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Mapping Pandemic Response Financing Options and Gaps¹

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Developed by World Health Organization and the World Bank for the G20 Joint Finance – Health Ministerial Meeting,

¹ This is a working version of the report. It will be revised and extended based on input from G20 members and other stakeholders, as well as internal reviews by contributing institutions.



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EXECUTIVE SUMMARY (I/III)

Pandemic PPR (Prevention, Preparedness, and Response) has emerged as a critical Global Public Good, necessitating a collective effort from the global community. An appropriately scaled, coordinated, efficient and effective response to future pandemics is essential for mitigating the health, social and economic costs.

The preceding G20 process in 2021-22 was instrumental in establishing the Pandemic Fund, an innovative financing mechanism currently concentrating on prevention and preparedness for future pandemics. The Bali Declaration 2022 notes that ‘the broader community must come together to improve our collective prevention, preparedness and response capabilities.’ Building on the Rome Declaration, the Task Force was tasked with continuing to develop coordination arrangements between Finance and Health Ministries and sharing best practices and experiences from past finance-health coordination in order to develop joint responses to pandemics, as appropriate.

As part of the 2023 work plan for the G20 Joint Finance and Health Task Force, WHO and the World Bank have been undertaking a mapping exercise of existing pandemic response financing mechanisms and gaps that can inform the development of an effective, coordinated, and optimized pandemic response financing approach.

This report serves as a preliminary output from this work, and ongoing efforts are being made to further identify financing options, discover potential gaps, and explore opportunities for optimizing the pandemic response financing landscape.

Aims of this Exercise: This exercise aims to conduct a mapping exercise of the financing options that currently exist to respond to pandemics. It reviews both the availability and functionality of financing options, including how well they were coordinated. This exercise is intended to inform potential next steps to develop joint responses to pandemic surge financing.

Definitions and scope of response financing:

Pandemic response financing refers to the provision of financial resources and support to address and manage a pandemic outbreak effectively. For the purposes of analysis we used the following definitions: “financing sources”, which is where the Financing sources, intermediaries and beneficiaries.

Financing framework refers to financing required at different levels of the response, e.g., country-level, regional and global, with a range of instruments and varied sources of funds. The mapping exercise organized these across two levels, including: 1) Country level, which includes 1.1: Domestic emergency response financing and non- contingent external financing (out of scope of this analysis); Contingent external financing; and New external financing arranged after the crisis hits; and 2) Global and regional response level comprising: 2.1: Contingent financing and pre-committed grants for global and regional rapid response and coordination; 2.2: Response-specific bilateral and multilateral support to countries; and 2.3:



At-risk financing to ensure access to medical countermeasures. The mapping exercise examined the availability and functionality of financing options at each of these levels, and across multiple organizations that play a role in pandemic response financing.

Summary of gap analysis

Countries draw on several financing options to respond to pandemics, and an overview of existing financing options as well as those currently in development are laid out in Annex 1. Countries first line of defense includes domestic emergency response financing through the national budget, as well as non-contingent external financing from IFIs and bilateral sources. A survey conducted for the JFHTF as part of the “Finance-Health Coordination Arrangements” found that less than 40% of G20 countries have dedicated pre-existing contingency financing mechanisms for health crisis response.

Another important instrument at the country level is non-contingent financing that is already allocated and is either eligible to finance response or for which there is flexibility to use existing grants from development partners for that purpose. However, much development assistance is heavily earmarked and cannot be easily applied for other purposes. This speaks to the importance of ensuring flexibility in financing to better respond to countries shifting priorities.

The second line of defense for country-level financing includes contingent external financing, and the landscape analysis identified 14 options for contingent financing across many organizations. In general, these options include ex ante contingent lines of credit that enables governments to access external finance after a disaster or a pandemic to meet emergency needs. However, such financing is intended for limited use and time periods. Additionally, not all countries had the mechanisms in place to draw on this financing. A key limitation is the need for replenishment of both the country development envelope that those funds were originally intended for, and replenishment at the level of the institution of the IFI development funds that have been diverted to crisis financing. This often resulted in countries delaying the use of these funds in the anticipation that dedicated grant financing would be made available to fund national response activities.

At the global level, significant financing was immediately available through a mix of, contingent funds and reprogrammed resources. Contingent financing options were fast to respond for the initial phases of the response but were never capitalized to support surge response at pandemic scale. Reprogrammed resources were helpful in that they were already available but not necessarily able to be rapidly used for the highest priority activities.

New financing for COVID-19 made available through appeals was unprecedented and there were many new developments that ensured emergency financing was made available faster than regular operational financing, including streamlined operational processes and delegated approvals. This financing also included rules about the need to prioritize vulnerable groups. However, there were problems with coordination across modalities and limited predictability across institutions.



While significant new financing was ultimately made available by MDBs, existing rules prevented any of this being used to fund “at-risk” activities such as R&D and manufacturing and advance purchase and/or pooled procurement of medical countermeasures. Such “at-risk” financing made available at day zero is critical to enable more equitable access to medical countermeasures for pandemic response. This suggests the need for a pre-agreed triggered instrument to be negotiated with donors, combined with front-loading, in order to secure adequate financing, including at-risk financing, in the first phase of the response.

Finally, the degree to which each of these instruments and channels function effectively together varies. The main findings include that in some cases funding was significant but was not allocated effectively across needs for the response. There was also a lack of ability to rapidly reallocate financing to emerging acute needs as the pandemic evolved.

Next Steps

This report will be revised and developed further based on feedback from the JFHTF members as well as internal review by WHO and the World Bank. It is expected that a final version of the response financing report will be completed by the end of 2023. The report will support the development of a strategy/operational playbook to guide joint finance-health sector readiness to support global response to future pandemics as set out in the agreed G20 JFHTF work plan.

Going forward, the G20 may wish to consider the following actions to address pandemic response financing, while taking into consideration ongoing discussions and ensuring dialogue with those processes:

1. Elaboration of the mapping and gap analysis in the report, including the interplay and potential for better coordination of all pandemic financing options.
2. Development of proposals to optimize existing response financing for speed, coordination, and at-risk financing, for further deliberation by the JFHTF. Ideally, such proposals would involve IFIs, multilateral agencies and sovereign and private donors, and would include articulation of outstanding gaps that cannot be remediated through the proposals.
3. Development of a strategy/operational playbook, including an initial framing of objectives, scope, and framework to codify pandemic response financing and related coordination processes, for further deliberation by the JFHTF. Such a strategy/playbook could be informed by case studies of response financing in a set of countries during the COVID-19 response, together with a scenario showing how financing options could be effectively triggered and coordinated, and how remaining gaps may be addressed. Further development of a strategy/playbook will be an iterative process in the next year and the outcome of proposals above and wider developments in the global health architecture will feed into the final document.



ACRONYMS

ACT-A/ACT-Accelerator	Access to COVID-19 Tools Accelerator
ADB	Asian Development Bank
AfDB	African Development Bank
AIIB	Asian Infrastructure Investment Bank
AVAT	The African Union's Vaccine Acquisition Trust
CAT DDO	Catastrophe Deferred Drawdown Option. An instrument of the World Bank
CBPF	Country Based Pooled Funds, administered by the United Nations Development Programme
CEPI	The Coalition for Epidemic Preparedness Innovations
CERF	Central Emergency Response Fund under the United Nations Office for the Coordination of Humanitarian Affairs
CFE	Contingency Fund for Emergencies, housed at the World Health Organization
COVAX	The vaccines pillar of the ACT-Accelerator, comprising CEPI, Gavi, WHO, UNICEF and PAHO as a delivery partner in the Americas.
COVAX	The vaccines pillar of the ACT-Accelerator, comprising CEPI, Gavi, WHO, UNICEF and PAHO as a delivery partner in the Americas.
COVID-19 CERC	Contingent Emergency Response Component. An instrument of the World Bank
CPRO (ADB)	The COVID-19 Pandemic Response Option. An instrument of the Asian Development Bank
DFC/US DFC:	United States Development Finance Corporation
DPL	Development Policy Loan. An instrument of the World Bank
EIB	European Investment Bank
FIND	FIND Diagnostics
G20	The Group of Twenty, a political forum comprising 19 countries (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkiye, United Kingdom, United States) and the European Union.
Gavi	Gavi, the Vaccine Alliance



Global Fund	The Global Fund to Fight AIDS, TB and Malaria
HAC	Humanitarian Action for Children. An appeal by UNICEF
HLM	High Level Meeting of the United Nations General Assembly
HSRC:	The Health Systems and Response Connector of the Access to COVID-19 Tools Accelerator
IADB	Inter-American Development Bank
IBRD	International Bank for Reconstruction and Development. Part of the World Bank Group
IDA	International Development Association. Part of the World Bank Group
IFC	International Financing Corporation, a member of the World Bank Group
IFFIm	International Finance Facility for Immunization. A Gavi instrument
IFI	International Finance Institution. Includes Multilateral Development Banks and the International Monetary Facility, as well as the Global Fund to Fight AIDS, TB and Malaria
IHR	International Health Regulations (2005)
IMF	International Monetary Facility
IPF	Investment Project Financing. An instrument of the World Bank
IsDB	Islamic Development Bank
JFHMM	Joint Finance-Health Ministers Meeting
JFHTF	The G20 Joint Finance-Health Task Force
LIC	Low-income country
LMIC	Lower-middle-income country
MCM	Medical Countermeasures
MDB	Multilateral Development Banks
MIGA	Multilateral Investment Guarantee Agency. Part of the World Bank Group
MPA	Multiphase Programmatic Approach. An instrument of the World Bank
MPTF	Multiparty Trust Fund, the office of which is hosted by the United Nations Development Programme
OCHA	United Nations Office for the Coordination of Humanitarian Affairs

PAHO	Pan American Health Organization, also the WHO Regional Office for the Americas
PEF	Pandemic Emergency Financing Facility of the World Bank
PHEIC	Public Health Emergency of International Concern
PPR	Pandemic Prevention Preparedness and Response
PVP	Pandemic Vaccine Pool. An instrument of Gavi
R&D	Research and Development
REDISSE	The World Bank's Regional Disease Surveillance Systems Enhancement
SPRP (IsDB)	The Strategic Preparedness and Response Program of the Islamic Development Bank
SPRP (WHO)	WHO's COVID-19 Strategic Preparedness and Response Plan
SPRP (World Bank)	Strategic Preparedness and Response Program. An instrument of the World Bank
UN	United Nations
UNDP	United Nations Development Programme
UNF	United Nations Foundation
UNGA	United Nations General Assembly
UNICEF	United Nations Children's Fund
WHA	World Health Assembly
WHA CA+	A convention, agreement, or other international instrument under the Constitution of the WHO to strengthen pandemic prevention, preparedness and response
WHO	World Health Organization

Mapping Pandemic Response Financing Options and Gaps

A | INTRODUCTION

Rationale

The COVID-19 pandemic unleashed unparalleled public health, economic, and social impacts, spurring an extraordinary range of global policy actions. Other large-scale disease outbreaks this century have also had far-reaching social and economic consequences. The annual probability of an extreme epidemic occurring could increase threefold in the coming decades as a result of climate change, urbanization, global mobility, and the degradation of ecosystems.¹

In response to COVID-19 and prior epidemic and pandemics, there have been broad sources of international financing for response. A set of common challenges have been observed, including those related to adequacy (overall and for specific areas of needs), predictability, timeliness, and equity (geographically and across individuals). Many evaluations of the recent COVID-19 response have pointed to the need for strengthened finance-health coordination in pandemic preparedness and response at the country, regional, and global levels.

