. Through the ACT-A partnership, US$ 24 billion were mobilised, the largest resource mobilisation for health in history. 1.9 billion vaccine doses and nearly 180 million tests have been delivered. I would like to thank all partners and stakeholders who have contributed to this collective effort.

There will be new outbreaks of infectious disease, and we can expect this to happen more frequently and with greater impact. To respond effectively, we must use what we have learned from ACT-A to enhance global health security. As co-chairs of ACT-A, South Africa and Norway have experienced how difficult it can be to mobilise resources during a crisis. We must make sure we do not have to rely on ad hoc financing in future situations. Funds need to be available, based on agreed commitments. Investment in pandemic preparedness, prevention and response is cost-effective. It will cost far less than the trillions the world has had to spend because we were not prepared for COVID-19.

As the independent ACT-A evaluation shows, we need an inclusive mechanism for coordination and financing to be in place from day one to deliver on goals for equitable access.

***Stella Kyriakides**, Commissioner for Health and Food Safety and **Jutta Urpilainen**, Commissioner for International Partnerships, European Commission*

The ACT-Accelerator has seen the world come together, like never before, around the important cause of securing equitable access to medical countermeasures for all. It has been a shining example of effective multilateralism and delivered impressive results, with 1.9 billion vaccines delivered to 146 countries and nearly 180 million tests carried out.

We are proud of the European Union's (EU) contribution to this collective effort. But together we can – and must – do more and do better. This means listening to a wider range of voices, especially our partners in the Global South. We also need to tackle the root causes of the inequitable access to medical countermeasures, which the COVID-19 pandemic has highlighted.

With this in mind, the EU has defined a new Global Health Strategy that resets our engagement in global health and strengthens our partnerships with the rest of the world. One key area of engagement is working with Africa, Latin America and the Caribbean to enable them to produce more vaccines, medicines and health technologies locally. A broader geographical spread of manufacturing and research sites and clinical trial capacities is essential in being better prepared for future outbreaks, and better able to respond to them.

We must now build on the positive experiences and the lessons that we have drawn from ACT-A to develop a medium-term approach that delivers equitable access to countermeasures, as part of a stronger global architecture to deal with future health emergencies.

Sierra Leone: the last mile of COVID-19 vaccine delivery

Sierra Leone, a coastal nation of 7.5 million in the West African tropics, was well on its recovery path from a hard bout with Ebola from 2014-2016 when the COVID-19 pandemic arrived.

Medical care is still hard to access in large parts of the country. While Sierra Leone was one of the first western African nations to receive COVID-19 vaccines through COVAX and bilateral partnerships — beginning its vaccine rollout in March 2021 with a campaign targeting health workers — by March 2022, Sierra Leone had only vaccinated 14% of its population.

Thanks to strenuous efforts to reach remote parts of the country, a year later, Sierra Leone had administered 7.8 million doses of COVID-19 vaccines, resulting in 52% of the population receiving primary vaccination coverage against COVID-19 by March 2023, reaching 70% target population vaccination coverage by December 2022.

The community nurses and mobilizers in the Northern Province district of Bombali, as in other parts of the country, have been a crucial part of the hard work to reach very remote communities and villages.

“The biggest challenge that we have is accessing the patients in the remote villages. Many of the communities can only be reached by bike or on foot, which becomes very difficult in the rainy season,” says Nurse Koroma.

Masselleh Community Health Post is approximately 20 kilometres of dirt road from the nearest city, Makeni, and serves approximately 3400 people – mostly farmers in hard-to-reach communities. Bombali District in Sierra Leone features lowlands between two long rivers, the Rokel and Mobole; Nurse Kai, accompanied by community mobiliser Jeremiah, sometimes needs to use dugout canoes to visit patients.

Mamanso and Mansunthu villages are located next to one another in Karene District. The nearest health facility serving the villages is five kilometres away on small dirt roads often only accessible by motorbike or on foot. The two villages are separated by a one-kilometre track which requires crossing a locally made bamboo bridge during months when the river level is high. Many of Mansunthu's 50 residents are elderly and unable to make the river crossing. So, nurses and community mobilisers do the walking.

Community mobilizers such as Jeremiah speak local languages such as Temne and Limba. Born and raised in Makontakay, Jeremiah knows the area and the communities well, and is trusted: he loves working in the health sector, and dreams of becoming a doctor.

"I feel really good to be able to help my people. I can see their health improving and I know I am contributing to that," he says. "As a mobiliser we are role models, so it's important that people see us doing the right thing like taking the COVID-19 vaccine. When others saw that I took the vaccine, it gave them courage to take it themselves."

Sheka, a resident of Mamanso village, Sierra Leone, had earlier refused the vaccine. After seeing a friend take it, he decided he would get his first dose after all.

"I was afraid before – rumours abounded when the vaccination started that whoever receives that vaccine will die," he said. "But I have seen my friends take it and they are all alive and healthy, so I thought it must be safe. I'm really happy now because I don't want to be the only one without it."

Chief Almamy, the chief of the village of Makontakay, came for his second dose of COVID-19 vaccine from a mobile health team on 8 December 2022.

"I'm really happy that they brought the vaccine to our community," he said. "It is really important that they come here with the vaccine because most people in this community are farmers and can't afford to go to the town in search of the vaccine. Before the mobilisers came, we were all very afraid to take the vaccine. No one wanted to take it because they thought it would kill them. But when they came and talked to us about the virus and the vaccine most of us changed our minds. Many people here have even had three doses!"

Since March 2021, when Sierra Leone first introduced COVID-19 vaccination, COVAX partners (CEPI, Gavi, UNICEF and WHO) – including the COVID-19 Vaccine Delivery Partnership (CoVDP): a special initiative established to support furthest-behind countries – have helped support the delivery of nearly 8 million doses of COVID-19 vaccines to the country. Since the initial rollout, vaccination of eligible members of the population has significantly improved.

In January 2023, the rollout was further boosted by the provision of two Land Cruiser vehicles, 250 motorbikes, six computers and accessories, and 300 tablets with power banks worth over US$ 2.8 million, which were handed over to Sierra Leone's Ministry of Health and Sanitation. These funds also supported the strengthening of routine immunisation, health systems and improving child health care services. In addition, 15 Peripheral Health Units (PHUs), and four District Vaccine Stores, will be connected to solar powered systems, and two additional vehicles, one refrigerated van and 150 solar refrigerators are expected to arrive in Sierra Leone by March 2023.

Continued support to Sierra Leone and other COVAX participants will be provided to support them in reaching vaccination targets, particularly the protection of high-risk groups, including with boosters. This will be done while working to integrate COVID-19 with routine immunization and strengthen systems to make them resilient against any health threats.

The community-led action programme mentioned in this article is funded by USAID and is being implemented by UNICEF alongside GOAL Sierra Leone.

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Dr Ngozi Okonjo-Iweala,
WHO Special Envoy for the ACT-Accelerator; Director-General, World Trade Organization

One of the most creative global responses to handling the COVID-19 pandemic was the development of ACT-A. With speed and urgency ACT-A emerged as a coordinating mechanism for assessing the needs of developing countries for medical countermeasures to fight the pandemic and developing solutions to meet those needs.

ACT-A provided a unique forum at the WHO for policymakers, experts and organizations focused on COVID-19 vaccines, therapeutics, and diagnostics as well as health systems strengthening, logistics and distribution, research, and development to come together to forge solutions to help poor and middle-income countries deal with the pandemic. This included successfully raising billions of dollars in financing.

ACT-A helped global decision makers forge consensus on and deliver solutions to the worlds Covid 19 challenges. Its operations provided support and legitimacy to GAVI's COVAX facility one of the most effective instruments for fighting Covid19 through its ability to get vaccines to poor and middle-income countries alike. Reflecting on ACT-A, I think it is fair to say that despite its challenges, it delivered on its mission of global cooperation, coordination, and collaboration to fight the pandemic in both rich and poor countries. If no one was safe till everyone was safe, then ACT-A was that instrument that gave meaning to this oft repeated truism of the COVID-19 pandemic.

As it transitions, the rich lessons it provides in creativity and innovation in the face of a crisis must be kept squarely in mind!

Peter Sands,
Executive Director of The Global Fund to Fight AIDS, Tuberculosis and Malaria

In early 2020, we were suddenly confronted with an unknown and highly infectious coronavirus. People were dying, health systems were overwhelmed, and considerations of equity were tossed aside. Rich countries hoarded while poor countries did without.

To help countries respond to the pandemic, the Global Fund created the COVID-19 Response Mechanism (C19RM) and enabled countries to reprogram existing grants. While COVAX focused on vaccines, C19RM covered everything else that countries needed to fight COVID-19, including diagnostics, personal protective equipment, oxygen, novel therapeutics and health system enhancements, plus actions to mitigate the deadly knock-on impact it had on HIV, TB and malaria. We did not work alone: together with nine global health partners, we co-founded the ACT-Accelerator.

ACT-A was a novel mechanism to coordinate the responses of the global health multilaterals. Through ACT-A, we harnessed our complementary capabilities. Agency heads met every week to discuss our collective priorities, issues, and the evolution of the pandemic. Teams worked together across ACT-A's four pillars.

The Global Fund co-led three of ACT-A's pillars. We brought to ACT-A 20 years of experience of fighting pandemics, while drawing on the expertise of our partners. It wasn't all smooth: For example, the Global Fund's model empowers countries and puts communities at the center; in ACT-A, that approach met more top-down models.

ACT-A demonstrated the power of collaborative leadership and flexible partnership. We learned from COVID-19 and ACT-A that pandemic preparedness and response relies on strong country health and community systems and on dependable partnerships.

