

Policy recommendations to G20 leaders to strengthen global health R&D

As the world continues to grapple with COVID-19, officials across the globe are scrambling to tackle this unprecedented health challenge and resulting economic crisis while not losing sight of other enduring and emerging threats. The pandemic has shown with devastating clarity how vital the research and development (R&D) of health technologies is to confront global health challenges. But it has also exposed the inadequacies of our current systems for supporting this work. The global community has been slow to build—and adequately resource—mechanisms to advance the development of and equitable access to health technologies and to support low- and middle-income countries (LMICs) in strengthening their R&D capacity.

At the same time, the pandemic has underscored the promise of innovation, revealing what is possible when we put adequate resources and political will behind science with an end-to-end plan in mind. Backed by unprecedented support and international collaboration, scientists brought to market COVID-19 vaccines and other tools in record time. While the goals of equitable access have yet to be realized and G20 leaders must ensure inclusiveness and equity are key pillars of COVID-19 R&D efforts and rollout strategies, these achievements show that with proportionate attention and funding, the same rapid scientific gains can be made against a range of long-standing and emerging health challenges.

The lessons learned from this pandemic present an opportunity to rethink the architecture for global health to ensure health R&D and equity are enshrined as top priorities. As G20 health and finance sherpas meet in the coming weeks under the Italian presidency, we respectfully request that G20 leaders consider the following recommendations to bolster R&D to defeat COVID-19, mitigate its impacts, and combat other long-standing and emerging health threats:

Key recommendations:

1. Ensure that ACT-A partners are fully funded, and commit to investing in R&D for new technologies and scale-up of tools to prevent, test, and treat COVID-19 and prepare for future pandemics.

As we race to vaccinate everyone in the world against COVID-19, while working to adapt tools to mitigate the impact of strain mutations and preparing to tackle future emerging health threats, the G20 and its partners must fully fund the Access to COVID-19 Tools Accelerator (ACT-A) to advance COVID-19 vaccine, diagnostic, and treatment product development, manufacturing, and distribution.

- An estimated additional US\$22.1 billion is required in 2021, of which \$14.2 billion is needed in the first half of the year. This includes \$8.7 billion for diagnostics, \$3.2 billion for therapeutics, \$3.2

billion for vaccines, and \$7.3 billion for the health systems connector pillar. In order to respond to emerging variants and programmatic needs, ACT-A will need an additional \$1.598 billion to support the R&D agenda in 2021.¹

- Support direct investments toward innovations that create a pathway for broad access, including in resource-limited settings, such as appropriate product profiles, manufacturing capacity, harmonized regulatory procedures, and health systems capacity.
- Prioritize the equitable global distribution of vaccines by sharing COVID-19 vaccine doses as soon as possible in parallel to the vaccine rollout in G20 countries—especially those with excess doses that will sit in stockpiles for a period prior to administration. “Slot swaps” should be undertaken whereby high-income countries reallocate some of their existing orders immediately, ordering replacement vaccines to arrive later in the year, effectively giving their earlier slots to COVAX to help provide vaccines in early 2021 for LMICs to close the current acute gap in supply, which is likely to last until at least mid-2021.
- Support the necessity of building on ACT-A’s response to COVID-19 to ensure robust and sustainable investment in global pandemic preparedness, including long-term investments needed to strengthen global research, laboratory, and manufacturing capacities.
- Fund the Coalition for Epidemic Preparedness Innovations’ (CEPI) \$3.5 billion replenishment. This funding would support the organization’s moonshot initiative of compressing vaccine development for new pandemics to 100 days and continuing efforts to develop vaccines for known threats. It would also support other CEPI objectives, including preparing clinical trial networks to quickly respond to new threats, coordinating with global regulators to streamline vaccine oversight, and linking manufacturing facilities to speed up production.
- Recognize that the global health research community has considerable expertise that can be deployed to address the next emerging pathogens, and leverage this expertise by maximizing resources for, and use of, existing R&D assets for the development and deployment of vaccines, treatments, diagnostics, and other health tools.

2. Multilateral institutions must be leveraged in new ways to provide sustainable investment in innovation to combat global health challenges.