To be in a position to propose improvements to the current landscape, there is a need to have a comprehensive perspective on the current and evolving response financing architecture, how it has performed in the context of the COVID-19 pandemic, as well as options and directions for addressing gaps in current arrangements.

Building on lessons from COVID-19, many changes have already been put in place to strengthen surge financing and finance-health coordination, and the context remains dynamic. For example, the Pandemic Fund, (a Financial Intermediary Fund housed at the World Bank, but which provides funding to multiple implementing agencies) is the first multilateral financing mechanism that provides a dedicated stream of additional, long-term funding for critical pandemic prevention and preparedness functions in low- and middle-income countries. While the Pandemic Fund does not plan to support countries with response financing, it helps to support the systems needed to support any future response.

A number of other initiatives are also underway under the leadership of WHO, including efforts to strengthen the global architecture for pandemic prevention, preparedness, and response, including by strengthening international norms and regulations through the World Health Assembly (WHA) that established an Intergovernmental Negotiating Body (INB) to draft and negotiate a pandemic instrument (WHO CA+) with a view to adoption by May

¹ Marani M. Katul G, Pan W, Parolari A. 2021, *Intensity and frequency of extreme novel epidemics*. Proceedings of the National Academy of Sciences of the United States of America. 118(35).



2024. Together with all stakeholders, WHO is also leading the negotiation of targeted amendments to strengthen the International Health Regulations (IHR). The 76th WHA in May 2023 also approved the decision to work towards increasing the share of assessed contributions to 50 percent of WHO's 2022-2023 base budget.

The World Bank Group and other MDBs are focusing on enhancing their ability to respond swiftly to emergencies and support countries in building resilience against future crises. For example, the World Bank Group's 'Evolution Roadmap' aims to enhance the Group's financial capacity and model to better address the scale of development challenges such as poverty, shared prosperity, inequality, and cross-border challenges including climate change, pandemics, and fragility, conflict and violence. Other MDBs are similarly adjusting instruments and procedures based on lessons from the COVID-19 pandemic.

Many global health agencies, public-private partnerships, and bilateral donors are also developing new approaches to strengthen their contribution to PPR, including their role in surge financing for health emergencies, based on their comparative advantages. For example, Gavi is building on its existing suite of market shaping and innovative financing tools to establish a Day Zero Pandemic Financing Facility to provide surge financing for procurement and delivery as part of the vaccine response to a future pandemic. It continues to work with countries and Alliance Partners to strengthen routine immunisation and outbreak response capacities so health systems are better placed to respond next time. It has also launched a new regional manufacturing strategy and plans to introduce a new advanced market commitment to support African manufacturers. Similarly, the Global Fund, as the largest multilateral provider of grants, has played an important role channeling grants to LICs and MICs for COVID-19 tests, treatments (including oxygen), personal protective equipment and critical support for health and community systems, and their model has been able to adapt to address pandemic response. The importance of CEPI became increasingly visible during the pandemic and it has now launched a \$3.5 billion dollar plan known as the '100 Days Mission', which aims to enable countries to have safe and effective vaccines within 100 days of an epidemic or pandemic threat. Together, these agencies are involved in various work programs aiming to improve equitable access to medical countermeasures.

Finally, there are on-going discussions amongst many relevant stakeholders relevant stakeholders have committed to addressing the governance and financing challenges, particularly in addressing gaps in financing response and its scale, predictability and timeliness. This mapping exercise, while it is a deliverable of the G20 Joint Finance-Health Task Force (JFHTF), may also inform wider discussions. Developments in other fora will be taken into account in the final version of this report which will seek to avoid duplication and ensure complementarity.



Principles

The following principles were considered in advancing this work:

- i) The next pandemic may not be similar to COVID-19 and any plans to strengthen pandemic response should maintain a “multi-threat” perspective. Nonetheless, there are a range of financing ‘needs’ that are likely common to many pandemics, and those are covered here;
- ii) The pandemic response landscape is complex and requires a collective responsibility, including country budgets, and funding at regional and global levels;
- iii) Response financing is complementary to and must not displace financing for prevention and preparedness, with incentives in place to prevent any ‘moral hazard’. An effective response will require long-term preparedness investments, including ‘dual-use’ investments supporting existing health infrastructure and infectious disease response that offer benefits during pandemic and non-pandemic times; and
- iv) The capacity to deliver the response on the ground is equally important as the financing response.

Scope and Definitions

Pandemic response financing covers three main categories of response, including the public health response; the social and economic response; and the macroeconomic response. The mapping exercise presented here focuses only on the first category of the response, given the audience for this work (Table 1). It should be noted that there is not always a clear distinction between the health and social response. For example, some MDBs health response included social and financial support to households, both to finance fee waivers for health care, but also cash transfers for vulnerable households and food support.

Table 1: Types of responses and examples of activities needed for COVID-19 response

Type of response	Examples of activities	Focus of mapping?
Public health response	Detection, containment and response (including characterization of the threat, surveillance, risk communication etc.); provision of care and maintenance of essential health services; research, development, manufacturing, procurement and deployment of medical countermeasures; coordination	✓
Social and economic response	Protection of livelihoods, jobs and businesses including scaling of social protection schemes, exceptional support to businesses to mitigate impact of public health and social measures	X
Macroeconomic and fiscal response	Macroeconomic interventions and fiscal policy measures that increase transparency, preserve financial stability, such as monetary easing, liquidity provisions, etc. (includes IMF support)	X

Scope of mapping: Pandemic response financing requires actions across national, regional,

and global levels, and across public and private sectors, and from national and international sources. However, this exercise focuses on external financing options that supports national response activities for the first six months of a pandemic. Despite the exclusion of domestic financing from this exercise, it remains an important source of financing pandemics, particularly in the initial phase. Nonetheless, the report does provide some characterization of domestic financing and the role it plays in pandemic response.

The following definitions have been used to underpin the analysis:

- **Pandemic:** Disease outbreak that spreads across countries and/or continents (beyond a regional outbreak).
- **Pandemic threat:** A situation in which a pathogen with pandemic potential has been shown to cause an outbreak, with consistent disease patterns indicating that serious morbidity and mortality are likely in at least one segment of the population.
- **Day Zero:** The initial day a pathogen, capable of causing severe disease with pandemic potential, is identified.
- **Pandemic response financing:** Financing of parallel rapid actions from the onset of a pandemic threat at all levels—global, regional, and national—to alter a pandemic's trajectory through containing and controlling outbreaks, to mitigate its epidemiological, social, and economic impacts. It includes the accompanying functionalities to manage the mismatch between demand and supply of scarce or new essential tools, while ensuring equitable access to these across countries. (The main focus of this analysis is the first six months, from Day Zero).
- **Contingent financing:** Financing that is triggered under pre-defined conditions. This could be a hard trigger such as a declaration of emergency, or a soft trigger based on a rapid assessment of an emergent situation, or at the discretion of the fund manager or governing authority in an affected or threatened area.

‘At-risk’ financing: *Financing where there is risk that the payment will still be made even when the product or service purchased is received, in this case an example is financing used to procure countermeasures prior to regulatory approval and precise demand estimates – but which is required to secure early access to scarce products in a pandemic situation. Some countries were particularly disadvantaged during the COVID-19 pandemic due to inability to finance at risk procurement. Financing is ‘at risk’ as some of or all of the funding may be non-refundable irrespective of whether the final product is approved or needed.*

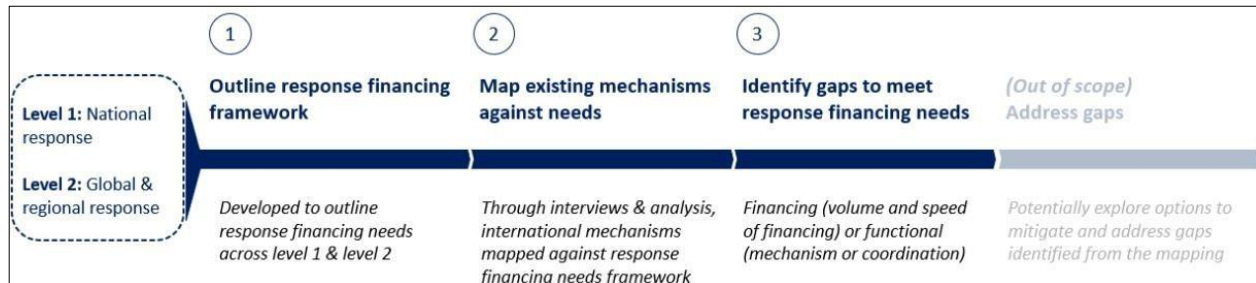


Approach and Methodology

This report provides a mapping of the multilateral financing options for national, regional and global pandemic response elements across the response timeline, and for major financing needs. There is a temporal dimension of the pandemic response (e.g., from investigation to containment to control and mitigation), and a needs dimension. The methodology for this mapping is summarized in Figure 1.