***Omar Abdi**,*
Deputy Executive Director, UNICEF

The ACT-A partnership was unprecedented in speed, scale and complexity. Drawing on the comparative strengths of agencies at global, national and community levels, it delivered COVID-19 countermeasures in record time. UNICEF procured and delivered lifesaving vaccines, tests, treatments, personal protective equipment, safe injection and cold chain equipment to those most in need – as well as advocating for equitable access and supporting risk communication and community engagement (RCCE).

ACT-A partners mobilized significant resources to reach vulnerable communities, but its efforts were hindered by challenges to global cooperation around supply chains, meaning fair and equal access to COVID-19 tools was only partially achieved. Indeed, the pandemic underscored how inequalities in power and resources threaten our shared commitment to global health security and sustainable development.

Partnership successes and challenges have yielded valuable lessons. While ACT-A was an effective global platform for coordination, operational action was led by national governments with support of UN agencies and local partners. The partnership structure made integration of upstream systems with downstream programmes challenging. Insufficient resources to strengthen primary healthcare systems and the capacities of community-based healthcare workers exacerbated last-mile delivery challenges.

Greater investment in strengthening healthcare and related systems, especially at community level, will be key to preventing and controlling future outbreaks and mitigating their socio-economic consequences. Communities and civil society organizations remain critical to building trust and promoting uptake of countermeasures. Innovations and investments made during COVID-19 must now be leveraged to enhance both global preparedness and strengthening of community-based health systems and workforce.

***Stephanie Seydoux**,*
Ambassador for Global Health, France (2018-2022)

I was there for the 'birth' of ACT-A and remember those early days trying to understand what was going on with this pandemic. The leadership in France had a clear idea that this unprecedented challenge merited an unprecedented collective response, led by governments. Solidarity was essential between countries of all income groups, and there was a clear conviction that WHO needed to be at the centre of this effort.

In April 2020, President Macron convened the first meeting of what would become ACT-A, with a proposal to agree upon the fundamental principle of equitable access. The French leadership was very keen to see health systems and delivery focused on as part of the response, at a time when most of the emphasis was on the upstream aspects. We knew that in time, it would be vital to focus on getting any tools that were developed to the communities that most needed them.

Looking back, ACT-A was the best that could be done at the time as an emergency response to the crisis, and France feels a sense of pride that ACT-A managed to bring together key players who could have gone in a different direction. As a collaborative platform, it undoubtedly mitigated the worst of the freefall that might otherwise have come to pass. A key learning is that in the absence of a plan, market forces are what prevail – with some advantages, but many problems in terms of equitable access. If we are to fight a future pandemic more effectively, there is much that needs to be done differently around collective governance, allocation and expanded production capacity. In a situation where everyone needs the same product at the same time, how do you make sure it's developed and produced rapidly, but also allocated fairly and efficiently? That's the question we need to solve now.

***Dr John N. Nkengasong**,*
Director of the Africa Centres for Disease Control and Prevention (Africa CDC) (2016-2022)

The goal and spirit of the ACT-A initiative – cooperation and solidarity in the face of a rapidly evolving response effort – was exactly what we needed in a time of global crisis. However, there were three major issues with implementation. First, even though COVAX was ultimately able to deliver vaccines, it did so under a heavy handicap, as high-income countries chose not to use the self-financing mechanism and instead cut the line. Second, ACT-A suffered from a lack of clear communication with lower-income countries, promising delivery at an accelerated timeline and then failing to update in a timely fashion when delivery was significantly delayed. Third, when regional approaches such as the Africa Vaccine Acquisition Trust (AVAT) emerged to enable financing, it was initially unwilling and eventually unable to effectively collaborate with the mechanism, further delaying vaccine access in the region.

Going forward, it will be critical for future medical countermeasure efforts to more actively integrate and operationalize their efforts through regional and national structures. It is also essential for global health donors and stakeholders to accelerate efforts to establish a strong foundation of regional manufacturing of pharmaceutical products (vaccines, diagnostics, therapeutics and PPE) to improve access to products for the next outbreak.

***Dr Richard Hatchett**,*
Chief Executive Officer, Coalition for Epidemic Preparedness Innovations (CEPI)

Within its domain, and as a formalism, the Access to COVID-19 Tools Accelerator (ACT-A) was a novelty. It represented the sustained, collaborative commitment of its members to work together in the midst of a global crisis to combat inequity and deliver the benefits of science to the poorest countries.

Let us be candid in acknowledging that its success in meeting that aspiration was mixed, at best. Nowhere did it succeed entirely; but neither, anywhere, did it fail totally. It was not within the gift of the constituent organizations to ensure "success," whatever that might have looked like; and where it failed it was not for lack of commitment or effort. Its failures were not due to bureaucratic indifference, poor governance, or graft, but rather were a function of the magnitude and scale of the challenge it set for itself. It was, in a sense, doomed to fall short, but in falling short it helped the world immeasurably and probably helped preserve several million lives in consequence.

As with any product of human ingenuity, the model represented by ACT-A can be improved. Its successes and failures, as well as the obstacles, political and structural, that it faced, should be evaluated carefully. The ultimate challenge is to engineer a global system for the development, production, and distribution of medical countermeasures that renders equitable access to its outputs as a function of its design. Whatever succeeds ACT-A needs to move us in that direction and see the creation of such a system as its goal.

***Dr Ayoade Alakija**,*
WHO Special Envoy for the ACT-Accelerator; Co-Chair, African Vaccine Delivery Alliance

What an extraordinary privilege it has been to have a front row seat to the inner workings of the global health community as we grappled with the unprecedented challenges brought about by SARS-CoV-2. The unwavering commitment and unparalleled collaboration between agencies through ACT-A have saved millions of lives.

The tireless dedication of our heads of agencies (and teams) week after week to accelerate the production of and access to countermeasures is a priceless gift that we must cherish and safeguard for future generations.

As one who has lived and worked in the global south (from Africa, to Asia-Pacific, to the Americas) over the entire course of my 25+ year career, I have had firsthand experience navigating the diverse and complex contexts of emergency and pandemic preparedness and response. In the past three years, from attempts to secure countermeasures for Africa to coordinating delivery and access across the world, I have borne witness to the multifaceted challenges we have faced during this unprecedented crisis. The lessons we have learned from ACT-A are profound and multifarious, and we must humbly and empathetically reflect upon them.

Looking forward, we have the opportunity to embed authentic inclusive participation and regional expertise from the outset in pandemic preparedness and global health security frameworks. Models such as the African Vaccine Delivery Alliance (AVDA) have demonstrated the ability to bring together experts from across the public sector, regional finance sector, truly local CSOs and critical stakeholders who bring insights, expertise and geopolitical realities to the table.

How can we mitigate the inequities that were exposed during this crisis and ensure that they are not repeated in the future? The time has come for a PACTT: Preparedness, Access, Countermeasures, Tools, and Trust. And here I emphasise trust. Trust must be our guiding light, our cornerstone — we must aspire to build a PACTT that not only accounts for our successes, but also encapsulates the lessons we have learned.

Peru: oxygen plants saving lives

Medical oxygen is essential for patients with a host of respiratory illnesses, including severe COVID-19, tuberculosis, lung disease and pneumonia. But in many low- and middle-income countries, medical oxygen has been in extremely short supply. Even before the pandemic, 9 in 10 hospitals in low- and middle-income countries lacked access to oxygen therapy, and 800,000 children die each year due to pneumonia.

As COVID-19 cases surged across Peru in early 2021, many people had no choice but to stand in line for hours on the streets of the nation's capital city, Lima, as they or their loved ones struggled to breathe. They weren't lining up for masks, tests, or sanitizer. They needed oxygen.

78-year-old Leoncio Carrión arrived at the hospital gasping for air and battling pulmonary fibrosis, his breaths becoming shorter by the day. Had he come in just weeks earlier, he may not have survived. The hospital in which he had arrived, Rosa Sanchez de Santillan Hospital in Ascope, a town in Trujillo, Peru, had just acquired a lifesaving resource: medical oxygen. Several tons of it were now being supplied by an oxygen plant newly repaired by engineers working with Partners In Health (PIH), through the BRING O2 project.

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BRING O2 is an initiative to accelerate access to safe, reliable, and high-quality medical oxygen in five countries: Malawi, Rwanda, Peru, Lesotho, and Madagascar. Funded by ACT-Accelerator Therapeutics co-lead Unitaid and completed in partnership with Build Health International and Pivot Madagascar, it has facilitated over a dozen oxygen plant repairs and staff training. Unitaid leads the ACT-A Oxygen Emergency Taskforce, which was formed in 2021 to focus attention on this essential medicine.

“We did not have a separate area, health personnel, [or] medical supplies to care for COVID-19 patients,” says Ana, a nurse at the Rosa Sanchez de Santillan hospital. “We witnessed the loss of many people’s lives who did not have the chance to receive oxygen.”

Across the country from Lima to Trujillo to Arequipa, Partners In Health has repaired 20 oxygen plants. These plants provide between 10,000 and 50,000 litres of oxygen per hour, enabling oxygen tanks to be refilled and bedside oxygen outlets to provide a steady flow of the lifesaving resource to patients.

Before Partners In Health’s repair work in Ascope began, the oxygen plant at the hospital was rundown, leaving a town of more than 6,800 in northern Peru with virtually no access to medical oxygen. Over two months of repair work followed, along with training for hospital staff. The team also performed a simulation of a COVID-19 surge and how it would impact oxygen supply, identifying gaps in care delivery where every second, every breath, counts.

Now, thanks to that work, the hospital has a fully operational oxygen plant, which has provided oxygen therapy for more than 200 patients in Ascope and surrounding areas.

Along with each installation or repair of an oxygen plant, Partners In Health has trained biomedical engineers and technicians on how to use and maintain the equipment. The BRING O2 initiative also opened five oxygen centers to help patients access lifesaving oxygen without occupying an ICU bed. These centers are meant to prevent hospitals, particularly ICUs, from being overcrowded with patients who require oxygen and monitoring, but not intensive care. The centres provide patients with beds, oxygen concentrators, and 24/7 care.