Existing financing mechanisms for global health R&D are inadequate. G20 countries should ensure R&D investments are eligible for financing from the World Bank and other international financial institutions, such as the African Development Bank, the Asian Development Bank, the Inter-American Development Bank, and the Islamic Development Bank, to provide LMICs the necessary resources to strengthen research, laboratory, surveillance, and manufacturing capacities to respond to both emerging and ongoing health threats, as recommended by the Global Preparedness Monitoring Board report. We also support the establishment of a funding mechanism for pandemic preparedness and other sustainable financing mechanisms, which have the opportunity to make global health financing truly sustainable and catalytic by leveraging additional resources beyond traditional official development assistance or humanitarian aid from novel sources such as the private sector, investment funds, social enterprises, and others. These mechanisms could serve to fund the implementation of the Global Health Security Agenda (GHSA) framework, as well as other global and regional capacity-building activities, including laboratory and clinical trial strengthening, supporting global manufacturing capacity, and research networks.

3. To enhance scientific collaboration and global product development, there must be clear multilateral policy frameworks for R&D.

No global framework currently exists for assessing and strengthening the capacity of countries to develop, approve, manufacture, and deploy vaccines, treatments, diagnostics, and other health technologies—despite the importance of these tools in preparing for and responding to global health challenges.

- As conversations about World Health Organization (WHO) reform continue, we urge G20 members and their partners to prioritize R&D strengthening as part of the ongoing International Health Regulations (IHR) implementation discussions. The IHR framework must include R&D as a central pillar of preparedness. G20 members should also seek to build greater support for the WHO Global Observatory on Health R&D and the Science Division and ensure that their programmatic activities and data are more effectively leveraged for assessing country and regional research capacity.
- Members should also push for integrating R&D and capacity-building for medical countermeasures into the GHSA framework. This global platform should be expanded to include R&D metrics that would help countries assess, prioritize, and better plan for strengthening their R&D capabilities.

4. G20 countries must reprioritize AMR and invest in new tools and technologies to fight the rising threat of the silent pandemic, and develop and operationalize national action plans.

With critical underinvestment in clinical development alongside waning private-sector involvement, we must take urgent action to support the fragile antibiotic pipeline. More broadly, G20 members must invest in quality-assured, new, and improved antimicrobials, novel compounds, diagnostics, vaccines, and other health technologies to fight antimicrobial resistance (AMR), including, but not limited to, hospital-acquired infections. This includes new technologies that address the WHO priority pathogens list, multidrug-resistant tuberculosis (TB), and extensively drug-resistant TB as well as new tools to combat antimalarial and antiretroviral resistance as a part of the AMR response.

G20 countries should support mechanisms and initiatives that coordinate and catalyze R&D for new tools, including the Global Antibiotic Research and Development Partnership and other product development partnerships (PDPs) addressing the broad range of antimicrobial threats, as well as the AMR Action Fund and the Global AMR R&D Hub.

5. Recognize the need to make sustained and continued investments in the fight against major infectious epidemics such as HIV/AIDS, malaria, TB, and NTDs.

The pandemic is eroding gains against HIV/AIDS, TB, malaria, and neglected tropical diseases (NTDs), and increased investment in R&D is needed to regain ground and ensure that universal health coverage, as well as the Sustainable Development Goals, can be achieved by 2030.

Many countries have reported disruptions in their responses to malaria due to COVID-19. Modelling analysis shows that reductions in access to effective antimalarial treatment of 10 percent, 15 percent, 25 percent, and 50 percent in sub-Saharan Africa in 2020 could lead to an additional 19,000; 28,000; 46,000; and 100,000 malaria deaths.² As the COVID-19 pandemic and poverty-related infectious disease

epidemics unfold side by side, a robust integrated response is needed from the global health community to maintain health services that are central to the effective prevention and control of HIV/AIDS, malaria, TB, and NTDs to ensure continued production, supply, and affordability of diagnostic tests, preventive measures, and treatments for these diseases.

G20 leaders must also support R&D capacities that can be leveraged for multiple diseases and health areas and incentivize novel partnerships that can support and advance end-to-end product development, including PDPs, from discovery to access. With dozens of innovations against HIV/AIDS, malaria, TB, and NTDs in PDPs' near-term pipeline, sustained investments are essential if these tools are to be effectively developed and delivered to the people who need them. In particular, greater focus and support is needed for late-stage development, which requires researchers, implementers, and funders to come together to mobilize substantial resources for an extended period of time, as well as platform technologies which can help speed the development of new innovations. With an increasing number of poverty-related and neglected disease products in the pipeline heading toward that stage, there is a serious risk that many efforts may come to a halt due to lack of funding to bring them over the finish line. This would have devastating consequences, potentially regressing on many of the advancements made against poverty-related and neglected diseases in the past decade.

References

1. ACT-A prioritized strategy and budget for 2021 (March 12th update) <https://www.who.int/publications/m/item/act-a-prioritized-strategy-and-budget-for-2021>
2. World Health Organization. World malaria report 2020: 20 years of global progress and challenges. Geneva; 2020.