A landscape analysis was carried out to identify the financing options that were activated by multilateral implementing agencies, development banks, development finance institutions, UN funds and other financing options during the COVID-19 response. An initial summary of the available financing options is provided in Annex I.

Figure 1: Methodology for mapping existing international financing options and gaps



A performance assessment was then carried out on the available instruments using the following criteria: adequacy (both overall and for specific needs); timeliness (in terms of commitments, disbursement and use); predictability (including how well timing was communicated to countries and the global community); equity (across regions, categories of countries and individuals), and efficiency, transparency and integrity in the use of funds. These dimensions of performance are ultimately determined by functional/process gaps (coordination, adequacy of capacity and processes of donors, intermediaries, and beneficiaries). Given the complexity of the landscape, this analysis is ongoing as more information becomes available and as organizations validate the findings that have emerged from the exercise.

The methodology for assessing performance included interviews with multilateral implementing agencies, development banks, and others, data analysis and desk research, and through a review of World Bank instruments. In the case of bilateral donors, data from the ACT-A Commitment Tracker was accessed in addition to direct outreach to major donors, and consultation of the OECD database².

In addition to reviewing those mechanisms activated for the COVID-19 response, the mapping

² OECD. Stat, Total flows by donor (ODA+OOF+Private) [DAC1] [Accessed 5 June 2023: <https://stats.oecd.org/Index.aspx?DataSetCode=TABLE1#>]



exercise also highlights the new options or adaptations to existing options that could be used for future responses.



B | MAPPING OF PANDEMIC RESPONSE FINANCING NEEDS AND OPTIONS

Framework for mapping

Data on response financing is inherently difficult to compile for various reasons. There are multiple sources of international financing, including bilateral donors and philanthropies. This financing is then channeled to countries and other beneficiaries using their own system. However, significant volumes of financing also flow through other channels or intermediaries, such as multilateral Development Banks, the Global FUND, UN agencies, Gavi, CEPI, and NGOs/Foundations. The multiplicity of financiers and intermediaries (with their own systems and procedures) creates a significant coordination challenge.

Pandemic response financing can also be classified by function and these functions will vary by pandemic. For example, a large share of COVID-19 financing in 2021 supported the acquisition of vaccines. While it is impossible to know if a future pandemic will require vaccines as part of its response, it is important to note that vaccines have been the core response intervention for six of the seven Public Health Emergencies of International Concern (PHEIC) declared since 2007. Thus, long-term investments in routine immunization and outbreak response are essential to strengthen country systems so that they are better prepared for and can respond to future epidemics/pandemics. The work of Gavi – including Alliance Partners such as the WHO, UNICEF and World Bank – to rebuild routine immunisation systems in low and lower-middle income countries post-pandemic will be important. There are also other categories of needs that will likely be common to any future pandemic, including surveillance, training of health care workers, supply chain and logistics, country coordination, infection prevention and control, community engagement, etc.

Different financing needs require different financing options

A key challenge for the mapping exercise is that different mechanisms were employed for different purposes and to cover different categories of ‘needs’ at different levels. For example, the pandemic public health response at the country level covers functions that support the detection, reporting, containment and response to a threat, including through surveillance, community protection, safe and scalable intensive care, maintenance of essential health services, access to medical countermeasures and national emergency coordination, and more. Each of these categories require different types of financing. Consideration of different country contexts (e.g., income level, debt distress) and the magnitude of the pandemic or pandemic threat may also influence the use of different options. For example, while high-income countries may be well-positioned to finance the bulk of their response through domestic financing, low-income countries, and to a lesser extent, middle-income countries rely on external financing. Countries also need to consider how to best balance the mix between lending and grant-financing, and this split will vary by pandemic and the specific needs of the country or region.



A global and regional level response is needed to complement national responses to produce global public goods such as characterization of pathogens, containment and ongoing communications and coordination as the pandemic unfolds, as well as capacity building, standard setting, information sharing, recommendations, etc. Technical assistance, operational support, in-kind contributions are also often provided. At the global and regional level there is a need to address market failures regarding the development of new tools and equitable access to scarce commodities, including through the research and development, as well and assistance to global level coordination, standard setting and information sharing, mobilization of surge capacity (operational, service delivery, etc.) and addressing market failures regarding the development of new tools and equitable access to scarce commodities. For example, global and regional needs include at-risk financing of research and development (R&D) and manufacturing (including support to cover potential write-offs) to securing volumes of scarce MCMs and MCMs in the development pipeline, potentially through revolving funds, advance market commitments or other options, to delivery of countermeasures. Note that purchases of MCMs through global or regional revolving funds may be made using domestic funds or with international financing.

These needs have specific characteristics in terms of financing speed and magnitude, operational constraints, and risk profile. As a result, regional and global financing options have been separately mapped for various categories of need.

The financing needs and the categories of options available are outlined in Table 2. While domestic financing is a critical component of response, it was beyond the scope of this report.

Table 2: Financing needs and categories of options available at country and regional/global levels

Levels	Needs	Financing mechanisms
Country response	Detection, containment and response (including characterization of the threat, surveillance, risk communication etc.); access to MCMs; provision of care and essential health services; national coordination; technical assistance	1.1 Domestic emergency response financing & non-contingent external financing for country response
		1.2 Contingent external financing
		1.3 New external financing after the crisis hits
Regional and global response	Characterization of the threat; containment and ongoing communications and coordination; technical assistance, operational support, in-kind contributions; research, development, manufacturing, procurement and delivery of medical countermeasures, etc.	2.1 Contingent financing and pre-committed grants for global rapid response and coordination
		2.2 Response-specific bilateral and multilateral support to countries, excluding MDBs
		2.3 Financing (including at-risk) to ensure access to MCMs



Each of these financing categories are described below and the strengths and limitations of them are discussed in the performance assessment in the next section.

1. Country Level Response Options

Summary of Financing Options at Country Level

In accordance with the IHR Article 13, countries need to “maintain the capacity to respond promptly and effectively to public health risks and public health emergencies of international concern”.³

Countries can strengthen their financial resilience to pandemics by using a three- tiered risk layering strategy to cover pandemic response. This includes a combination of different financing options, including budget reserves and reallocations; pre-arranged contingent financing offered by IFI; and new external financing arranged after the pandemic hits. Sovereign risk transfer instruments for pandemics, such as pandemic catastrophe bonds, are noted in the ongoing landscape analysis which is summarized in Annex I. in addition bilateral and private sector financing options supported country responses and will be further considered.

1.1a Domestic emergency response financing

The capacity for a pandemic response requires governments to maintain fiscal buffers against such health-related contingencies. The National budget may include a variety of funding sources including domestic and external. Budgetary instruments that are commonly used are include: i) budget reallocations (through transfers between budget items, reprioritization of expenditures, or a supplementary budget) which allow transfers to meet new and urgent expenditures; ii) contingency reserves in the budget which can provide flexibility to respond quickly⁴; and iii) dedicated emergency funds that are established to create a fiscal buffer to cover expenditures associated to unforeseen emergencies.

1.1b Non-contingent external financing

Non-contingent external financing from IFIs and Bilateral sources may also be on- or off-budget and may allow for response activities to be deemed eligible expenditures. For existing projects that do not include pandemic response as an eligible expenditure, governments could request a restructuring of their existing grants or loans to meet new spending needs. This may require changing the legal agreements and result in additional requirements. However, the distinction between this category and the category (1.2) below is that resources are already committed at country level and can be either used

³ WHO, 2005, International Health Regulations, Available at: <https://apps.who.int/iris/bitstream/handle/10665/246107/9789241580496-eng.pdf>

⁴ Most countries have annual contingency reserves or general budget allocation for minor shortfall in their budget.



readily or reallocated.

1.2 *Contingent external financing*

Contingent external financing refers to pre-arranged approaches that allow quick-disbursing funds in the immediate aftermath of a crisis, but financing is typically limited and focused on initial needs. Pre-arranged financing mechanisms can lead to disbursements as soon as disbursement criteria for activation are met (which can be after Day Zero but before a Public Health Emergency of International Concern (PHEIC) or pandemic is declared) depending on agreement conditions and willingness to reprogram. Such financing prevents countries from having large idle cash in budget reserves and reduces reliance on ad-hoc humanitarian aid and budget reallocations, helping to reinforce budget and fiscal resilience.

1.3 *New external financing arranged after the crisis hits⁵*

Many IFIs have strengthened their emergency response toolkits in recent years, especially now in the light of concurrent crises such as pandemics, climate change, conflict, and natural disasters. Under the triggering of a crisis (e.g., through the declaration of a PHEIC), a number of tools may be made available, including bilateral and multilateral financing. These crisis response toolkits often include a mix of financing options, including reallocations, contingent financing and new financing. For example, the World Bank's Strategic Preparedness and Response Project (SPRP) represented a new financing option but relied on a combination of new IDA and IBRD resources, as well as reprioritization of projects from the IDA and IBRD portfolio. Across 10 Multilateral Development Banks, US\$200 billion was made available across pre-arranged contingency and external new financing over the course of the pandemic. This mix of financing played a critical role in expanding options for countries' emergency response. However, it's important to note that the term 'new' financing from IFIs may also be misleading given that funds are fungible in that much of the new financing for response would have an opportunity cost for other uses unless there are also replenishment processes underway. This is discussed in more detail in the performance assessment.

2. Global and Regional Level Response

Summary of Financing options

At the regional and global level, there were many different types of financing to cover the needs illustrated in Table 2. This included: 2.1: Contingent financing and pre-committed grants for global and regional rapid response and coordination; 2.2: Response-specific bilateral and multilateral support to countries; and 2.3: At-risk financing to ensure access to MCMs. The strengths and limitations of each of these is

⁵ This note does not address ex-post borrowing from domestic markets.



discussed below.

2.2 Contingency financing and pre-committed grants for global and regional rapid response and coordination

The immediate characterization of a pathogen, immediate support to the response and containment, as well as the ongoing international coordination and communication of a pandemic response requires disbursement from Day Zero of a pandemic threat. Financing sources for this included existing bilateral funding, either through appeal grants or pre-committed grants.