“Having medical oxygen available 24 hours a day means having the possibility of saving [many] lives,” says Dr. Luis Cáceres, a doctor at Rosa Sanchez. “We all deserve to receive the best health care and delivery, [provided] with quality and equal opportunity.”

***Loyce Pace**,*
Assistant Secretary for Global Affairs, U.S. Department of Health & Human Services

COVID-19 spurred a level of collaboration across major global health institutions that many countries and communities had been seeking for some time. We have seen unprecedented resources devoted to global health in recent years, but limited commitments to joining forces across priorities to maximize shared efforts and goals. What often happens in emergencies is people act with who and what they have. That makes sense, but there are blind spots and pitfalls to this approach. What happens when key players aren't at the table at the same time?

Of course, urgency should sometimes override perfection, but could waiting on the right people save wasted efforts or improve impact down the line? Going forwards, it's important to consider how we set up a system in which a broad set of actors or mechanisms are readily available to avoid delays. Before this pandemic, we often heard, 'It's too complicated to work together.' Now, we know that's not true, as shown by the ACT-A partnership and the multiple other alliances that formed during COVID-19. We also heard, 'There's not time to wait on others or build a system where they fit in', but forcing a smaller, faster option isn't always the best course of action either. And, sadly, the belief that 'The world will do right and good when required' has not born out entirely. We need incentives and rules that drive equity.

***Gordon Brown**,*
WHO Ambassador for Global Health Financing; former Prime Minister of the United Kingdom

When COVID-19 spread throughout the world infecting millions, our health workers, scientists, researchers and international agencies responded at speed, with commendable dedication. Within that, the ACT-Accelerator was a remarkable collaboration to accelerate the development, production and equitable access to COVID-19 vaccines, tests and treatments, and the willingness of so many partners to work together is to the credit of all involved.

COVID-19 showed the world at its best and its worst - the incredible achievements of developing a vaccine in record time, but then the stark failure to inoculate the poorest continents of the world, with ACT-A's work undoubtedly bridging the gap. But we cannot escape the fact that the world was caught off guard - and the lack of rapid financing for the global COVID-19 response undoubtedly cost lives. The US$ 50 billion estimated in 2021 by the OECD to vaccinate the world paled in comparison to the trillions lost across the pandemic in global economic output - yet many wealthier nations were unwilling to pay their 'fair share' to help low-and-middle income countries gain access to lifesaving tools. In the future, these life-or-death choices should not depend on sending round a begging bowl. A key learning from the COVID-19 experience is the need to negotiate better 'rules' of the game, as is taking place in the INB Pandemic Accord process, and also to devise a fairer, more sustainable burden sharing model for global health funding, through innovative financing and increased national investments, as well as more flexible funding from international financing institutions.

The COVID-19 pandemic will be followed by others. Both our collective conscience and our sense of self-interest dictate that we must think beyond our borders. For our leaders to fail to do so again would be a scandalous dereliction of duty. We must do better.

***Dr Fifa A Rahman**,*
CSO Facilitation Council Representative; Special Advisor, Health Poverty Action

Much has been said about the ACT-Accelerator - ranging from it being a 'blueprint' for future pandemics, to others saying it is 'anti-democratic, non-transparent and opaque.' The truth is it is somewhere in the middle.

What was successful about the ACT-A partnership was that it brought together actors from across the global health world in new collaborations and partnerships. The ACT-A also saw the deployment of 80% of Africa's diagnostics in the first year of the pandemic – an often-overlooked statistic. The Principals Group calls were a unique best practice - with CSOs in the same room as global health CEOs and enabling us to link high-level perspectives with perspectives from within cities, towns, and villages of the world on their unique challenges faced. We brought a focus on equity into spaces where insular viewpoints compromised specific elements of the response.

The inequities of the ACT-A are well-known – but the failure to leverage LMIC expertise as equal partners is one of the most inexcusable. We, living in the Global North, simply do not have the knowledge about specific nuances in societies in DRC, Guatemala, Madagascar and South Sudan that influence surveillance, vaccine uptake, logistics, and the best ways to mobilise communities on scientific information – and when this is excluded, we have inefficiencies and failures.

Any global response in the future must include LMIC expertise and to do so in a non-tokenistic manner – the best strategic thinkers in Asia, Africa, Latin America, and the Caribbean exist – and their knowledge must inform future responses.

***Carl Bildt**,*
WHO Special Envoy for the ACT-Accelerator; former Prime Minister of Sweden

ACT-A has undoubtedly been a unique effort made necessary by a unique challenge.

I wasn't there in the beginning, but the logic of creating an informal coordinating mechanism of all relevant public and private actors in order to accelerate the delivery of everything necessary to fight the pandemic was indeed overwhelming.

And as such I believe it performed above expectations. Week after week, principals and others meet digitally, facilitated by the small and hyper effective hub in Geneva to address everything from the crisis of the day to the more long-term challenges.

It didn't solve everything. Had all the powers in the world been with ACT-A the equity issues would have ended up much better than they did. Few things in our world are perfect, but as an informal mechanism, with no powers beyond those of coordinating, I think it performed much better than anyone could have thought.

Credit goes to the commitment and engagement of all the pillars and the partners, without which nothing could have been achieved. They all knew the magnitude of the challenge this pandemic represented. This wasn't the time for bureaucratic infighting – this was the time for working together.

And it worked – I'm proud to have been part of the effort.

***Dr Mariângela Simão**,*
Assistant Director General for Drug Access, Vaccines and Pharmaceuticals, WHO (2017-2022)

One way of looking at what happened during this pandemic, is to think about what would have happened if this or that initiative had not happened. I believe we need to look back and ensure that when the next pandemic hits, we do not repeat the same mistakes we did in the COVID-19 one. We certainly did, collectively and as individual governments and organizations, commit many mistakes - but WHO and international partners creating and coordinating their activities through ACT-A, was not one of them. It should be remembered as a success story.

ACT-A created a unique space for international coordination during a global health crisis, which did not exist before and was very much needed to decrease the chances of duplication and increase effective actions that would support countries' responses. It was very successful on several fronts – it was, during the height of the pandemic, a forum for discussions and concerted actions related to more rapid responses in critical areas and even filling financing gaps.

On the other hand, it did not include representation from developing countries early on, which led to some discontent and some lack of focus on specific vulnerabilities that were not detected at global level. And in spite of the need for equitable access to specific COVID-19 tools such as vaccines and therapeutics being recognized very early on, ACT-A had limited influence and the market forces prevailed, and we saw unacceptable delays in access to different lifesaving products in many countries, and at the same time huge profits for some of the manufacturers that privileged high-income markets and not public health-oriented mechanisms like COVAX.

We can do better next time, but whatever comes and whatever format it takes, we will need a global coordinating mechanism like ACT-A in place.

Dr Abdullah M Asiri,
Assistant Deputy Minister for Preventive Health, Kingdom of Saudi Arabia

Political and economic challenges are a huge barrier to effective response to pandemics and epidemics. The current disease outbreaks show that the tools to respond to pandemics aren't evenly distributed around the world. Developed countries have the necessary technology, but less developed countries are home to the raw materials and people who can help scale up production. When a virus spreads across borders, we must prepare for the worst. The key is to understand how the world will react to a pandemic and its consequences.

The Access to COVID-19 Tools Accelerator (ACT-A) was the first global initiative of its kind, responding to the need for unprecedented global collaboration to respond to the COVID-19 pandemic. Saudi Arabia is a strong supporter of the initiative and will continue to work towards its goals. A multi-stakeholder cooperative effort can be challenging, but it is worth the effort.

The initiative was a new type of collaboration between governments, the private sector, and global health agencies. There was agreement on how to execute the plan, with all parties sharing the same goal. The partnership was balanced and combined vaccine, diagnostics development, and drug discovery with overarching health systems strengthening.

In the face of future pandemics, the current informal coordination model will not be enough. A more comprehensive design is needed to address future pandemics, as coordinating across the four pillars was perceived as too limited in scope. The informal and complex structure of the initiative created an environment where decision-making, resource allocations, and reporting could not be made transparent to the public. Developed products had more regulatory and legal risk than others, and there was a lack of a strong sense of diversity outside of North America and Europe.

Dr Seth Berkley,
Chief Executive Officer, Gavi, the Vaccine Alliance

The organizations co-leading ACT-A, including Gavi, have spent decades working to overcome systemic barriers to equitable access. So, when this pandemic began, we collaborated to place equity at the heart of the global response from day one.

The collaborative ACT-A approach – in particular the leveraging of existing networks – could be called a success. COVAX enabled the first COVID-19 vaccination in a lower-income country within 39 days of the first global jab and has since shipped nearly two billion vaccine doses to 146 countries – helping 92 lower-income countries protect 54% of their population, on average, with two-doses and the countries furthest behind make dramatic progress with tailored support. This effort saw an increase in coverage rates that, for other vaccines, usually takes decades to achieve and lower-income health systems reach new demographics.

ACT-A was useful for bringing those working across the countermeasures together (something that could prove even more vital in the future), and for regular engagement with a broader stakeholder community. A revised model of this WHO-led coordination effort for the next pandemic would be useful, but it must be a light touch approach supporting existing mechanisms: that is what will enable the fastest and best response. We must use the inter-pandemic period wisely, building from these lessons and chasing the gaps without reinventing what worked well.

It needs to be said that everyone involved in this monumental effort deserves recognition: healthcare workers and individuals across hundreds of countries and organizations working tirelessly in stressful, complex and uncertain environments have enabled the largest and fastest public health response in history.