2.3 Response-specific bilateral and multilateral support to countries, excluding funding from MDBs

Above and beyond financing at a national level, both domestic and MDB-financed, international organizations and bilateral donors are called upon to support countries through multilateral implementing agencies with technical and operational support, as well as financial support and assistance with the procurement of scarce MCMs and MCMs in the development pipeline. For example, this funding could be used to purchase MCMs through a globally or regionally operated pooled procurement revolving fund, as described in level 2.3, which would absorb product and epidemiological risk. During the COVID-19 Pandemic, this was the role played by COVAX, the global pooled procurement mechanism established by the Gavi Alliance as the Vaccines pillar of the ACT-Accelerator. Funding to purchase MCMs is also available from Level 1 (country response financing). For example, during the COVID-19 pandemic, countries used a mix of financing sources and received donations (in-kind and financial) to purchase or obtain COVID-19 vaccines.

Historically, this financing was mobilized through crisis-specific appeals led by multilateral implementing agencies or groups of these agencies, such as the ACT-Accelerator, and this therefore represents new financing. Pooled procurement at regional level was carried out by the African Union's African Vaccine Acquisition Trust (AVAT) and PAHO, and others. This support is required soon days after Day Zero, once initial response, characterization and coordination are underway.

2.4 At-risk financing to ensure access to MCMs, e.g., working capital for pooled procurement, at-risk investment in R&D, manufacturing

To address market failure regarding new and scarce MCMs, financing is needed globally to support R&D, manufacturing and to provide working capital and to cover losses associated with pooled procurement for both scarce and future products. These activities begin once characterization, initial response and coordination are underway, requiring financing from 28 days after Day Zero. The needs within 2.3 can be separated into two categories as described in 2.3a and 2.3b below.



2.4 a Funding R&D and Manufacturing

At-risk financing is needed to finance R&D and support to manufacturing of future countermeasures, including any potential write-offs resulting from product failures. Financial sources are detailed in Annex I.

2.4 b Working capital for a revolving fund for MCMs

Financing of a revolving pooled procurement fund is needed to establish working capital and to cover losses. During the COVID-19 pandemic, COVAX played the role of a global demand aggregator – in particular for low and low-middle income countries - building a diversified portfolio of vaccines through advance commitments and taking on risks which would otherwise have been left to individual countries or regional procurement mechanisms to manage. Pooled procurement by countries, as was carried out by AVAT, also needed working capital for early at-risk purchases. The initial working capital was required to secure volumes of scarce MCMs and MCMs in the development pipeline. The revolving fund would be replenished as these MCMs are purchased by individual countries, potentially through financing described in levels 1.1, 1.2, 1.3 and 2.2. For example, funding from an MDB loan, part of Level 1.3, could be used to reimburse the revolving fund for purchase of MCM by a country.

At-risk financing is needed to cover potential losses related to the following risks: i) *Product Failure*: The risk of investment loss in advance purchase of a countermeasure due to failure to bring a product to market; ii) *Demand Failure*: The risk of not being able to absorb the procured quantity of countermeasures; iii) *Epidemiological Risk*: The risk that the characteristics of a pathogen change, rendering countermeasures ineffective or redundant; iv) *Default risk*: The risk that an entity will fail to repay the procurement agent for the commodity ordered or received e.g.: through a revolving fund; and v) *Price risk*: The risk that drastic reduction in market prices pushes the revolving fund to accept a write-off on part of their procured product.

In order to secure volumes of a MCM that is in the development pipeline, it is sometimes the case that only about 30% of the total amount of the order needs to be paid in advance, with the balance due on delivery of the product. Because the product is not yet through regulatory approval, the balance may not be due for months. In the case of pooled procurement by a global or regional organization, setting aside the whole value of the contract ties up capital which could be more productively used for other purposes. Once the product is approved, it can be purchased by countries that need it through the revolving fund. Therefore, a form of bridge financing is needed that would serve to 1) backstop the full value of the contract without tying up cash, and 2) absorb losses should the product/manufacturer fail or should demand collapse. This is an area which will



require innovative solutions, which will also require learning the lessons from COVID-19 and providing end-to-end funding across the countermeasure value-chain – so that both potential procurement and in-country delivery capacity can be built up from day-zero of a future pandemic.

This section is currently a summarized version of a complex landscape and requires further development of a full mapping of contingency financing and pre-committed grants (beyond CFE), and the role of response specific bilateral and multilateral support and at-risk financing as well as further detail on the role of regional entities and initiatives as well as the role of country financing for MCMs.



C | PERFORMANCE ASSESSMENT OF PANDEMIC RESPONSE FINANCING OPTIONS

As noted in the methodology above, the performance assessment considered the following criteria: adequacy (both overall and for specific needs); timeliness (in terms of commitments, disbursement, and use); predictability (including how well timing was communicated to countries and the global community); equity (across regions, categories of countries and individuals), and efficiency, transparency and integrity in the use of funds.

1.1a Domestic financing

While this was outside the scope of the mapping, some lessons will be shared in the final version of the report. For more information, the IMF's Database of Fiscal Policy Responses outlines the magnitude of the response (in terms of share of GDP), using a variety of policy measures.⁶

A key conclusion is that the national budget should remain the first line of defense for pandemic response, but most countries have not planned financing for response. A survey carried out by the G20 Joint Finance-Health Task Force revealed that only 40% of G20 countries have established surge financing mechanism that could be utilized in a pandemic threat or pandemic. This is a critical gap that could be addressed for better preparedness.

In addition to lack of budgetary resources, countries face a range of barriers, including fiscal constraints, debt distress (and this debt servicing may crowd out public spending), public financial management rigidities, political or bureaucratic bottlenecks, lack of institutional capacity, etc. These issues warrant attention but are not the focus of this report.

1.1b External non-contingent financing

The reallocation of non-contingent external financing at the country level plays an important role in surge financing but expectations need to be managed. This financing is typically intended to meet specific needs at the beginning of the pandemic. Therefore, being able to ensure speed of this financing is the most important variable. Further details about the number of options available will be provided in the final report.

The most important key lesson is noted below:

- *Flexible financing arrangements are critical for rapid disbursement of response financing.* Some of this flexibility may be already built into financing agreements, particularly those that have 'dual use' objectives such as projects that aim to

⁶ IMF, 2021. Database of Fiscal Policy Responses to COVID-19. Available at: <https://www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19>



strengthen health systems, and support preparedness and public health functions. For example, at the start of the COVID-19 pandemic, the World Bank's Regional Disease Surveillance Systems Enhancement (REDISSE) projects were able to immediately finance some response activities because the activities were deemed eligible under the project. However, external financing is often earmarked for specific purposes and is not so easily reallocated. Having flexibility built into development assistance is therefore important. For example, the Global Fund made US\$500 million available to countries in February 2020, i.e., before the PHEIC announcement, by drawing on existing grants already in countries. Gavi was also able to redirect funding from approved local budgets at country request to fight COVID-19 in the early months of the pandemic and provided over US\$40 million of funding to UNICEF to help facilitate the at-risk funding of PPE for health workers. These flexibilities were allowed even though the activities were not directly related to the core mandate.

A key recommendation is therefore to relax some of the rules around existing financing in the context of an emergency and prevent the verticalization of financing. Ensuring flexibility in the use of development assistance is a good practice in non-emergency times anyway and can contribute to the tools available for surge financing.

1.2. *Pre-arranged contingency financing*

In the immediate days and weeks of the crisis, reallocations of financing (based on ex ante contingent arrangements) were performed by all IFIs as it was the fastest way to support countries.

The landscape analysis identified 14 contingent financing options across many organizations. For example, the World Bank has offered ex-ante crisis risk financing through contingent financing products, like the Development Policy Financing (DPF) with a Deferred Drawdown Option (DDO), the DPF with a DDO for catastrophic risk ("DPF Cat DDO"), Contingent Emergency Response Components ("CERCs") in Investment Project Financing (IPFs), and IPFs with DDO. Other IFIs offer ex-ante crisis risk financing for health-related emergencies. The Inter-American Development Bank offers a Contingent Credit Facility that provides ex-ante coverage for pandemics and epidemics. Further additional details on the full spectrum of options of different organizations will be provided in the final report.

The performance review identified several strengths of contingent financing:

- *Financing was relatively fast* but needs to be even faster for a future pandemic. For example, through the World Bank's US\$12 billion COVID-19 Fast Track



Facility, in which a variety of contingent financing options were used (CERCs and CAT DDO), the median time for both to disburse was one month, with the first disbursement made in March 2020.

- *Most, if not all, IFIs had taken actions to delegate authority and simplify procedures (to be confirmed).* For example, in the Islamic Development Bank, the President was granted authority to approve projects without going through the Board. The World Bank's Board also delegated authority to regional VPs after an initial batch of projects was approved. This decreased the time taken to approve projects and was a useful lesson for future emergency response.
- *While significant financing was available from IFIs and through several options from multiple organizations, it was intended to finance only limited needs.* Funds in quantities of tens of billions of dollars were not readily available within 28 days of a PHEIC being declared.
- *There is not currently widespread use of pre-negotiated crisis window arrangements.* An evaluation of the World Bank found that roughly 65 percent of countries had CERCs in their portfolios in the 15 months leading up to COVID-19, but only twenty-two had a high proportion of CERCs in their portfolios. Capacity building for the use of instruments, and dialogue with country counterparts about the use of these instruments is also important.⁷
- *Not all financing could be activated readily, as some arrangements require countries to declare an emergency to make resources available.* Clarifying rules and ensuring that the rules around financing of each agency are well communicated would improve predictability and coordination.
- *Even when financing was available, countries did not always draw down on the financing due to demand, competing priorities, capacity issues, and other factors that vary by organization.*
- *Lack of flexibility was also an issue.* With restrictions on how (repurposed) contingency financing can be spent, funds cannot always be aligned to National Response Plans thereby limiting their potential impact.

There are also a number of key lessons. First, clarifying rules and ensuring that the rules around financing of each agency are well communicated would improve predictability and coordination.

⁷ World Bank. 2022. The World Bank's Early Support to Addressing COVID-19: Health and Social Response. An Early-Stage Evaluation. Independent Evaluation Group. Washington, DC: World Bank.



Second, contingent financing requires replenishment of both the country development envelope, and of the IFI development funds that have been diverted to crisis financing. Already opportunities are arising to adapt and expand these tools to better respond to client demand for immediate emergency response, including through the World Bank's Evolution Roadmap process.

1.3. New external financing arranged after the crisis hits

Our initial analysis identified seven new financing options across six organizations. The World Bank's Multiphase Programmatic Approach (MPA) included new financing and Development Policy Lending provided rapid budget support linked to policy actions. Regular projects prepared outside the MPA, often building on ongoing health operations, or active projects, were also restructured to add new financing. Details of non-IFI sources of funding, including multilateral implementing agencies, are provided in Annex I. Annex II provides snapshots of bilateral support to multilateral implementing agencies for the COVID-19 response at three points in the response: end of 2020, 2022, and mid-year 2023. Details of bilateral direct support to countries were not included in this analysis but will be included in future work on this topic.

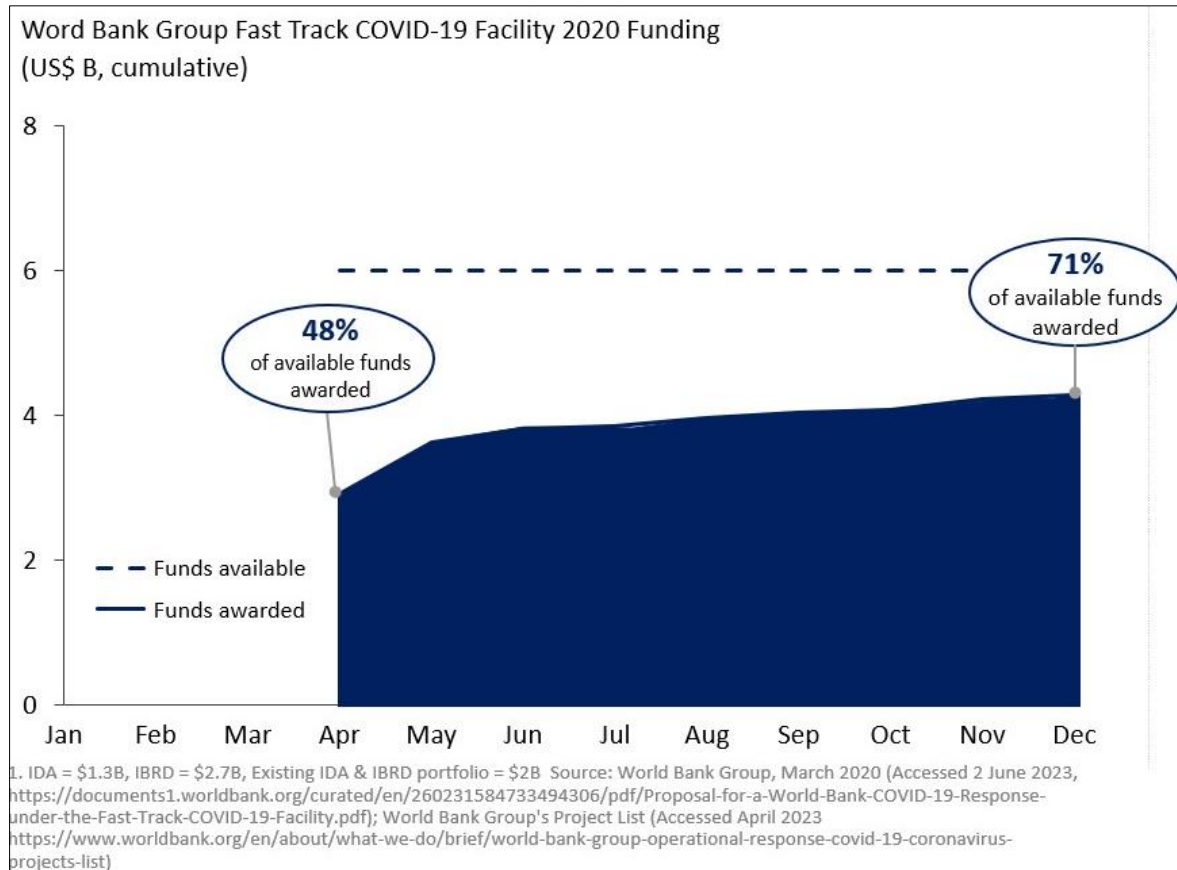
There were a number of strengths identified by the analysis:

- Financing made available was unprecedented. Given the uncertainty, making these resources available through a mix of sources was critical.
- New external financing demonstrated strengths in rapid project approval, leveraging technical lessons, and establishing a foundation for future recovery. It provided faster financing options for crisis coordination, relative to past crises, and supported the expansion of services for vulnerable groups.
- In terms of timeliness, several evaluations of MDB financing note that MDBs were relatively fast at making new financing available to countries quickly, particularly when compared to standardized lending programs, and that this was welcomed by recipient countries. Of course, this financing was not as rapid as contingent financing, which speaks to the value of coordinating across multiple financing options. (For countries that did not have contingent financing, the new financing may have been deemed too slow.)
- There were a number of actions taken by MDBs to facilitate rapid availability of financing. For example, the World Bank's Strategic Preparedness and Response Project (SPRP), which included the COVID-19 MPA (financed by new IDA and IBRD resources) as well as reprioritization of projects from the IDA and IBRD portfolio, was designed to enable rapid processing of financing through



operational flexibility, including measures such as shortened clearance times and delegated approvals (with Executive Board approval of the entire amount). As a result, the first projects started to disburse in about two months, which was much faster than previous crises. The details of this multi-country project are shown in Figure 2. By April, 48% of available funds were committed to countries, and 71% were committed by the end of the calendar year.

Figure 2: World Bank Group Strategic Preparedness and Response Project, 2020 (US\$6 billion, cumulative)



Still there are a number of important limitations.

- *While funds were made available quickly, disbursement was sometimes slow.* Interviews with MDBs noted slow disbursement of resources once they were made available (committed) to countries, due to slow country uptake, poor coordination, and other barriers (e.g., ~4 months between approval and disbursement of financing from their crisis response financing facilities).
- *Demand for financing was slow* and this was driven by many factors including competing priorities, unpredictable availability of development assistance from

various sources, debt pressure and requirements that made it challenging to access financing in a crisis setting. The new financing that was allocated for the COVID-19 pandemic was not exceeded. It will be important to explore whether certain categories were insufficiently funded.

- *While significant new financing was ultimately made available by MDBs for countermeasure purposes, existing rules prevented any of this being used by countries to fund the 'at risk' procurement of countermeasures.* For example, in the case of vaccines, often regulatory approval from at least one, sometimes more, Stringent Regulatory Authorities was a binding constraint. This, combined with competing priorities, unpredictability around the availability and timing of in-kind donations of vaccines (see 2.2), made it difficult for countries to allocate funds.
- *Lack of coordination and predictability impacted uptake,* with many countries unwilling to use concessional loans in case grants for COVID-19 vaccines later became available.
- *Response financing can affect financing for long-term development goals unless funds are replenished.* For example, the World Bank increased resources to IDA eligible countries to help them cope with the impacts of COVID-19, by frontloading resources from the nineteenth IDA replenishment and truncating the implementation period from three to two years. This meant that the Twentieth IDA replenishment had to be advanced by one year.
- *MDB financing should be better matched with financing needs.* A CGD report notes that the fact that IMF financing was relied on so heavily for not just financial stabilization but also for budget support and financing of vaccination, suggests that MDB financing is inadequate, and that there needs to be clearer delineation between MDB and IMF financing.⁸
- *Some sources of financing are underutilized but their potential will be further explored in the next step of this work.* The World Bank's Crisis Response Window (CRW) is intended as a last resort to finance new projects for IDA-eligible countries in the case of severe crises. The CRW Early Response Financing (ERF) may support slow-onset disease outbreaks. Special facilities such as the Pandemic Emergency Financing Facility (now closed) and Trust Funds can also finance rapid response. New Development Policy Financing first disbursed in May 2020 and was useful for rapid expansion of crisis support for vulnerable groups, surveillance systems,

⁸ CGD, 2021. MDBs to the Rescue? The Evidence on COVID-19 Response. Available at: <https://www.cgdev.org/publication/mdbs-rescue-evidence-covid-19-response>



and new policies to protect child welfare, but it was underutilized in the health sector.

Further detailed analysis of speed of uptake, commitment, and disbursement relative to past experience and key factors (internal MDB and at country level) contributing to delays (with a focus on the first 6 months) will be required in addition to details on the role that bilateral financing has played and how that was programmed.

1.4. Global and Regional Rapid Response and Coordination

Funding from development partners for the global and regional response was important. Seven financing options were mapped across 6 organizations (See Annex 1). While there will be a more detailed assessment of available financing sources and modalities, including limitations by function and geographically, the main conclusions of this analysis are as follows:

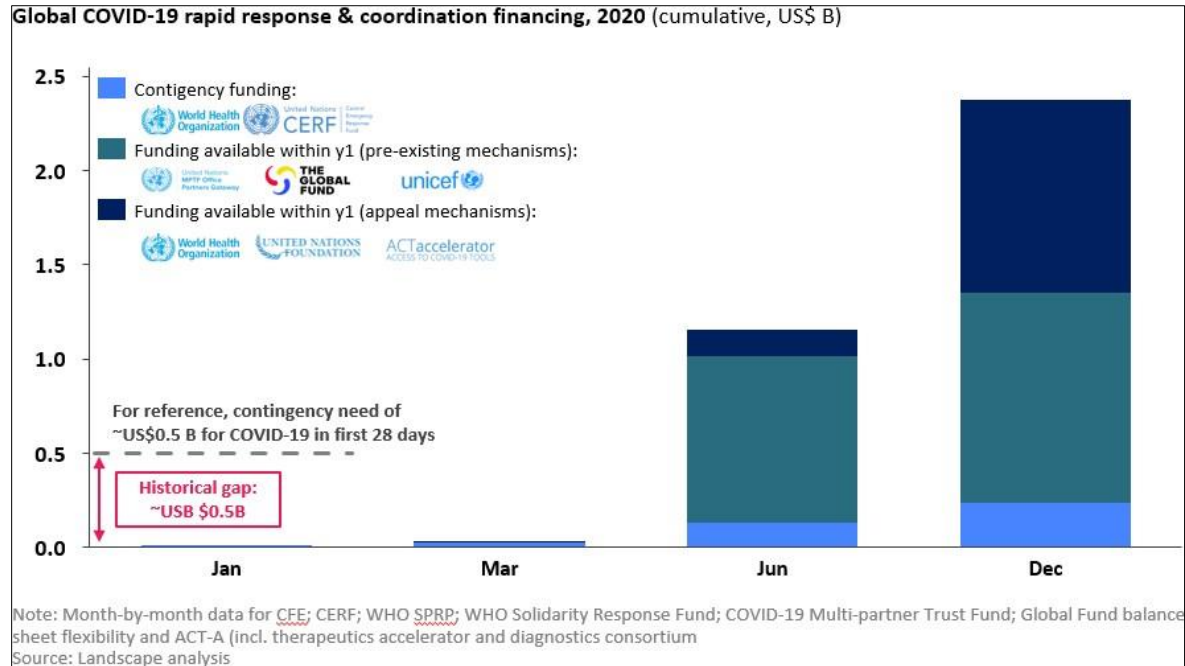
- *Financing was inadequate to meet the needs; there was a financing gap of ~US\$0.5 billion in the first 28 days of the response, based on the COVID-19 experience. Significant financing was available overall in year 1 of the COVID-19 response; financing needs were met through 8 identified modalities, with ~45% of this funding coming through appeals (e.g. the UN Foundation’s Solidarity Response Fund, WHO’s SPRP Appeal and the Diagnostics Consortium for COVID-19). Funding over 2020 is shown in Figure 3.*
- *Contingent sources of financing are designed to cover immediate and limited needs, and not finance later stages of a response. For example, the WHO Contingency Fund for Emergencies (CFE) was designed for limited use and disbursed just under US\$0.1 billion against an estimated need of ~US\$0.5 billion⁹.*
- *Some development partners were able to make financing available in the first few months. For example, funding from the WHO Contingency Fund for Emergencies (CFE) was able to make made funds available as early as January 2020. Other mechanisms were also available for rapid disbursement, including the UN OCHA Central Emergency Respond Fund (CERF) and the Global Fund Emergency Response Fund. An advantage of Global Fund’s Emergency Response was that flexibility was granted by its Board so that it could disburse funds beyond its mandate of HIV, TB, and Malaria. For example, it invested over \$600 million in Oxygen, which was critical in responding to COVID-19. Such flexibility of financing is an important lesson for future response efforts.*

⁹ The financial needs amounts stated in this analysis are references to the needs identified during the COVID-19 pandemic. Therefore, the actual needs in the next pandemic could vary according to the specific characteristics and contingencies of that situation.



- *There were problems with coordination across modalities and with limited predictability due to reliance on appeals.*

Figure 3: Summary of COVID-19 global rapid response and coordination financing, 2020



1.5. Response-specific bilateral and multilateral support to countries excluding MDBs

Ten financing options were identified as part of the mapping exercise to cover bilateral and multilateral support. Of the US\$11.9 billion in Official Development Assistance (ODA) for COVID-19 activities in 2020, ~75% was directed towards multilateral agencies, with ~25% going directly from sovereign donors to LICs for their response¹⁰. The ACT-Accelerator appeal for the COVID-19 response was launched six months into the pandemic, and over 75% of its funds were raised after the first year, as shown in Figure 4.

It is important to recognize that the COVID-19 response featured important innovations on behalf of global health organizations, building on existing partnerships. For example, COVAX the Vaccine Pillar of the ACT-Accelerator, was established from scratch by Gavi and Alliance partners within three months of day Zero, as a global pooled procurement mechanisms to secure access to COVID-19 vaccines including the COVAX Advanced Market Commitment (AMC) which was established to provide

¹⁰ OECD. Stat, *Total flows by donor (ODA+OOF+Private) [DAC1]* [Accessed 5 June 2023: <https://stats.oecd.org/Index.aspx?DataSetCode=TABLE1#>]



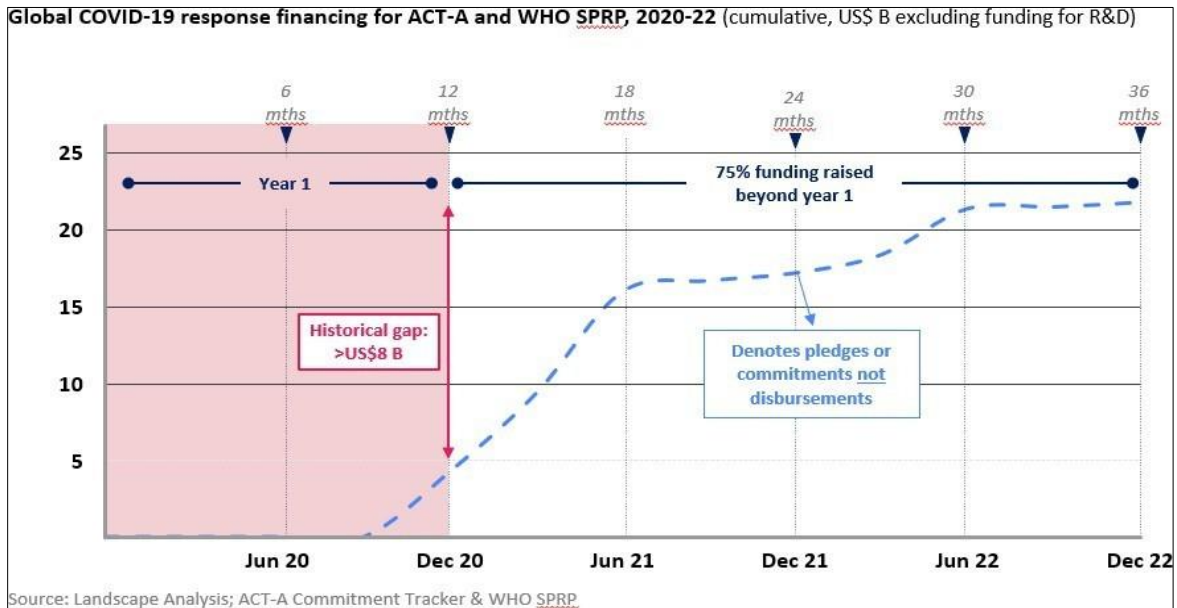
free access to vaccines for 92 lower-income countries. The COVAX AMC raised over US\$10 billion in finance for vaccine procurement and delivery by the end of 2021, enabling it to build a portfolio of vaccines by entering into advanced market commitments with manufacturers prior to regulatory approval. This was used to deliver over 1.8 billion vaccines to AMC countries.

At the regional level there were also important developments. Despite this, there were several limitations:

- *Cash was inadequate to secure early access.* A key challenge for COVAX was that only US\$0.4 of those pledges of US\$10 billion made to COVAX were paid into COVAX by the end of 2020, which limited the extent to which Gavi could act quickly in the market to secure access for AMC countries. The delay of this funding was a contributing factor limiting access to vaccines as they became available in 2021. Gavi is working with Alliance Partners and regional organizations to learn lessons for the next pandemic, including working on the creation of day-zero financing facility which aims to provide contingent, at-risk funding available from day zero for vaccine procurement and delivery for the next pandemic.
- *Donor commitments were not aligned with global and national response plans.* This resulted in the vaccine funding target for 2020 being exceeded (although the target was a moving one), but only roughly one fifth of the treatment funding target (which included oxygen) met at the same time.
- *While funding was made available for countermeasures, there were communication and coordination challenges that prevented that financing from being allocated for that use.* This was mentioned earlier in 1.3; delays in financing for vaccines were in part due to the need to have regulatory approval from at least one, sometimes more, Stringent Regulatory Authorities. This, combined with competing priorities, unpredictability around the availability and timing of in-kind donations of vaccines (see 2.2), made it difficult for countries to take timely decisions around the use of grants or loans for vaccines.
- *Mismatches in demand contributed to challenges for agencies to implement funding once it arrived, with only ~40% of funding implemented by Q1 2022, as shown in Figure 5.* This was exacerbated by the processes more suited to development than crisis scenarios.

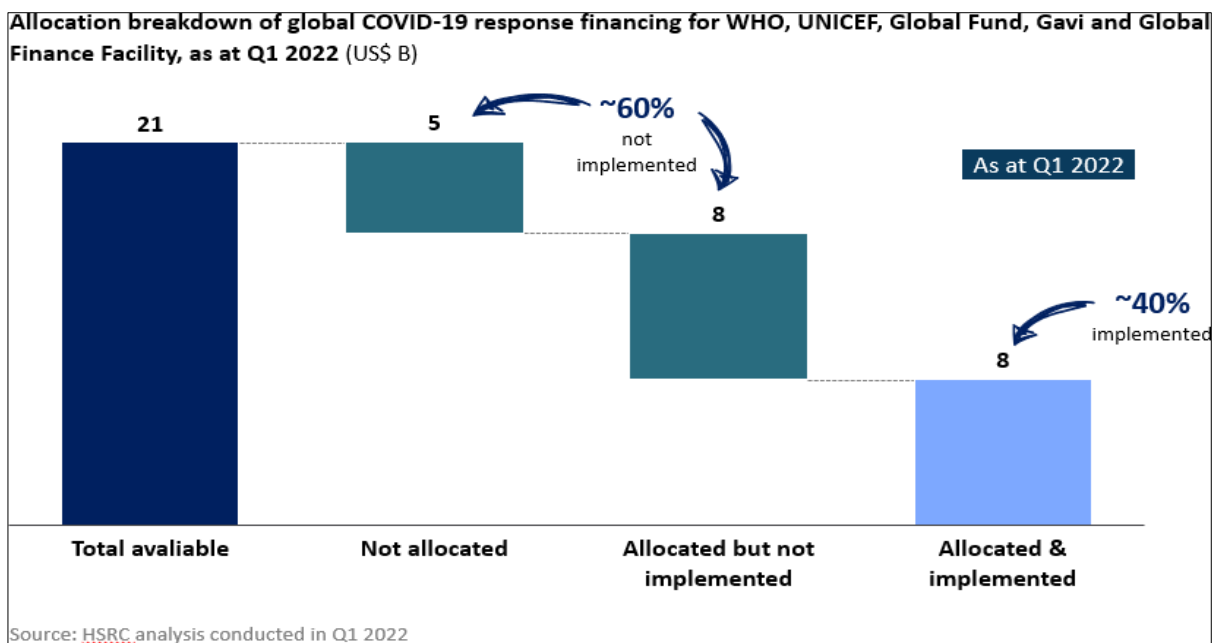


Figure 4: Funding raised through ACT-A and SPRP and the implementation of funds in support of LICs and LMICs (less R&D-specific funding)



Furthermore, there was limited capacity to implement funding, due in large part to the delay in mobilizing funds past peak demand, and because of the use of development processes rather than crisis-appropriate processes. The implementation as of Q1, 2022 is shown in Figure 5.