Yet true equity remained out of reach: higher-income countries rolled out vaccines faster, and to more people. To do better next time, we must continue to invest in resilient health and immunization systems. We must establish safeguards against nationalism ahead of time: contingent day one, no regrets financing, agreement on accepting risk, expanded manufacturing capacity across regions, transparency from manufacturers on supply, and a transparent and inclusive global health architecture that has equity built into every aspect.

***Thomas Cueni**,*
Director-General, International Federation of Pharmaceutical Manufacturers & Associations (IFPMA)

The ACT-Accelerator played a pivotal role in the world's response to COVID-19. Bringing together key public and private players to work as partners towards a common goal of responding to the pandemic was a major achievement. The structure of the ACT-A (built on the principle of subsidiarity) wisely factored in the need to operate differently for vaccines, therapeutics, diagnostics and health systems, while providing a platform for coordination and information exchange. The rapid establishment of the ACT-A partnership within weeks after COVID-19 was declared a PHEIC was a remarkable achievement. ACT-A delivered its share of successes and failures, for which all partners involved share a responsibility that provide important learnings for future pandemics. The different approaches taken by each pillar and their respective outcomes offer valuable insights.

Overall, the COVAX approach with a highly integrated and strategic partnership between all the key stakeholders including the vaccine industry from industrialized and developing countries, achieved more than other pillars, although it also fell short of delivering equitable rollout of vaccines. Key lessons learned from the ACT-A partnership are that we need to preserve what worked well – the innovation ecosystem, which delivered at record speed and scale, the unhindered access to pathogens, and the multi-stakeholder partnerships including private sector and CSOs – but all parties must sign up to a social contract for equitable rollout.

A future platform for pandemic preparedness and response needs to complement national healthcare systems and leverage existing institutions and infrastructure where all partners can bring in their respective competences.

Mongolia: working on all fronts to counter COVID-19

When the COVID-19 pandemic struck Mongolia, the country faced a number of challenges in responding to the disease. Given the country's low population density across a vast territory, delivery of essential health services was challenging. There was no comprehensive disease surveillance system, and laboratory capacities were weak. Access to health care facilities was an issue in remote areas, emergency health care services were weak and frontline health workers, mostly women, faced extreme stress and required psychosocial support.

The World Bank emergency response financing of US$ 77.6 million sought to strengthen Mongolia's capacity to respond to the COVID-19 outbreak and strengthen national systems for public health preparedness. The project supported cross-sectoral technical expertise, and promoted collaboration among different ministries, government agencies and local stakeholders.

Laboratory, personal protective equipment (PPE), medical supplies, oxygen, critical care equipment and laboratory tests were provided to selected hospitals and primary care facilities, within and outside Ulaan Bataar, the capital city. The World Bank proactively assisted the government to purchase these supplies, ensuring their delivery in time to help citizens and protect frontline workers.

"The project was approved in April 2020, when we had no local COVID-19 outbreaks [in Mongolia]. Thanks to acting early, we were able to gear up ahead of the local outbreak," said Dr. Buyantogtokh, Project Director at the Ministry of Health. "This made a huge difference. When patients first started to get admitted to the hospitals in late 2020, we were already prepared, so the treatment was very effective."

The Mongolian Government sought support from many multilateral and bilateral agencies for financing and delivery of vaccines, including from the World Bank and COVAX. Overall, Mongolia has received over 1.6 million doses of COVID-19 vaccine through COVAX, the ACT-A's Vaccines Pillar. Many health system respondents expressed their gratitude for the fact that Mongolia was the first country to import the vaccine among the 92 low and middle-income countries. That were able to access COVID-19 vaccines through the COVAX Advance Market Commitment (AMC).

By financing enough vaccines to provide two doses to 1.16 million people – accounting for nearly half of the eligible population - the project helped achieve high vaccination coverage that averted many deaths in later waves of the pandemic.

With a judicious mix of health system improvements and use of financial incentives for citizens, a very high coverage rate of close to 90% for the initial two doses was achieved in four months, and Mongolia ranked 15th out of 146 countries in this effort.

UNICEF were contracted to work with the World Bank to design and construct a new, energy-efficient central vaccine storage facility in just three months, ensuring all COVID-19 and routine childhood vaccines can be kept at the right temperature. The project saw results that directly contributed to enhancing the quality of healthcare services and fighting COVID-19.

Undraa Battuvshin, a 65-year-old woman, said: “I am truly grateful to have been fully vaccinated. When I was diagnosed with COVID-19 last summer, I stayed home and recovered without complications even though I have underlying risk factors and I believe this is all thanks to vaccines.”

More than 6,100 units of medical equipment were provided to hospitals around the country supporting clinicians with the tools necessary to prevent, diagnose, and treat COVID-19. To facilitate the safe and effective storage of vaccines, 430 vaccination units across the country were equipped with cold chain equipment such as fridges.

In efforts to maintain Mongolia’s level of human capital to support the national COVID-19 vaccination campaign, 1,700 healthcare professionals were trained on COVID-19 prevention, of which 85% were female.

“We are really blessed to have state-of-the-art equipment in our hospital. It is saving lives. It saved the life of many young and old men and women we treated at the hospital since the COVID-19 outbreak. We are glad to have this equipment at hand to help our treatment,” said **S. Narangerel, Vice Director, Third State Hospital of Mongolia**.

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Dr Juan Pablo Uribe,
Global Director for Health, Nutrition and Population, World Bank and Director, Global Financing Facility for Women, Children and Adolescents

The ACT-A partnership was created during difficult times and provided an important space to coordinate global efforts in response to the devastating COVID-19 pandemic. The World Bank's US$ 14 billion financing in response to the COVID-19 health emergency was complementary and supportive of the ACT-A's shared objective of equitable and affordable access to COVID-19 tools.

The World Bank financing helped more than 100 countries, including 30 countries affected by conflict and fragility, to buy and distribute vaccines, expand storage and cold chains, develop tracking systems, train health workers, engage citizens and communities to address vaccine hesitancy, and strengthen health systems.

We learned that while purchasing COVID-19 tools is relatively straightforward, ensuring that vaccines are being deployed and get into people's arms is more complicated and requires stronger health systems and partnerships and capacity at the national and local levels. The biggest take away is that global efforts are important, but need to be linked with and guided by country-led and regional initiatives that have health system strengthening at their core. Going forth the financing of pandemic prevention, preparedness and response as a global public good will be essential. While doing so, we must build on the strength and comparative advantage of existing health institutions and avoid further fragmentation of the global architecture.

Arush Lal,
CSO Representative, Health Systems & Response Connector; Member of the Chatham House Commission for Universal Health; Board Member, Women in Global Health

First and foremost, the ACT-A partnership was successful in that it brought together major agencies to address a common crisis not just in principle, but also in practice – at an operational level. This on its own was innovative and offers important lessons for collaboration moving forward. One of the biggest challenges that undermined the success of ACT-A was the lack of proactive and effective integration of the Health Systems & Response Connector (HSRC) from the start. This oversight prevented the platform from delivering countermeasures equitably or sustainably, and undermined trust in the partnership, as limited success and high-profile wastages made headlines. This also meant critical health systems capacities, such as support for frontline health workers, community engagement, and support for vulnerable groups like women and low-income populations were viewed as an afterthought, meaning the core mission to ensure equitable access was fundamentally unachievable when such basic considerations weren't addressed.

Any future PPR mechanism – particularly the Intergovernmental Negotiating Body (INB) process, International Health Regulations (IHR) amendments, any new medical countermeasures platform, and the Pandemic Fund - should make basic health systems capacities, particularly the health workforce and essential health services, core priorities at all stages of Health Emergency Preparedness and Response. These can be coordinated by scaling up delivery models like instituting standing HSRC country coordination teams or learning from the CoVDP initiative. While the inclination may continue to suggest health systems be seen as a domestic issue or out of scope for PPR, this should be avoided, as every PHEIC so far has demonstrated that prevention, preparedness, response, and recovery are rendered ineffective without effective integration into community health systems. This should be supported by diverse and inclusive community and CSO participation in decision-making roles (not as siloed consultations or advisory groups) and financed with a portion of PPR investments supporting HEPR-related health system capacities and delivery.

Dr Olive Shisana,
Hon Professor, UCT; Special Advisor to the President of South Africa

The ACT-A partnership has been successful in bringing together a diverse range of stakeholders, including governments, philanthropic organizations, and private sector actors. By mobilising resources and coordinating efforts, the partnership has enabled the rapid development and distribution of vaccines, diagnostic tests, and treatments for COVID-19. It has also facilitated the sharing of knowledge and best practices among its members. One innovative aspect of the ACT-A partnership has been its use of market shaping mechanisms to incentivise vaccine development and production. This has included commitments from governments to purchase vaccines in advance and to fund research and development, as well as agreements with manufacturers to provide vaccines at reduced prices to low- and middle-income countries.

However, the ACT-A partnership has also faced significant challenges, including funding shortfalls and supply chain disruptions. The ongoing inequitable distribution of vaccines, with many low- and middle-income countries struggling to access sufficient doses, remains a critical challenge.

Looking forward, the key learnings from the ACT-A partnership can be applied to future pandemics. These include the importance of collaboration and knowledge sharing, the need for innovative financing mechanisms to incentivise research and development, and the critical importance of ensuring equitable access to life-saving tools, particularly in low- and middle-income countries. By building on the successes and addressing the challenges of the ACT-A partnership, we can better prepare for future pandemics and ensure that all people, regardless of where they live, have access to the tools they need to stay healthy and safe.

Dr Bill Rodriguez,
Chief Executive Officer, FIND

As the world scrambled to face the most cataclysmic global pandemic in a century, access to the tools to counter SARS-CoV-2—tests, treatments, protective gear, vaccines—became critical. Unlike the recent scourges of Ebola, HIV, or TB, equitable access became paramount.

Long underappreciated as the bedrock of health systems, accurate diagnostic testing where people live, work, attend school, and seek care was a clear, immediate need. Yet there was no precedent for global coordination of testing at this scale.