Figure 5: Need for emergency response funds diminished as demand fell, resulting in implementation challenges



Conclusion from gap analysis

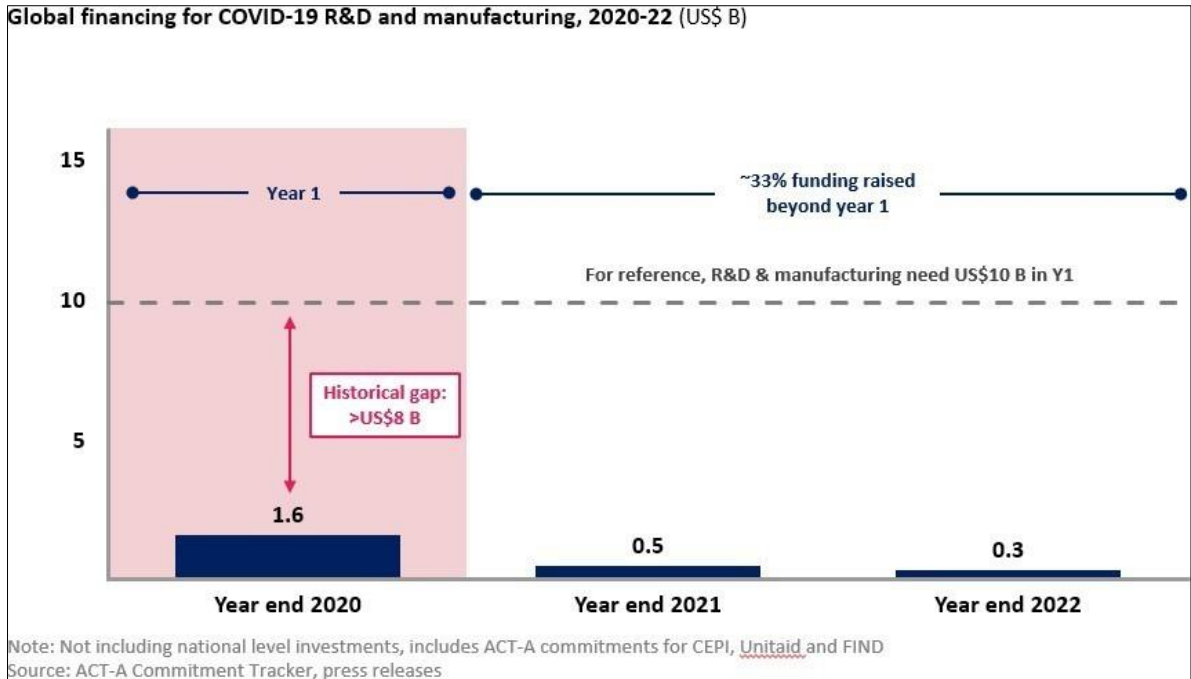
- There were significant numbers of options available at regional and global level that could be used to support countries (16 in total) (see Annex I).
- Significant financing was eventually made available but was delayed (>75% came beyond the peak in COVID-19 deaths), unpredictable and poorly coordinated with MDB financing options. There were some examples to the contrary, for example the Gavi and World Bank/EIB/Asian Development Bank Cost-Sharing mechanism was an innovative solution to give countries access to additional vaccines in the COVAX portfolio by using their MDB funding envelopes.
- There was no possibility for early frontloading instruments because there were no early pledges or commitments. There were no pre-agreed, triggered funding instruments at this level.
- Ability to implement financing was impacted by donor-led prioritization, delays in funding and the use of development processes (rather than crisis processes).

1.6. At-risk financing to ensure access to MCMs

Two agencies (CEPI and WHO through financing of the Solidarity Trial) mobilized a total of ~US\$2.1 billion in the financing of R&D. However, financing of R&D by multilateral implementing agencies was too late and insufficient in 2020, with US\$5 billion required and only US\$2 billion mobilized. COVID-19 R&D and manufacturing financing through multilateral agencies is shown in Figure 6, with a US\$8 billion historical gap in R&D and manufacturing financing requirements. Early-stage R&D was not financed by 17 of 20 agencies, banks and dedicated funds analyzed. Financing of R&D and manufacturing by the private sector was not included in this analysis but is acknowledged to have been of critical importance.



Figure 6: R&D and COVID financing through multilateral implementing agencies in the COVID-19 response



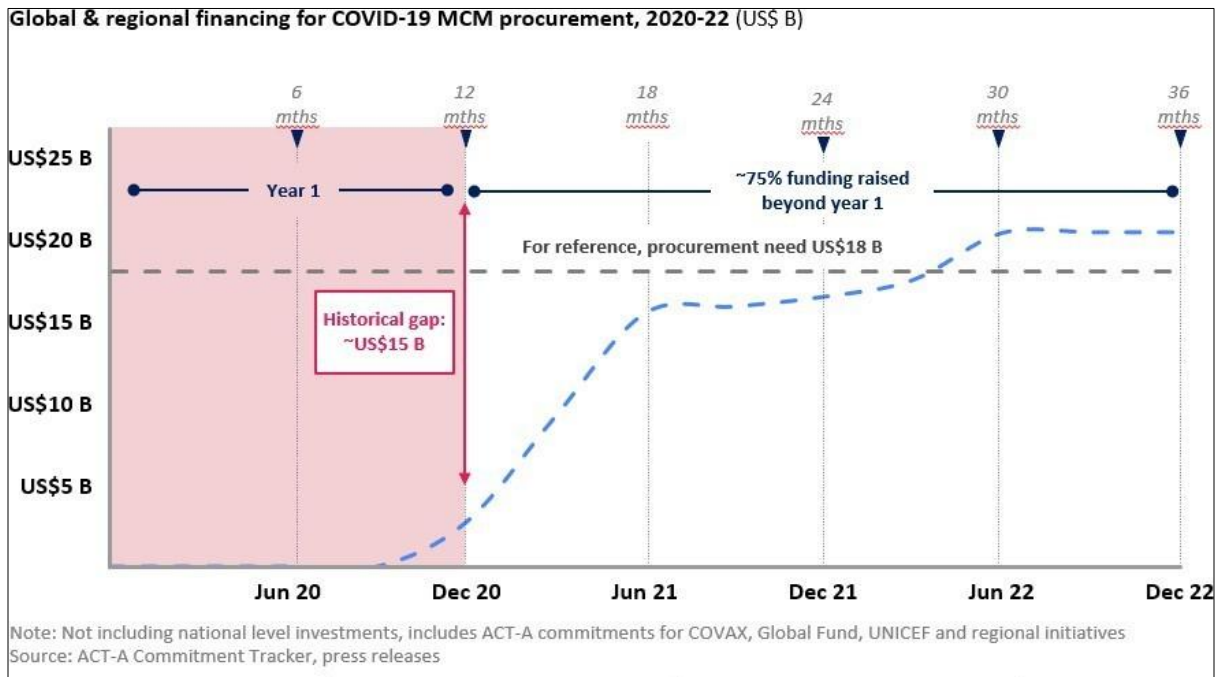
With regard to the financing of a revolving pooled procurement fund, approximately 40% of the total ACT-A procurement budget was required upfront to initiate pooled procurement, equivalent to US\$10 billion, needed within the six three months of Day Zero, however only US\$4.35 billion was actually made available, showing a gap of US\$5.65 billion. This lack of availability made it difficult for multilateral organisations to secure positions on products making it exceptionally difficult to ensure access to MCMs in the medium-long term. Few financiers were able to take an at-risk approach, with nearly all options requiring all funding within their balance sheet before making at-risk investments, further compounding these difficulties. An exception was Gavi, which was one of the few agencies that was given Board approval to enter into contractual positions at-risk during the first year of the pandemic. The US\$10 billion of funds raised from COVAX was used to secure a portfolio of several billion vaccines across different countries and platform types during 2020 and 2021, with the majority of contracts, particularly in 2020, signed at-risk prior to regulatory approval.

Overall, taking the financing required for working capital and to cover losses from a procurement revolving fund for MCMs (Level 2.3), and including funding channeled through multilateral implementing agencies for the purchase of MCMs (Level 2.2), there was a gap in the COVID-19 response of US\$15 billion in year 1, as shown in Figure 7. For an adequate response, approximately 30% of the total need is required in



year one in order to secure volumes of scarce MCMs and/or MCMs in development. Based on the experience of COVID-19, in the order of US\$6 billion may be required in year one for this purpose.

Figure 7: R&D and COVID financing through multilateral implementing agencies in the COVID-19 response



Conclusions from gap analysis

- 14 financing options were mapped across seven organizations for level 2.3 (see Annex I).
- In the COVID-19 response, a total gap of ~US\$9 billion for at-risk financing, was identified as needed to allow global response actors to take at-risk positions to reserve volumes by Day 28 of the response and ensure fully funded R&D.
- A limited number of financing instruments can take an at-risk position, and historically this financing was skewed towards vaccines.

Preliminary conclusions of mapping and gap analysis

The system for response financing is complex and while important strides were made during COVID-19, more work is needed to strengthen coordination across a highly fragmented global health architecture, and to increase transparency. Below are the key findings of the analysis:



- **Domestic financing should remain the first line of defense for pandemic response but most countries need to develop financing plans for response.** Governments need to prioritize health in their spending and have budgetary instruments that allow them to respond during a crisis, both within domestic resources and off-budget non-contingency external financing. Contingent financing is vital for early response including characterization of a pandemic pathogen, preventive measures in areas of high risk of pandemic spread, and containment of outbreaks. However, only 40% of LICs and LMICs have a domestic contingency financing mechanism that could be activated from Day Zero in the event of a pandemic threat.
- **External non-contingent financing can play an important tool for response financing but only if that financing allows for pandemic response or there is flexibility in the use of those funds if reallocation is needed.** External financing that is dual purpose (for example, preparedness financing or health systems strengthening that can also be used for response) or for which financing terms are flexible (as in the case with existing Global Fund grants) can provide initial financing that could be vital for ensuring a swift response.
- **Contingent external financing at the national level is essential for responding to initial response but is generally limited and improvements are needed to make this financing more effective.** Already there are efforts underway to strengthen the use of contingent financing and make it more readily available to countries, including a recent announcement by the World Bank to expand contingent financing to all countries.¹¹ An important lesson is that contingent financing must also be replenished, both the country development envelope, and of the IFI development funds that have been diverted to crisis financing.
- **New external financing was unprecedented, but functional gaps need to be addressed.** Emergency procedures supported fast disbursement for some institutions and instruments, but there were issues hindering uptake, including demand, competing priorities, political commitment, unique challenges in fragile countries, access to information, uncertainty, capacity at country level, etc.
- **Having a mix of instruments in the portfolio that could be used at different time frames in the early weeks and later months of the crisis response is important.** This finding was supported by an evaluation by the World Bank's Internal Evaluation Group (IEG), which showed that countries with regional projects, better embedding of crisis instruments in the portfolio, experience using a range of instruments to support human

¹¹ World Bank, June 22, 2023. Press release: World Bank Group Announces Comprehensive Toolkit to support Countries After Natural Disasters. Available at: <https://www.worldbank.org/en/news/factsheet/2023/06/22/comprehensive-toolkit-to-support-countries-after-natural-disasters>



capital, and trust funds were often better prepared for the crisis response.¹² For example, the early COVID-19 responses in Senegal and Uganda relied on crisis instruments, repurposed projects, and trust funds, which were complemented by development policy financing, Pandemic Emergency Financing Facility, and MPA support once available. Tajikistan used repurposed projects for its early COVID-19 response and then used the MPA financing in health when it became available.

- **Public-private cooperation and scalable at-risk financing for MCM R&D and manufacturing and pooled procurement is critical:** Unlike high-income countries, which could readily mobilize at-risk financing for research and development as early as May 2020, and therefore had earlier access to countermeasures, low- and middle-income countries had to wait to allocate such financing. Similarly, very few instruments, other than Gavi’s COVAX mechanism, were available that can procure MCMs on a “no regrets” basis before demand is determined, and even fewer can make advance purchases of MCMs that have not completed regulatory approval. As a result of delays in funding and lack of at-risk financing, instruments for equitable access to MCMs were last in the suppliers’ queues, contributing in large part to a huge discrepancy in access between HICs and LIC/LMICs.
- **Better coordination and greater transparency between countries and partners and across partners are needed.** For example, global MCM pooled procurement systems were not always aware of bilateral purchase deals, leading to an overestimation of country demand. Grant financing for countries and the availability of in-kind support was frequently not predictable, leading to countries hesitating to take up loan financing.
- **A well-coordinated international financing architecture is greater than the sum of its parts but is not yet functional.** The biggest challenge facing the COVID-19 pandemic was not the failure of any one institution or initiative. It was how the organizations functioned together. However, the mechanisms tried and tested during COVID-19, including the ACT-Accelerator, suffered from insufficient funding in the critical early stages of the pandemic, poor coordination and a structure that failed to harness the comparative advantage of institutions. Grant financing for countries and the availability of in-kind support was frequently not predictable, leading to countries hesitating to take up loan financing. Additionally, insufficient funds were available for manufacturing and pooled procurement, leading to delays in accessing medical countermeasures.¹³
- **At each financing level, the degree to which these instruments and channels function**

¹² World Bank. 2022. The World Bank’s Early Support to Addressing COVID-19: Health and Social Response. An Early-Stage Evaluation. Independent Evaluation Group. Washington, DC: World Bank.

¹³ Lurie N, Keusch G, Dzau V. 2021. Urgent lessons from COVID-19: Why the world needs a standing, coordinated system and sustainable financing for global research and development. The Lancet. Vol. 397.



effectively together varies. The main findings include that in some cases funding was significant but was not allocated effectively. For example, funding for MCMs was skewed towards vaccines, while therapeutics (including oxygen) funding did not meet targets. A rational and equitable modality for allocation could address this issue.



D | NEXT STEPS

This report will be revised and developed further based on feedback from the JFHTF members as well as internal review by WHO and the World Bank. It is expected that a final version of the response financing report will be completed by the end of 2023. The report will support the development of a strategy/operational playbook to guide joint finance-health sector readiness to support global response to future pandemics as set out in the agreed G20 JFHTF work plan.

Going forward, the G20 may wish to consider the following actions to address pandemic response financing, while taking into consideration ongoing discussions and ensuring dialogue with those processes:

1. Elaboration of the mapping and gap analysis in the report, including the interplay and potential for better coordination of all pandemic financing options.
2. Development of proposals to optimize existing response financing for speed, coordination, and at-risk financing, for further deliberation by the JFHTF. Ideally, such proposals would involve IFIs, multilateral agencies and sovereign and private donors, and would include articulation of outstanding gaps that cannot be remediated through the proposals.
3. Development of a strategy/operational playbook, including an initial framing of objectives, scope, and framework to codify pandemic response financing and related coordination processes, for further deliberation by the JFHTF. Such a strategy/playbook could be informed by case studies of response financing in a set of countries during the COVID-19 response, together with a scenario showing how financing options could be effectively triggered and coordinated, and how remaining gaps may be addressed. Further development of a strategy/playbook will be an iterative process in the next year and the outcome of proposals above and wider developments in the global health architecture will feed into the final document.



ANNEXURE

ANNEX I | Summary of ongoing detailed analysis of the pandemic response financing landscape

Bilateral funding and regional organizations to be added

Table A1: Summary of existing mechanisms

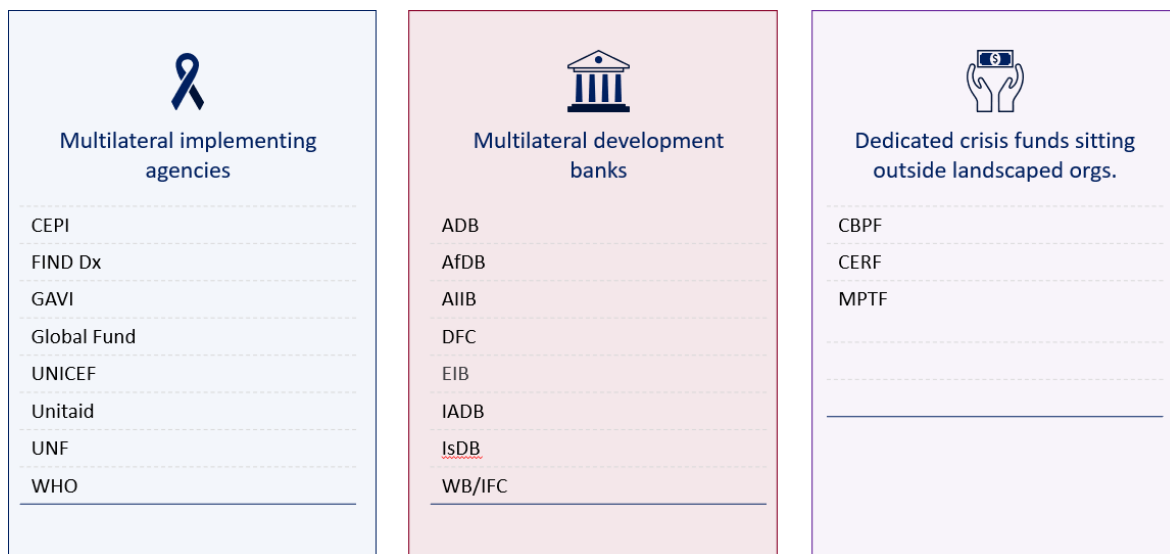
Mapping against response financing needs						
Organization	Mechanism	1.2	1.3	2.1	2.2	2.3
Multilateral implementing agencies						
CEPI	COVID-19 Appeals					
Diagnostics Consortium	Balance sheet flexibility					
Diagnostics Consortium	COVID-19 Appeals					
Find Dx	COVID-19 Appeals					
GAVI	COVAX AMC appeal (incl PVV)					
	IFFIm					
	Cost Sharing (COVAX Cost Sharing Mechanism)					
	EIB & DFC Frontloading Mechanisms					
The Global Fund	Balance Sheet Flexibility					
	C19RM appeal					
UNICEF	Balance Sheet Flexibility					
	Vaccine Independence Initiative					
	Humanitarian Action for Children (HAC) appeals, including balance sheet flexibility					
	ACT-A Supplies Financing Facility					
	Balance Sheet Flexibility					

	MIGA					
	Recipient-Executed Trust Funds					
	Catastrophe bonds					
	Cat DDO					
Dedicated funds sitting outside landscaped agencies & banks						
OCHA	CBPF					
	CERF					
COVAX	Cost Sharing					
UN MPTF Office Partners Gateway	MPTF					
TOTAL		14	7	7	16	14

Profiles of organizations and their financing instruments

The landscape analysis considered 8 multilateral implementing agencies, 8 multilateral development banks and 3 dedicated crisis funds sitting outside the landscaped organizations, as shown in Figure A1 below. Detailed analysis of these organizations and pandemic response financing instruments is ongoing.

Figure A1: Organizations and funds sitting outside of these organizations that have been considered within the landscape analysis



ANNEX II | Top bilateral donors to the COVID-19 response through multilateral implementing agencies (ACT-A): 2020 and total 2020-2023

Donor	Total donor commitments to December 2020 (US\$ M)	Total donor commitments to June 2023 (US\$ M)
United States of America	0	7,548
Germany	677	3,949
Japan	227	1,800
Canada	688	1,783
United Kingdom	1,081	1,216
European Commission	232	1,214
Norway	404	727
Italy	115	585
Sweden	23	560
France	152	521
Bill & Melinda Gates Foundation	346	449
Saudi Arabia	313	314
Switzerland	65	313
Netherlands	71	284
UNICEF National Committees	0	253
Republic of Korea	11	232
Spain	145	217

Australia	68	216
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Source: Access to COVID-19 tools funding commitment tracker: [Access to COVID-19 tools funding commitment tracker \(who.int\)](https://www.who.int/access-to-covid-19-tools/funding-commitment-tracker)