The ACT-Accelerator Diagnostics pillar focused on getting quality tests to everyone as fast as possible. WHO-approved tests that could reach everyone, everywhere were developed and procured within nine months—the fastest diagnostic timeline in history. Self-testing became routine in many settings. Strengthened surveillance, including genomic sequencing, enabled identification of emerging variants worldwide. The ACT-Accelerator mechanism enabled close, daily coordination among WHO and global response agencies.

Despite the breath-taking pace of medical countermeasure development and global procurement, all-too-familiar inequities persisted. Self-testing failed to reach those most in need. Simple, inexpensive tests rolled out much more successfully in high-income countries. As with vaccines and therapeutics, limited access to tests in remote areas and LMICs greatly hampered COVID-19 control, costing lives and resources.

The lessons learned—that an equity framework and close coordination are necessary but not sufficient, that country representation and engagement is essential—show we must strive to finish our work, to build resilient health systems, to strengthen primary care. Ensuring everyone has access to the care they need, when and where they need it, is the only way to curtail future pandemics, and to enable every individual to lead a healthy life, no matter where they live.

***Sir Jeremy Farrar**,*
Director, Wellcome (2013-2023)

One of the lessons from every epidemic and pandemic I have been involved in since 1999 is that what you have before such a crisis hits largely determines your capacity to prevent it and respond to it when it happens. The ACT-Accelerator was not perfect, and many harsh lessons can be learned, but I dearly wish we had had an ACT-Accelerator in place, functioning and providing value to communities, long before January 2020.

Despite years of warnings and the inevitability of a global pandemic, we simply weren't well-prepared enough. It is vital to have systems, structures and relationships in place, fully functioning, providing value all the time within communities, on what matters day-to-day, trusted so that this can pivot and ramp up when the situation changes.

A central principle has to be one of equity with people, patients and communities at the core of all that is done. The work of ACT-A was driven by the fundamental belief that everyone, everywhere should have access to the lifesaving tools that science and innovation provided. The pillar structure of ACT-A worked amazingly well, given it was set up from scratch, to bring the stakeholders together. But we should never be reacting again to try and establish such a network in response to a crisis; we need it all the time and we need it to function from Day One.

Collectively we need to work out how to break down barriers, north-south-east-west, retain the power and impact of vertical systems, but act together more horizontally to address challenges that were common across health systems, behaviour, tests, treatments and vaccines.

But these systems are totally dependent on early and sustained political actions across borders and in the global common interest, with a solidarity that wasn't often on display during the COVID-19 pandemic. This must change to if we are to be better able to prevent and respond to the next inevitable epidemic or global pandemic.

I am very proud to have been a part of ACT-A and helping to deliver a more equitable response than would otherwise have happened without ACT-A. It is critical that the right lessons are learnt not just the politically acceptable ones.

***Joshua Tabah**,*
Director-General Health and Nutrition, Global Affairs Canada

At its core, ACT-A was about collaboration, which we effectively leveraged to reduce global equity gaps and save lives. Amidst competing priorities and tensions that seemed insurmountable, ACT-A provided a multilateral solution when one was desperately needed: bringing core global health actors together under one coherent plan and translating this into an overarching financing strategy for the global community. In doing so, we overcame the structural fragmentation of the international landscape to show how the capabilities we'd built could be deployed for a common purpose, and by forging ahead with a burden-share approach, we demonstrated how a principled alternative approach to resource mobilization could galvanize action. More is always needed, but those hours, days and weeks of planning resulted in a coordinated health and countermeasures response without precedent or parallel.

It is imperative we build on this experience of collective action for operational planning and rapid financing, using any "inter-crisis" opportunity for the development of operating procedures and protocols to be ready to respond more quickly, more coherently, and at still larger scale to assist those in greatest need. In doing so, we need to bring increased attention to delivery and last mile distribution, confronting barriers to access that are fundamentally more about marginalization (and often gender and poverty) than about supply. ACT-A stakeholders require data and leadership from the operational agencies at the heart of the response, with a commitment to continued collaboration in the face of organizational pressures to retreat and retrench, supported by states and funders who can use governance roles to ensure support and progress. As normative work continues to evolve and as the global community expands its recognition of the importance of resilient health systems everywhere, the ACT-A partnership has work to do to ensure greater operational readiness for the next full-scale response.

***Lav Agarwal**,*
Additional Secretary, Ministry of Health and Family Welfare, India

ACT-A was the result of unprecedented international cooperation during a critical emergency, led by the efforts from the member states of the Facilitation Council and from the hub at WHO.

The creation of such a network in the early stages of a once-in-a-century pandemic was a phenomenal achievement and the efforts expended should not be allowed to go to waste in the future.

The most crucial success was seen in the impactful work done under the Vaccines pillar that provided funding for the R&D of multiple vaccine candidates and the distribution and administration of almost two billion doses of vaccines under the COVAX scheme.

The uniqueness of this mechanism also threw up major challenges, the biggest of which was the inability to transform vaccines into successful vaccinations in the early stages of the pandemic, especially among LICs and LMICs. Alongside this, the lack of coordination among the various pillars during the emergency was a major challenge that must be addressed in any future iteration of ACT-A.

The key learning from the ACT-A experience was the critical need for a global end-to-end coordination platform to address and ensure the equitable access to affordable and quality medical countermeasures (MCM). The learnings from the Johannesburg meeting have emphasized the path forward for all partners of ACT-A and momentum must be maintained to establish a Global MCM Platform.

These learnings have been invaluable for the G20 Health Working Group under India's G20 presidency and has closely informed the second priority of the working group.

Lebanon: self-financing COVAX champions

When the COVID-19 pandemic hit, few countries were prepared to respond to such a widespread crisis, and like many countries, Lebanon saw existing fault-lines in health infrastructure magnified.

In early 2020, the country was reeling from the socio-economic turmoil of public protests, a financial crisis, unstable electricity supply and food price inflation.

“Coming on the back of multiple existing crises, the pandemic put a significant burden on the healthcare system,” says Dr Randa Hamadeh, Ministry of Public Health in Lebanon.

“The healthcare supply chain was disrupted due to the devaluation of the currency, which damaged the purchasing power of tertiary hospitals, leading to a shortage of oxygen and medication.” This situation was made worse by the exodus of health care workers to other countries, she adds.

When COVID-19 hit, the country managed to rally the public and private sector and its strong relationship with the international community to rapidly respond to the crisis. A key element in this response was COVID-19 vaccines, says Dr Hamadeh.

While vaccines were developed during this pandemic faster than ever before in a health emergency, distribution and equitable access would be key in ensuring that they got to everyone, everywhere.

The COVAX facility was set up to ensure access to COVID-19 vaccines worldwide. Since infectious diseases do not respect national borders or socioeconomic status, it was clear from the start that COVAX’s mission had to be providing vaccines to all who needed.

Low-income countries that were unable to pay for doses would be given them free of charge, and other countries could join COVAX as self-financing partners, which Lebanon did, receiving more than 1.6 million doses of vaccine through COVAX.

Given that countries wouldn’t know from the start how many doses they needed, and self-financing countries could have separate bilateral deals to supply vaccines, COVAX offered a flexible model where self-financing participants with sufficient doses could opt out of their ‘quota’, leaving the vaccines to lower-income countries.

“COVAX was a timely and important intervention for us,” says Dr Hamadeh. “The value of COVAX was of utmost importance and not just as a vaccine supplier. The flexibility offered by COVAX, for example in payment mechanisms, was valuable since Lebanon is going through an unprecedented economic crisis,” Dr Hamadeh added.

COVAX
CEPI
Gavi
unicef
World Health Organization
ACTaccelerator
ACCESS TO COVID-19 TOOLS
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***John-Arne Røttingen**,*
Ambassador for Global Health, Norway

ACT-A needed to mobilize substantial grant financing in a very short time to ensure development and timely procurement and delivery of medical countermeasures. Implementation happened through 10 different organizations. An important innovation in this landscape, where resource mobilization in general is competitive, was the willingness of all ACT-A agencies to develop a joint plan and budget and coordinate resource mobilization. Collectively the ACT-A agencies mobilized US$ 24 billion. This is more than half of total development assistance for health in a "normal" year. Another innovation was that countries on the ACT-A Facilitation Council through the financing working group accepted informally a benchmark for country contributions building on a simple indicator-based fair burden share model. This allowed for comparing levels of contributions not only in absolute terms, but also relatively according to countries' ability to contribute. However, there were challenges related to both innovations.

While the joint resource mobilization was unprecedented, we were not able to deliver what was needed. While some areas (vaccine procurement) were almost fully funded, some parts like the diagnostics and therapeutics pillars had substantial financing gaps. The fair share model was also not fully accepted and therefore did not elicit sufficient willingness to pay across all countries. For future emergencies, one should explore options where allocation of resources prioritize areas of biggest needs. It would also be important to have pre-agreed mechanisms for coordination among stakeholders and surge financing with ability to trigger funding early and with clarity on who will contribute.

***Soumya Swaminathan**,*
Chief Scientist, WHO (2019-2022)

I'm so glad I was involved in something like the ACT-Accelerator, a completely unprecedented initiative. We had to work fast and efficiently, coming together as global health organizations – and it was a game-changing idea.

I remember the early days in March and April 2020 when ACT-A was conceptualized and the huge political challenges that had to be overcome before WHO could launch it with partners. It's thanks to Dr Tedros's persuasive abilities and a lot of work behind-the-scenes by senior colleagues that ACT-A could become a reality.

As the vaccines pillar of ACT-A, COVAX was the most successful, because there were agencies dedicated to supporting R&D (CEPI), procurement and distribution (Gavi) and everything related to norms, standards, policy and regulations (WHO), as well as delivery on the ground (UNICEF).

Given the situation and circumstances in 2020 and 2021, COVAX did not have many options, and decisions were made by partners based on given data and probable scenarios. The partners worked well together and had intense, frank discussions every week - but there was tension at times between various organizations, especially with regards to the behaviour of big pharma.

It's been a huge learning exercise and the experience will come in very useful for future planning. No doubt countries have also learned lessons, and will need to now make efforts to build infrastructure and capabilities to become as self-sufficient as possible, at national and regional level.

Personally, the initiative I'm proudest of is the mRNA technology transfer program. This enables low-and middle-income countries to develop and produce health products their populations need, without relying on big pharma and high-income countries, as in the past. While still a nascent program, it has the potential to change the global power equations, making public health, not profits, the key driver for trade decisions.

***Prof Dr Aamer Ikram**,*
Chief Executive Officer,
National Institutes of Health,
Pakistan

The COVID-19 pandemic has demonstrated that no single country, agency or entity can manage a large scale emergency or a pandemic situation and therefore there is dire need for an urgent and well-coordinated response mechanism by global partners to address gaps in development, procurement and distribution of diagnostics, therapeutics and vaccines as well other needs for enabling countries with weak public health systems to respond to such massive public health events.

The Access to COVID-19 Tools Accelerator (ACT-A) partnership is a remarkable global initiative involving governments, private sector institutes, and philanthropic organizations and other stakeholders; established during the COVID-19 pandemic with the purpose to boost the development, production, and deployment of tools for response in an equitable manner. This multisectoral engagement provided a great opportunity for sharing knowledge, resources, and expertise towards a common goal of timely provision of COVID-19 tools. Another important aspect was innovative financing through an investment case.

Funding gaps, especially for the vaccine pillar i.e., deployment of required doses in developing countries, vaccine distribution priorities, and supply chain management were the significant challenges and need to be addressed as the partnership transitions into next phase.

Overall, the ACT-A has been able to achieve its goals for rapid development and distribution of COVID-19 tools at a global level through a result-oriented approach. The initiative also highlights the need for enabling countries to invest in development of several high impact essential tools for response. The partnership experience must be linked with the ongoing and future global health initiatives for preparedness and response to emerging health threats.

***Dr Philippe Duneton**,*
Executive Director, Unitaid

ACT-A brought global attention to the critical need for equitable access to countermeasures and access barriers, including in intellectual property, affordability and supply security; the central role of communities and civil society in health emergencies, and the importance of having fit-for-purpose tools for LMICs.

The Oxygen Emergency Task Force played a crucial role by unlocking large-scale funding, negotiating prices, and helping countries apply for and secure supplies at extraordinary levels. It also created momentum for oxygen as a life-saving essential medicine for several major health conditions. However, the impact of therapeutics was hindered by delays and inefficiencies in the public/private research pipeline. Furthermore, lengthy and complex negotiations with originator companies, lack of transparency and prompt availability of funding for advanced market signals, further delayed and limited access to treatments.

While progress has been made on voluntary licensing, it is clear that more is needed, ensuring that funding and equitable access considerations are established earlier in the process and include everyone in need. We need an approach that enables equitable access along the value chain, with strategic roadmaps across all countermeasures. An effective strategy, anticipating future pandemics, is to prioritize dual-purpose investments that can benefit public health in LMICs now and at the same time establish a foundation for resilient R&D systems, markets and health systems. For the response to ensure rapid and equitable access to the best tools in LMICs, supplies of novel products - both originator and generics - would need to be accelerated in a transparent and efficient way, including licensing and technology transfer.

***Ted Chaiban**,*
Global Lead Coordinator,
The COVID-19 Vaccine Delivery Partnership

ACT-A was a much-needed and quickly stood-up coordinating mechanism between organizations that did their best to deliver vaccines, treatments and diagnostics to support countries as they addressed the COVID-19 pandemic.

ACT-A and its COVAX Vaccines pillar enabled financing for vaccine delivery for some of the hardest-to-reach places on our planet and kept the political attention on COVID-19 long after risk perceptions and momentum had shifted. The ACT-A Accelerator has been an important platform at WHO for all of us to come together, exchange views and information and work in a concerted manner to support the delivery of medical countermeasures.

Despite the tremendous work led by countries and their partners, inequities persisted, and many countries did not fully get an opportunity to increase COVID-19 vaccine coverage levels until well into the pandemic. In future pandemics, end-to-end coordination – fully inclusive and grounded in the multilateral system – will be indispensable for equity; along with further investments in community-based primary health care systems and decentralized manufacturing of medical countermeasures.

Katy Kydd Wright,
Director, the Global Fund Advocates Network

Clearly recognizing that a change to business as usual was needed to respond to COVID-19, the ACT-A was an innovative approach to partnership, created out of a desire for global solidarity and aimed at equitable access to tools to fight a novel disease.

Its very creation is its greatest success and provides many key learnings. Getting governments and agencies to move quicker and more nimbly was a challenge, as was getting all of the right people into the conversation as soon as possible. Low- and middle-income countries and civil society and communities were either not included at all, or – after having to advocate for their own inclusion – often only brought in once ideas and plans were formed.

As new technologies were brought online, the same fault-lines appeared; there were successes, but they were few and while they undoubtedly provided some increased access, it never approached anything that could be considered equitable with high income countries getting 2nd, 3rd, 4th vaccine doses before health workers and vulnerable populations, 77x more tests per 1000 people and access to treatments earlier than in most low and middle-income countries.

ACT-A needed the financial backing and political clout that is normally only seen by transparent, accountable and fully formed institutions – it never truly had either. We needed an innovative partnership like the ACT-A, we just needed v 5.0 from the beginning. Being better prepared means tackling existing inequitable structures now, ensuring there is a funded platform with broad buy-in for all voices to be at the table from the beginning, and governments must increase and maintain investments in the larger existing and newly created PPPR and global health architecture.

Rajinder Suri,
Chief Executive Officer, Developing Countries Vaccine Manufacturers Network (DCVMN)

With more than 682 million cases and 6.8 million deaths, COVID-19 has had a devastating effect on lives and livelihoods, especially in low and lower-middle income countries. To meet this unprecedented challenge, the only mechanism that could come up with meaningful solutions to save millions of precious lives was ACT-A. Never before has collaboration and coordination of this magnitude been witnessed among international agencies and partners, represented by the best of the brains - fully supported by the ever agile Facilitation Council, co-chaired by Norway and South Africa - who put their heads together every Thursday evening for the last three years, sharing experiences and expertise in a transparent manner, leveraging the wealth of wisdom in developing countermeasures at lightning speed, fostering tech transfers and supporting scale-up to protect lives where it mattered most - without which the number of cases and death toll might have been much higher.

COVAX left no stone unturned to ensure equitable distribution of over 1.9 billion vaccine doses, while the global vaccine industry rose to the occasion by producing over 11.3 billion doses in 2021, almost 60% contributed by Developing Country Vaccine Manufacturers (DCVMs). Several challenges, such as the imposition of Defence Production Acts (DPA) that restricted the supply of essential single-use materials, coupled with export restrictions, impacted production and supply chains. This was compounded by the non-availability of early and risk funding. Some estimates suggest that just 5% of the global product development funding of US$ 5.6 billion was allocated to DCVMN members in 2020-21.

Despite the huge successes of ACT-A, there were challenges in equitable access - especially in the low-income countries of Africa - which probably could have been anticipated and mitigated in advance. A ‘Pandemic Accord’ to ensure free and unrestricted movement of men, material and machines during any future pandemic, coupled with creation of a ‘Pandemic Fund’ for ensuring zero-day funding, are the right steps, though we have a long way to go in ensuring this fund reaches a critical mass to tackle any future pandemic.

***Chris Elias**, MD, MPH*
President, Global Development Program, Bill and Melinda Gates Foundation

Reflecting on the past three years of collective work to fight the COVID-19 pandemic – and respond to the biggest disease threat in generations – is no small task. Countless hours have been spent tackling COVID-19 and its impacts by individuals at every level of the response in every country – from first responders and front-line health care workers directly saving lives, to scientists, government officials, and those of us working at small and large global institutions.

When the pandemic hit, global leaders acted with unprecedented speed to stand up the ACT-Accelerator (ACT-A) and financial commitment to fund priority interventions, which was itself an innovation because prior to this outbreak, no structure existed for such a broad coordinated global response. Without a coordinated effort across institutions, we likely would have seen a much slower and inefficient global response in support of countries and far fewer lives saved.

When considering what the world could do better next time to support global collaboration, two main areas for improvement stand out: greater inclusion from day one of country representatives from low- and middle-income countries in all levels of decision-making; and clearer prioritization of interventions across all pillars to create a more holistic approach to controlling devastating outbreaks. We must build on the lessons of this pandemic to ensure the world is better prepared for future outbreaks, with equity and health impact always at the forefront.

ACT-A is a powerful example of the value of multilateral collaboration, particularly in the face of rapidly changing global health threats. Examining the successes and challenges faced along the way is a critical step in ensuring the world takes the right actions to make COVID-19 the last pandemic.

***Niall Fry**,*
Team Leader, Global Health Security and Pandemic Preparedness, Foreign, Commonwealth and Development Office, United Kingdom

The UK is proud to have been a leading supporter of the ACT-Accelerator from its inception. We provided up to £813 million to ACT-A partners as part of our £2.1 billion international COVID-19 funding to counter adverse impacts and support equitable vaccine distribution. As 2021 G7 President, we consistently championed ACT-A, and secured G7 commitment to donate 870 million vaccines at a time of limited supply. We co-chaired the ACT-A therapeutics and diagnostics working group with South Africa, producing a clear roadmap for delivery.

ACT-A operated in an extremely dynamic context within a challenging political and financial climate. Against the odds, ACT-A delivered ground-breaking results, including the fastest-ever global vaccine rollout in history against a single disease. It succeeded in driving collaboration across countries and implementing partners to develop, procure and distribute medical tools, and brought together technical expertise effectively.

We must now learn lessons to prepare for the next health threat. We need to build stronger primary health systems to prevent and prepare for new outbreaks; ensure meaningful inclusion of low- and middle-income countries in governance structures; and increase transparency and accountability in decision-making. We also need to ensure rapid, up-front and at-risk financing to support outbreak research and secure early access to lifesaving tools for low-income countries. A new medical counter-measures mechanism should build on existing systems and entities, strengthen coordination, and support regional networks. It must also be agile: ready to scale up and down and respond to whatever pathogen emerges next, delivering the 100 Days Mission.

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COUNTER

Cambodia: improving COVID-19 testing and screening within communities

In early 2021, in vitro diagnostic COVID-19 testing was still concentrated in centralized laboratories with a reliance on molecular PCR tests. As a result, access to quick and timely testing in low- and middle-income countries (LMICs) with high transmission rates was challenging, leading to delays in diagnosis and linkage to care, placing a heavier burden on resource-limited healthcare systems.

Patient-centered point-of-care testing through decentralized delivery models enables fast screening, triaging, and linkage to care. As COVID-19 antigen detection rapid diagnostic tests (Ag-RDTs) became available for professional and self-test use, many countries began to adopt and deploy these tests at the primary health care level to screen, detect, diagnose, and link to care, helping break transmission chains in communities.

However, access to Ag-RDTs was out of reach from an accessibility and affordability perspective for many LMICs. Without the ability to procure and manage the supply of point of care rapid COVID-19 tests, many LMICs remained blind to the spread of COVID-19, as they were unable to test and implement countermeasures or conduct surveillance to monitor emerging variants.

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In Cambodia, between the end of 2021 and early 2022, FIND, in partnership with Health Poverty Action, implemented a project to improve decentralized testing and case-detection by enhancing access to Ag-RDTs across 8 communities, through increasing the availability and use of Ag-RDTs – 25,000 testing kits were distributed and conducted in communities (53%), health centres (42%) and hospitals (5%). 500 community health workers and volunteers from 100 villages in the target provinces were trained to administer tests and deploy advocacy strategies to encourage the use of COVID-19 tests. Their trainings also leveraged the Ag-RDT CommCare App for testing data collection and reporting to help digitize the process. Advocacy campaigns were implemented within the communities to raise awareness on the importance of COVID-19 testing and to promote the use of self-testing in remote hard-to-reach areas.

"The awareness raising activities are public efforts for public health!", said Mr Tao Cai, Country Director of Health Poverty Action Cambodia, "and the result tells us that these public efforts are effective."

In addition, at a policy level, FIND and Poverty Health Action worked with local authorities to revise and update the national testing policy and strategy, and develop guidelines for community-based Ag-RDT testing, specimen collection, result reading and reporting, patient counselling, and linkages to treatment. This national strategy and guidelines allowed community-based health outlets in the public and private health facilities to administer Ag-RDT tests. This included the registration of Ag-RDTs with the Cambodian Food and Drug Administration for use in the Phnom Penh municipality covering a population of 2.2 million people.

Tri Tharyat,
Director-General for Multilateral Cooperation, Ministry of Foreign Affairs of the Republic of Indonesia

As Co-Chair of the ACT-A Tracking and Accelerating Progress (TAP) Working Group, I have witnessed that the ACT-A partnership has successfully translated vaccines into vaccination.

Through COVAX as ACT-A's Vaccines pillar, 1.89 billion doses of vaccines have been delivered to 146 countries including 110 million to Indonesia. 63 countries including Indonesia have reached the COVID-19 global target of 70% vaccination coverage.

The ACT-A partnership has innovatively created itself as the best investment portfolio to end the COVID-19 crisis, assembling a funding commitment of US$ 24 billion. Together with the ACT-A Financial and Resource Mobilization Working Group, the TAP Working Group initiated the diplomatic outreach targeting 23 countries to meet their fair share commitment.

The main challenges faced include low COVID-19 vaccination rates, poor testing rates, and limited roll out of treatments in low-income and lower-middle income countries.

The TAP Working Group therefore initiated the implementation of coordinated actions on advocacy and communication, mainly the CSO Roundtable, publication of TAP Working Group Joint Statement, and political outreach to 34 priority countries to overcome the bottlenecks in achieving global targets.

With the ongoing COVID-19 pandemic, we must continue to address the inequitable access to medical countermeasures. Solidarity and collaboration must be put forward to better prevent, detect and respond to future health threats.

We should leverage the Pandemic Fund created during Indonesia's G20 Presidency, and support the negotiation of the Pandemic Treaty that is underway at the Intergovernmental Negotiating Body. Health also remains a priority at Indonesia's ASEAN Chairmanship in 2023 focusing on strengthening ASEAN health architecture.

Dr Hazel O. Laws,
Chief Medical Officer, Ministry of Health, St Kitts and Nevis

Access to COVID-19 tools was crucial in restarting the economies across the Caribbean Community (CARICOM) including our local economy. Access to these tools was made possible by the ACT–Accelerator.

The COVID-19 pandemic has impacted our subregion tremendously given the travel restrictions. The effect on tourism and other sectors caused this public health crisis to morph into a socioeconomic crisis. All sectors in society collaborated in the national responses where-by work, education and social activities were re-engineered.

The ACT-A diagnostics pillar was a success. Most CARICOM states benefitted from laboratory capacity building in the area of PCR testing. Genomic sequencing is available at reference laboratories in the Caribbean and there is also an increase in availability of rapid diagnostic testing in communities.

The vaccines pillar was the most successful pillar, however, there were challenges. CARICOM states were denied access to vaccines, while advanced economies had stockpiles. Member states had to access vaccines by negotiating bilateral arrangements and through COVAX. The Caribbean Public Health Agency (CARPHA) had to submit down payments to COVAX on behalf of several CARICOM member states for those member states to get COVID-19 vaccines, as COVAX did not understand that these member states had difficulty making these payments. Therefore, the sum of money required as a down payment was a barrier to access for these nations. Today, there are still challenges in accessing variant containing vaccines and antivirals.

To ensure that small island developing states (SIDS) are not left behind, CARICOM is recommending that novel financing mechanisms are adopted to ensure equitable access to emerging tools, and that PAHO's strategic and revolving funds are utilized to ensure access to tools in this subregion. Technical support is also required to develop the capacity to produce vaccines and medicines in the Caribbean. Let us continue to invest in our health systems and prioritize emergency preparedness to ensure the health of our people going forward.

Dr Victor J. Dzau,
President, United States National Academy of Medicine

Over the past three years, I have been privileged to serve as a Principal of the Access to COVID-19 Tools Accelerator (ACT-A). The ACT-A is an unprecedented collaboration of key global health organizations – Gavi, CEPI, the Global Fund, FIND, Unitaid, WHO, UNICEF, etc., under the effective secretariat of the WHO – which came together during a time of crisis to develop and provide access to tools in a coordinated manner to tackle the COVID-19 pandemic.

I am proud to be involved with ACT-A and feel fortunate to be working with so many dedicated people who put aside individual interests and differences to work for a shared mission. I have witnessed the devoted and unwavering efforts of my colleagues under very challenging circumstances towards our collective goal of advancing equitable access to diagnostics, therapeutics, and vaccines. In my opinion, despite its shortcomings, ACT-A was a game changer and its work saved millions of lives.

We all know ACT-A had its challenges in coordination and governance across the pillars, securing sufficient financing, and delivering the countermeasures – especially to low-income countries. ACT-A confronted vaccine nationalism, donor fatigue, and community mistrust. There are a variety of lessons learned which have been examined by many stakeholders. But as I look back, I am very grateful for the opportunity to be part of this global and historic effort.

Peter Ngo'la Owiti,
Communities Representative, ACT-A Facilitation Council; Executive Director, Wote Youth Development Projects

The success of the ACT-Accelerator was its ability to bring together and organize global actors with lead agencies to respond to the pandemic with innovative ideas, such as mRNA vaccines and huge monetary resources, in a very short time frame. The creation of COVAX for the fair distribution of vaccines was a good lesson and should be replicated for other tools.

However, the biggest challenge was in governance. Low- and middle-income counties were left out of much of the decision making, while civil society and communities were brought in late, and their voices were sometimes not listened to. Global North NGOs took over running the CSO/Community space for COVID-19, and we saw solidarity break over the TRIPS waiver obstacle, with countries taking different positions in different forums. We know that pharmaceutical apartheid will exist in future pandemics if the TRIPS issue isn't addressed.

Overall, we have learned that the world has the capacity to come together and counter any global health threat if the political will is there. The creation of four pillars with lead agencies and working groups worked very well in the battle against COVID-19, saving many lives and distributing resources where it is needed most. However, health systems were neglected, and the COVID-19 response ate into existing limited health resources, especially to pay for health workers, syringes, cold chain and PCR tests.

Campagne digitale

***Ambassador Takeshi Akahori**,*
Director-General and Ambassador for Global Issues, Ministry of Foreign Affairs, Japan

The ACT-A has contributed as a framework based on international solidarity against an unprecedented crisis. As a founding donor, Japan has made a cumulative contribution of approximately US$ 1.8 billion, the third largest overall, including our contributions to COVAX.

Japan fully recognises the important role played by the ACT-A during a challenging time. The ACT-A has revealed important lessons for a future end-to-end ecosystem for medical countermeasures (MCMs), including on governance and financing. Bilateral support should be taken into account to complement multilateral efforts. The ACT-A external evaluation report has pointed out that strengthening country health systems should be done from ordinary times. In this regard, each organisation needs to optimise goals and issues within their regular operations on vaccines, diagnostics, therapeutics, and health systems, and to collaborate with each other and with bilateral donors. While avoiding duplication, a more efficient and effective way of support should be sought based on the lessons learnt from the ACT-A. Appropriate management, monitoring, and financial reporting of funds are also essential to ensure accountability. It is also critical to ensure the involvement of regional institutions.

As the G7 presidency, Japan is determined to advance global health, together with all relevant stakeholders, especially through leading the discussion on an end-to-end MCM ecosystem for future pandemics. It is vital to intensify our efforts to build better global health architecture based on the lessons learnt from the ACT-A, and to further strengthen our efforts to achieve UHC to leave no one behind.

***Andrew Witty**,*
WHO Special Envoy for the ACT-Accelerator; Chief Executive Officer, United Health Group

In response to an unprecedented event across global society, we saw for a time a remarkable willingness for nations; NGOs; global health and financial institutions; academia; and clinicians and industry to look for ways to work as one in defeating a virus.

ACT-A showcased coalition building at its best and illuminated opportunities, pace and solidarity in ways not seen before in the healthcare arena.

The seeds of this collaboration are the ways of working and building blocks of future pandemic defence and the first version of a blueprint for a truly inclusive, responsive and effective global biosecurity capability.

Dr Bernhard Braune,
Head of Division Global Health Policy and Finance, German Federal Ministry for Economic Cooperation and Development

International cooperation, solidarity and multilateralism were key in the fight against COVID-19. International health organisations and initiatives joined forces and set-up ACT-A to fight the pandemic. Germany has been one of the co-founders and second-largest contributor to ACT-A. The overall German contribution to ACT-A stands at €3.3 billion. Germany is one of the few countries that has contributed its fair share and in addition donated 115.5 million vaccine doses to COVAX.

ACT-A with its COVAX Facility has been the major driver for the world's biggest vaccination campaign ever: COVAX has delivered over 1.9 billion vaccine doses to 146 countries worldwide.

Despite the huge success, there were many short comings. We would have liked to see more partners contribute their "fair share", last mile delivery was a major challenge, reaching humanitarian populations was particularly difficult. Financing ACT-A was never only about solidarity: stopping the pandemic was also the smartest economic choice we could make.

Also, the challenge of equitable access to medical countermeasures remains. That is why we need to build on the lessons learned from ACT-A. The international community needs to set up a new inclusive mechanism for medical countermeasures with the abilty to react from day one to any new international health threat.

While we focus on pandemic threats we should not forget that preventable diseases pose the biggest threat to human health. Still too many childen and mothers die because primary health care is not available. We remain commited to SDG 3 "Good Health and Well-Being" for all.

Dr Viravann Theme,
Deputy Director, Department of International Cooperation, Ministry of Health, Cambodia

The ACT-Accelerator was created in the middle of 2020 in order to facilitate, coordinate and support global efforts to fight COVID-19. For the security of global health, the partners of ACT-A established the COVAX Facility, Diagnostics and Therapeutics pillars to support and expedite the effort to deliver rapid tests, treatments, and for the procurement and distribution of vaccines globally. We must acknowledge that the shortage of tests and vaccines was a key challenge when it came to equitable access and distribution.

Looking to the future, the aforementioned proactive approach with strategic partnerships, funding support and international solidarity is the key learning from the ACT-A experience for preparing for a future pandemic.

On behalf of the Ministry of Health of Cambodia, I would like to express my sincere appreciation and gratitude to the ACT-A partnership and Facilitation Council for your kind cooperation and support to the Cambodian people during the global COVID-19 pandemic.

Dr Hanan Balkhy,
Assistant Director General for Antimicrobial resistance, WHO

When COVID-19 emerged, I was based in Geneva and was soon representing WHO to the ACT-Accelerator Diagnostic Pillar. I knew this would be challenging, but, with over 20 years as a front-line health-worker, I could not believe it would be as tough as handling national response demands.

Partnership among the ACT-A members was phenomenal. The global public health community attempted to make the tools to tackle this pandemic available globally and equitably. But we consistently encountered the harsh reality of entrenched inequality. There is much work to be done to visualize the world as one, countries need capacity to detect and diagnose pathogens in humans, animals, and the environment – in other words, "surveillance". Transparent data, innovative R&D, and rapid and effective delivery processes are also vital. And yet still this may not be sufficient. The tools must also reach national health systems with well-trained health-care workers.

The global emergency response architecture is being re-engineered, and the expectation is that we will be in a better place globally to face the next emerging infectious threat. But what continues to concern me is whether countries will have the national measures needed. I am optimistic that the lessons we learned, and the pain endured will drive efforts to scale-up our readiness and our experience with the ACT-A will be core to preparing us for the pandemic.

Dr Bruce Aylward,
Senior Advisor to the WHO Director-General; Lead for the ACT-Accelerator Hub

The ACT-Accelerator's 'hub' has been a unique vantage point to witness the extraordinary collaboration and commitment of this coalition, as it raced to stem the carnage of COVID-19.

When ACT-A's diverse members – agencies, CSOs, industry and more – rapidly came together in late April 2020, we shared the conviction that everyone who needed vital new tests, treatments and vaccines must have equal and rapid access.

But we had no roadmap for working together this way, at this pace, and on this scale. Everything had to be invented in real time.

It has been a humbling experience to support this operation, as agency leaders rolled up their sleeves and ran day-to-day operations; joint teams laboured day and night; Special Envoys chaired weekly Principals' meetings; donors coordinated billions in financing; a high-level Council tackled barriers; and Heads of State advocated for the cause.

Through this combined effort, billions of vaccine doses, hundreds of millions of tests and PPE units and millions of treatments reached people who may otherwise never have had access.

But ACT-A could have reached many more people with many more tools.

As the world builds a better version of ACT-A for the inevitable pandemics to come, even more important than improving its design will be fully enabling it with access to a fair-share of scarce tools in real-time, sufficient up-front and at-risk financing, and the fair movement of raw materials and products.

Because, of all ACT-A's lessons, the most striking for me has been the astonishing energy, passion and perseverance that international health agencies and partners will mobilize to achieve a safer, fairer world for everyone.

Thank you all for everything that you brought to ACT-A, and for what you are already doing to achieve more equitable access to lifesaving tools in the next crisis.

Philippines and Zimbabwe: real-world effectiveness of COVID-19 vaccines

Real-world vaccine-effectiveness data are essential to inform vaccine roll-out strategies, especially in resource-limited countries. But for some COVID-19 vaccines, such data are limited.

All vaccine candidates must undergo rigorous testing in clinical trials to prove they are safe and effective before regulators approve them for use. However, the assessment of a vaccine doesn't stop there, as regulators require developers to continue to evaluate the effectiveness of a vaccine in the general population long after they have approved it.

As part of the clinical development of a vaccine, large-scale clinical studies –often involving tens of thousands of volunteers– are conducted to determine the vaccine's clinical efficacy and safety. Once vaccines are approved and administered to millions of people, researchers and developers can conduct vaccine effectiveness studies to gather "real-world evidence". This evidence is crucial in helping to fill remaining knowledge gaps that pre-approval trials cannot address. It also helps to improve how these vaccines can work in real-life settings and be delivered to maximise their health impact.

Importance of generating real-world data for COVID-19 vaccine effectiveness

Over 190 studies of COVID-19 vaccine effectiveness were published, but almost all of these studies were conducted in high-income countries, and most assessed the effectiveness of mRNA-based or vector-based vaccines. Limited data are available on the effectiveness of inactivated vaccines, despite these vaccines accounting for more than 50% of all doses distributed to low-income and middle-income countries (LMICs).

In February 2022, CEPI invested US$ 10 million to generate additional real-world data on the effectiveness of inactivated and newly-licensed adjuvanted protein vaccines, aiming to optimise the roll-out of COVID-19 vaccines in LMICs, focusing on sub-Saharan Africa, Southeast Asia, and the Middle East.

"Vaccine-effectiveness and real-world evidence are essential to enable vaccine regulatory approval and to inform vaccine-specific policies and recommendations in LMICs, particularly in resource-limited countries. Such studies also improve the understanding of how efficacious the vaccines are against new emerging variants of SARS-CoV-2 that continue to circulate around the world," said Dr Emmanuelle Espié, Senior Epidemiologist and Programme lead.

COVID-19 vaccine effectiveness studies in Zimbabwe and the Philippines
CEPI provided up to US$1.8 million to the Mutala Trust –an African-led non-profit research organization in Zimbabwe– to assess the effectiveness of the BBIBP-CorV (Sinopharm) and CoronaVac (Sinovac) vaccines, both of which

are inactivated vaccines and are already distributed in the country. The ZIMCoVVAR study evaluates the effectiveness of these inactivated vaccines against symptomatic COVID-19 in adults. Patients with symptoms consistent with COVID-19 are enrolled at health centres in Harare, Marondera, Norton, Chinhoyi, and Chitungwiza, in a study conducted in collaboration with the University of Oxford Vaccine group.

Dr Tariro Makadzange, C.E.O and founder of Mutala Trust said: “A real-world effectiveness study for inactivated COVID-19 vaccines advances our understanding of vaccine effectiveness, hybrid immunity and emerging variants in Zimbabwe. We believe it will provide critical data that will inform policy in Zimbabwe and contribute to data being generated by other African researchers on vaccine effectiveness on the continent.”

In October 2022, CEPI also partnered with the University of the Philippines, Manila, providing up to US$1.1 million to support a study designed to assess the effectiveness of CoronaVac in preventing COVID-19-related hospitalization in adults. Around 3,000 people hospitalised with symptoms consistent with COVID-19 are being recruited for this study in Batac, Cebu and Ozamuz provinces.

As part of the studies in Zimbabwe and the Philippines, genomic sequencing of SARS-CoV-2 isolates will also contribute to the surveillance of circulating SARS-CoV-2 variants in Sub-Saharan Africa and Southeast Asia.

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